SENATE GRADUATE & RESEARCH COUNCIL
MONDAY 20 NOVEMBER 2023
10:30 A.M. EST
NH 3318 / Zoom
Governing Documents and Resources   Chair – J. Casello

TIMING	AGENDA ITEM	PAGE	ACTION
	OPEN SESSION		
	1. Conflict of Interest	3	Declaration
10:30 a.m. (5 mins)	**Consent Agenda** *Motion: To approve or receive for information the items on the consent agenda, listed as items 2-5 below*		
	2. Minutes of 16 October 2023 Meeting	4	Decision (SGRC)
	3. Research Ethics (Julie Joza) a. Human Research Ethics Board [membership updates]	7	Decision (SGRC)
	4. Graduate Awards (Marianne Simm) a. GrandBridge Energy Green Energy Graduate Scholarship [trust] b. Statistics & Actuarial Science Graduate Outstanding Performance Award [operating] c. Pure Math Doctoral Thesis Completion Award [operating] d. Pure Math Graduate Entrance Scholarship [operating] e. Electrical & Computer Engineering Master of Engineering Award of Excellence (EMAE) [operating] f. Women in Mathematics Directed Reading Program Mentorship Award [operating]	8 8 8 8 9 9	Decision (SGRC) Decision (SGRC) Decision (SGRC) Decision (SGRC) Decision (SGRC) Information
	5. Curricular Submissions a. Faculty of Arts (Anna Esselment) b. Faculty of Engineering (Siva Sivoththaman) c. Faculty of Health (Brian Laird)	10 57 80	Decision (SGRC) Decision (SGRC) Decision (SGRC)
	Regular Agenda		
	6. Business Arising from the Minutes	Oral	Input
10:35 a.m. (10 mins)	7. Co-chairs' Remarks	Oral	Information

TIMING	AGENDA ITEM	PAGE	ACTION
10:45 a.m. (10 mins)	8. Senate Governance Review (Charmaine Dean & Jeff Casello) a. SUC Recommendation – Academic Quality Assurance Committee	119	Decision (SEN-R)
10:55 a.m. (10 mins)	9. Academic Program Reviews a. Final Assessment Report: Environment, Resources, and Sustainability, and Social Ecological Sustainability (Simon Courtenay and Derek Armitage)	124	Decision (SGRC)
11:05 a.m. (5 mins)	10. Research Centres and Institutes a. Dissolution: Survey Research Centre (Charmaine Dean)	141	Decision (SEN-R)
11:10 a.m. (5 mins)	11. Adjudication Committee Members (Jeff Casello)	145	Information
11:15 a.m. (5 mins)	12. Revisions to the Institutional Quality Assurance Process (Angela Christelis)	146	Decision (SGRC)
11:20 a.m. (10 mins)	13. Curricular Submissions a. Faculty of Arts (Anna Esselment)	182	Decision (SEN-R)
11:30 a.m. (30 mins)	14. CREATE (Bernie Duncker)	194	Input
	15. Other Business	Oral	Input
	16. Adjournment	Oral	Input

"Decision (SGRC)" to be approved on behalf of Senate

"Decision (SEN-C)" to be recommended to Senate for approval (consent agenda)

"Decision (SEN-R)" to be recommended to Senate for approval (regular agenda)

14 November 2023

Tim Weber-Kraljevski
Governance Officer
Secretary to SGRC

Important Dates

27 November 2023	Senate Meeting
29 January 2024	Senate Meeting
5 February 2024	SGRC Meetings
4 March 2024	Senate Meeting

Excerpt from Senate Bylaw 1

8. Declarations of conflict of interest

8.01	At the beginning of each meeting of Senate or any of Senate's committees or councils, the chair will call for members to declare any conflicts of interest with regard to any agenda item. For agenda items to be discussed in closed session, the chair will call for declarations of conflict of interest at the beginning of the closed portion of the meeting. Members may nonetheless declare conflicts at any time during a meeting.
8.02	A member shall be considered to have an actual, perceived or potential conflict of interest, when the opportunity exists for the member to use confidential information gained as a member of Senate, or any of Senate's committees or councils, for the personal profit or advantage of any person, or use the authority, knowledge or influence of the Senate, or a committee or council thereof, to further her/his personal, familial or corporate interests or the interests of an employee of the university with whom the member has a marital, familial or sexual relationship.
8.03	Members who declare conflicts of interest shall not enter into debate nor vote upon the specified item upon which they have declared a conflict of interest. The chair will determine whether it is appropriate for said member to remove themselves from the meeting for the duration of debate on the specified item(s).
8.04	Where Senate or a committee or council of Senate is of the opinion that a conflict of interest exists that has not been declared, the body may declare by a resolution carried by two-thirds of its members present at the meeting that a conflict of interest exists and a member thus found to be in conflict shall not enter into debate on the specified item upon which they have declared a conflict of interest. The chair will determine whether it is appropriate for said member to remove themselves from the meeting for the duration of debate on the specified item(s).

University of Waterloo
SENATE GRADUATE & RESEARCH COUNCIL
Minutes of the 16 October 2023 Meeting
[in agenda order]

Present: Steven Bednarski, Ramona Bobocel, Sue Ann Campbell, Jeff Casello (co-chair), David Clausi, Robert de Loe, Charmaine Dean (co-chair), Bernard Duncker, Anna Esselment, Neela Hassan, Alison Hitchens, Brian Laird, Joseph Meleshko, Ian Milligan, Marina Mourtzakis, Martin Ross, Marianne Simm, Mike Szarka, Shirley Tang, Tim Weber-Kraljevski (secretary).

Resources/Guests: Angela Christelis, Gen Gauthier-Chalifour, Carrie MacKinnon-Molson, Justin Wan, Kevin White, Richard Wikkerink.

Absent: Peter Deadman, Aiman Fatima, Bertrand Guenin*, Ryan Johnson, Julia Jonza, Zerihun Kinate, Siva Sivoththaman*, Clarance Woudsma*.
*regrets

Organization of Meeting: Charmaine Dean, co-chair of the Council, took the chair, and Tim Weber-Kraljevski acted as secretary. The secretary advised that due notice of the meeting had been given, a quorum was present, and the meeting was properly constituted.

1. DECLARATIONS OF CONFLICT OF INTEREST
No conflicts of interest were declared.

CONSENT AGENDA
Council heard a motion to approve or receive for information the items of the consent agenda. Milligan and Esselman. Carried with one abstention. Casello briefly spoke to the Graduate Studies Academic Calendar changes and thanked those involved in making the updates.

2. MINUTES OF 8 MAY 2023
Council approved the minutes of the meeting as distributed.

3. RESEARCH ETHICS
Council approved the membership updates for the Human Research Ethics Board and the Clinical Research Ethic Boards, as distributed.

4. GRADUATE AWARDS
Council approved items a.-d. as presented and received items e.-l. for information.

5. WATERLOO/NOSM UNIVERSITY GRADUATE STUDENT EXCHANGE AWARD [GSEA]
Council received for information.

6. OFFICE OF THE REGISTRAR – ACADEMIC CALENDAR DATES 2024/25
Council recommended to Senate to approve the academic calendar dates for 2024/25, as distributed.

7. CURRICULAR SUBMISSIONS
Council approved items a.-c. as distributed, expect for the major program revisions for PhD and MSc in Vision Science Graduate Research Fields under item b., which Council recommended to Senate to approve, as distributed.

8. GRADUATE STUDIES ACADEMIC CALENDAR (GSAC) CHANGES
Council recommended to Senate to approve the items a.-e., as distributed, and received items f.-h. for information.

REGULAR AGENDA

9.   BUSINESS ARISING FROM THE MINUTES

There was no business arising.

10. CO-CHAIRS' REMARKS

Casello updated Council on the launch of three postdoctoral competitions: the AMTD Waterloo Global Talent Postdoctoral Fellowship Program; the Provost's Program for Interdisciplinary Postdoctoral Scholars; and the Provost's Program for Black and Indigenous Postdoctoral Scholars. Members were asked to help generate interest and also with adjudication.

Dean informed members that the provincial government is looking to identify all major research agreement and that the government will be meeting with senior university leadership across the province to get feedback and provide more information.

11. GRADUATE STUDENT MOBILITY PARTNERSHIP WITH IIT MADRAS

Casello presented on IIT Madras material, highlighting: ITT Madras as a world-class university; the President's visit in March 2023; an overview of the program and its implementations; advantages of the program; and the desire to develop more programs like this. Members were supportive of the program and discussed: the importance of building pathways for students; and the need for a higher-level discussion about an institutional approach for using central funds for developing strategic international partnerships.

12. INSTITUTIONAL QUALITY ASSURANCE PROCESS

Christelis presented on the new Quality Assurance Framework (QAF) from the Quality Council (QC) and the procedural changes for program reviews impacting self-study deadlines, site visits, progress reports, and minors and smaller offerings. Christelis also presented on future goals for Institutional Quality Assurance Process (IQAP) including: website updates; new templates; alignment of accreditation with program reviews; Indigenization and Equity, Diversity, and Inclusion (EDI) guidance in self-studies; program differentiators; and more surveying support for programs. Members discussed: the new approach for program reviews and leveraging the data that comes out of the process.

13. SENATE GOVERNANCE REVIEW

Dean provided an overview the Senate Governance Review, the material provided, and progress made by Council with the review. Dean also presented an overview of the proposal for a new structure for the Council, highlighting the feedback that is accommodated within the new proposed structure and the feedback that was not accommodated. Members discussed the strong feelings from the Associate Deans Research that the current structure of Council is not working, that the proposal does not go far enough and the desire to separate Council into two distinct Research and Graduate Studies Councils. Member also discussed concerns with siloing and the importance of the proposed two separate Council having some intersectionality to come together on some joint issues. Dean and Casello will take the proposal of separating Council to Dean's Council (DC), and President and Vice-Presidents (PVP), and will then will bring this item back to Council for further discussion.

14. CREATES

Due to time, this item was deferred to a future meeting.

15. OTHER BUSINESS

There was no other business.

16. ADJOURMENT

With no further business the meeting was adjourned. The next meeting will be held Monday, 20 November 2023 from 10:30 a.m. to 12:00 noon in NH 3318.

1 November 2023   Tim Weber-Kraljevski
                                                                               Governance Officer

Memorandum

To: **Members, Senate Graduate and Research Council (SGRC)**

From: **Julie Joza, Director, Research Ethics**

Date: **November 6, 2023**

Subject: **Membership on Waterloo's Research Ethics Boards**

This memo outlines membership updates that will be taking place on Waterloo's Research Ethics Boards. This update is for consideration and approval by the Senate Graduate and Research Council.

Human Research Ethics Board

New Member

[Ori Friedman](#), PhD, Professor, Department of Psychology, will become a new member on the Human Research Ethics Board (HREB). Ori's term will begin on December 1, 2023, and will continue through to November 30, 2026. This role was previously held by Stephanie Denison in the Department of Psychology who is ending her term early. Ori will bring expertise to HREB in the area of developmental psychology.

Reminder: SGRC members who wish to learn more about the qualifications or academic background and interests of the individual being nominated to the REB are encouraged to contact Julie Joza, Director, Research Ethics at jajoza@uwaterloo.ca. Julie will be pleased to discuss with SGRC members in advance of the meeting the information they may need to help support their decision to recommend the nomination of the individual in becoming a member of the REB. On behalf of the SGRC, the research ethics office retains a copy of each member's CV and expression of interest in being a REB member.

November 6, 2023

TO: Tim Weber-Kraljevski, Governance Officer

FROM: Heidi Mussar, Associate Director, Graduate Financial Aid & Awards

RE: Agenda items for Senate Graduate & Research Council – November 2023

<u>Items for Approval</u>

a) **GrandBridge Energy Green Energy Graduate Scholarship – trust**
A scholarship, valued at $2,500, will be awarded annually to a Master's student registered in the Department of Mechanical and Mechatronics Engineering who is in the Graduate Diploma in Green Energy program in the Faculty of Engineering and has completed the first two terms in the program. Applicants must demonstrate an interest in the area of green energy and environmental sustainability, through completion of a mandatory course as minimum evidence of interest in the Green Energy program. Selection is based on academic achievement (minimum 80% over the last two full-time academic terms in the program). Interested students must submit an application to the Department Coordinator in Mechanical and Mechatronics Engineering by December 1st. This fund is made possible by a donation from GrandBridge Energy, to support specialized technical training and focus on green energy solutions.

b) **Statistics & Actuarial Science Graduate Outstanding Performance Award – operating**
Awards, valued at a minimum of $500, will be awarded to research-based students and doctoral students who show successful academic progress each term. Recipients will be selected based on academic excellence as determined by a minimum cumulative average of 80% (or equivalent). Recipients will be selected automatically by the Associate Chair, Graduate Studies and the Statistics and Actuarial Science Graduate Awards Committee.

c) **Pure Math Doctoral Thesis Completion Award – operating**
Pure Math Doctoral Thesis Completion Awards are available each academic term to support doctoral students registered full time who are within term limits of their program and who are within the last two terms of program completion. Selection will be made by a committee chaired by the Associate Chair Graduate Studies in the Department of Pure Mathematics, based on the student's application for the Doctoral Thesis Completion Award. The purpose is to assist highly qualified full-time doctoral students to complete their thesis writing and defense without being concerned about needing to fulfill the responsibilities of a TA within their last or second last term. The award value will vary based on the cost associated with achieving a TA reduction.

d) **Pure Math Graduate Entrance Scholarship – operating**
Pure Math Graduate Entrance Scholarships are available to students applying for admission and admitted to a master's (MMath) or doctoral program in the Department of Pure Mathematics at the University of Waterloo. Recipients must be registered full time in their program during the terms in which the scholarship is held. A departmental selection committee will automatically consider applicants to the program throughout the year based on information provided in their application for admission. The award value will vary based on other funding support provided to meet funding obligations to the student.

e) **Electrical & Computer Engineering Master of Engineering Award of Excellence (EMAE) – operating**
The Electrical & Computer Engineering Master of Engineering Award of Excellence (EMAE), valued at $1,000 per award, will be awarded to students registered full time or part time in the Master of Engineering program who are within time limits of their program. Recipients will be selected automatically each term, based on academic excellence, by the Electrical and Computer Engineering Department, Associate Chair of Graduate Studies and the Graduate Studies Committee.
This award is effective Winter 2024. Ten awards will be provided per year.

Items for Information
f) **Women in Mathematics Directed Reading Program Mentorship Award – operating**
Originally established in June 2022, the Faculty of Mathematics would like to amend the terms by increasing the value of the award from $400 to $1,000. The rest of the terms and award description remain as is.

ARTS GRADUATE STUDIES

October 24, 2023

TO: Members, Senate Graduate and Research Council

FROM: Maha Eid, Graduate Studies and Research Officer

RE: Graduate Affairs Group Reports

The attached Arts Graduate Affairs Group reports were approved by the Arts Faculty Council meeting on October 24, 2023, and are now being submitted for approval by the Senate Graduate and Research Council on November 20, 2023.

Maha Eid

Maha Eid

Attach.

Arts Faculty Council Report to

Senate Graduate and Research Council

_____

CURRICULAR ITEMS for approval [bottom right pagination]

A) **Master of Accounting**
   a. Adding a part-time registration option to the program [2-3]
B) **Master of Taxation**
   a. Regular program – update process for students to enter the FT option and remove required sequencing of courses for FT option [4-8]
   b. Coop program – Adding a direct entry into the coop option to the MTax program [9-13]
C) **Psychology**
   a. MASc Psychology DCS
      i. Updating degree requirements [14-23]
   b. MA in Psychology
      i. Updating course requirements [24-35]
   c. MASc in Industrial and Org. Psychology
      i. Updating degree requirements [36-38]
   d. PhD in Psychology
      i. Updating course requirements [39-58]

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Secretary Note:
Items A and B are Major Modifications for recommendation to Senate for Approval.

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UNIVERSITY OF WATERLOO

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

Faculty: Arts

Program: Master of Applied Science (MASc) in Psychology - Developmental and Communication Science

Program contact name(s): Evan Risko

Form completed by: Evan Risko

Description of proposed changes:

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

Updating the degree requirements to align with the current practice and to articulate the requirements of the program's study options more clearly.

Is this a major modification to the program? No

Rationale for change(s):

Updating the degree requirements to align with the current practice and to articulate the requirements of the program's study options more clearly.

Proposed effective date: Term: Winter   Year: 2024

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

https://uwaterloo.ca/graduate-studies-academic-calendar/arts/department-psychology/master-applied-science-masc-psychology-developmental-and-communication-science

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

Program information
 	
• Admit term(s)
  ○ Fall
 	
• Delivery mode
  ○ On-campus
 	
• Length of program
  ○ One year
 	
• Program type
	Program information
	
	• **Admit term(s)**
	  ○ Fall
	
	• **Delivery mode**
	  ○ On-campus
	
	• **Length of program**
	  ○ One year
	
	• **Program type**

Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
- o Master's - o Research - Registration option(s) - o Full-time - Study option(s) - o Master's Research Paper # Degree requirements **Master's Research Paper option:** ~~This program involves a combination of coursework, internships, and research.~~ - Graduate Academic Integrity Module (Graduate AIM) - Courses - o Students must complete ~~a total of 5 academic~~ courses. All courses are for a numerical grade unless they are only offered Credit/Non-Credit (CR/NCR). ▪ 1 mandatory Statistics course from the following list: ▪ PSYCH 630 Advanced Analysis of Variance ▪ PSYCH 632 Multiple Regression ▪ PSYCH 800 Psychometric Theory & Structural Equation Modeling ▪ PSYCH 801 Advanced Structural Equation Modeling ▪ PSYCH 804 Multi-Level Modeling Applications in Psychology ▪ 2 Developmental courses from the following list: ▪ PSYCH 680 Special Topics in Child Behaviour and Development ▪ PSYCH 701 Foundations in Cognitive/Social Development: Basic ▪ PSYCH 702 Foundations in	- o Master's - o Research **Registration option(s)** - o Full-time **Study option(s)** - o Master's Research Paper - o <u>Coursework</u> # Degree requirements <u>Students complete two types of graduate studies internships (Community Practicum and Research Lab Internship). Each student will choose one of two tracks to complete these graduate studies internships: the Research Emphasis Track (for students in the Master's Research Paper study option) or the Community Practicum Emphasis Track (for students in the coursework study option), based on a discussion with their advisor. The main difference between the two tracks is that in the first option students have 1 term in a community practicum and more formal research activities and in the second option students complete 3 terms in a community practicum and have less research activities.</u> **Master's Research Paper option:** <u>This option is likely to be of most interest to students deciding on whether to pursue further doctoral (PhD) studies in an area related to Child Development.</u> **Graduate Academic Integrity Module (Graduate AIM)** **Courses** - o Students must complete <u>the following 8 courses</u>. All courses are for a numeric grade unless they are only offered Credit/Non-Credit. <u>No degree candidate can fulfil more than half of the minimum department course requirements by Credit/Non-Credit courses.</u> - o <u>When taking a course during the MA that is extra-to-degree (i.e., not taken to meet the MA requirements), students need to complete a course drop/add form and identify the course as extra-to-degree.</u> - o <u>Use of a course not listed in the course requirements below to meet a degree</u>

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

Cognitive/Social Development: Social Cognitive Development
      ▪ PSYCH 705 Foundations in Language Development: Basic Language Development
      ▪ PSYCH 706 Foundations in Language Development: Pragmatics of Language
      ▪ PSYCH 708 Reasoning about Ownership of Property
      ▪ PSYCH 709 Reasoning about Beliefs and Desires
      ▪ PSYCH 713 Theories of Pretence
   ▪ 2 elective courses from other ~~research areas~~ outside of Developmental.
      ▪ Students have the option of taking courses in other areas of Psychology and other departments on campus as their elective courses. Check the Psychology course catalogue and the Graduate schedule of classes for further information. When selecting a course outside of the Psychology Department, students should check their selection with their advisor as to its suitability and then with the Administrative Coordinator Graduate Studies and the Director of the MASc program for final approval.
  o ~~In addition,~~ students must attend the weekly Developmental seminar ~~each~~ term (~~PSYCH 710~~).
 	
  • Graduate Studies Internship
    o ~~Students complete two types of graduate studies internships~~
	<u>requirement and other course substitutions are permitted but require departmental permission. Students should confirm the appropriateness of the course substitution with their advisor and have it approved by the Area head, and Associate Chair, Graduate Studies in Psychology.</u>
	      ▪ 1 statistics course from the following list <u>or an approved substitute</u>:
	         ▪ PSYCH 630 Advanced Analysis of Variance
	         ▪ PSYCH 632 Multiple Regression
	         ▪ PSYCH 800 Psychometric Theory & Structural Equation Modeling
	         ▪ PSYCH 801 Advanced Structural Equation Modeling
	         ▪ PSYCH 804 Multi-Level Modeling Applications in Psychology
	      ▪ 2 core courses in Developmental Psychology from the following list <u>or an approved substitute</u>:
	      ▪ <u>PSYCH 640 Special Topics in Psychology (on departmentally approved topics)</u>
	      ▪
	         ▪ PSYCH 680 Special Topics in Child Behaviour and Development
	         ▪ PSYCH 701 Foundations in Cognitive/Social Development: Basic
	         ▪ PSYCH 702 Foundations in Cognitive/Social Development: Social Cognitive Development
	         ▪ PSYCH 705 Foundations in Language Development: Basic Language Development
	         ▪ PSYCH 706 Foundations in

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

(Community Practicum and Research Lab Internship). Each student will choose one of two tracks for how to complete these graduate studies internships: the Community Practicum Emphasis Track or the Research Emphasis Track, based on a discussion with their advisor. The main difference between the two tracks is that in the first option students complete 3 terms in a community practicum and have less research activities and in the second option students have 1 term in a community practicum and more formal research activities.
○ **Community Practicum Emphasis Track: 3-term Community Practicum and 3-term Research Lab Internship**
  ▪ This option is likely to be of most interest to students seeking applied careers in areas such as speech-language pathology, early childhood education, and teaching.
  ▪ Students following this track should sign up for the following practicum courses in addition to their academic courses:
    ▪ Fall: PSYCH 820 Community Practicum I
    ▪ Winter: PSYCH 821 Community Practicum II
    ▪ Spring: PSYCH 822 Community Practicum III
○ Component 1: Community Practicum
  ▪ This 3-term community practicum consists of one morning or afternoon (approximately 3.5-4 hours per week) and runs roughly from September to the end of June. Students will receive information by email about possible locations and placements for the community practicum.
  ▪ All community practicums require submission of a police check and Tuberculosis (TB) test.
○ Component 2: Research Internship
  ▪ Three-term research internship (fall/winter/spring term) in one of the research labs of one of the
	Language Development: Pragmatics of Language
	  ▪ PSYCH 708 Reasoning about Ownership of Property
	  ▪ PSYCH 709 Reasoning about Beliefs and Desires
	  ▪ PSYCH 713 Theories of Pretence
	  • PSYCH 810 - Directed Studies (on departmentally approved topics)
	  ▪
	▪ 2 elective courses from other graduate research fields outside of Developmental (e.g., not from the list of core Developmental courses above) or an approved substitute.
	  ▪ Students have the option of taking courses in other areas of Psychology and other departments on campus as their elective courses. Check the Psychology course catalogue and the Graduate schedule of classes for further information. When selecting a course outside of the Psychology Department, students should check their selection with their advisor as to its suitability and then with the Administrative Coordinator Graduate Studies and the Director of the MASc program for final approval.
	▪ PSYCH 820 Community Practicum I (Fall)
	▪ PSYCH 823 Research Apprenticeship I (Winter)
	▪ PSYCH 824 Research Apprenticeship II (Spring)
	
	▪ Students must also take PSYCH 710 Current Issues in

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

~~faculty members in the developmental division or a faculty member affiliated with the program. This research internship consists of approximately 10 hours/week from the beginning of fall term until the last day of lectures in spring term. The research project(s) to be completed by the student in this internship will be determined by the student and their advisor at the time of entry to the program.~~
 	
o **Research Emphasis Track: 1-term Community Practicum and 3-term Research Lab Internship/Apprenticeship and Research Project**
   ▪ ~~This second option is likely to be of most interest to students deciding on whether to pursue further doctoral (PhD) studies in an area related to Child Development. Students following this track should sign up for the following practicum and apprenticeship courses in addition to their academic courses:~~
      ▪ ~~Fall: PSYCH 820 Community Practicum I~~
      ▪ ~~Winter: PSYCH 823 Research Apprenticeship I~~
      ▪ ~~Spring: PSYCH 824 Research Apprenticeship II~~
o Component 1: Community Practicum
   ▪ This 1-term community practicum consists of one morning or afternoon (approximately 3.5-4 hours per week) and runs roughly 12 weeks starting in September or January. Completion in spring term is not permissible. Students will receive information by email about possible locations and placements for the community practicum.
   ▪ All community placements require submission of a police
	<u>Developmental Psych Seminar in the Fall and Winter terms for a minimum of 2 years unless departmental permission is provided otherwise, or the student completes the program early. Note: PSYCH 710 is a 0.00 unit weight credit/no credit course.</u>
	
	• **Graduate Studies Internship**
	o **Research Emphasis Track: 1-term Community Practicum and 3-term Research Lab Internship/Apprenticeship and Research Project**
	o Component 1: Community Practicum
	   ▪ This 1-term community practicum consists of one morning or afternoon (approximately 3.5-4 hours) per week and runs roughly 12 weeks starting in September or January. Completion in spring term is not permissible. Students will receive information by email about possible locations and placements for the community practicum.
	   ▪ All community placements require submission of a police check and Tuberculosis (TB) test.
	o Component 2: Research Lab Internship/Apprenticeship and Research Project
	   ▪ This expanded research lab experience option includes:
	      ▪ Three-term research graduate studies internship (fall/winter/spring term) in one of the research labs of one of the faculty members in the developmental division or a faculty member affiliated with the program. This research graduate studies internship consists of approximately 10

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

check and Tuberculosis (TB) test.
   o Component 2: Research Lab Internship/Apprenticeship and Research Project
       ▪ This expanded research lab experience option includes:
            ▪ Three-term research graduate studies internship (fall/winter/spring term) in one of the research labs of one of the faculty members in the developmental division or a faculty member affiliated with the program. This research graduate studies internship consists of approximately 10 hours/week from the beginning of fall term until the last day of lectures in spring term. The research project(s) to be completed by the student in this graduate studies internship will be determined by the student and their advisor at the time of entry to the program.
            ▪ Research Apprenticeship: 84 additional hours of work in the same research lab to equate to the time otherwise completed within a community practicum.
            ▪ ~~A formally written Master's Research Project is required.~~ Prior to accepting entry into the program, students should confirm the nature of the research apprenticeship with the supervising faculty member.
	hours/week from the beginning of fall term until the last day of lectures in spring term. The research project(s) to be completed by the student in this graduate studies internship will be determined by the student and their advisor at the time of entry to the program.
	            ▪ Research Apprenticeship: 84 additional hours of work in the same research lab to equate to the time otherwise completed within a community practicum.
	            ▪ Prior to accepting entry into the program, students should confirm the nature of the research apprenticeship with the supervising faculty member.
	   o **Master's Research Paper**
	       ▪ <u>A formally written Master's Research Paper is required. The student's supervisor and one additional reader must assess and approve the Master's Research Paper.</u>
	
	      <u>Coursework option:</u>
	
	<u>This option is likely to be of most interest to students seeking applied careers in areas such as speech-language pathology, early childhood education, and teaching.</u>
	
	  • **<u>Graduate Academic Integrity Module (Graduate AIM)</u>**
	
	  • **<u>Courses</u>**
	     o <u>Students must complete the following 8 courses. All courses are for a numeric grade unless they are only offered Credit/Non-Credit.</u> No degree candidate can fulfil more than half of the minimum

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

• Master's Research Paper	department course requirements by <u>Credit/Non-Credit</u> courses.
	○ <u>When taking a course during the MA that is extra-to-degree (i.e., not taken to meet the MA requirements), students need to complete a course drop/add form and identify the course as extra-to-degree.</u>
	○ <u>Use of a course not listed in the course requirements below to meet a degree requirement and other course substitutions are permitted but require departmental permission. Students should confirm the appropriateness of the course substitution with their advisor and have it approved by the Area head, and Associate Chair, Graduate Studies in Psychology.</u>
	 ▪ <u>1 mandatory Statistics course from the following list or an approved substitute:</u>
	  ▪ <u>PSYCH 630 Advanced Analysis of Variance</u>
	  ▪ <u>PSYCH 632 Multiple Regression</u>
	  ▪ <u>PSYCH 800 Psychometric Theory & Structural Equation Modeling</u>
	  ▪ <u>PSYCH 801 Advanced Structural Equation Modeling</u>
	  ▪ <u>PSYCH 804 Multi-Level Modeling Applications in Psychology</u>
	 ▪ <u>2 Developmental courses from the following list or an approved substitute:</u>
	 ▪ <u>PSYCH 640 Special Topics in Psychology (on departmentally approved topics)</u>
	 ▪
	  ▪ <u>PSYCH 680 Special Topics in Child Behaviour and Development</u>
	  ▪ <u>PSYCH 701 Foundations in Cognitive/Social Development: Basic</u>
	  ▪ <u>PSYCH 702 Foundations in Cognitive/Social</u>

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

	Development: Social Cognitive Development
	   ▪ <u>PSYCH 705 Foundations in Language Development: Basic Language Development</u>
	   ▪ <u>PSYCH 706 Foundations in Language Development: Pragmatics of Language</u>
	   ▪ <u>PSYCH 708 Reasoning about Ownership of Property</u>
	   ▪ <u>PSYCH 709 Reasoning about Beliefs and Desires</u>
	   ▪ <u>PSYCH 713 Theories of Pretence</u>
	   • <u>PSYCH 810 - Directed Studies (on departmentally approved topics)</u>
	   ▪
	  ▪ <u>2 elective courses from other graduate research fields outside of Developmental (e.g., not from the list of core Developmental courses above) or an approved substitute.</u>
	    ▪ <u>Students have the option of taking courses in other areas of Psychology and other departments on campus as their elective courses. Check the Psychology course catalogue and the Graduate schedule of classes for further information. When selecting a course outside of the Psychology Department, students should check their selection with their advisor as to its suitability and then with the Administrative Coordinator Graduate Studies and the Director of the MASc program for final approval.</u>

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

	▪ PSYCH 820 Community Practicum I (Fall)
	▪ PSYCH 821 Community Practicum II (Winter)
	▪ PSYCH 822 Community Practicum III (Spring)
	
	• Students must also take PSYCH 710 Current Issues in Developmental Psych Seminar in the Fall and Winter terms for a minimum of 2 years unless departmental permission is provided otherwise, or the student completes the program early. Note: PSYCH 710 is a 0.00 unit weight credit/no credit course.
	• **Graduate Studies Internship**
	  ○ **Community Practicum Emphasis Track: 3-term Community Practicum and 3-term Research Lab Internship**
	  ○ Component 1: Community Practicum
	    ▪ This 3-term community practicum consists of one morning or afternoon (approximately 3.5-4 hours) per week and runs roughly from September to the end of June. Students will receive information by email about possible locations and placements for the community practicum.
	    ▪ All community practicums require submission of a police check and Tuberculosis (TB) test.
	  ○ Component 2: Research Internship
	    ▪ Three-term research internship (fall/winter/spring term) in one of the research labs of one of the faculty members in the developmental division or a faculty member affiliated with the program. This research internship consists of approximately 10 hours/week from the beginning of fall term until the last day of lectures in spring term. The research project(s) to be completed by the student in this internship will be determined by the student and their advisor at the time of entry to the program.

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

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

No impact.

Department/School approval date (mm/dd/yy): 09/15/23

Reviewed by GSPA (for GSPA use only) ☐ date (mm/dd/yy): 09/13/23

Faculty approval date (mm/dd/yy): 10/24/23

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

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

UNIVERSITY OF
WATERLOO

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

Faculty: Arts

Program: Master of Arts (MA) in Psychology

Program contact name(s): Evan Risko

Form completed by: Evan Risko

Description of proposed changes:

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

Updating the course requirements to align with the current practice which distinguishes course requirements based on a student's academic background.

Note: the content in the "Current Graduate Studies Academic Calendar content" column includes material that was approved by SGRC on June 12, 2023, which also takes effect Winter 2024.

Is this a major modification **to the program?** No

Rationale for change(s):

Updating the degree requirements to align with the current practice and to articulate the requirements of the program's study options more clearly.

Proposed effective date: Term: Winter   Year: 2024

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

https://uwaterloo.ca/graduate-studies-academic-calendar/arts/department-psychology/master-arts-ma-psychology

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

## Degree requirements 	
 	
Thesis option:
 	
- Graduate Academic Integrity Module (Graduate AIM)
 	
- Courses
	## Degree requirements
	
	- o Students must be admitted to one of the following Graduate Research Fields:
	  - Clinical Psychology
	  - Cognitive Neuroscience
	  - Cognitive Psychology
	  - Developmental Psychology

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

o Students must complete ~~2 two-term or~~ 4 one-term courses accepted for graduate credit by the Department. ~~Specific course offerings in each Area will differ from year to year. The statistics requirement may be met by satisfactory performance in at least 1 of 2 core statistics courses: PSYCH 630 Advanced Analysis of Variance and PSYCH 632 Multiple Regression.~~
 	
• Master's Thesis
   o ~~Students must be admitted to one of the following Graduate Research Fields:~~
      • ~~Clinical Psychology~~
      • ~~Cognitive Neuroscience~~
      • ~~Cognitive Psychology~~
      • ~~Developmental Psychology~~
      • ~~Social Psychology~~
   o A Graduate Research Field is a University credential that is recognized on the student's transcript and is intended to reflect that a student has successfully completed research concentrated in the area of the Graduate Research Field. The Department, represented by the student's supervisor and reading committee must assess whether a student's completed research warrants the field designation at the time of degree completion. To obtain the Graduate Research Field designation, a student must also complete the requirements associated with the MA degree.
 	
Master's Research Paper option:
 	
Note: students must receive special permission from the Department to enter the Master's Research Paper option.
 	
• Graduate Academic Integrity Module (Graduate AIM)
 	
• Courses
   o Students must complete ~~4 two-term or~~ 8 one-term courses, accepted for graduate credit by the Department. ~~The statistics requirement may be met by~~
	▪ <u>Social Psychology</u>
	
	     Thesis option:
	
	• Graduate Academic Integrity Module (Graduate AIM)
	
	• **Courses**
	   o <u>Course requirements are determined by the Graduate Research Field to which the student is admitted.</u>
	   o Students must complete <u>a minimum of</u> 4 one-term <u>(0.50 unit weight)</u> courses <u>(or equivalent)</u> accepted for graduate credit by the Department <u>of Psychology</u>. _{Course requirements are minimum requirements only.} <u>Students may be required to take more courses</u> depending on their previous academic background and Graduate Research Field<u>.</u>
	   o <u>Students pursuing the Clinical Psychology Graduate Research Field must complete additional courses (see below for further details).</u>
	   o <u>Courses from outside the Department of Psychology may also be considered. Departmental permission is required. Note: when selecting a course from outside of the Department of Psychology, students should check with their advisor about its suitability.</u>
	   o <u>Transfer credits may also be considered. The acceptance of transfer credits from prior registration 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. Transfer credits must be "unused" credits (i.e., they must not have been credited towards an earlier acquired degree or other academic credential). Transfer credits must be specified in writing at the time of departmental recommendation for admission. A minimum of 70% (University of Waterloo converted grade) is required for transfer credit.</u>
	   o <u>Courses from outside the Department of Psychology and transfer credits can usually count for no more than 1 one-</u>

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

~~satisfactory performance in at least 1 of 2 core statistics courses: PSYCH 630 Advanced Analysis of Variance and PSYCH 632 Multiple Regression.~~
 	
• Master's Research Paper
    ○ ~~Students must be admitted to one of the following Graduate Research Fields:~~
        ▪ ~~Clinical Psychology~~
        ▪ ~~Cognitive Neuroscience~~
        ▪ ~~Cognitive Psychology~~
        ▪ ~~Developmental Psychology~~
        ▪ ~~Social Psychology~~
    ○ A Graduate Research Field is a University credential that is recognized on the student's transcript and is intended to reflect that a student has successfully completed research concentrated in the area of the Graduate Research Field. The Department, represented by the student's supervisor and one additional reader must assess whether a student's completed research warrants the field designation at the time of degree completion. To obtain the Graduate Research Field designation, a student must also complete the requirements associated with the MA degree.
	~~term credits toward breadth requirements.~~
	    ○ <u>Use of a course not listed in the course requirements below to meet a degree requirement and other course substitutions are permitted but require departmental permission. Students should confirm the appropriateness of the course substitution with their advisor and have it approved by the Area head, and Associate Chair, Graduate Studies in Psychology.</u>
	    ○ <u>When taking a course during the MA that is extra-to-degree (i.e., not taken to meet the MA requirements), students need to complete a course drop/add form and identify the course as extra-to-degree.</u>
	    ○ <u>No degree candidate can fulfil more than half of the minimum department course requirements by Credit/Non-Credit courses.</u>
	    ○ <u>Where applicable courses taken to meet the core and statistics requirements must be taken for numeric grade unless departmental permission is provided to take the course for Credit/Non-Credit.</u>
	    ○ <u>Students pursuing the Clinical Psychology Graduate Research Field must complete the following courses. The courses are listed below in a typical sequence. Individual student's course sequences may vary, for example, based on course availability.</u>
	• <u>1 statistics course from the following list or an approved substitute</u>
	• <u>PSYCH 630 Advanced Analysis of Variance</u>
	• <u>PSYCH 632 Multiple Regression</u>
	• <u>Year One</u>
	    ○ <u>Coursework (core):</u>
	        ▪ <u>PSYCH 716 Adult Psychopathology</u>
	        ▪ <u>PSYCH 717 Psychological Assessment I</u>
	        ▪ <u>PSYCH 718 Psychological Assessment II</u>
	        ▪ <u>PSYCH 719 Ethics and Professional Issues in Clinical Psychology</u>
	    ○ <u>Clinical Practica:</u>

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

	▪ PSYCH 720A Practicum in Interviewing & Cognitive Assessment I
	          ▪ PSYCH 720B Practicum in Interviewing & Cognitive Assessment II
	          ▪ PSYCH 721A Diagnostic Assessment Practicum I
	          ▪ PSYCH 721B Diagnostic Assessment Practicum II
	          ▪ PSYCH 722C Clinical Full-Time Fieldwork Placement I (0.50 unit weight) or PSYCH 811C Clinical Part-Time Fieldwork Placement I (0.25 unit weight)
	    o Research Activities:
	          ▪ PSYCH 621 Advanced Clinical Research Forum I
	  • Year Two
	    o Coursework (core):
	          ▪ PSYCH 723 Child Psychopathology and Psychotherapy
	          ▪ PSYCH 724 Personality & Measurement Theory
	          ▪ PSYCH 725 Cognitive Behaviour Therapy
	    o Clinical Practica:
	          ▪ PSYCH 726A Practicum in Integrated Assessment I
	          ▪ PSYCH 726B Practicum in Integrated Assessment II
	          ▪ Elective: PSYCH 738A, PSYCH 738B, PSYCH 738C Clinical Fieldwork Placement II (optional, by approval). Note: Students must have completed PSYCH 722C Clinical Full-Time Fieldwork Placement I or a set of 2 of PSYCH 811A, PSYCH 811B, and PSYCH 811C Clinical Part-Time Fieldwork Placement I, before they are eligible to take PSYCH 738A, PSYCH 738B, PSYCH 738C Clinical Fieldwork Placement II.
	    o Research Activities:
	          ▪ PSYCH 621 Advanced Clinical Research Forum II
	
	    o Students pursuing the Cognitive Neuroscience Graduate Research Field must complete the following courses:

Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
	▪ <u>1 statistics course from the following list or an approved substitute</u> • <u>PSYCH 630 Advanced Analysis of Variance</u> • <u>PSYCH 632 Multiple Regression</u> • <u>PSYCH 800 Psychometric Theory & Structural Equation Modeling</u> • <u>PSYCH 801 Advanced Structural Equation Modeling</u> • <u>PSYCH 803 Meta-Analysis</u> • <u>PSYCH 804 Multi-Level Modeling Applications in Psychology</u> ▪ <u>1 core Cognitive Neuroscience course of either PSYCH 677A Fundamentals of Behavioural Neuroscience or PSYCH 784 Human Neuroanatomy and Neuropathology</u> ▪ <u>Minimum 1 core Cognitive Neuroscience course from the following list or an approved substitute</u> ▪ <u>PSYCH 640 Special Topics in Psychology (on departmentally approved topics)</u> ▪ <u>PSYCH 670 Special Topics in Behavioural Neuroscience</u> ▪ <u>PSYCH 779A Cognitive Neuropsychology I</u> ▪ <u>PSYCH 781 Cognitive Neuroscience of Memory</u> ▪ <u>PSYCH 782 Visual Neuroscience</u> ▪ <u>PSYCH 783 Neuroimaging of Cognition</u> ▪ <u>PSYCH 785 Attention and the Brain</u> ▪ <u>PSYCH 788 (cross-listed as HLTH-672) Epidemiologic Methods in Aging Research</u> ▪ <u>PSYCH 789 Mind-wandering and Inattention</u> ▪ <u>PSYCH 790 Case Studies in Neuropsychology</u> ▪ <u>PSYCH 792 An Introduction to Methods in Computational Neuroscience</u> ▪ <u>PSYCH 794 Cognitive Neuroscience of Face Perception</u> ▪ <u>Maximum 1 breadth course from other graduate research fields outside of Cognitive</u>

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Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
	Neuroscience (e.g., not from the list of core Cognitive Neuroscience courses above) or an approved substitute.
	▪ Students must also take PSYCH 707 Cognitive Neuroscience Seminar in the Fall and Winter terms for a minimum of 2 years unless departmental permission is provided otherwise, or the student completes the program early. Note: PSYCH 707 is a 0.0 unit weight credit/no credit course.
	▪ Students in Cognitive Neuroscience must take all courses for a numeric grade unless they are only offered Credit/Non-Credit.
	o Students pursuing the Cognitive Psychology Graduate Research Field must complete the following courses:
	▪ 1 statistics course from the following list or an approved substitute
	• PSYCH 630 Advanced Analysis of Variance
	• PSYCH 632 Multiple Regression
	▪ Minimum 1 core Cognitive Psychology course from the following list or an approved substitute
	▪ COGSCI 600 Seminar in Cognitive Science
	▪
	• PSYCH 758 Applied Practicum in Cognitive Psychology
	• PSYCH 759 Research Practicum in Cognitive Psychology
	• PSYCH 769 Causal Reasoning
	• PSYCH 770 Basic Issues in Cognition
	• PSYCH 771 Basic Visual Processes
	• PSYCH 774 Visual Cognition
	• PSYCH 775 Consciousness and Cognition
	• PSYCH 776 Problem Solving, Judgment and Decision Making
	• PSYCH 777 Human Memory
	• PSYCH 778 Attention
	• PSYCH 779 Language and Reading
	• PSYCH 650 Special Topics in Cognition and Perception

Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
	• PSYCH 810 - Directed Studies (on approved topics in cognitive psychology)
	▪ Maximum 2 courses from other graduate research fields outside of Cognitive Psychology (e.g., not from the list of core Cognitive Psychology courses above) or an approved substitute.
	▪ Students must also take PSYCH 747 Cognitive Psychology Seminar in the Fall and Winter terms for a minimum of 2 years unless departmental permission is provided otherwise, or the student completes the program early. Note: PSYCH 747 is a 0.0 unit weight credit/no credit course.
	o Students pursuing the Developmental Psychology Graduate Research Field must complete the following courses:
	▪ 1 statistics course from the following list or an approved substitute
	• PSYCH 630 Advanced Analysis of Variance
	• PSYCH 632 Multiple Regression
	• PSYCH 800 Psychometric Theory & Structural Equation Modeling
	• PSYCH 801 Advanced Structural Equation Modeling
	• PSYCH 804 Multi-Level Modeling Applications in Psychology
	▪ 2 core Developmental Psychology courses from the following list or an approved substitute:
	▪ PSYCH 640 Special Topics in Psychology (on departmentally approved topics)
	▪
	▪ PSYCH 680 Special Topics in Child Behaviour and Development
	▪ PSYCH 701 Foundations in Cognitive/Social Development: Basic
	▪ PSYCH 702 Foundations in Cognitive/Social

Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
	Development: Social Cognitive Development
  - PSYCH 705 Foundations in Language Development: Basic Language Development
  - PSYCH 706 Foundations in Language Development: Pragmatics of Language
  - PSYCH 708 Reasoning about Ownership of Property
  - PSYCH 709 Reasoning about Beliefs and Desires
  - PSYCH 713 Theories of Pretense
- PSYCH 810 - Directed Studies (on departmentally approved topics)
  - 1 breadth course from other graduate research fields outside of Developmental Psychology (i.e., not from the list of core Developmental Psychology courses above) or an approved substitute.
  - Students must also take PSYCH 710 Current Issues in Developmental Psych Seminar in the Fall and Winter terms for a minimum of 2 years unless departmental permission is provided otherwise, or the student completes the program early. Note: PSYCH 710 is a 0.00 unit weight credit/no credit course.

  - Students pursuing the Social Psychology Graduate Research Field must complete the following courses:
    - 1 statistics course from the following list or an approved substitute
- PSYCH 630 Advanced Analysis of Variance
- PSYCH 632 Multiple Regression
- PSYCH 800 Psychometric Theory & Structural Equation Modeling
- PSYCH 801 Advanced Structural Equation Modeling |

Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
	- PSYCH 804 Multi-Level Modeling Applications in Psychology - Minimum 2 core Social Psychology courses from the following list or an approved substitute: - PSYCH 640 Special Topics in Psychology (on departmentally approved topics) - PSYCH 704A Social Psychology - PSYCH 870 Research Design & Methods - PSYCH 743 Advanced Intergroup Relations - PSYCH 744 Personality in Social Context - PSYCH 745 Close Relationships - PSYCH 746 Culture and the Mind - PSYCH 749 Wisdom - PSYCH 748 Self-Regulation and Motivation - PSYCH 690 Special Topics in Social and Personality - Maximum 1 breadth course from other graduate research fields outside of Social Psychology (i.e., not from the list of core Social Psychology courses above) or an approved substitute. - Students must also take PSYCH 714 Social Seminar in the Fall and Winter terms for a minimum of 2 years unless departmental permission is provided otherwise, or the student completes the program early. Note: PSYCH 714 is a 0.00 unit weight credit/no credit course. **Master's Thesis** - A formally written Master's Thesis is required. - A Graduate Research Field is a University credential that is recognized on the student's transcript and is intended to reflect that a student has successfully completed research concentrated in the area of the Graduate Research Field. The Department, represented by the student's supervisor and reading committee must assess whether a

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

	student's completed research warrants the field designation at the time of degree completion. To obtain the Graduate Research Field designation, a student must also complete the requirements associated with the MA degree.
	
	Master's Research Paper option:
	
	Note: students must receive special permission from the Department to enter the Master's Research Paper option. <u>The Research Paper option is not available in the Clinical Psychology Graduate Research Field.</u>
	
	• [Graduate Academic Integrity Module (Graduate AIM)](#)
	
	• **Courses**
	    o <u>Course requirements are determined by the Graduate Research Field to which the student is admitted.</u>
	    o Students must complete <u>a minimum of 8</u> one-term (0.50 unit weight) courses <u>(or equivalent)</u> accepted for graduate credit by the Department <u>of Psychology</u>. <u>These are minimum requirements only. Students may be required to take more courses.</u>
	    o <u>Students must complete all of the required courses of their Graduate Research Field articulated</u> in the Thesis study option section<u> above.</u>
	    o <u>Students must complete an additional 4 one-term (0.50 unit weight) courses. 2 of these courses must be in their Graduate Research Field and 2 must be from other Graduate Research Fields or approved substitutes.</u>
	    o <u>Courses from outside the Department of Psychology may also be considered. Departmental permission is required. Note: when selecting a course from outside of the Department of Psychology, students should check with their advisor about its suitability.</u>
	    o <u>Transfer credits may also be considered. The acceptance of transfer credits from prior registration at another university will be determined in individual cases by the Associate Dean</u>

Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
	(Graduate Studies) of the Faculty at the time of admission to the program. Transfer credits must be "unused" credits (i.e., they must not have been credited towards an earlier acquired degree or other academic credential). Transfer credits must be specified in writing at the time of departmental recommendation for admission. A minimum of 70% (University of Waterloo converted grade) is required for transfer credit.

- o Courses from outside the Department of Psychology and transfer credits can usually count for no more than 1 one-term credits toward breadth requirements.
- o Use of a course not listed in the course requirements below to meet a degree requirement and other course substitutions are permitted but require departmental permission. Students should confirm the appropriateness of the course substitution with their advisor and have it approved by the Area head, and Associate Chair, Graduate Studies in Psychology.
- o No degree candidate can fulfil more than half of the minimum department course requirements by Credit/Non-Credit courses.
- o Where applicable courses taken to meet the core and statistics requirements must be taken for numeric grade unless departmental permission is provided to take the course for Credit/Non-Credit.

Master's Research Paper

- o A formally written Master's Research Paper is required. The student's supervisor and one additional reader must assess and approve the Master's Research Paper.
- o A Graduate Research Field is a University credential that is recognized on the student's transcript and is intended to reflect that a student has successfully completed research concentrated in the area of the Graduate Research Field. The

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Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
	Department, represented by the student's supervisor and one additional reader must assess whether a student's completed research warrants the field designation at the time of degree completion. To obtain the Graduate Research Field designation, a student must also complete the requirements associated with the MA degree.

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

No impact

Department/School approval date (mm/dd/yy): 09/15/23

Reviewed by GSPA (for GSPA use only) ☐ date (mm/dd/yy): 09/13/23

Faculty approval date (mm/dd/yy): 10/24/23

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

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

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

Faculty: Arts

Program: Master of Applied Science (MASc) in Industrial and Organizational Psychology

Program contact name(s): Evan Risko

Form completed by: Evan Risko

Description of proposed changes:

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

Updating the course requirements.

Is this a major modification to the program? No

Rationale for change(s):

Updating the degree requirements to align with the current practice and to articulate the requirements of the program's study options more clearly.

Proposed effective date: Term: Winter   Year: 2024

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

https://uwaterloo.ca/graduate-studies-academic-calendar/arts/department-psychology/master-applied-science-masc-industrial-and-organizational-psychology

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

Degree requirements
 	
• Graduate Academic Integrity Module (Graduate AIM)
 	
• Courses
  ○ Students are required to complete a minimum of 6 one-term courses (0.50 unit weight).
  ○ ~~While many courses may be taken on a Cr/NCr basis, 4 of the required courses must be graded.~~
  ○ Students must complete the following courses:
	Degree requirements
	
	• Graduate Academic Integrity Module (Graduate AIM)
	
	• **Courses**
	  ○ Students are required to <u>successfully</u> complete a minimum of 6 one-term <u>graduate</u> courses (0.50 unit weight).
	  ○ <u>All courses are for a numeric grade unless they are only offered Credit/Non-Credit. No degree candidate can fulfil more than half of the minimum</u>

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

• ~~Quantitative~~
    • ~~2 statistics courses, usually PSYCH 887 Research Methods in Industrial/Organizational and PSYCH 632 Multiple Regression~~
• ~~Applied Skills~~
    • ~~2 of the following:~~
        • ~~PSYCH 883 Organizational and Management Development~~
        • ~~PSYCH 886 Psychology of Training~~
        • ~~PSYCH 888 Negotiation, Conflict Management, and Teamwork: Theory and Practice~~
• ~~Content Specialty~~
    • ~~2 Industrial/Organizational content courses as available, usually PSYCH 879 Personnel Selection (or equivalent), and PSYCH 875 Organizational Psychology~~
 	
o Note: these are minimum requirements only. Students may be required to take more courses in order to meet the prerequisites for some courses.
 	
• Graduate Studies Internship
    o Students have the option to complete a Graduate Studies Internship.
    o The internship may be completed by working full-time for four continuous months or by working part-time for eight months. Settings in which students have completed internships include: industries, governmental ministries, and management consultant firms.
    o The internship does not count as part of the 6 required courses.
	<u>department course requirements by Credit/Non-Credit courses.</u>
	o <u>When taking a course during the MA that is extra-to-degree (i.e., not taken to meet the MA requirements), students need to complete a course drop/add form and identify the course as extra-to-degree.</u>
	o <u>Use of a course not listed in the course requirements below to meet a degree requirement and other course substitutions are permitted but require departmental permission. Students should confirm the appropriateness of the course substitution with their advisor and have it approved by the Area head, and Associate Chair, Graduate Studies in Psychology.</u>
	o <u>Students must complete the following courses:</u>
	    ▪ <u>1 statistics course</u>
	        ▪ <u>PSYCH 632 Multiple Regression or an approved substitute</u>
	    ▪ <u>1 research methods course</u>
	        ▪ <u>PSYCH 887 Research Methods in Industrial/Organizational</u>
	    ▪ <u>2 mandatory core I/O courses:</u>
	        ▪ <u>PSYCH 875 Organizational Psychology</u>
	        ▪ <u>PSYCH 879 Personnel Selection</u>
	    ▪ <u>2 additional I/O content courses from the following list or an approved substitute:</u>
	        ▪ <u>PSYCH 877 Work Motivation</u>
	        ▪ <u>PSYCH 878 Job Performance</u>
	        ▪ <u>PSYCH 883 Organizational and Management Development</u>
	        ▪ <u>PSYCH 876 The Psychology of Justice in the Workplace</u>
	        ▪ <u>PSYCH 884 Special Topics in Industrial & Organizational Psychology</u>

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

• Master's Research Paper	▪ <u>PSYCH 886 Psychology of Training</u>
	      ▪ <u>PSYCH 888 Negotiation, Conflict Management, and Teamwork: Theory and Practice</u>
	      ▪ Students must also take PSYCH 885 Industrial and Organizational Psychology Research Seminar in the Fall and Winter terms for a minimum of 2 years unless departmental permission is provided otherwise, or the student completes the program early. Note: <u>PSYCH 885 is a 0.00 unit weight credit/no credit course.</u>
	    o Note: these are minimum requirements only. Students may be required to take more courses in order to meet the prerequisites for some courses.
	
	• **Graduate Studies Internship**
	    o Students have the option to complete a Graduate Studies Internship.
	    o The internship may be completed by working full-time for four continuous months or by working part-time for eight months. Settings in which students have completed internships include: industries, governmental ministries, and management consultant firms.
	    o The internship does not count as part of the 6 required courses.
	
	• **Master's Research Paper**
	• <u>A formally written Master's Research Paper is required. The student's supervisor and one additional reader must assess and approve the Master's Research Paper.</u>

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

No impact.

Department/School approval date (mm/dd/yy): 09/15/23

Reviewed by GSPA (for GSPA use only) ☐ date (mm/dd/yy): 09/13/23

Faculty approval date (mm/dd/yy): 10/24/23

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

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

Graduate Studies
Program Revision Template

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

Faculty: Arts

Program: Doctor of Philosophy (PhD) in Psychology

Program contact name(s): Evan Risko

Form completed by: Evan Risko

Description of proposed changes:

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

Updating the course requirements to align with the current practice which distinguishes course requirements based on a student's academic background.

Is this a major modification **to the program?** No

Rationale for change(s):

Updating the degree requirements to align with the current practice and to articulate the requirements of the program's study options more clearly.

Proposed effective date: Term: Winter   Year: 2024

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

https://uwaterloo.ca/graduate-studies-academic-calendar/arts/department-psychology/doctor-philosophy-phd-psychology

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

Degree requirements
 	
• Courses
  ○ Students enrolled in the doctoral program must complete the Department's statistics requirements and comprehensive breadth requirements. ~~The statistics requirements may be met by satisfactory performance in at least 1 of 2 core statistics courses: PSYCH 630 Advanced Analysis of Variance and PSYCH 632 Multiple Regression (or~~
	Degree requirements
	
	  ○ Students must be admitted to one of the following Graduate Research Fields:
	    ▪ Clinical Psychology
	    ▪ Cognitive Neuroscience
	    ▪ Cognitive Psychology
	    ▪ Developmental Psychology
	    ▪ Industrial/Organizational Psychology
	    ▪ Social Psychology

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

~~credit granted for evidence of a strong undergraduate statistics background) plus 1 additional statistics course. The additional course may be the remaining core statistics course or a different statistics course such as: PSYCH 800 Psychometric Theory & Structural Equation Modeling; PSYCH 801 Advanced Structural Equation Modeling; PSYCH 803 Statistical Reasoning & Advanced Experimental Analysis; PSCYH 804 Multi-Level Modeling Applications in Psychology.~~
o ~~To meet the Departmental breadth requirements, students will be required to take 4 one-term courses or their equivalent outside their areas/divisions.~~ For the purposes of this requirement the relevant areas are:
    ▪ Clinical
    ▪ Cognitive
    ▪ Cognitive Neuroscience
    ▪ Developmental
    ▪ Industrial/Organizational
    ▪ Quantitative Methods
    ▪ Social
o ~~Extra departmental courses as well as transfer credits may also be considered. Usually no more than 2 one-term credits toward breadth requirements are granted from such sources.~~
o ~~To meet the Departmental core requirements, students will be required to take 6 courses in their area of research.~~
o Below is a list of the graduate research fields and the required courses for each area:
    ▪ Clinical Psychology
    ▪ Cognitive Neuroscience
    ▪ Cognitive Psychology
    ▪ Developmental Psychology
    ▪ Industrial/Organizational Psychology
    ▪ Social Psychology
o Students specializing in **Clinical Psychology** must complete the following courses:
    ▪ Year One
        ▪ Coursework:
	Thesis option:
	[Graduate Academic Integrity Module (Graduate AIM)](#)
	
	• **Courses**
	o Course requirements are determined by the student's previous academic background and their Graduate Research Field.
	o Where applicable course requirements for students entering with a Bachelors degree or equivalent or an MA degree from the University of Waterloo in the Graduate Research Field in which they are completing their PhD are described below. Students entering directly into a PhD without completing an MA may be permitted to complete an MA during their PhD. If students have relevant academic background beyond a Bachelor's degree or equivalent but have not completed the MA degree from the University of Waterloo in the Graduate Research Field in which they are completing their PhD, then the PhD course requirements can, when deemed appropriate, be determined in consultation with the student's advisor, the Area Head, and Associate Chair, Graduate Studies in Psychology prior to admission.
	o Students enrolled in the doctoral program must complete the Department's core requirements, statistics requirements (or credit granted for evidence of a strong undergraduate statistics background) and comprehensive breadth requirements as described within each Graduate Research Field's course requirements below. Courses with a numeric grading basis must be taken to meet the core and statistics requirements unless departmental permission is provided to take a course with a Credit/Non-Credit grading basis. For the purposes of the breadth requirement the relevant areas are listed below. Whether a course meets a breadth requirement is determined by the Graduate Research Field. If a student is unclear about whether a course will meet their breadth

Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
▪ PSYCH 632 Multiple Regression ▪ PSYCH 716 Adult Psychopathology ▪ PSYCH 717 Psychological Assessment I ▪ PSYCH 718 Psychological Assessment II ▪ PSYCH 719 Ethics and Professional Issues in Clinical Psychology ▪ Breadth Requirements ▪ Clinical Practica: ▪ PSYCH 720A Practicum in Interviewing & Cognitive Assessment I ▪ PSYCH 720B Practicum in Interviewing & Cognitive Assessment II ▪ PSYCH 721A Diagnostic Assessment Practicum I ▪ PSYCH 721B Diagnostic Assessment Practicum II ▪ PSYCH 722C Clinical Full-Time Fieldwork Placement I (0.50 unit weight) or PSYCH 811C Clinical Part-Time Fieldwork Placement I (0.25 unit weight) ▪ Research Activities: ▪ PSYCH 621 Advanced Clinical Research Forum I	requirements, then they should consult with their supervisor and area head before enrolling in the course. ▪ Clinical Psychology ▪ Cognitive Psychology ▪ Cognitive Neuroscience ▪ Developmental Psychology ▪ Industrial/Organizational Psychology ▪ Quantitative Methods ▪ Social Psychology - o All courses taken to meet degree requirements must be accepted for graduate credit by the Department of Psychology and no degree candidate can fulfil more than half of the minimum department course requirements with Credit/Non-Credit courses. - o Course requirements are minimum requirements only. Students may be required to take additional courses depending on their previous academic background and Graduate Research Field. - o ~~To meet the Departmental breadth requirements, students will be required to take 4 one-term to take courses or their equivalent outside their areas/divisions as determined by their Graduate Research Field.~~ - o Courses from outside the Department of Psychology may also be considered. Departmental permission is required. Note: When selecting a course from outside of the Department of Psychology, students should check with their advisor about its suitability. - o Transfer credits may also be considered. The acceptance of transfer credits from prior registration 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. Transfer credits must be "unused" credits (i.e., they must not have been credited towards an earlier acquired degree or other academic credential). Transfer credits must be specified in writing at the time of departmental recommendation for admission. A minimum of 70% (University of

Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
- Year Two - Coursework: - PSYCH 723 Child Psychopathology and Psychotherapy - PSYCH 724 Personality & Measurement Theory - PSYCH 725 Cognitive Behaviour Therapy - Breadth Requirements - Clinical Practica: - PSYCH 726A Practicum in Integrated Assessment I - PSYCH 726B Practicum in Integrated Assessment II - Elective: PSYCH 738A, PSYCH 738B, PSYCH 738C Clinical Fieldwork Placement II (optional, by approval). Note: Students must have completed PSYCH 722C Clinical Full-Time Fieldwork Placement I or a set of 2 of PSYCH 811A, PSYCH 811B, and PSYCH 811C Clinical Part-Time Fieldwork Placement I, before they are eligible to take PSYCH 738A, PSYCH 738B, PSYCH 738C	Waterloo converted grade) is required for transfer credit. - Courses from outside the Department of Psychology and transfer credits can usually count for no more than 2 one-term credits toward breadth requirements. - Use of a course not listed in the course requirements below to meet a degree requirement and other course substitutions are permitted but require departmental permission. Students should confirm the appropriateness of the course substitution with their advisor and have it approved by the Area head, and Associate Chair, Graduate Studies in Psychology. <s>To meet the Departmental core requirements, students will be required to take 6 courses in their Graduate Research Field.</s> <s>Below is a list of the graduate research fields and the required courses for each area:</s> <s>Clinical Psychology</s> <s>Cognitive Neuroscience</s> <s>Cognitive Psychology</s> <s>Developmental Psychology</s> <s>Industrial/Organizational Psychology</s> <s>Social Psychology</s> - Students pursuing the **Clinical Psychology** Graduate Research Field must complete the following courses contingent upon the student's previous academic background. - If a student enters the PhD with only a Bachelor's degree or equivalent, then the student is required to meet the course requirements beginning Year One below. - If a student enters the PhD program having completed the MA in Psychology degree with a **Clinical Psychology** Graduate Research Field from the University of Waterloo, then the student is required to meet the course requirements beginning Year Three below in addition to completing any courses listed in Year Page 42 of 58

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

Clinical Fieldwork Placement II.
   ▪ Research Activities:
      ▪ PSYCH 621 Advanced Clinical Research Forum II
  ▪ Year Three
    ▪ Coursework:
      ▪ PSYCH 727 Efficacy and Program Evaluation
      ▪ PSYCH 728 Psychotherapy: Classical Roots & Contemporary Developments
      ▪ Breadth Requirements
    ▪ Clinical Practica:
      ▪ PSYCH 729A, PSYCH 729B, PSYCH 729C Child and Adolescent Psychotherapy Practicum I, II, III
      ▪ PSYCH 730A, PSYCH 730B, PSYCH 730C Adult Psychotherapy Practicum I, II, III
      ▪ Elective: PSYCH 738A, PSYCH 738B, PSYCH 738C Clinical Fieldwork Placement II (optional, by approval). Note: Students must have completed PSYCH 722C Clinical Full-Time Fieldwork Placement I or a set of 2 of PSYCH 811A, PSYCH 811B, and PSYCH 811C Clinical
	One and Year Two not already completed. By the end of the PhD, students need to have completed all requirements from Year One to Year Six below or approved substitutes when courses completed during both the MA and PhD are considered. The courses are listed below in a typical sequence. Individual student's course sequences may vary, for example, based on course availability.
	  ▪ 2 statistics courses one of which must be PSYCH 630 Multiple Regression from the following list or an approved substitute:
	    ▪ PSYCH 630 Advanced Analysis of Variance
	    ▪ PSYCH 632 Multiple Regression
	    ▪ PSYCH 640 Special Topics in Psychology (on departmentally approved topics)
	    ▪ PSYCH 800 Psychometric Theory & Structural Equation Modeling
	    ▪ PSYCH 801 Advanced Structural Equation Modeling
	    ▪ PSYCH 803 Meta-Analysis
	    ▪ PSYCH 804 Multi-Level Modeling Applications in Psychology
	  ▪ 4 breadth courses from other graduate research fields outside of Clinical Psychology (e.g., not from the list of core, clinical practica, or research Clinical Psychology courses below) or an approved substitute. Students need to ensure that they meet the CPA breadth requirements.
	 ○
	  ▪ Year One
	    ▪ Coursework (core):
	      ▪ PSYCH 716 Adult Psychopathology
	      ▪ PSYCH 717 Psychological Assessment I

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

Part-Time Fieldwork Placement I, before they are eligible to take PSYCH 738A, PSYCH 738B, PSYCH 738C Clinical Fieldwork Placement II.
    ▪ Research Activities:
        ▪ PSYCH 621 Advanced Clinical Research Forum III
▪ Year Four
    ▪ Coursework:
        ▪ PSYCH 731 Emotion-Focused Therapy
        ▪ Unfulfilled Breadth Requirements
    ▪ Clinical Practica:
        ▪ PSYCH 732A, PSYCH 732B, PSYCH 732C Child and Adolescent Psychotherapy Practicum I, II, III
        ▪ PSYCH 733A, PSYCH 733B, PSYCH 733C Adult Psychotherapy Practicum I, II, III
        ▪ Elective: PSYCH 737A, PSYCH 737B, PSYCH 737C Emotion-Focused Therapy Practicum
        ▪ Elective: PSYCH 738A, PSYCH 738B, PSYCH 738C Clinical Fieldwork Placement II or PSYCH 739A, PSYCH 739B, PSYCH 739C Clinical Fieldwork
	▪ PSYCH 718 Psychological Assessment II
	        ▪ PSYCH 719 Ethics and Professional Issues in Clinical Psychology
	    ▪ Clinical Practica:
	        ▪ PSYCH 720A Practicum in Interviewing & Cognitive Assessment I
	        ▪ PSYCH 720B Practicum in Interviewing & Cognitive Assessment II
	        ▪ PSYCH 721A Diagnostic Assessment Practicum I
	        ▪ PSYCH 721B Diagnostic Assessment Practicum II
	        ▪ PSYCH 722C Clinical Full-Time Fieldwork Placement I (0.50 unit weight) or PSYCH 811C Clinical Part-Time Fieldwork Placement I (0.25 unit weight)
	    ▪ Research Activities:
	        ▪ PSYCH 621 Advanced Clinical Research Forum I
	▪ Year Two
	    ▪ Coursework (core):
	        ▪ PSYCH 723 Child Psychopathology and Psychotherapy
	        ▪ PSYCH 724 Personality & Measurement Theory

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

■ Placement III (optional, by approval)
■ Research Activities:
  ■ PSYCH 621 Advanced Clinical Research Forum IV
■ Year Five (and beyond)
  ■ Clinical Practica:
    ■ PSYCH 734A, PSYCH 734B, PSYCH 734C Practicum in Supervision I, II, III (required of all students)
    ■ PSYCH 735A, PSYCH 735B, PSYCH 735C Child and Adolescent Psychotherapy Practicum I, II, III
    ■ PSYCH 736A, PSYCH 736B, PSYCH 736C Adult Psychotherapy Practicum I, II, III
    ■ Elective: PSYCH 737A, PSYCH 737B, PSYCH 737C Emotion-Focused Therapy Practicum
    ■ Elective: PSYCH 740A, PSYCH 740B, PSYCH 740C Senior Practicum I or PSYCH 741A, PSYCH 741B, PSYCH 741C Senior Practicum II or PSYCH 742A, PSYCH 742B, PSYCH 742C Senior Practicum III (optional, by approval)
■ Year Six
	■ PSYCH 725 Cognitive Behaviour Therapy
	■ Clinical Practica:
	  ■ PSYCH 726A Practicum in Integrated Assessment I
	  ■ PSYCH 726B Practicum in Integrated Assessment II
	  ■ Elective: PSYCH 738A, PSYCH 738B, PSYCH 738C Clinical Fieldwork Placement II (optional, by approval). Note: Students must have completed PSYCH 722C Clinical Full-Time Fieldwork Placement I or a set of 2 of PSYCH 811A, PSYCH 811B, and PSYCH 811C Clinical Part-Time Fieldwork Placement I, before they are eligible to take PSYCH 738A, PSYCH 738B, PSYCH 738C Clinical Fieldwork Placement II.
	■ Research Activities:
	  ■ PSYCH 621 Advanced Clinical Research Forum II
	■ Year Three
	  ■ Coursework (core):
	    ■ PSYCH 727 Efficacy and Program Evaluation

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

■ Students must compete a year of predoctoral residency, the successful completion of which results in the crediting of the Graduate Studies Clinical Internship milestone.
    ○ Students specializing in **Cognitive Neuroscience** must complete the following 12 courses:
        ■ 1 mandatory statistics course: PSYCH 632 Multiple Regression
        ■ 1 other statistics and design course chosen from this list:
            ■ PSYCH 630 Advanced Analysis of Variance
            ■ PSYCH 800 Psychometric Theory & Structural Equation Modeling
            ■ PSYCH 801 Advanced Structural Equation Modeling
            ■ PSYCH 803 Meta-Analysis
            ■ PSYCH 804 Multi-Level Modeling Applications in Psychology
        ■ 1 Fundamentals of Cognitive Neuroscience: PSYCH 677A Fundamentals of Behavioural Neuroscience
        ■ 1 Human Neuroanatomy: PSYCH 784 Human Neuroanatomy and Neuropathology
        ■ 4 CNS core courses chosen from this list:
            ■ PSYCH 779A Cognitive Neuropsychology I
            ■ PSYCH 781 Cognitive Neuroscience of Memory
            ■ PSYCH 782 Visual Neuroscience
            ■ PSYCH 783 Neuroimaging of Cognition
            ■ PSYCH 785 Attention and the Brain
	■ PSYCH 728 Psychotherapy: Classical Roots & Contemporary Developments
	        ■ Clinical Practica:
	            ■ PSYCH 729A, PSYCH 729B, PSYCH 729C Child and Adolescent Psychotherapy Practicum I, II, III
	            ■ PSYCH 730A, PSYCH 730B, PSYCH 730C Adult Psychotherapy Practicum I, II, III
	            ■ Elective: PSYCH 738A, PSYCH 738B, PSYCH 738C Clinical Fieldwork Placement II (optional, by approval). Note: Students must have completed PSYCH 722C Clinical Full-Time Fieldwork Placement I or a set of 2 of PSYCH 811A, PSYCH 811B, and PSYCH 811C Clinical Part-Time Fieldwork Placement I, before they are eligible to take PSYCH 738A, PSYCH 738B, PSYCH 738C Clinical Fieldwork Placement II.
	        ■ Research Activities:
	            ■ PSYCH 621 Advanced Clinical Research Forum III

Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
- PSYCH 788 Epidemiologic Methods in Aging Research - PSYCH 789 Mind-wandering and Inattention - PSYCH 790 Case Studies in Neuropsychology - PSYCH 792 An Introduction to Methods in Computational Neuroscience - PSYCH 794 Cognitive Neuroscience of Face Perception 4 breadth courses from other research areas. - In addition, students must attend the weekly Cognitive Neuroscience Seminar (PSYCH 707). - Note: it is expected that the Master's thesis will be completed within the first two years in the program. The Master's degree will normally be required before studies for the doctorate have begun. - Students specializing in **Cognitive Psychology** must complete the following 12 courses: 1 mandatory statistics course: PSYCH 630 Advanced Analysis of Variance 1 other statistics course chosen from this list: - PSYCH 632 Multiple Regression - PSYCH 800 Psychometric Theory & Structural Equation Modeling - PSYCH 801 Advanced Structural Equation Modeling 6 Cognition core courses chosen from this list: - PSYCH 758 Applied Practicum in Cognitive Psychology	- Year Four - Coursework (core): - PSYCH 731 Emotion-Focused Therapy - Clinical Practica: - PSYCH 732A, PSYCH 732B, PSYCH 732C Child and Adolescent Psychotherapy Practicum I, II, III - PSYCH 733A, PSYCH 733B, PSYCH 733C Adult Psychotherapy Practicum I, II, III - Elective: PSYCH 737A, PSYCH 737B, PSYCH 737C Emotion-Focused Therapy Practicum - Elective: PSYCH 738A, PSYCH 738B, PSYCH 738C Clinical Fieldwork Placement II or PSYCH 739A, PSYCH 739B, PSYCH 739C Clinical Fieldwork Placement III (optional, by approval) - Research Activities: - PSYCH 621 Advanced Clinical Research Forum IV - Year Five (and beyond) - Clinical Practica: - PSYCH 734A, PSYCH 734B, PSYCH 734C Practicum in Supervision I, II, III (required of all students)

Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
- PSYCH 759 Research Practicum in Cognitive Psychology - PSYCH 769 Causal Reasoning - PSYCH 770 Basic Issues in Cognition - PSYCH 771 Basic Visual Processes - PSYCH 774 Visual Cognition - PSYCH 775 Consciousness and Cognition - PSYCH 776 Problem Solving, Judgment and Decision Making - PSYCH 777 Human Memory - PSYCH 778 Attention - PSYCH 779 Language and Reading - PSYCH 650 Special Topics in Cognition and Perception; Topic 2 Modelling Cognitive Processes 4 breadth courses from outside of Cognition. - In addition, students must attend the weekly Cognitive Psychology Seminar (PSYCH 747). - Note: normally students will be expected to have completed the Master's thesis no later than the beginning of their fourth term in the program. - Students specializing in **Developmental Psychology** must complete a total of 12 courses: 2 mandatory statistics courses from this list: - PSYCH 630 Advanced Analysis of Variance - PSYCH 632 Multiple Regression - PSYCH 800 Psychometric Theory & Structural Equation Modeling	- PSYCH 735A, PSYCH 735B, PSYCH 735C Child and Adolescent Psychotherapy Practicum I, II, III - PSYCH 736A, PSYCH 736B, PSYCH 736C Adult Psychotherapy Practicum I, II, III - Elective: PSYCH 737A, PSYCH 737B, PSYCH 737C Emotion-Focused Therapy Practicum - Elective: PSYCH 740A, PSYCH 740B, PSYCH 740C Senior Practicum I or PSYCH 741A, PSYCH 741B, PSYCH 741C Senior Practicum II or PSYCH 742A, PSYCH 742B, PSYCH 742C Senior Practicum III (optional, by approval) - Year Six - Students must compete a year of predoctoral residency, the successful completion of which results in the crediting of the Graduate Studies Clinical Internship milestone. - Students pursuing the **Cognitive Neuroscience** Graduate Research Field must complete the following ~~12~~ courses <u>contingent upon the student's previous academic background.</u>

Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
▪ PSYCH 801 Advanced Structural Equation Modeling ▪ PSYCH 804 Multi-Level Modeling Applications in Psychology ▪ 6 Developmental courses from this list: ▪ PSYCH 680 Special Topics in Child Behaviour and Development ▪ PSYCH 701 Foundations in Cognitive/Social Development: Basic ▪ PSYCH 702 Foundations in Cognitive/Social Development: Social Cognitive Development ▪ PSYCH 705 Foundations in Language Development: Basic Language Development ▪ PSYCH 706 Foundations in Language Development: Pragmatics of Language ▪ PSYCH 708 Reasoning about Ownership of Property ▪ PSYCH 709 Reasoning about Beliefs and Desires ▪ PSYCH 713 Theories of Pretence ▪ 4 breadth courses from other research areas outside of Developmental. ▪ In addition, students must attend the weekly Developmental Seminar each term (PSYCH 710). ○ Students specializing in **Industrial/Organizational Psychology** must complete the following 12 courses: ▪ 1 mandatory statistics course: PSYCH 632 Multiple Regression	○ If a student enters the PhD with only a Bachelor's degree or equivalent, then the student is required to complete 12 one-term (0.50 unit weight) courses. ○ If a student enters the PhD having completed the **MA in Psychology degree with a Cognitive Neuroscience Graduate Research Field** from the University of Waterloo, then the student is required to complete 8 one-term (0.50 unit weight) courses such that students meet all of the course requirements listed below when courses completed during both the MA and PhD are considered. ▪ 2 statistics courses from the following list or an approved substitute ▪ PSYCH 630 Advanced Analysis of Variance ▪ PSYCH 632 Multiple Regression ▪ PSYCH 640 Special Topics in Psychology (on departmentally approved topics) ▪ PSYCH 800 Psychometric Theory & Structural Equation Modeling ▪ PSYCH 801 Advanced Structural Equation Modeling ▪ PSYCH 803 Meta-Analysis ▪ PSYCH 804 Multi-Level Modeling Applications in Psychology ▪ 6 core courses in Cognitive Neuroscience including PSYCH 677A Fundamentals of Behavioural Neuroscience and PSYCH 784 Human Neuroanatomy and Neuropathology with the remaining selected from the following list or an approved substitute: ▪ PSYCH 640 Special Topics in Psychology (on departmentally approved topics) ▪ PSYCH 670 Special Topics in Behavioural Neuroscience Page 49 of 58

Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
1 additional mandatory statistics course, e.g., PSYCH 630, PSYCH 800, PSYCH 801, PSYCH 804 1 mandatory research methods course: PSYCH 887 Research Methods in Industrial/Organizational 2 mandatory core I/O content courses: - PSYCH 875 Organizational Psychology - PSYCH 879 Personnel Selection 3 I/O content courses. Some example offerings are: - PSYCH 877 Work Motivation - PSYCH 878 Job Performance - PSYCH 883 Organizational and Management Development - PSYCH 876 The Psychology of Justice in the Workplace - PSYCH 886 Psychology of Training - PSYCH 888 Negotiation, Conflict Management, and Teamwork: Theory and Practice 4 breadth courses from other research areas outside of I/O. - In addition, students must attend the weekly I/O seminar (PSYCH 885). - Students specializing in **Social Psychology** must complete the following 12 courses: 2 mandatory statistics courses from this list: - PSYCH 630 Advanced Analysis of Variance - PSYCH 632 Multiple Regression - PSYCH 800 Psychometric Theory & Structural Equation Modeling	- PSYCH 779A Cognitive Neuropsychology I - PSYCH 781 Cognitive Neuroscience of Memory - PSYCH 782 Visual Neuroscience - PSYCH 783 Neuroimaging of Cognition - PSYCH 785 Attention and the Brain - PSYCH 788 (cross-listed as HLTH-672) Epidemiologic Methods in Aging Research - PSYCH 789 Mind-wandering and Inattention - PSYCH 790 Case Studies in Neuropsychology - PSYCH 792 An Introduction to Methods in Computational Neuroscience - PSYCH 794 Cognitive Neuroscience of Face Perception 4 breadth courses from other graduate research fields outside of Cognitive Neuroscience (e.g., not from the list of Cognitive Neuroscience core courses above) or an approved substitute. - Students must also take PSYCH 707 Cognitive Neuroscience Seminar in the Fall and Winter terms for a minimum of 4 years unless departmental permission is provided otherwise, or the student completes the program early. Students are encouraged to take PSYCH 707 for a 5th year if they have not yet finished their PhD. Note: PSYCH 707 is a 0.0 unit weight credit/no credit course. - Note: it is expected that the Master's thesis will be

Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
- PSYCH 801 Advanced Structural Equation Modeling - PSYCH 804 Multi-Level Modeling Applications in Psychology - PSYCH 704A Social Psychology - PSYCH 870 Research Design & Methods 4 Social courses from the following list: - PSYCH 743 Advanced Intergroup Relations - PSYCH 744 Personality in Social Context - PSYCH 745 Close Relationships - PSYCH 746 Culture and the Mind - PSYCH 749 Wisdom - PSYCH 748 Self-Regulation and Motivation - PSYCH 690 Special Topics in Social and Personality: - The Self - Social Cognition - Moral Psychology 4 breadth courses from other research areas outside of Social. - In addition, students must attend the weekly Social seminar (PSYCH 714). - While many courses may be taken on a Cr/NCr basis, at least half the courses offered for a degree by the student must be graded.	~~completed within the first two years in the program. The Master's degree will normally be required before studies for the doctorate have begun.~~ - Students pursuing the **Cognitive Psychology** Graduate Research Field must complete the following ~~12~~ courses contingent upon the <u>student's previous academic background.</u> - <u>If a student enters the PhD with only a Bachelor's degree or equivalent, then the student is required to complete</u> 12 one-term <u>(0.50 unit weight)</u> courses. - <u>If a student are enters the PhD having completed the</u> **MA in Psychology degree with a Cognitive Psychology Graduate Research Field** <u>from the University of Waterloo, then the student is required to complete</u> 8 one-term <u>(0.50 unit weight)</u> courses <u>such that students meet all of the course requirements listed below when courses completed during both the MA and PhD are considered.</u> 2 statistics <u>courses including</u> PSYCH 630 Advanced Analysis of Variance with the remaining selected <u>from the following list or an approved substitute</u>: - PSYCH 632 Multiple Regression - <u>PSYCH 640 Special Topics in Psychology (on departmentally approved topics)</u> - PSYCH 800 Psychometric Theory & Structural Equation Modeling - PSYCH 801 Advanced Structural Equation Modeling - <u>PSYCH 803 Meta-Analysis</u> - <u>PSYCH 804 Multi-Level Modeling Applications in Psychology</u>

Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
	6 core courses in Cognitive Psychology <u>from the following list or an approved substitute</u> - COGSCI 600 Seminar in Cognitive Science - <u>PSYCH 640 Special Topics in Psychology (on departmentally approved topics)</u> - PSYCH 758 Applied Practicum in Cognitive Psychology - PSYCH 759 Research Practicum in Cognitive Psychology - PSYCH 769 Causal Reasoning - PSYCH 770 Basic Issues in Cognition - PSYCH 771 Basic Visual Processes - PSYCH 774 Visual Cognition - PSYCH 775 Consciousness and Cognition - PSYCH 776 Problem Solving, Judgment and Decision Making - PSYCH 777 Human Memory - PSYCH 778 Attention - PSYCH 779 Language and Reading - PSYCH 650 Special Topics in Cognition and Perception - <u>PSYCH 810 - Directed Studies (on departmentally approved topics)</u> <u>4 breadth courses from other graduate research fields outside of Cognitive Psychology (e.g., not from the list of Cognitive Psychology courses above) or an approved substitute.</u> - <u>Students must also take PSYCH 747 Cognitive Psychology Seminar in the Fall and Winter terms for a minimum of 4 years unless departmental permission is provided</u>

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

	otherwise, or the student completes the program early. Note: PSYCH 747 is a 0.0 unit weight credit/no credit course.
	 • ~~Note: normally students will be expected to have completed the Master's thesis no later than the beginning of their fourth term in the program.~~
	
	 o Students pursuing the **Developmental Psychology** must complete the following ~~12~~ courses contingent upon the student's previous academic background.
	     o If a student enters the PhD with only a Bachelor's degree or equivalent, then the student is required to complete 12 one-term (0.50 unit weight) courses.
	     o If a student enters the PhD having completed the **MA in Psychology degree with a Developmental Psychology Graduate Research Field** from the University of Waterloo or the MASc in Developmental and Communication Science at the University of Waterloo, then the student is required to complete 8 one-term (0.50 unit weight) courses such that students meet all of the course requirements listed below when courses completed during both the MA or MASc and PhD are considered.
	       ▪ 2 statistics courses from the following list or an approved substitute
	         ▪ PSYCH 630 Advanced Analysis of Variance
	         ▪ PSYCH 632 Multiple Regression
	         ▪ PSYCH 640 Special Topics in Psychology (on departmentally approved topics)
	         ▪ PSYCH 800 Psychometric Theory & Structural Equation Modeling
	         ▪ PSYCH 801 Advanced Structural Equation Modeling

Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
	▪ PSYCH 804 Multi-Level Modeling Applications in Psychology
	▪ 6 core courses in Developmental Psychology from the following list or an approved substitute:
	▪ PSYCH 640 Special Topics in Psychology (on departmentally approved topics)
	▪ PSYCH 680 Special Topics in Child Behaviour and Development
	▪ PSYCH 701 Foundations in Cognitive/Social Development: Basic
	▪ PSYCH 702 Foundations in Cognitive/Social Development: Social Cognitive Development
	▪ PSYCH 705 Foundations in Language Development: Basic Language Development
	▪ PSYCH 706 Foundations in Language Development: Pragmatics of Language
	▪ PSYCH 708 Reasoning about Ownership of Property
	▪ PSYCH 709 Reasoning about Beliefs and Desires
	▪ PSYCH 713 Theories of Pretense
	• PSYCH 810 - Directed Studies (on departmentally approved topics)
	▪
	▪ 4 breadth courses from other graduate research fields outside of Developmental Psychology (i.e., not from the list of Developmental Psychology courses above) or an approved substitute.

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

	o Students must also take PSYCH 710 Current Issues in Developmental Psych Seminar in the Fall and Winter terms for a minimum of 4 years unless departmental permission is provided otherwise, or the student completes the program early. Note: PSYCH 710 is a 0.00 unit weight credit/no credit course.
	
	o Students pursuing the **Industrial/Organizational Psychology** Graduate Research Field must complete the following courses:
	
	  ▪ 2 statistics courses from the following list or an approved substitute:
	    ▪ PSYCH 630 Advanced Analysis of Variance
	    ▪ PSYCH 640 Special Topics in Psychology (on departmentally approved topics)
	    ▪ PSYCH 800 Psychometric Theory & Structural Equation Modeling
	    ▪ PSYCH 801 Advanced Structural Equation Modeling
	    ▪ PSYCH 804 Multi-Level Modeling Applications in Psychology
	  ▪ 2 core courses in Industrial/Organizational Psychology selected from the following list or an approved substitute:
	    ▪ PSYCH 640 Special Topics in Psychology (on departmentally approved topics)
	    ▪ PSYCH 877 Work Motivation
	    ▪ PSYCH 878 Job Performance

Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
	▪ PSYCH 883 Organizational and Management Development ▪ PSYCH 876 The Psychology of Justice in the Workplace ▪ <u>PSYCH 884 Special Topics in Industrial & Organizational Psychology</u> ▪ PSYCH 886 Psychology of Training ▪ PSYCH 888 Negotiation, Conflict Management, and Teamwork: Theory and Practice ▪ 2 breadth courses <u>from other graduate research fields outside of Industrial/Organizational Psychology (e.g., not from the list of core Industrial/Organizational Psychology courses above) or an approved substitute.</u> o <u>Students must also take PSYCH 885 Industrial and Organizational Psychology Research Seminar in the Fall and Winter terms for a minimum of 4 years unless departmental permission is provided otherwise, or the student completes the program early. Note: PSYCH 885 is a 0.00 unit weight credit/no credit course.</u> o <u>Students in Industrial/Organizational Psychology must take all courses for a numeric grade unless they are only offered Credit/Non-Credit.</u> o Students pursuing the **Social Psychology** Graduate Research Field must complete the following courses contingent upon the <u>student's previous academic background</u>. 　o <u>If a student enters the PhD with only a Bachelor's degree or equivalent, then</u>

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

	the student is required to complete 12 one-term (0.50 unit weight) courses.
	
	○ If a student enters the PhD having completed the MA in Psychology degree with a Social Psychology Graduate Research Field from the University of Waterloo, then the student is required to complete 8 one-term (0.50 unit weight) courses such that students meet all of the course requirements listed below when courses completed during both the MA and PhD are considered.
	
	    ▪ Minimum 2 statistics courses from the following list or an approved substitute
	        ▪ PSYCH 630 Advanced Analysis of Variance
	        ▪ PSYCH 632 Multiple Regression
	        ▪ PSYCH 640 Special Topics in Psychology (on departmentally approved topics)
	        ▪ PSYCH 800 Psychometric Theory & Structural Equation Modeling
	        ▪ PSYCH 801 Advanced Structural Equation Modeling
	        ▪ PSYCH 804 Multi-Level Modeling Applications in Psychology
	    ▪ 6 core courses in Social Psychology including PSYCH 704A Social Psychology and PSYCH 870 Research Design & Methods with the remaining selected from the following list or an approved substitute:
	        ▪ PSYCH 640 Special Topics in Psychology (on departmentally approved topics)
	        ▪ PSYCH 743 Advanced Intergroup Relations
	        ▪ PSYCH 744 Personality in Social Context
	        ▪ PSYCH 745 Close Relationships
	        ▪ PSYCH 746 Culture and the Mind
	        ▪ PSYCH 749 Wisdom

Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
	- PSYCH 748 Self-Regulation and Motivation - PSYCH 690 Special Topics in Social and Personality <u>4 breadth courses from other graduate research fields outside of Social Psychology (i.e., not from the list of Social Psychology courses above) or an approved substitute. Up to 2 of these breadth courses may be additional statistics courses.</u> - <u>Students must also take PSYCH 714 Social Seminar in the Fall and Winter terms for a minimum of 4 years unless departmental permission is provided otherwise, or the student completes the program early. Note: PSYCH 714 is a 0.00 unit weight credit/no credit course.</u>

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

No impact.

Section will expand to accommodate content. Please include details here.

Department/School approval date (mm/dd/yy): 09/15/23
Reviewed by GSPA (for GSPA use only) ☐ date (mm/dd/yy): 09/13/23
Faculty approval date (mm/dd/yy): 10/24/23
Senate Graduate & Research Council (SGRC) approval date (mm/dd/yy):
Senate approval date (mm/dd/yy) (if applicable):

UNIVERSITY OF WATERLOO
FACULTY OF ENGINEERING
M E M O

TO: Tim Weber- Kraljrveski, Governance Officer Secretariat

FROM: S. Sivoththaman, Associate Dean, Graduate Studies
               Faculty of Engineering

RE: Senate Graduate and Research Council

DATE: November 6, 2023

Please place the following motions forward for approval at the next meeting of the SGRC. These changes were approved by the EFC on October 17, 2023.

Items for Approval:

1. The department of **Chemical Engineering** would like to make the following calendar changes
   a. Inactivation of Graduate Studies Seminar

   Rationale for Request:

   a. A few years ago, the Graduate Studies Seminar milestone (15 min, before end of 4th term) was added to the MASc in Chemical Engineering degree requirements. However, the Graduate Studies Seminar does not appear to bring much value to the MASc programs. There is a MASc thesis exam/defense near the end of the program, and removing the Graduate Studies Seminar milestone does not compromise the quality of the programs.

2. The department of **Civil and Environmental Engineering** would like to make the following calendar changes
   a. Revision of course title and course description of CIVE 645
   b. Revision of course title and course description of CIVE 603

   Rationale for Request:

   a. There is a need to update the course title and course description as the proposed revisions make it explicit that "land use" (and associated models) are a major component of the course. This will give students a more accurate description of the course they are taking and what will be covered.
   b. There is a need to update the course title and description as the proposed revisions will give students a more accurate representation of the content that will be covered in this course.

3. The department of **Electrical and Computer Engineering** would like to make the following calendar changes
   a. Updating course number, course title, course description, and requisites of ECE 699 (prosed change to ECE 699A).
   b. New course ECE 699B
   c. Change PhD admissions requirements
   d. Change MEng Specialization in Nanoelectronic Circuits and Systems to two .05 credit project courses

Rationale for Request:

a. The changes to ECE 699 are being done in conjunction with the creation of ECE 699B Master of Engineering Project 2. These changes give our MEng students the ability to do two research project courses under the direct supervision of a faculty member during their studies and allows faculty members to propose and work on deeper research problems with MEng students. This also provides more opportunities to identify research curious students and potentially recruit them as PhD students.

b. ECE 699B is being created in conjunction with updates to ECE 699 which is being changed to ECE 699A. These changes give our MEng students the ability to do two research project courses under the direct supervision of a faculty member during their studies and allows faculty members to propose and work on deeper research problems with MEng students. This also provides more opportunities to identify research-curious students and potentially recruit them as PhD students.

c. Replacing ECE 699 with ECE699A requires a change in the PhD admissions requirement for ECE Master of Engineering (MEng) students.

d. Currently, the ECE MEng Specialization in Nanoelectronic Circuits and Systems has a compulsory 1.0 credit project course (ECE649). We seek to replace this requirement with two 0.5 credit project courses, ECE699A and ECE699B. This change will make it easier for our students to obtain this specialization while still being able to take other courses of interest.

SS/em

UNIVERSITY OF WATERLOO

Senate Graduate & Research Council
Graduate Studies Course/Milestone Form

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: Engineering

Effective date: Term: Winter   Year: 2024

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

☐ New: Choose an item.

☒ Inactivate: Graduate Studies Seminar

☐ 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:

☐ 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: Choose an item.

Course number:

Course ID:

Course title (max. 100 characters including spaces):

Course short title (max. 30 characters including spaces):

Grading basis: Choose an item.

Course credit weight: Choose an item.

Course consent required: Choose an item.

Course description: Meet type(s): Choose an item.   Choose an item.   Choose an item.   Choose an item.

Primary meet type: Choose an item.

Delivery mode: Choose an item.

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:

- A few years ago, the Graduate Studies Seminar milestone (15 min, before end of 4th term) was added to the MASc in Chemical Engineering degree requirements.
- However, the Graduate Studies Seminar does not appear to bring much value to the MASc programs.
- There is a MASc thesis exam/defense near the end of the program, and removing the Graduate Studies Seminar milestone does not compromise the quality of the programs.

- The milestone should be removed from the following programs:
    - Master of Applied Science (MASc) in Chemical Engineering
    - Master of Applied Science (MASc) in Chemical Engineering - Nanotechnology
    - Master of Applied Science (MASc) in Chemical Engineering – Water

Form completed by: Xianshe Feng
Department/School approval date (06/12/23)
Reviewed by GSPA (for GSPA use only) ☒ date (mm/dd/yy): 07/06/23
Faculty approval date (mm/dd/yy):
Senate Graduate & Research Council (SGRC) approval date (mm/dd/yy):

Graduate Studies
Program Revision Template

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

Faculty: Engineering

Programs: 1) Master of Applied Science (MASc) in Chemical Engineering

        2) Master of Applied Science (MASc) in Chemical Engineering - Nanotechnology

        3) Master of Applied Science (MASc) in Chemical Engineering - Water

Program contact name(s): Xianshe Feng, Judy Caron

Form completed by: Xianshe Feng, Judy Caron

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

Removing the Graduate Studies Seminar milestone from the degree requirements of the MASc in Chemical Engineering programs.

Is this a major modification to the program? No

Rationale for change(s):

A few years ago, the Graduate Studies Seminar milestone (15 minutes, before end of 4th term) was added as a milestone to the MASc in Chemical Engineering degree requirements. However, the Graduate Studies Seminar presentation does not appear to bring much value to the MASc programs. There is a MASc thesis exam/defense near the end of the programs and removing the Graduate Studies Seminar milestone does not compromise the quality of the programs.

Proposed effective date: Term: Winter   Year: 2024

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

https://uwaterloo.ca/graduate-studies-academic-calendar/engineering/department-chemical-engineering/master-applied-science-masc-chemical-engineering

https://uwaterloo.ca/graduate-studies-academic-calendar/engineering/department-chemical-engineering/master-applied-science-masc-chemical-engineering-nanotechnology

https://uwaterloo.ca/graduate-studies-academic-calendar/engineering/department-chemical-engineering/master-applied-science-masc-chemical-engineering-water

Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
• ~~Graduate Studies Seminar~~	*N/A*

Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
o ~~The graduate studies seminar helps to develop students' ability to communicate the results of a research investigation concisely and informatively. Each student must present a seminar about their thesis project at the appropriate Annual Research Seminar held by the Chemical Engineering Department. The seminar is not an oral examination of the thesis.~~	

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

The proposed changes will apply to students currently registered in the program. For students the milestone has already been completed, it will remain on student records, and if it has not yet been completed it will be removed from student records. Chemical Engineering will inform the students that will be impacted by the milestone changes.

Department/School approval date (mm/dd/yy): 06/12/23
Reviewed by GSPA (for GSPA use only) ☒ date (mm/dd/yy): 07/06/23
Faculty approval date (mm/dd/yy):
Senate Graduate & Research Council (SGRC) approval date (mm/dd/yy):
Senate approval date (mm/dd/yy) (if applicable):

Senate Graduate & Research Council
Graduate Studies Course/Milestone Form

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: Engineering

Effective date: Term: Winter   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:
               CHE, 610, 000333, Theory and Application of Transport Phenomena

☐ 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: CHE

Course number: 610

Course ID: 000333

Course title (max. 100 characters including spaces): Theory and Application of Transport Phenomena

Course short title (max. 30 characters including spaces):

Grading basis: Numerical

Course credit weight: 0.50

Course consent required: Not required

Course description: Mathematical analysis of momentum, heat and mass transport in systems of chemical engineering interest: development of the differential equations of change (continuity, motion and energy) for forced convection in isothermal, non-isothermal and multi-component systems; description of velocity, temperature and concentration profiles and computation of momentum, energy and mass fluxes at surfaces under

conditions of laminar flow; description of transport in turbulent flow by time-smoothing of the equations of change; turbulent velocity, temperature and concentration profiles.

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

Primary meet type: Lecture

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:

- CHE 610 has been re-numbered as CHE 601, and CHE 601 is the new code being used.
- CHE 610 was retained in the Calendar pending degree completion by students who took it towards degree requirements.

Form completed by:
Department/School approval date (mm/dd/yy): 03/24/23
Reviewed by GSPA (for GSPA use only) ☒ date (mm/dd/yy): 04/17/23
Faculty approval date (mm/dd/yy):
Senate Graduate & Research Council (SGRC) approval date (mm/dd/yy):

UNIVERSITY OF WATERLOO

Senate Graduate & Research Council
Graduate Studies Course/Milestone Form

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: Engineering

Effective date: Term: Winter   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*):

                        Updating the Course title and Course description.

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

Course subject code: CIVE

Course number: 645

Course ID: 016120

Current course title (max. 100 characters including spaces): Modeling Transportation and Spatial Economics

Proposed new course title (max. 100 characters including spaces): Modeling Transportation, Land Use and Spatial Economics

Current course short title (max. 30 characters including spaces): Transport & Spatial Economics

Proposed new course short title (max. 30 characters including spaces): Transport, Land & Spatial Econ

Grading basis: Numerical

Course credit weight: 0.50

Page 1 of 2

Course consent required: Not required

Current course description:

This course focuses on modeling the Spatial Economic and Transportation Interaction (SETI) process for the purposes of freight flow forecasting, land use transportation interaction modeling, and economic impact analysis of transportation infrastructure. Topics in the course include the specification, estimation, validation, calibration, and application of econometric input-output models, spatial computable general equilibrium models, and microsimulation models of transportation and land use.

Proposed new course description:

This course focuses on modeling the Spatial Economic and Transportation Interaction (SETI) process for the purposes of land use transportation interaction modeling, freight flow forecasting, and economic impact analysis of transportation infrastructure. Topics in the course include the specification, estimation, validation, calibration, and application of spatial interaction/gravity-based models, random utility maximization-based market models, econometric input-output models, spatial computable general equilibrium models, and microsimulation models.

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

Primary meet type: Lecture

Delivery mode: On-campus

Requisites: Antireq: CIVE 740 - Topic 17

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: N/A

Sections combined/held with: N/A

Rationale for request:

There is a need to update the course title and description as the proposed revisions make it explicit that "land use" (and associated models) are a major component of the course. This will give students a more accurate description of the course they are taking and what content will be covered.

Form completed by:
Department/School approval date (mm/dd/yy): 05/29/23
Reviewed by GSPA (for GSPA use only) ☒ date (mm/dd/yy): 06/02/23
Faculty approval date (mm/dd/yy):
Senate Graduate & Research Council (SGRC) approval date (mm/dd/yy):

UNIVERSITY OF WATERLOO

**Senate Graduate & Research Council
Graduate Studies Course/Milestone Form**

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: Engineering

Effective date: Term: Winter   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*):

                  Updating the Course title and Course description.

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

Course subject code: CIVE

Course number: 603

Course ID: 000489

Current course title (max. 100 characters including spaces): Mechanics of Reinforced Concrete

Proposed new course title (max. 100 characters including spaces): Reinforced Concrete Mechanics and Design

Current course short title (max. 30 characters including spaces): Reinforced Concrete Mechanics

Proposed new course short title (max. 30 characters including spaces): R/C Mechanics & Design

Grading basis: Numerical

Course credit weight: 0.50

Course consent required: Not required

Current course description:

This course deals with the behaviour of reinforced concrete structures, the analysis of such structures, and the background for the design standards. Topics include the analysis of reinforced concrete structures, shear in reinforced concrete members, members in bending and axial loading, and connections.

Proposed new course description:

This course addresses reinforced concrete analysis and design based on mechanical principles. Flexure, shear and axial actions in concrete members are presented and discussed, including the background to the design standards. The topics include slender and deep reinforced concrete members, Strut-and-Tie (ST) modelling, shear friction, and introduction to numerical modelling of reinforced concrete.

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

Primary meet type: Lecture

Delivery mode: On-campus

Requisites: N/A

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: N/A

Sections combined/held with: N/A

Rationale for request:

There is a need to update the course title and description as the proposed revisions will give students a more accurate representation of the content that will be covered in this course.

Form completed by:
Department/School approval date (mm/dd/yy): 05/29/23
Reviewed by GSPA (for GSPA use only) ☒ date (mm/dd/yy): 06/02/23
Faculty approval date (mm/dd/yy):
Senate Graduate & Research Council (SGRC) approval date (mm/dd/yy):

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: Engineering

Effective date: Term: Winter   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*):

                 Updating Course number, Course title, Course description, and Requisites.

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

Course subject code: ECE

Current Course number: 699
Proposed Course number: 699A

Course ID: 015968

Current Course title (max. 100 characters including spaces): Master of Engineering Project
Proposed Course title (max. 100 characters including spaces): Master of Engineering Project 1

Course short title (max. 30 characters including spaces): MEng Project 1

Grading basis: Numerical

Course credit weight: 0.50

Course consent required: Department

Current Course description:

Page 1 of 2

Return to Agenda

This is a project course, which is open all ECE MEng students with greater than or equal 80% average, after the completion of at least 3 courses. The MEng student will carry out a 4-month research project under the direct supervision of an ECE faculty member. Faculty members will post the projects offered and interview candidates. At the end of the term, a written Project Report will be submitted and evaluated and graded by the Supervisor. ECE research students (MASc and PhD) are NOT eligible to enroll in this course. MEng students must obtain a permission number to register for this course. ECE 699 is not transferrable to the ECE MASc program.

Proposed Course description:

This is a project course open to all ECE MEng students who have completed at least three courses and have a cumulative average of at least 80%. The MEng student will carry out a 4-month research project under the direct supervision of an ECE faculty member. Faculty members will post the projects offered and interview candidates. At the end of the term, a written project report will be submitted, evaluated, and graded. MEng students must obtain a permission number to register for this course. ECE research students (MASc and PhD) are NOT eligible to enroll in this course nor is this course transferable to either the ECE MASc or PhD program.

Meet type(s): Project   Choose an item.   Choose an item.   Choose an item.

Primary meet type: Project

Delivery mode: On-campus

Current Requisites: Prereq: ECE 700 - Topic 6, MEng/MMSc Students
Proposed Requisites: Antireq: ECE 700 - Topic 6

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:

The changes to ECE 699 are being done in conjunction with the creation of ECE 699B Master of Engineering Project 2. These changes give our MEng students the ability to do two research project courses under the direct supervision of a faculty member during their studies and allows faculty members to propose and work on deeper research problems with MEng students. This also provides more opportunities to identify research-curious students and potentially recruit them as PhD students.

Form completed by: Jared Rank
Department/School approval date (mm/dd/yy): 05/18/23
Reviewed by GSPA (for GSPA use only) ☒ date (mm/dd/yy): 06/08/23
Faculty approval date (mm/dd/yy):
Senate Graduate & Research Council (SGRC) approval date (mm/dd/yy):

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: Engineering

Effective date: Term: Winter   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: ECE

Course number: 699B

Course ID:

Course title (max. 100 characters including spaces): Master of Engineering Project 2

Course short title (max. 30 characters including spaces): MEng Project 2

Grading basis: Numerical

Course credit weight: 0.50

Course consent required: Department

Course description: This is a project course open to all ECE MEng students who have completed ECE 699A with a grade of at least 80% and have a cumulative average of at least 80%. The MEng student will carry out a 4-month research project under the direct supervision of an ECE faculty member. At the end of the term, a written Project Report will be submitted, evaluated, and graded. MEng students must obtain a permission number to register for this course. ECE research students (MASc and PhD) are NOT eligible to enroll in this course nor is this course transferable to either the ECE MASc or PhD program.

Page 1 of 2

Meet type(s): Project   Choose an item.   Choose an item.   Choose an item.

Primary meet type: Project

Delivery mode: On-campus

Pre-Requisites: ECE 699A

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:

ECE 699B is being created in conjunction with updates to ECE 699 which is being changed to ECE 699A. These changes give our MEng students the ability to do two research project courses under the direct supervision of a faculty member during their studies and allows faculty members to propose and work on deeper research problems with MEng students. This also provides more opportunities to identify research-curious students and potentially recruit them as PhD students.

Form completed by: Jared Rank
Department/School approval date (mm/dd/yy): 05/18/23
Reviewed by GSPA (for GSPA use only) ☒ date (mm/dd/yy): 06/08/23
Faculty approval date (mm/dd/yy):
Senate Graduate & Research Council (SGRC) approval date (mm/dd/yy):

Graduate Studies Program Revision Template

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

Faculty: Engineering

Programs: 1) Doctor of Philosophy (PhD) in Electrical and Computer Engineering

2) Doctor of Philosophy (PhD) in Electrical and Computer Engineering - Nanotechnology

3) Doctor of Philosophy (PhD) in Electrical and Computer Engineering - Quantum Information

4) Doctor of Philosophy (PhD) in Electrical and Computer Engineering - Aeronautics (effective winter 2024)

Program contact name(s): Chris Nielsen, Jared Rank

Form completed by: Jared Rank

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

Updating the admission requirements to reflect the replacement of ECE 699 with ECE699A.

Is this a [major modification](#) to the program? No

Rationale for change(s):

The replacing of ECE 699 with ECE699A requires a change in the PhD admission requirements for ECE Master of Engineering (MEng) students to reflect this change.

Proposed effective date: Term: Winter   Year: 2024

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

https://uwaterloo.ca/graduate-studies-academic-calendar/engineering/department-electrical-and-computer-engineering/doctor-philosophy-phd-electrical-and-computer-engineering

https://uwaterloo.ca/graduate-studies-academic-calendar/engineering/department-electrical-and-computer-engineering/doctor-philosophy-phd-electrical-and-computer-engineering-nanotechnology

https://uwaterloo.ca/graduate-studies-academic-calendar/engineering/department-electrical-and-computer-engineering/doctor-philosophy-phd-electrical-and-computer-engineering-quantum-information

Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
Admission requirements • **Minimum requirements**	**Admission requirements** • **Minimum requirements**

Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
o Admission to the program is based upon the student's academic record and evidence of ability to pursue independent research. o Normally an overall standing equivalent to 80% in either a relevant thesis-based Master's degree or a University of Waterloo Master of Engineering (MEng) degree that includes a completed ECE 699 Master of Engineering Project course. o At the time of admission, each student must have a faculty supervisor who has endorsed the recommendation for admission.	o Admission to the program is based upon the student's academic record and evidence of ability to pursue independent research. o Normally an overall standing equivalent to 80% in either a relevant thesis-based Master's degree or a University of Waterloo Master of Engineering (MEng) degree that includes a completed ECE 699A Master of Engineering Project 1 course. o At the time of admission, each student must have a faculty supervisor who has endorsed the recommendation for admission.

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

Students currently registered in the program will not be impacted by this change, as they will have already been admitted into the program. This will only affect potential applicants.

Department/School approval date (mm/dd/yy): 05/18/2023
Reviewed by GSPA (for GSPA use only) ☒ date (mm/dd/yy): 06/08/23
Faculty approval date (mm/dd/yy):
Senate Graduate & Research Council (SGRC) approval date (mm/dd/yy):
Senate approval date (mm/dd/yy) (if applicable):

Page 2 of 2

Return to Agenda

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

Faculty: Engineering

Programs: 1) Master of Engineering (MEng) in Electrical and Computer Engineering

2) Master of Engineering (MEng) in Electrical and Computer Engineering - Co-operative Program

Program contact name(s): Chris Nielsen, Jared Rank

Form completed by: Jared Rank

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

Changing the Graduate Specialization in Nanoelectronic Circuits and Systems compulsory course requirement to two 0.50 credit project courses (ECE 699A and ECE 699B) instead of one 1.00 credit project course (ECE649).

Is this a major modification to the program? No

Rationale for change(s):

Currently, the Graduate Specialization in Nanoelectronic Circuits and Systems has a compulsory 1.00 credit project course (ECE649). We seek to replace this requirement with two 0.50 credit project courses, ECE699A and ECE699B. This change will make it easier for our students to obtain this specialization while still being able to take other courses of interest.

Proposed effective date: Term: Winter   Year: 2024

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

https://uwaterloo.ca/graduate-studies-academic-calendar/engineering/department-electrical-and-computer-engineering/master-engineering-meng-electrical-and-computer-engineering

https://uwaterloo.ca/graduate-studies-academic-calendar/engineering/department-electrical-and-computer-engineering/master-engineering-meng-electrical-and-computer-engineering-co-operative-program-direct-entry

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

Degree requirements
 	
 • **Courses**
  ○ Students must successfully complete 8 one-term courses (0.50 unit weight) acceptable for credit by the Department.
	Degree requirements
	
	 • **Courses**
	  ○ Students must successfully complete 8 one-term courses (0.50 unit weight) acceptable for credit by the Department.

Page 1 of 5

Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
- Students may register for any ECE course at the 600 or 700 levels. - A minimum of 5 courses must be taken from within the ECE Department. A maximum of 3 courses may be taken from outside the Department but must be from the faculties of Engineering, Mathematics and Science. Students opting for the Graduate Specialization in Business Leadership are allowed to take a maximum of 4 courses from outside ECE, but from the specified list of BE/BET courses, detailed below. - A minimum grade of 65% in each of the 8 courses and a minimum cumulative average of 70% are required to remain in the program. Students who receive a grade of less than 65% may be permitted to take a maximum of 2 additional courses to meet the minimum averages for the degree requirements (outlined above). - Students wishing to complete a Graduate Specialization as part of their MEng program should consult the list of required courses for each Graduate Specialization before selecting courses, as the number of minimum required courses may differ. - Students in the MEng in Electrical and Computer Engineering program may choose to pursue one of the following Graduate Specializations: 1. Artificial Intelligence and Machine Learning 2. Biomedical Engineering 3. Business Leadership 4. Computer Networking and Security 5. Nanoelectronic Circuits and Systems 6. Nanoelectronic Devices and Materials 7. Software 8. Sustainable Energy - A Graduate Specialization is a University credential that is recognized on the student's transcript but not on the diploma and is intended to reflect that a student has successfully completed a set of courses that together provide an in-depth study in the area of the Graduate Specialization. A student will only obtain the Graduate Specialization on their transcript if they	- Students may register for any ECE course at the 600 or 700 levels. - A minimum of 5 courses must be taken from within the ECE Department. A maximum of 3 courses may be taken from outside the Department but must be from the faculties of Engineering, Mathematics and Science. Students opting for the Graduate Specialization in Business Leadership are allowed to take a maximum of 4 courses from outside ECE, but from the specified list of BE/BET courses, detailed below. - A minimum grade of 65% in each of the 8 courses and a minimum cumulative average of 70% are required to remain in the program. Students who receive a grade of less than 65% may be permitted to take a maximum of 2 additional courses to meet the minimum averages for the degree requirements (outlined above). - Students wishing to complete a Graduate Specialization as part of their MEng program should consult the list of required courses for each Graduate Specialization before selecting courses, as the number of minimum required courses may differ. - Students in the MEng in Electrical and Computer Engineering program may choose to pursue one of the following Graduate Specializations: 1. Artificial Intelligence and Machine Learning 2. Biomedical Engineering 3. Business Leadership 4. Computer Networking and Security 5. Nanoelectronic Circuits and Systems 6. Nanoelectronic Devices and Materials 7. Software 8. Sustainable Energy - A Graduate Specialization is a University credential that is recognized on the student's transcript but not on the diploma and is intended to reflect that a student has successfully completed a set of courses that together provide an in-depth study in the area of the Graduate Specialization. A student will only obtain the Graduate Specialization on their transcript if they

Page 2 of 5

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

have completed the requirements associated with the MEng degree and the requirements associated with the Graduate Specialization.
 	
o All MEng Graduate Specializations in Electrical and Computer Engineering consist of a set of at least 4 graduate (0.50 weight) level courses and this set is comprised of a mix of compulsory and elective courses. Compulsory courses are those that are prescribed as part of the Graduate Specialization. Elective courses are those that are on a list of courses designated as electives for a given Graduate Specialization. The requirements for each of the Graduate Specializations are described below.
 	
o Note: Not all elective courses for any given Graduate Specialization are guaranteed to be offered each year. Students are encouraged to take elective courses when they are offered and should plan accordingly.
 	
o Students will be able to complete the Business Leadership Graduate Specialization along with 1 other ECE Graduate Specialization, noting the following:
 	
    ▪ Each course will only be counted towards one Graduate Specialization and the MEng degree.
 	
    ▪ The number of required courses for the MEng degree will increase from 8 to 9 or 10 depending on the requirements associated with the Graduate Specializations.
 	
o Students must consult with the ECE Masters Coordinator to finalize their plan of study and to ensure that they are able to meet the degree and Graduate Specialization requirements within the program time limits.
 	
5. Graduate Specialization in Nanoelectronic Circuits and Systems
 	
o To receive the Graduate Specialization in Nanoelectronic Circuits and Systems, students must successfully complete ~~1~~ compulsory project course ~~(1.0 unit)~~, and 5 elective courses:
	have completed the requirements associated with the MEng degree and the requirements associated with the Graduate Specialization.
	
	o All MEng Graduate Specializations in Electrical and Computer Engineering consist of a set of at least 4 graduate (0.50 weight) level courses and this set is comprised of a mix of compulsory and elective courses. Compulsory courses are those that are prescribed as part of the Graduate Specialization. Elective courses are those that are on a list of courses designated as electives for a given Graduate Specialization. The requirements for each of the Graduate Specializations are described below.
	
	o Note: Not all elective courses for any given Graduate Specialization are guaranteed to be offered each year. Students are encouraged to take elective courses when they are offered and should plan accordingly.
	
	o Students will be able to complete the Business Leadership Graduate Specialization along with 1 other ECE Graduate Specialization, noting the following:
	
	    ▪ Each course will only be counted towards one Graduate Specialization and the MEng degree.
	
	    ▪ The number of required courses for the MEng degree will increase from 8 to 9 or 10 depending on the requirements associated with the Graduate Specializations.
	
	o Students must consult with the ECE Masters Coordinator to finalize their plan of study and to ensure that they are able to meet the degree and Graduate Specialization requirements within the program time limits.
	
	5. Graduate Specialization in Nanoelectronic Circuits and Systems
	
	o To receive the Graduate Specialization in Nanoelectronic Circuits and Systems, students must successfully complete <u>2</u> compulsory project course<u>s</u>, and 5 elective courses:

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Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
○ Note: Students are required to complete the 5 elective courses prior to enrolling in the ECE ~~649~~ project course. ○ The Graduate Specialization in Nanoelectronic Circuits and Systems is primarily designed for students starting in the Fall term. Therefore, if a student starts in the Spring or Winter term the Graduate Specialization may not be guaranteed, due to the sequencing of elective courses. ▪ Compulsory course: ▪ ~~ECE 649 Nanoelectronic Circuits and Systems Project (1.0 unit)~~ ▪ Elective courses: Choose 5 total between Set-A and Set-B. A minimum of 2 of the 5 electives must be taken from Set-A. ▪ Set-A: ▪ ECE 621 Computer Organization ▪ ECE 627 Register-transfer-level Digital Systems ▪ ECE 630 Physics & Models Semiconductor Devices ▪ ECE 631 Microelectronic Processing Technology ▪ ECE 636 Advanced Analog Integrated Circuits ▪ ECE 637 Digital Integrated Circuits ▪ ECE 642 Radio Frequency IC Design ▪ ECE 671 Microwave & RF Engineering ▪ Set-B: ▪ ECE 606 Algorithm Design and Analysis ▪ ECE 638 CMOS Sensor	○ Note: Students are required to complete the 5 elective courses prior to enrolling in the ECE <u>699A</u> project course. ○ The Graduate Specialization in Nanoelectronic Circuits and Systems is primarily designed for students starting in the Fall term. Therefore, if a student starts in the Spring or Winter term the Graduate Specialization may not be guaranteed, due to the sequencing of elective courses. ▪ Compulsory course<u>s</u>: ▪ <u>ECE 699A Master of Engineering Project 1</u> ▪ <u>ECE 699B Master of Engineering Project 2</u> ▪ Elective courses: Choose 5 total between Set-A and Set-B. A minimum of 2 of the 5 electives must be taken from Set-A. ▪ Set-A: ▪ ECE 621 Computer Organization ▪ ECE 627 Register-transfer-level Digital Systems ▪ ECE 630 Physics & Models Semiconductor Devices ▪ ECE 631 Microelectronic Processing Technology ▪ ECE 636 Advanced Analog Integrated Circuits ▪ ECE 637 Digital Integrated Circuits ▪ ECE 642 Radio Frequency IC Design ▪ ECE 671 Microwave & RF Engineering ▪ Set-B: ▪ ECE 606 Algorithm Design and Analysis

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Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
- Integrated Circuits - ECE 730 Topic-9 VLSI Quality, Reliability and Yield Engineering - ECE 730 Topic-16 Embedded Semiconductor RAM - ECE 730 Topic-30 Advanced VLSI Devices - ECE 738 VLSI Circuits for Wireless Communication - ECE 740 Topic-3 CMOS Data Converters - ECE 770 Topic-22 Radio and Wireless Systems	- ECE 638 CMOS Sensor Integrated Circuits - ECE 730 Topic-9 VLSI Quality, Reliability and Yield Engineering - ECE 730 Topic-16 Embedded Semiconductor RAM - ECE 730 Topic-30 Advanced VLSI Devices - ECE 738 VLSI Circuits for Wireless Communication - ECE 740 Topic-3 CMOS Data Converters - ECE 770 Topic-22 Radio and Wireless Systems

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

Students currently registered in the program will not be impacted by this change, as they will have already been admitted into the program. This will only affect potential applicants.

Department/School approval date (mm/dd/yy): 05/18/2023
Reviewed by GSPA (for GSPA use only) ☒ date (mm/dd/yy): 06/08/23
Faculty approval date (mm/dd/yy):
Senate Graduate & Research Council (SGRC) approval date (mm/dd/yy):
Senate approval date (mm/dd/yy) (if applicable):

November 20 SGRC

Health Grad Motions Summary

Aging Health and Well-Being Motions (10)

NEW COURSE ACTIVATIONS (6)

1. **Course name:** Aging, Health and Well-Being Research Seminar 1
   Course codes: HLTH 751A, REC 751A, KIN 751A (cross-listed)
   Course Description: This seminar is a forum for Aging, Health and Well-Being students to present about their research. Invited speakers will also discuss relevant research or professional development. Attendance at the seminar is required for two terms (i.e., through completion of AHWB 751A and AHWB 751B, respectively, over the students' first two years in the program during the students' first two years in the program). The topics addressed in the seminar crosses all disciplines of the Collaborative Aging, Health and Well-Being Program.
   Rationale: The Collaborative Aging, Health and Well-Being Program includes a required "Collaborative Research Seminar in Aging" milestone. The milestone is being converted into a required cross-listed course to make it more efficient for the participating units to administer, schedule and track.

2. **Course name:** Aging, Health and Well-Being Research Seminar 2
   Course codes: HLTH 751B, REC 751B, KIN 751B (cross-listed)
   Course Description: This seminar is a forum for Aging, Health and Well-Being students to present about their research. Invited speakers will also discuss relevant research or professional development. Attendance at the seminar is required for two terms (i.e., through completion of AHWB 751A and AHWB 751B, respectively, over the students' first two years in the program during the students' first two years in the program). The topics addressed in the seminar crosses all disciplines of the Collaborative Aging, Health and Well-Being Program.
   Rationale: The Collaborative Aging, Health and Well-Being Program includes a required "Collaborative Research Seminar in Aging" milestone. The milestone is being converted into a required cross-listed course to make it more efficient for the participating units to administer, schedule and track.

INACTIVATIONS (1)

3. **Description of changes:** Inactivate Milestone: Collaborative Research Seminar in Aging
   Rationale: The milestone is being converted into a required cross-listed course (HLTH 751/KIN 751/REC 751).
   The milestone should be inactivated from the following programs:
   Doctor of Philosophy (PhD) in Kinesiology - Aging, Health and Well-Being
   Doctor of Philosophy (PhD) in Public Health and Health Systems - Aging, Health and Well-Being
   Doctor of Philosophy (PhD) in Recreation and Leisure Studies - Aging, Health and Well-Being

MINOR PROGRAM REVISIONS (3)

4. Minor graduate calendar modification for AHWB programs in all 3 units
   a. Doctor of Philosophy (PhD) in Public Health and Health Systems - Aging, Health and Well-Being
   b. Doctor of Philosophy (PhD) in Recreation and Leisure Studies - Aging, Health and Well-Being
   c. Doctor of Philosophy (PhD) in Kinesiology - Aging, Health and Well-Being

Description of changes: Converting the "Collaborative Research Seminar in Aging" milestone into a course.

Rationale: The Collaborative Aging, Health and Well-Being Program is offered by the Department of Kinesiology and Health Sciences, the Department of Recreation and Leisure Studies, and the School of Public Health Sciences. The Collaborative Program includes a required "Collaborative Research Seminar in Aging" milestone. The milestone is being converted into a required CR/NCR (0.0 unit weight) cross-listed course (HLTH 751A/B / KIN 751A/B / REC 751A/B) to make it more efficient for the participating units to administer, schedule and track. The learning outcomes and requirements will not change; the course will be identical to the milestone.

HLTH 719 Motions (2)

COURSE REVISION (1)

5. HLTH 719 course revision
   Description of changes: Updating the Course title, Course description, Delivery mode, requires instructor consent
   Rationale: To open the course to MHI, MPH, MSc in Public Health Sciences and PhD in Public Health Sciences students to understand the ongoing and new developments in health data science. As health data science also encompasses methods in statistics and epidemiology in addition to health informatics, it is expected that the change in the title of the course, course description, and pre-requisites will attract more students to take this course.

MINOR PROGRAM REVISION (1)

6. MSc and PhD Program Revisions
   Description of changes: Revising the title of HLTH 719 from "Advanced Research Methods in Health Informatics" to "Advanced Research Methods in Health Data Science".
   Rationale: To open the course to MHI, MPH, MSc in Public Health Sciences and PhD in Public Health Sciences students to understand the ongoing and new developments in health data science. As health data science also encompasses methods in statistics and epidemiology in addition to health informatics, it is expected that the change in the title of the course, course description, and pre-requisites will attract more students to take this course.

REC 662 & 663 Motions (3)

COURSE REVISIONS (2)

7. REC 662 and 663 Course Revisions

   Description of changes: Updating Course descriptions and course titles.

   Rationale: Updated course title and description change better reflect how the course is delivered.

MINOR PROGRAM REVISION (1)

8. MA RLS Program Revision

   Description of Changes: Updating existing course titles (REC 662 and REC 663) in the list of required courses.

   Rationale: The course titles are being updated in the GSAC program page to match the titles that appear in the course catalog. The updated titles better reflect the material that is covered in the courses.

SWORK Motion (1)

COURSE REVISION (1)

9. SWK 653R Course Revision

   Description of Changes: Removing Department consent requirement

   Rationale: In the previous course revision process, department consent was listed as being required. The course does not require department consent.

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: Health

Effective date: Term: Winter   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: HLTH

Course number: 751A

Course ID:

Course title (max. 100 characters including spaces): Aging, Health and Well-Being Research Seminar 1

Course short title (max. 30 characters including spaces): Seminar Aging, Hlth, W-Being 1

Grading basis: Credit/No Credit

Course credit weight: 0.00

Course consent required: Not required

Course description: This seminar is a forum for Aging, Health and Well-Being students to present about their research. Invited speakers will also discuss relevant research or professional development. Attendance at the seminar is required for two terms (i.e., through completion of HLTH/KIN/REC 751A and HLTH/KIN/REC 751B, respectively, over the students' first two years in the program). The topics addressed in the seminar cross all disciplines of the Collaborative Aging, Health and Well-Being Program.

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

Primary meet type: Seminar

Delivery mode: On-campus

Requisites: Collaborative Aging, Health and Well-Being Graduate Students Only

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: KIN 751A/REC 751A

Sections combined/held with:

Rationale for request:

The Collaborative Aging, Health and Well-Being Program includes a required "Collaborative Research Seminar in Aging" milestone. The milestone is being converted into a required cross-listed course to make it more efficient for the participating units to administer, schedule and track.

Form completed by:
Department/School approval date (09/06/23):
Reviewed by GSPA (for GSPA use only) ☒ date (mm/dd/yy): 06/07/23
Faculty approval date (mm/dd/yy): 10/27/23
Senate Graduate & Research Council (SGRC) approval date (mm/dd/yy):

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: Health

Effective date: Term: Winter   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: REC

Course number: 751A

Course ID:

Course title (max. 100 characters including spaces): Aging, Health and Well-Being Research Seminar 1

Course short title (max. 30 characters including spaces): Seminar Aging, Hlth, W-Being 1

Grading basis: Credit/No Credit

Course credit weight: 0.00

Course consent required: Not required

Course description: This seminar is a forum for Aging, Health and Well-Being students to present about their research. Invited speakers will also discuss relevant research or professional development. Attendance at the seminar is required for two terms (i.e., through completion of HLTH/KIN/REC 751A and HLTH/KIN/REC 751B, respectively, over the students' first two years in the program). The topics addressed in the seminar crosses all disciplines of the Collaborative Aging, Health and Well-Being Program.

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

Primary meet type: Seminar

Delivery mode: On-campus

Requisites: Collaborative Aging, Health and Well-Being Graduate Students Only

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: HLTH 751A/ KIN 751A

Sections combined/held with:

Rationale for request:

The Collaborative Aging, Health and Well-Being Program includes a required "Collaborative Research Seminar in Aging" milestone. The milestone is being converted into a required cross-listed course to make it more efficient for the participating units to administer, schedule and track.

Form completed by:
Department/School approval date (mm/dd/yy): 09/27/23
Reviewed by GSPA (for GSPA use only) ☒ date (mm/dd/yy): 06/07/23
Faculty approval date (mm/dd/yy): 10/27/23
Senate Graduate & Research Council (SGRC) approval date (mm/dd/yy):

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: Health

Effective date: Term: Winter   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: KIN

Course number: 751A

Course ID:

Course title (max. 100 characters including spaces): Aging, Health and Well-Being Research Seminar 1

Course short title (max. 30 characters including spaces): Seminar Aging, Hlth, W-Being 1

Grading basis: Credit/No Credit

Course credit weight: 0.00

Course consent required: Not required

Course description: This seminar is a forum for Aging, Health and Well-Being students to present about their research. Invited speakers will also discuss relevant research or professional development. Attendance at the seminar is required for two terms (i.e., through completion of HLTH/KIN/REC 751A and HLTH/KIN/REC 751B, respectively, over the students' first two years in the program). The topics addressed in the seminar crosses all disciplines of the Collaborative Aging, Health and Well-Being Program.

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

Primary meet type: Seminar

Delivery mode: On-campus

Requisites: Collaborative Aging, Health and Well-Being Graduate Students Only

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: HLTH 751A/REC 751A

Sections combined/held with:

Rationale for request:

The Collaborative Aging, Health and Well-Being Program includes a required "Collaborative Research Seminar in Aging" milestone. The milestone is being converted into a required cross-listed course to make it more efficient for the participating units to administer, schedule and track.

Form completed by:
Department/School approval date (mm/dd/yy): 09/27/23
Reviewed by GSPA (for GSPA use only) ☒   date (mm/dd/yy): 06/07/23
Faculty approval date (mm/dd/yy): 10/27/23
Senate Graduate & Research Council (SGRC) approval date (mm/dd/yy):

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: Health

Effective date: Term: Winter   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: HLTH

Course number: 751B

Course ID:

Course title (max. 100 characters including spaces): Aging, Health and Well-Being Research Seminar 2

Course short title (max. 30 characters including spaces): Seminar Aging, Hlth, W-Being 2

Grading basis: Credit/No Credit

Course credit weight: 0.00

Course consent required: Not required

Course description: This seminar is a forum for Aging, Health and Well-Being students to present about their research. Invited speakers will also discuss relevant research or professional development. Attendance at the seminar is required for two terms (i.e., through completion of HLTH/KIN/REC 751A and HLTH/KIN/REC 751B, respectively, over the students' first two years in the program). The topics addressed in the seminar cross all disciplines of the Collaborative Aging, Health and Well-Being Program.

Page 1 of 2

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

Primary meet type: Seminar

Delivery mode: On-campus

Requisites: Collaborative Aging, Health and Well-Being Graduate Students Only

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: KIN 751B/REC 751B

Sections combined/held with:

Rationale for request:

The Collaborative Aging, Health and Well-Being Program includes a required "Collaborative Research Seminar in Aging" milestone. The milestone is being converted into a required cross-listed course to make it more efficient for the participating units to administer, schedule and track.

Form completed by:
Department/School approval date (09/06/23):
Reviewed by GSPA (for GSPA use only) ☒   date (mm/dd/yy): 06/07/23
Faculty approval date (mm/dd/yy): 10/27/23
Senate Graduate & Research Council (SGRC) approval date (mm/dd/yy):

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: Health

Effective date: Term: Winter   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: REC

Course number: 751B

Course ID:

Course title (max. 100 characters including spaces): Aging, Health and Well-Being Research Seminar 2

Course short title (max. 30 characters including spaces): Seminar Aging, Hlth, W-Being 2

Grading basis: Credit/No Credit

Course credit weight: 0.00

Course consent required: Not required

Course description: This seminar is a forum for Aging, Health and Well-Being students to present about their research. Invited speakers will also discuss relevant research or professional development. Attendance at the seminar is required for two terms (i.e., through completion of HLTH/KIN/REC 751A and HLTH/KIN/REC 751B, respectively, over the students' first two years in the program). The topics addressed in the seminar crosses all disciplines of the Collaborative Aging, Health and Well-Being Program.

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

Primary meet type: Seminar

Delivery mode: On-campus

Requisites: Collaborative Aging, Health and Well-Being Graduate Students Only

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: HLTH 751B/ KIN 751B

Sections combined/held with:

Rationale for request:

The Collaborative Aging, Health and Well-Being Program includes a required "Collaborative Research Seminar in Aging" milestone. The milestone is being converted into a required cross-listed course to make it more efficient for the participating units to administer, schedule and track.

Form completed by:
Department/School approval date (mm/dd/yy): 09/27/23
Reviewed by GSPA (for GSPA use only) ☒   date (mm/dd/yy): 06/07/23
Faculty approval date (mm/dd/yy): 10/27/23
Senate Graduate & Research Council (SGRC) approval date (mm/dd/yy):

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: Health

Effective date: Term: Winter   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: KIN

Course number: 751B

Course ID:

Course title (max. 100 characters including spaces): Aging, Health and Well-Being Research Seminar 2

Course short title (max. 30 characters including spaces): Seminar Aging, Hlth, W-Being 2

Grading basis: Credit/No Credit

Course credit weight: 0.00

Course consent required: Not required

Course description: This seminar is a forum for Aging, Health and Well-Being students to present about their research. Invited speakers will also discuss relevant research or professional development. Attendance at the seminar is required for two terms (i.e., through completion of HLTH/KIN/REC 751A and HLTH/KIN/REC 751B, respectively, over the students' first two years in the program). The topics addressed in the seminar crosses all disciplines of the Collaborative Aging, Health and Well-Being Program.

Page 1 of 2

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

Primary meet type: Seminar

Delivery mode: On-campus

Requisites: Collaborative Aging, Health and Well-Being Graduate Students Only

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: HLTH 751B/REC 751B

Sections combined/held with:

Rationale for request:

The Collaborative Aging, Health and Well-Being Program includes a required "Collaborative Research Seminar in Aging" milestone. The milestone is being converted into a required cross-listed course to make it more efficient for the participating units to administer, schedule and track.

Form completed by:
Department/School approval date (mm/dd/yy): 09/27/23
Reviewed by GSPA (for GSPA use only) ☒ date (mm/dd/yy): 06/07/23
Faculty approval date (mm/dd/yy): 10/27/23
Senate Graduate & Research Council (SGRC) approval date (mm/dd/yy):

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: Health

Effective date: Term: Winter   Year: 2024

Milestone

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

☐ New: Choose an item.

☒ Inactivate: Collaborative Research Seminar in Aging

☐ 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: Choose an item.

Course number:

Course ID:

Course title (max. 100 characters including spaces):

Course short title (max. 30 characters including spaces):

Grading basis: Choose an item.

Course credit weight: Choose an item.

Course consent required: Choose an item.

Course description:

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

Primary meet type: Choose an item.

Page 1 of 2

Delivery mode: Choose an item.

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:

The milestone is being converted into a required cross-listed course (HLTH 751/KIN 751/REC 751).

The milestone should be inactivated from the following programs:
Doctor of Philosophy (PhD) in Kinesiology and Health Sciences - Aging, Health and Well-Being
Doctor of Philosophy (PhD) in Public Health Sciences - Aging, Health and Well-Being
Doctor of Philosophy (PhD) in Recreation and Leisure Studies - Aging, Health and Well-Being

Form completed by:
Department/School approval date (SPHS: 09/06/23; RLS: 09/27/23; KHS: 09/27/23):
Reviewed by GSPA (for GSPA use only) ☒ date (mm/dd/yy): 06/07/23
Faculty approval date (mm/dd/yy): 10/27/23
Senate Graduate & Research Council (SGRC) approval date (mm/dd/yy):

UNIVERSITY OF WATERLOO

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

Faculty: Health

Program: Doctor of Philosophy (PhD) in Public Health Sciences - Aging, Health and Well-Being

Program contact name(s): Samantha Meyer

Form completed by:

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

Converting the "Collaborative Research Seminar in Aging" milestone into a course.

Is this a major modification to the program? No

Rationale for change(s):

The Collaborative Aging, Health and Well-Being Program is offered by the Department of Kinesiology and Health Sciences, the Department of Recreation and Leisure Studies, and the School of Public Health Sciences. The Collaborative Program includes a required "Collaborative Research Seminar in Aging" milestone. The milestone is being converted into a required CR/NCR (0.0 unit weight) cross-listed course (HLTH 751A/B / KIN 751A/B / REC 751A/B) to make it more efficient for the participating units to administer, schedule and track. The learning outcomes and requirements will not change; the course will be identical to the milestone.

Proposed effective date: Term: Winter   Year: 2024

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

https://uwaterloo.ca/graduate-studies-academic-calendar/applied-health-sciences/school-public-health-sciences/doctor-philosophy-phd-public-health-and-health-systems-aging-health-and-well-being

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

Degree requirements
 	
• **Courses**
   ○ Students must fulfill the minimum requirements of the PhD program in the School of Public Health Sciences (SPHS) and will normally complete a minimum of 9 one-term (0.50 unit) graduate courses beyond an Honours Bachelor degree, including at least 4
	Degree requirements
	
	• **Courses**
	   ○ Students must fulfill the minimum requirements of the PhD program in the School of Public Health Sciences (SPHS) and will normally complete a minimum of 9 one-term (0.50 unit) graduate courses beyond an Honours Bachelor degree, including at least 4

Page 1 of 3

Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
courses beyond the Master's degree. Course requirements are as follows: ▪ HLTH 750 Fundamentals of Aging, Health and Well-Being ▪ 1 graduate level statistics/research methods course (1 of HLTH 704, HLTH 705, HLTH 706, or HLTH 719) with assignments and major projects focused on aging ▪ HLTH 701 Interdisciplinary Seminar in Public Health and Health Systems with assignments and major projects focused on aging ▪ 1 additional elective methods course related to aging, health, and well-being o At a minimum, students must obtain an average of 75% or higher in aggregate on the courses presented in fulfilment of the degree requirements. Grades on all courses presented to fulfill the degree requirements must be 70% or higher. A grade below 70% in any course or failing to maintain an average of 75% will necessitate a review of the student's status by the School and may result in a student being required to complete additional coursework or being required to withdraw from the program. The School reserves the right to stipulate additional coursework if it is necessary for the student's preparation. • ~~Collaborative Research Seminar in Aging~~ o ~~This seminar is a forum for student presentations about results of, or proposals for research. Invited speakers will also present results of research from time to time. Attendance at the seminar is required for two terms (i.e., during the candidates' first two years in the program). The range of topics that will be addressed in the seminar crosses all areas of investigation in the collaborative program. Grading will be on a credit/no credit basis.~~	courses beyond the Master's degree. Course requirements are as follows: ▪ HLTH 750 Fundamentals of Aging, Health and Well-Being ▪ 1 graduate level statistics/research methods course (1 of HLTH 704, HLTH 705, HLTH 706, or HLTH 719) with assignments and major projects focused on aging ▪ HLTH 701 Interdisciplinary Seminar in Public Health and Health Systems with assignments and major projects focused on aging ▪ 1 additional elective methods course related to aging, health, and well-being o <u>Students must also complete the following CR/NCR graduate seminar courses:</u> ▪ <u>HLTH 751A/KIN 751A/REC 751A Aging, Health and Well-Being Research Seminar 1 (0.0 units)</u> ▪ <u>HLTH 751B/KIN 751B/REC 751B Aging, Health and Well-Being Research Seminar 2 (0.0 units)</u> o At a minimum, students must obtain an average of 75% or higher in aggregate on the courses presented in fulfilment of the degree requirements. Grades on all courses presented to fulfill the degree requirements must be 70% or higher. A grade below 70% in any course or failing to maintain an average of 75% will necessitate a review of the student's status by the School and may result in a student being required to complete additional coursework or being required to withdraw from the program. The School reserves the right to stipulate additional coursework if it is necessary for the student's preparation.

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

Current students will complete the requirement as a milestone. Students who started the programs in fall 2023 (or any subsequent terms) will complete the requirement as a course.

Department/School approval date (09/06/23):

Reviewed by GSPA (for GSPA use only) ☒ date (mm/dd/yy): 06/07/23

Faculty approval date (mm/dd/yy): 10/27/23

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

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

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Graduate Studies
Program Revision Template

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

Faculty: Health

Program: Doctor of Philosophy (PhD) in Recreation and Leisure Studies - Aging, Health and Well-Being

Program contact name(s): Heather Mair

Form completed by:

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

Converting the "Collaborative Research Seminar in Aging" milestone into a course.

Is this a major modification to the program? No

Rationale for change(s):

The Collaborative Aging, Health and Well-Being Program is offered by the Department of Kinesiology and Health Sciences, the Department of Recreation and Leisure Studies, and the School of Public Health Sciences. The Collaborative Program includes a required "Collaborative Research Seminar in Aging" milestone. The milestone is being converted into a required CR/NCR (0.0 unit weight) cross-listed course (HLTH 751A/B / KIN 751A/B / REC 751A/B) to make it more efficient for the participating units to administer, schedule and track. The learning outcomes and requirements will not change; the course will be identical to the milestone.

Proposed effective date: Term: Winter   Year: 2024

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

https://uwaterloo.ca/graduate-studies-academic-calendar/applied-health-sciences/department-recreation-and-leisure-studies/doctor-philosophy-phd-recreation-and-leisure-studies-aging-health-and-well-being

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

Degree requirements
 	
• **Courses**
  ○ Students must obtain credit for each of the courses listed below. They will normally complete a minimum of 4 half (0.50 credit) courses, consisting of a core/fundamentals course, an advanced graduate level statistics/research methods course, and
	Degree requirements
	
	• **Courses**
	  ○ Students must obtain credit for each of the courses listed below. They will normally complete a minimum of 4 half (0.50 credit) courses, consisting of a core/fundamentals course, an advanced graduate level statistics/research methods course, and

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

2 electives which will be related to aging, health, and well-being.
   ▪ REC 750 Fundamentals of Aging, Health and Well-Being
   ▪ 1 advanced graduate level statistics/research methods course
   ▪ 2 electives related to aging, health, and well-being
 	
 • ~~Collaborative Research Seminar in Aging~~
   o ~~This seminar is a forum for student presentations about results of, or proposals for research. Invited speakers will also present results of research from time to time. Attendance at the seminar is required for two terms (i.e., during the candidates' first two years in the program). The range of topics addressed in the seminar crosses all areas of investigation in the collaborative program. Grading will be on a credit/no credit basis.~~
   o ~~Note: Students must complete the Collaborative Research Seminar in Aging or the PhD Research Seminar.~~
 	
 • **PhD Research Seminar**
   o This seminar is a forum for doctoral students, faculty, and invited guests to present topics related to their research or professional development. Attendance at the seminar is normally completed within a student's first two years in the doctoral program. A range of topics will be addressed in the seminar crossing all areas of investigation in the program. Grading will be on a credit/no credit basis.
   o ~~Note: Students must complete the Collaborative Research Seminar in Aging or the PhD Research Seminar.~~
	2 electives which will be related to aging, health, and well-being.
	   ▪ REC 750 Fundamentals of Aging, Health and Well-Being
	   ▪ 1 advanced graduate level statistics/research methods course
	   ▪ 2 electives related to aging, health, and well-being
	   o <u>Students must also complete the following CR/NCR graduate seminar courses:</u>
	     ▪ <u>HLTH 751A/KIN 751A/REC 751A Aging, Health and Well-Being Research Seminar 1 (0.0 units)</u>
	     ▪ <u>HLTH 751B/KIN 751B/REC 751B Aging, Health and Well-Being Research Seminar 2 (0.0 units)</u>
	
	 • **PhD Research Seminar**
	   o This seminar is a forum for doctoral students, faculty, and invited guests to present topics related to their research or professional development. Attendance at the seminar is normally completed within a student's first two years in the doctoral program. A range of topics will be addressed in the seminar crossing all areas of investigation in the program. Grading will be on a credit/no credit basis.

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

Current students will complete the requirement as a milestone. Students who started the programs in fall 2023 (or any subsequent terms) will complete the requirement as a course.

Department/School approval date (mm/dd/yy): 09/27/23
Reviewed by GSPA (for GSPA use only) ☒ date (mm/dd/yy): 06/07/23
Faculty approval date (mm/dd/yy): 10/27/23

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

Page 3 of 3

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

Faculty: Health

Program: Doctor of Philosophy (PhD) in Kinesiology and Health Sciences - Aging, Health and Well-Being

Program contact name(s): Steve Fischer

Form completed by:

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

Converting the "Collaborative Research Seminar in Aging" milestone into a course.

Is this a major modification to the program? No

Rationale for change(s):

The Collaborative Aging, Health and Well-Being Program is offered by the Department of Kinesiology and Health Sciences, the Department of Recreation and Leisure Studies, and the School of Public Health Sciences. The Collaborative Program includes a required "Collaborative Research Seminar in Aging" milestone. The milestone is being converted into a required CR/NCR (0.0 unit weight) cross-listed course (HLTH 751A/B / KIN 751A/B / REC 751A/B) to make it more efficient for the participating units to administer, schedule and track. The learning outcomes and requirements will not change; the course will be identical to the milestone.

Proposed effective date: Term: Winter   Year: 2024

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

https://uwaterloo.ca/graduate-studies-academic-calendar/applied-health-sciences/department-kinesiology-and-health-sciences/doctor-philosophy-phd-kinesiology-aging-health-and-well-being

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

Degree requirements
 	
• **Courses**
  ○ Students will normally complete a minimum of 3.00 units of graduate courses (e.g. 6 courses each at a 0.50 unit weight) beyond an Honours Bachelor degree, and must include the courses below. All graduate courses must be assigned a numerical grade.
	Degree requirements
	
	• **Courses**
	  ○ Students will normally complete a minimum of 3.00 units of graduate courses (e.g. 6 courses each at a 0.50 unit weight) beyond an Honours Bachelor degree, and must include the courses below. All graduate courses must be assigned a numerical grade.

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

Students must obtain an average of at least 75% in the set of courses which they present in fulfilment of course requirements. A grade below 70% on any individual course or an average below 75% on the set of courses for the degree will result in a review of the student's status by the Department Graduate Committee. If a student receives a grade in any individual course below 60%, the Department Graduate Committee review may result in the requirement to withdraw from the program. If the student is permitted to proceed, any course with a grade below 60% will not be eligible towards the degree requirements, thus requiring the course to be repeated or additional course work to be completed.
 	
▪ KIN 750 Fundamentals of Aging, Health and Well-Being (0.50 units)
▪ 0.50 units of graduate level statistics/research methods
▪ 1.00 units at the graduate level related to aging, health, and well-being
 	
• ~~Collaborative Research Seminar in Aging~~
  o ~~This seminar is a forum for student presentations about results of, or proposals for research. Invited speakers will also present results of research from time to time. Attendance at the seminar is required for two terms (i.e., during the candidates' first two years in the program). The range of topics that will be addressed in the seminar crosses all areas of investigation in the collaborative program. Grading will be on a credit/no credit basis.~~
	Students must obtain an average of at least 75% in the set of courses which they present in fulfilment of course requirements. A grade below 70% on any individual course or an average below 75% on the set of courses for the degree will result in a review of the student's status by the Department Graduate Committee. If a student receives a grade in any individual course below 60%, the Department Graduate Committee review may result in the requirement to withdraw from the program. If the student is permitted to proceed, any course with a grade below 60% will not be eligible towards the degree requirements, thus requiring the course to be repeated or additional course work to be completed.
	
	▪ KIN 750 Fundamentals of Aging, Health and Well-Being (0.50 units)
	▪ 0.50 units of graduate level statistics/research methods
	▪ 1.00 units at the graduate level related to aging, health, and well-being
	  o <u>Students must also complete the following CR/NCR graduate seminar courses:</u>
	    ▪ <u>HLTH 751A/KIN 751A/REC 751A Aging, Health and Well-Being Research Seminar 1 (0.0 units)</u>
	    ▪ <u>HLTH 751B/KIN 751B/REC 751B Aging, Health and Well-Being Research Seminar 2 (0.0 units)</u>

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

Current students will complete the requirement as a milestone. Students who started the programs in fall 2023 (or any subsequent terms) will complete the requirement as a course.

Department/School approval date (mm/dd/yy): 09/27/23
Reviewed by GSPA (for GSPA use only) ☒ date (mm/dd/yy): 06/07/23
Faculty approval date (mm/dd/yy): 10/27/23

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

Page 3 of 3

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: Health

Effective date: Term: Winter 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*):

Updating the Course title, Course description, Delivery mode, Course consent, and Requisites.

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

Course subject code: HLTH

Course number: 719

Course ID: 015456

Current Course title (max. 100 characters including spaces): Advanced Research Methods in Health Informatics

Revised Course title (max. 100 characters including spaces): Advanced Research Methods in Health Data Science

Course short title (max. 30 characters including spaces): Health Data Science

Grading basis: Numerical

Course credit weight: 0.50

Course consent required: Instructor

Page 1 of 2

Current Course description: This course covers advanced research methods in health informatics that are often applied in cutting-edge health informatics research. Fundamental research methods will be extended to greater depth. Latest information technology will be discussed and applied in the context of health informatics.

Revised Course description: This course covers advanced research methods in health data science that are often applied in cutting-edge health research on a variety of datasets. Fundamental research methods, including epidemiology, health informatics and statistics will be extended to greater depth for use in data science. This course is targeted at training those students seeking to understand and apply multiple analytic techniques to a variety of data. In addition, latest information technology will be discussed and applied in the context of health informatics.

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

Primary meet type: Lecture

Delivery mode: On-campus and also offered online

Pre-Requisites: HLTH 619 or HLTH 605B or HLTH 606B

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:

To open the course to MHI, MPH, MSc in Public Health Sciences and PhD in Public Health Sciences students to understand the ongoing and new developments in health data science. As health data science also encompasses methods in statistics and epidemiology in addition to health informatics, it is expected that the change in the title of the course, course description, and pre-requisites will attract more students to take this course.

Form completed by:
Department/School approval date (mm/dd/yy): 05/19/23
Reviewed by GSPA (for GSPA use only) ☒ date (mm/dd/yy): 04/18/23
Faculty approval date (mm/dd/yy): 11/02/2
Senate Graduate & Research Council (SGRC) approval date (mm/dd/yy):

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

Programs: 1) Doctor of Philosophy (PhD) in Public Health Sciences

2) Doctor of Philosophy (PhD) in Public Health Sciences - Water

3) Master of Science (MSc) in Public Health Sciences

4) Master of Science (MSc) in Public Health Sciences - Water

Program contact name(s): Samantha Meyer

Form completed by: Zahid Butt

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>.

Revising the title of HLTH 719 from "Advanced Research Methods in Health Informatics" to "Advanced Research Methods in Health Data Science".

Is this a <u>major modification</u> to the program? No

Rationale for change(s):

To open the course to MHI, MPH, MSc in Public Health Sciences and PhD in Public Health Sciences students to understand the ongoing and new developments in health data science. As health data science also encompasses methods in statistics and epidemiology in addition to health informatics, it is expected that the change in the title of the course, course description, and pre-requisites will attract more students to take this course.

Proposed effective date: Term: Winter   Year: 2024

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/applied-health-sciences/school-public-health-sciences/doctor-philosophy-phd-public-health-sciences

https://uwaterloo.ca/graduate-studies-academic-calendar/applied-health-sciences/school-public-health-sciences/doctor-philosophy-phd-public-health-sciences-water

https://uwaterloo.ca/graduate-studies-academic-calendar/applied-health-sciences/school-public-health-sciences/master-science-msc-public-health-sciences

https://uwaterloo.ca/graduate-studies-academic-calendar/applied-health-sciences/school-public-health-sciences/master-science-msc-public-health-sciences-water

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

Page 1 of 2

Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
HLTH 719 Advanced Research Methods in Health ~~Informatics~~	HLTH 719 Advanced Research Methods in Health <u>Data Science</u>

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

The students currently registered in the programs will not be impacted by these changes.

Department/School approval date (mm/dd/yy): 05/19/23
Reviewed by GSPA (for GSPA use only) ☒ date (mm/dd/yy): 04/18/23
Faculty approval date (mm/dd/yy): 11/02/23
Senate Graduate & Research Council (SGRC) approval date (mm/dd/yy):
Senate approval date (mm/dd/yy) (if applicable):

Page 2 of 2

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: Health

Effective date: Term: Winter   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*):

                 Updating Course description, course title, and meet types/course components.

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

Course subject code: REC

Course number: 662

Course ID: 015441

Course title (max. 100 characters including spaces):

        Current title: Foundations for Quantitative Inquiry

        Revised title: Quantitative Inquiry

Course short title (max. 30 characters including spaces): Quantitative Inquiry

Grading basis: Numerical

Course credit weight: 0.50

Course consent required: Instructor

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Course description:

Current description: An examination of epistemological and methodological issues in quantitative approaches to leisure research. Emphasis is placed on the main perspectives in the field, research methods and diverse topics related to quantitative research that may include diverse forms of measurement, scale development, sampling, survey design, an introduction to basic statistics and underlying assumptions, and application of theory in quantitative research. The course includes discussions of issues and consideration in developing research proposals.

Revised description: An examination of epistemological, methodological, and analytical issues in quantitative approaches to research. Emphasis is placed on diverse forms of research design, data collection, and statistical analysis. Topics may include diverse forms of measurement, scale development, sampling, survey design, statistical methods and interpretation, and applications of theory in quantitative research. The course includes discussions of the implications of empirical research in the field and ethical issues in the research process.

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

Primary meet type: Lecture

Delivery mode: On-campus

Requisites: REC Grad Students

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:

Updated course title and description change better reflect how the course is delivered.

Form completed by: Emily Watson
Department/School approval date (mm/dd/yy): 04/14/23
Reviewed by GSPA (for GSPA use only) ☒ date (mm/dd/yy): 11/06/23
Faculty approval date (mm/dd/yy): 09/27/23
Senate Graduate & Research Council (SGRC) approval date (mm/dd/yy):

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: Health

Effective date: Term: Winter   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*):

                          Updating Course description and Course title.

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

Course subject code: REC

Course number: 663

Course ID: 015452

Course title (max. 100 characters including spaces):

        Current title: Foundations for Qualitative Inquiry

        Revised title: Qualitative Inquiry

Course short title (max. 30 characters including spaces): Qualitative Inquiry

Grading basis: Numerical

Course credit weight: 0.50

Course consent required: Instructor

Course description:

Current description: This course provides an introductory overview of various qualitative research processes beginning with onto-epistemological underpinnings, and continuing through theoretical frameworks, methodologies, methods, analysis, and both traditional and creative analytic representations. Specifically, epistemological approaches of prediction, understanding, emancipation, and deconstruction will be introduced and discussed in relation to current qualitative trends in social sciences. Students will investigate methodological possibilities and various ways of navigating philosophical, procedural, analytical, reflective, and ethical issues related to undertaking humanist and post-humanist qualitative inquiry.

Revised description: An examination of various qualitative research processes including ontological and epistemological underpinnings, theoretical frameworks, methodologies, methods, analysis, and both traditional and creative analytic representations. Students will investigate methodological possibilities and ways of navigating philosophical, political, and ethical considerations related to undertaking qualitative inquiry.

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

Primary meet type: Seminar

Delivery mode: On-campus

Requisites: REC Grad Students

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:

Updated course title and description change better reflect how the course is delivered.

Form completed by: Emily Watson
Department/School approval date (mm/dd/yy): 04/14/23
Reviewed by GSPA (for GSPA use only) ☐   date (mm/dd/yy):
Faculty approval date (mm/dd/yy): 09/27/23
Senate Graduate & Research Council (SGRC) approval date (mm/dd/yy):

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>.

Updating existing course titles (REC 662 and REC 663) in the list of required courses.

Is this a <u>major modification</u> to the program? No

Rationale for change(s):

The course titles are being updated in the GSAC program page to match the titles that appear in the course catalog. The updated titles better reflect the material that is covered in the courses.

Proposed effective date: Term: Winter   Year: 2024

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

<u>https://uwaterloo.ca/graduate-studies-academic-calendar/applied-health-sciences/department-recreation-and-leisure-studies/master-arts-ma-recreation-and-leisure-studies</u>

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

Degree requirements
 	
Thesis option:
 	
- **Courses**
  - Students must complete the following courses:
    - REC 600 Integrative Seminar in Recreation and Leisure Studies
    - REC 662 ~~Foundations for~~ Quantitative Inquiry
    - REC 663 ~~Foundations for~~ Qualitative Inquiry
    - 1 of REC 672 Quantitative Research Data Analysis and
	Degree requirements
	
	Thesis option:
	
	- **Courses**
	  - 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

Page 1 of 3

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

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.   - 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.   - 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:**
 	
• **Courses**
  o Required courses
    ▪ REC 600 Integrative Seminar in Recreation and Leisure Studies
    ▪ REC 620 Program Evaluation in Recreation, Sport and Tourism
    ▪ REC 662 ~~Foundations for~~ Quantitative Inquiry
    ▪ REC 663 ~~Foundations for~~ Qualitative Inquiry
  o Elective courses
    ▪ 4 elective graduate courses from within or outside the Department.
	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. - 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. - 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:**
	
	• **Courses**
	  o 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
	  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.

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

Currently registered students will not be impacted by these changes. The updated list of courses will provide students with more accurate transparent course information.

Department/School approval date (mm/dd/yy): 04/14/23
Reviewed by GSPA (for GSPA use only) ☒ date (mm/dd/yy): 10/30/23
Faculty approval date (mm/dd/yy): 09/27/23
Senate Graduate & Research Council (SGRC) approval date (mm/dd/yy):
Senate approval date (mm/dd/yy) (if applicable):

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: Health

Effective date: Term: Spring   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*):

                 Removing Department consent requirement.

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

Course subject code: SWK

Course number: 653R

Course ID: 015169

Course title (max. 100 characters including spaces): Grief and Palliative Care in Social Work

Course short title (max. 30 characters including spaces): Grief and Palliative Care in SW

Grading basis: Numerical

Course credit weight: 0.50

Course consent required: Not required

Course description: Grief is a part of the human experience that often occurs when a person dies. Social workers should be familiar with the concept for all aspects of practice. Palliative care is a model of health care for people with terminal illnesses, along with their families, in order to relieve suffering and improve quality of life. Palliative care is delivered by an interprofessional team which is most often comprised of medicine, nursing, social work

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and chaplaincy; other professions are often involved such as pharmacy, occupational therapy and others. This course addresses the social work role in grief and palliative care. (Note: This is an online course).

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

Primary meet type: Lecture

Delivery mode: Only offered online

Requisites: SWK Master's Students Only

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: N/A

Sections combined/held with: N/A

Rationale for request:

In the previous course revision process, department consent was listed as being required. The course does not require department consent.

Form completed by: Dr. Trish Van Katwyk
Department/School approval date (mm/dd/yy): 06/15/22
Reviewed by GSPA (for GSPA use only) ☐ date (mm/dd/yy):
Faculty approval date (mm/dd/yy): 09/27/23
Senate Graduate & Research Council (SGRC) approval date (mm/dd/yy):

Senate Undergraduate Council

For Recommendation   **Open Session**

To:	**Senate Executive Committee**
Sponsor: **Contact Information:**	David DeVidi, Associate Vice-President, Academic david.devidi@uwaterloo.ca
Presenter: **Contact Information:**	David DeVidi, Associate Vice-President, Academic david.devidi@uwaterloo.ca
Date of Meeting:	**November 13, 2023**
Agenda Item Identification:	Senate Governance Review Recommendation: Academic Quality Assurance Committee

Recommendation/Motion:

To recommend that Senate provide direction to create an Academic Quality Assurance Committee of Senate to oversee the quality assurance processes, as described in this report.

Summary:

In response to the request that came out of the Senate Governance Review, the Senate Undergraduate Council (SUC) has engaged in a review of its terms of reference and, after a series of strategic discussions that occurred from December 2022 to April 2023, is bringing forward recommendations to Senate Executive Council.

Following these strategic discussions, SUC does not see the need for drastic changes to its terms of reference. SUC did observe that, as currently organized, not enough time is being devoted to a range of topics that Senate has deemed to be SUC business and as a result the University has scope to derive greater benefit from the expertise on SUC.

SUC recommends that Senate create a new Academic Quality Assurance Committee to oversee the quality assurance processes related to academic programming. The formation of the new committee would allow a significant volume of work to bypass both the SUC and the Senate Graduate and Research Council (SGRC) agendas, allowing those bodies to reallocate attention and resources to matters of greater strategic priority. More importantly, this change will streamline the approval processes for program reviews, two-year reports, and any additional quality assurance processes that the University implements for other categories of academic programming while improving the quality of the feedback that programs receive during the approval process. A draft proposal of the committee's composition and remit is included below.

If approved, the formation of an Academic Quality Assurance Committee would require an amendment to Senate Bylaw 2.

Senate   **1**

Jurisdictional Information:

As provided for in Senate Bylaw 2, section 1.04, Senate Executive Council is empowered:

g. To receive and review the reports and recommendations of all committees and councils, prior to their presentation to Senate and to make at its discretion recommendations to Senate thereon.

Governance Path:

Senate Undergraduate Council approval date (mm/dd/yy): 04/11/23

Senate Executive Committee (mm/dd/yy): 09/05/23

Senate approval date: Two readings to approve the prospective bylaw amendments, in Fall 2023/Winter 2024

Previous Action Taken:

Senate endorsed the recommendations of the Senate Governance Review at its meeting on June 20, 2022, which included the following two recommendations:

28. Direct the committees and councils to review their terms of reference, membership, and what is delegated to them, and make recommendations for improvements. They also should consider ways to enable strategic discussions at meetings and explore options regarding chair-ships. Some recommendations to particular committees and councils:

…

33. Both Councils:

- Reconsider what is sent to Senate for approval or information, and what is sent in the consent and regular reports

- Include greater detail and context for materials sent to Senate for decision (e.g., the nature of discussion at the meeting, the council's assessment of the matter; explicitly what Senate is being asked to decide and why)

- Consider whether a curriculum committee/s should be created

Detailed Proposal: New Senate Committee Proposal: Academic Quality Assurance Committee

Contextual Remarks

- At least seven Ontario universities have a special committee that is responsible for Institutional Quality Assurance Process (IQAP) business. These include some of Waterloo's frequent comparators e.g. Western, Queen's, Ottawa, and McMaster. In one case, the special committee is a joint committee of the analogous Senate bodies responsible for undergraduate and graduate

Senate   **2**

academic programming; for the remainder, the committee is one created by the Senate (or analogue) and is devoted specifically to IQAP business.

- Counting non-voting "resource" members, six of the seven have memberships of about 10-15 (three have 10 members, two have 12, one has 15), while Western's committee has 24 members.

- The mandates of the committees vary slightly, but generally each includes receiving and reviewing Final Assessment Reports (FARs), and the local analogue of Two-Year Reports, with empowerment to approve said reports on behalf of Senate. These activities also include reviewing and approving the responses to reviewers' recommendations from the program and dean(s), as well as implementation plans.

  o In varying degrees the comparators allocate a nominal oversight role for the IQAP processes with some recommending, via the committee Chair(s), revisions to the IQAP to Senate.

  o A subset of comparators involve their committees more closely in the IQAP operations/ processes.

  o For at least two comparators, the committee is involved in the approval of new academic programs.

- Most are chaired by the Associate Vice-President, Academic (AVPA)/analogue. One is co-chaired with Associate Vice-President, Graduate Studies and Postdoctoral Affairs (AVPGSPA)/analogue.

- Some committees include student members, but several do not.

- Not counting cases where the AVPGSPA analogue is a Dean of Grad Studies, only one requires that a faculty dean be a member.

<u>Proposed Structure and Remit for Academic Quality Assurance Committee</u>

In consideration of comparators' practices as well as the unique needs at Waterloo, SUC proposes a committee with eight voting members and two non-voting resources for a total of ten members. While approval of new academic programs are part of the remit at some Universities, it is the view of SUC that this would not be appropriate for Waterloo at this time; these matters would continue to be the responsibility of SUC/SGRC. The streamlined remit for the committee recommends a smaller and more efficient committee, hence the proposed membership.

Proposed membership:

1. AVPA [co-Chair]

2. AVPGSPA [co-Chair]

3. Three (3) faculty members from SUC [two-year term; Affiliated and Federated Institutions of Waterloo (AFIW) members of SUC are eligible but not required]

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4. Three (3) faculty members from SGRC [two-year term, with SUC and SGRC terms staggered]

5. One (1) undergraduate student Senator

6. One (1) graduate student Senator

7. Director, Quality Assurance and Continuous Improvement, or delegate, as a non-voting resource

8. Registrar, or delegate, as a non-voting resource

Remit:

1. On behalf of Senate, to review and approve Final Assessment Reports (including implementation plans) and Two-Year Reports within the University's Institutional Quality Assurance Process (IQAP), with reporting to Senate on all decisions made thereon

2. On behalf of Senate, oversight and approval of all quality assurance processes that fall outside the remit of the IQAP (e.g., for 'microcredentials' or academic initiatives that do not result in degrees of diplomas, such as the Undergraduate Communications Requirements), with reporting to Senate on all decisions made thereon

3. To report on and make recommendations to Senate on institutional quality assurance processes. This activity will normally occur in consultation with the quality assurance office

Processes:

1. As a first step, each FAR/Two-Year Report is to be read by either the AVPA or the AVPGSPA. Following this reading, the AVP will communicate comments/questions to the authors of the report for potential revisions. Once the report is judged by the AVP to be sufficiently ready for further review it will be shared with the other members of the committee, and this may consist also of sharing the report with the less-pressing questions/comments from the AVP

2. Based on the likely degree of discussion of a particular FAR/Report (as judged by the AVP), the AVP will bring forward the report to the committee in one of two processes:

    a. Asynchronous/online process

        Committee members questions are gathered and shared with the program. When the program's responses are received, all members' questions and the program's responses will be shared with the committee. This process can be iterated as necessary. Approval of the report may be completed via electronic vote.

    b. Synchronous/in-person meeting process

        Representatives of the program attend a meeting to answer questions. After hearing from the program representative, the committee votes.

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Committee members may request for a given process to move from (a) to (b) at any time.

3. Possible outcomes of the process are:

    a. Acceptance of the report with no revisions

    b. Acceptance of the report contingent upon the completion of minor revisions (to be sorted out with the QACI Office)

    c. A request for substantial revisions to the report

4. The committee reports to Senate on its approvals, usually three or four times per year.

Next Steps:

If the recommendation is approved, the AVPA and AVPGSPA will proceed to collaborate with the Quality Assurance Office and the Secretariat to develop a formal draft terms of reference for the Academic Quality Assurance Committee, as well as draft amendments to Senate Bylaw 2 to appropriately enshrine said committee within the Senate governance structure.

Prior to seeking Senate approval, the draft terms of reference and bylaw amendments would be brought forward to SUC and SGRC for endorsement. As provided in Senate Bylaw 1, section 14.01, "…The passage of a new bylaw or amendment(s) to an existing bylaw is accomplished in two readings by Senate."

Senate 5

Final Assessment Report
Environment, Resources, and Sustainability (BES, Minor) and Social Ecological Sustainability (MES, PhD)
June 2023

Executive Summary

External reviewers found that the programs (BES, Minor, MES, PhD) delivered by the School of Environment, Resources, and Sustainability were in good standing.

"The School of Environment, Resources and Sustainability (SERS) contributes to leading-edge research and teaching, with a deep commitment to interdisciplinarity. These commitments extend to a transdisciplinary ethos that seeks to bring together multiple ways of knowing, community-engaged scholarship and a deep appreciation for complex problem solving within socio-ecological systems. SERS strengths include (1) many top-tier scholars with international reputations in their respective disciplines, (2) a renewed commitment to transdisciplinary teaching and research (as reflected in detailed program level learning outcomes), (3) the appointment of four new assistant professors from equity seeking groups, where three of these professors from a Cluster Hiring Initiative selected SERS as their academic home, and (4) passionate and well-trained undergraduate and graduate students who are encouraged and supported to pursue problem-based learning and career paths that help to resolve many of the most vexing societal challenges of our generation."

A total of 6 recommendations were provided by the reviewers, regarding undergraduate and graduate research methods, supporting course offerings for cohort-based MRPs, strengthening the undergraduate curriculum, communicating the strengths of an SERS degree, investments in academic community and culture, and funding for graduate students. In response, the program created a plan outlining the specific actions proposed to address each recommendation as well as a timeline for implementation. The next cyclical review for this program is scheduled for 2028-2029.

Enrollment over the past three years

	BES	BES Co-op	Minor	MES	PhD
2022-2023(CURRENT YR)	77	249	20	33	41
2021-2022 (LAST YR)	93	271	24	37	49
2020-2021 (THREE YRS)	95	289	15	39	55

This data is based on Active Student Extracts in Quest on July 7, 2023.

Background

In accordance with the University of Waterloo's Institutional Quality Assurance Process (IQAP), this final assessment report provides a synthesis of the external evaluation and the internal response of the programs (BES, Minor, MES, PhD) delivered by the School of Environment, Resources, and Sustainability. A self-study (Volume I, II, III) was submitted to the Associate Vice-President, Academic and Associate Vice-President, Graduate Studies and Postdoctoral Affairs on November 4, 2021. The self-study (Volume I) presented the program descriptions and learning outcomes, an analytical assessment of the programs, including the data collected from a student survey, along with the standard data package prepared by the Office of Institutional Analysis & Planning (IAP). The CVs for each faculty member with a key role in the delivery of the program(s) were included in Volume II of the self-study.

From Volume III, two arm's-length external reviewers were selected by the Associate Vice-President, Academic and Associate Vice-President, Graduate Studies and Postdoctoral Affairs: Dr. John Parkins, Professor of Resource Economics & Environmental Sociology, University of Alberta, and Dr. Robin Roth, Associate Professor; Associate Chair; Graduate Coordinator of Masters of Conservation Leadership, University of Guelph.

Reviewers appraised the self-study documentation and conducted a virtual site visit on September 26-30, 2022. An internal reviewer from the University of Waterloo, Dr. Daniel Henstra, Professor of Political Science, was selected to accompany the external reviewers. The visit included interviews with the Vice-President, Academic & Provost; Associate Vice-President, Academic and Associate Vice-President, Graduate Studies and Postdoctoral Affairs; Dean of the Faculty of Environment; Faculty Associate Dean of Graduate Studies; Director of the Department, Associate Director, Undergraduate, Associate Director, Graduate; as well as faculty members, staff and current undergraduate and graduate students. The Review Team also had an opportunity to meet with representatives from the library and Co-operative Education.

Following the site visit, the external reviewers submitted a report on their findings, with recommendations. Subsequently, the program responded to each recommendation and outlined a plan for implementation of the recommendations. Finally, the Dean responded to the external reviewers' recommendations, and endorsed the plans outlined by the program.

This final assessment report is based on information extracted, in many cases verbatim, from the self-study, the external reviewers' report, the program response and the Dean's response.

Program Characteristics
Undergraduate
SERS offers two Honours programs leading to a Bachelor of Environmental Studies (BES) in Environment, Resources and Sustainability: Regular and Co-op. SERS also offers a Minor and participates in a variety of other minors and diplomas offered within the Faculty of Environment.
Graduate
At the graduate level, SERS offers two programs: A Master of Environmental Studies in Social and Ecological Sustainability (MES – Thesis and Major/Masters Research Paper streams) and a PhD program in Social and Ecological Sustainability. Both the MES and PhD programs can be combined with the Collaborative Water Program (https://uwaterloo.ca/collaborative-waterprogram/).

Summary of Strengths, Challenges and Weaknesses based on Self-Study

Strengths
Undergraduate
- a strong commitment to integrating social and natural science perspectives on environmental and sustainability challenges.
- good quality and highly motivated students whose personal interests and values align with the goals of the program.
- enthusiastic faculty members who teach courses that reflect their interests, and offer practical, relevant and current insights into environmental and sustainability challenges and opportunities.
- a mix of theory and application and freedom at the program level for students to build an undergraduate experience that strongly reflects their interests.
- Co-op is also a major strength of the SERS program that is highly appreciated by students, as reflected in the large proportion of students who pursue this option. At the same time, students who do not wish to pursue co-op learning, but who value the SERS curriculum, are grateful to have that option. The survey of current undergraduate students confirmed that most are satisfied with the mix of courses, minors and options.

Graduate

- A successful and recognized graduate program that aims to integrate social and natural science perspectives (and humanities occasionally) on environmental and sustainability challenges.
- Highly engaged graduate students who choose SERS and the inter/transdisciplinary approach as it aligns with their research interests and values.
- Research intensive faculty members that provide good funding opportunities and excellent networks, and opportunities to engage in practical as well as theoretically unique projects.
- A flexible program with sufficient opportunities for MES and PhD students to undertake research that reflects their interests.
- Graduates finding relevant employment or continuing to further education.
- A sense of community that has been improved with the instigation of the SERS Salon, an informal bi-weekly gathering of faculty and predominately graduate students getting together during fall and winter terms in an informal manner to share ideas and to build connections (note: COVID seriously undermined this initiative, although online SERS Salons were started again. We are hoping in the Fall this will be possible again)

Challenges

Undergraduate

- Student mental health and wellness: The issue is not just that students are struggling to deal with learning during a pandemic, although that is itself a major concern. Rather, prior to the pandemic, some students were already expressing concerns that the subject matter of SERS – the world's pressing environmental challenges – and the way topics were being addressed had the unintentional effect of creating a growing sense of hopelessness. In recognition of this concern, SERS faculty have been attempting to introduce more examples of successes and positive developments, but discussions with students during this review process have highlighted the importance of a more proactive approach. Fundamentally, we need to support students better in developing essential skills, capacities and competencies for sustainability progress.
- Concerns students have raised relating to equity and diversity: It is a fact that SERS faculty are mostly male and mostly white. To their credit, students who have raised these concerns are not seeking simplistic solutions; rather, they are encouraging greater attention to equity, diversity and inclusiveness in hiring (a long-term goal) and in course curriculum (a much more tractable challenge). However, this pressure

has raised a new challenge, which is that a small number of SERS faculty are deeply concerned that the ways in which equity, diversity and inclusiveness are being pursued at North American universities, including the University of Waterloo, will lead to reduced academic freedom to research and teach in highly sensitive areas. Most SERS faculty believe that increasing the diversity of perspectives will help to expand discussion, provide students with the broader range of experiences reflective of the world around us, and that it is possible to pursue both academic freedom and increased equity, diversity, and inclusiveness.

- Finding the right balance between qualitative and quantitative skills, and between social science and natural sciences perspectives on environment and sustainability challenges and opportunities: SERS attracts distinctly different kinds of students and faculty. Most students who come to SERS appreciate the balanced approach we take, but there are always some for whom there is "too much natural science", or not enough.

- Growing competition that exists, and the increasing difficulty of distinguishing SERS' programs from those offered by other institutions and even by other departments and schools at the University of Waterloo.

Graduate

- Maintaining desired recruitment and enrolment. We changed our name from the Department of Environment and Resource Studies to the School of Environment, Resources and Sustainability in 2016. There was some hope this might help differentiate the program from others within and outside the Faculty of Environment and support recruitment efforts. However, there remains a lack of clarity as to what differentiates our graduate programs from those in the School of Environment, Enterprise and Development (SEED, e.g., the Sustainability Management program) or Geography and Environmental Management (GEM), or others outside of the University.

- Finding and articulating a clear 'value proposition' or differentiator to reflect our graduate program seems difficult to us at times (see discussion in section 9.1.1 also for the UG program). However, while as noted above that some Faculty members from other units have said they are unable to articulate what SERS does, for other colleagues the SERS value proposition seems clear.

- Concerns relating to student mental health and wellbeing, discussed above in the context of undergraduate studies, are just as relevant at the graduate level, and need to be addressed specifically in our graduate teaching and supervision practices.

Weaknesses

Undergraduate

- Need to change how we approach program-level curriculum development and delivery.
- A key persistent weakness that also is a strength is the open, flexible nature of the program, which students appreciate for allowing them to pursue their interests, also leaves many students adrift in the face of too much choice. Fixing this problem through a major commitment to developing more and more-detailed "guided pathway" resources (see Appendix G) is a SERS priority for 2021/22. Additionally, SERS launched a new student-led mentoring program in May, 2021

Graduate

- Most graduate recruitment (certainly for PhD and even at the MES level) is supervisor driven. For instance, recruitment can vary significantly depending on who decides to take on more students, what research funding faculty have to support students and/or changes in faculty complement.
- There is a desire for more 'professional skills' emphasis in the program. For MES students, feedback we receive points to a desire for more hands-on, practical training for employment. Inevitably there is a tension here between too much structure and too little. There are also a range of resources on campus (e.g., the Career Action Centre) that may already provide many skills students are seeking (i.e., marketing, networking, career training, project management), but students are not sufficiently aware of these opportunities. The proposed MRP+ program addresses some of these concerns. For PhD students, there is broad recognition that most won't go into academia, and so there is a need to develop professional skills and also translate how PhD training is relevant in other sectors.
- Research methods and skills are an area of repeated concern. At the moment there are no defined methods/research philosophy courses for doctoral students. MES students have a core methods course (ERS 669) which serves both those interested in more quantitative methods and those interested in more qualitative methods. At the faculty level there have been ongoing discussions for several years about faculty level methods courses to address the needs of all students and to reduce redundancy across programs. This issue has not been resolved yet.

Summary of Key Findings from the External Reviewers

"In response to the self-study report and request for advice, we offer six recommendations within this report, three of which are highlighted here in order of priority. First, to support trans-disciplinarity and enhanced skills development, we recommend more research methods training at the graduate and undergraduate level. Second, we recommend the development of a cohort-based graduate program (MES MRP) as a distinct alternative to the supervisor-driven thesis-based MES and PhD programs. Third, we recommend enhancements to undergraduate curriculum with a focus on several dimensions of Indigenous-settler relations and enhanced coverage of race, racism, and environmental justice."

Program Response to External Reviewers' Recommendations

1. **Undergrad and graduate research methods.** We spoke with faculty members, graduate students and undergraduate students about how to improve research methods training at the graduate and undergraduate level. Given the transdisciplinary nature of these programs, options are complicated, but there is near consensus that the status quo is suboptimal. We recommend a minimum of two required courses in research methods at the graduate level, and the addition of one required course at the undergraduate level (building on undergraduate statistics course requirements). Enhanced methods training will support thesis research and contribute to research knowledge and literacy for transdisciplinary collaboration.

   Response
   Program Response:
   GRAD: We remain committed to developing a strategy to address this recommendation. We agree that expanded course offering(s) for methods/methodology are necessary, and with a reference to specific MES and PhD student needs. As part of this strategy we have an opportunity to further assess our capacity within SERS to deliver a wide range of methods training (particularly given the new faculty members that have joined SERS), and to determine what is offered in the core vs. non-core delivery. Ongoing negotiation with other faculty units is welcome, but will require support from the Dean's office and establishing and adhering to a decision timeline (e.g., 1 year) is necessary. If a faculty wide approach is not tenable, specific interventions should address SERS needs in the near term.

   UNDERGRAD: We aim to explore two options to enhance our undergraduate research methods training. The first option is to develop a better understanding of what we are already doing currently in our courses. From this survey exercise, alongside faculty and student consultation, we will determine key research skills that can be prioritized within our classes. We can then focus on introducing some of these key research competencies as learning outcomes in some of our core upper year courses. The second approach would

introduce a 3B course that would act as a preparation course for ERS 403 undergraduate thesis course (though knowing that not every student in this course would take ERS 403). This course would focus on introducing research methods and proposal development. This would prepare students for their fourth-year thesis projects and help them explore project ideas and whether a thesis is the right path for them. Both options will be explored moving forward.

Dean's Response:

GRAD: Graduate enrolment in each of the units is uneven and results in sub-optimal delivery of research methods courses within each unit. This issue raised by the reviewers is therefore recognized and will require a faculty-level solution. There is currently a longer-term vision being developed for ENV, which includes the potential establishment of a faculty-wide School of Graduate Studies. The anticipated time horizon for implementation of the vision is five years.

UNDERGRAD: The SERS response to the reviewers' comments is noted and supported.

2. **Cohort-based MRP – supports course offerings.** We recommend transitioning the MES MRP program from a supervisor-based model to a cohort-based model, where the MRP is completed within a single course with one instructor (from May to August). This change would allow students to complete the MRP program within a 12-month period. The cohort-based model will help to achieve several outcomes including: (1) growth in graduate student numbers without increasing demand on supervisors, (2) more sustainable graduate student course offerings with larger course enrollments, (3) alternative program delivery that could include virtual or hybrid course offerings.

Response
Program Response:
There is a general agreement that a cohort-based program should be explored, and augment or extend the existing efforts with the MRP+ program. There are however a number of assumptions with the recommendation that need to be further explored; for example, is a cohort-based program a response to an identifiable demand, or an effort to build something that we hope will attract new students. As well, there is a need to survey other successful cohort-based programs inside and outside the faculty to determine what may be appropriate for SERS, noting that the administrative burden of a cohort-based program will be significant. Finally, there is general consensus that a niche or 'value-added' program is necessary and there are a number of possible ideas in this regard (e.g., data science for sustainability; environmental assessment, etc.). However, any niche

programs should align with the transdisciplinary aspirations of the MES and PhD programs.

Dean's Response:
The reviewers' recommendation is noted; however, I agree that there is due diligence required as outlined by the SERS response ahead of any program redesign that might occur.

3: Strengthen the undergraduate curriculum. Ensuring adequate coverage of Indigenous-settler relations including (A) the legal, political, social and cultural dimensions of Indigenous leadership in sustainability and (B) ensuring adequate coverage of race, racism and justice. Both recommendations can be done through the explicit and required inclusion of these topics in core, required courses (through the revision of calendar descriptions) and/or the introduction of new ERS or, if there is interest, ENVS courses. Acting on this recommendation will strengthen the program's ability to deliver on LO3 and LO5.

Response
Program Response:
We agree that EDIJ themes can be more effectively integrated into our core and required courses. We believe that some of our EDIJ work was missed in the review of our courses. We would like to develop a better understanding of knowledge we want students to have and how we can integrate those ideas deeply within our courses – especially our core courses. We propose that ERS 100, our first-year core course, will further engage with Indigenous-settler relations and anti-racism content in ways consistent with Faculty and University of Waterloo's institutional practices (e.g., through Indigenous led guest lectures, Indigenous developed resources and working alongside the University of Waterloo Centre for Teaching Excellence Indigenous Knowledges Education Developers) as this is the first SERS course students take. That focus and those discussions, will then continue up through our upper year core and required courses. Determining what is currently being done and the gaps we have, will guide our focus on better incorporating EDIJ into our core and required courses.

Dean's Response:
I agree with the SERS response to the recommendations and support their evolving implementation strategy.

4: Communicate the strengths of a SERS degree. We recommend working with the faculty and university marketing teams to better communicate the SERS value proposition. We consistently heard that the value of the education SERS is offering is that it builds core competencies that catalyze creative solutions to difficult problems. And while the word 'trans-disciplinary' does not likely have concrete meaning for prospective students, we recommend highlighting what the approach delivers for the aspiring environmental professional. Our impression from our visit is that SERS is oriented towards understanding complex environmental problems and, through collaboration, offering actionable solutions. In a world of deeply specialized experts, what SERS helps deliver are environmental professionals who are able to work collaboratively across disciplinary and professional silos, allowing problem and solutions formulation to draw from diverse sets of expertise and knowledge. Students graduating from SERS will be exposed to cutting edge research and a wide range of practitioner expertise delivering concrete skills in the ecological and social sciences to catalyze the action needed for a more sustainable and just future. We encourage SERS to better communicate the value of their transdisciplinary commitments.

Response
Program Response:
GRAD: We concur with the need to clarify the strengths of a SERS degree, noting that how that is communicated for MES and PhD students may be different. An annual survey of outgoing MES and PhD students (in house SERS survey) can help us with the language and fine-tuning of this message. Some core themes that seem to be applicable include the benefits of a systems perspective/thinking, an ability to engage with an applied sustainability problem, the capacity to link science and policy, and the focus on impact and advocacy. Further work on this issue is needed.

UNDERGRAD: There are two dimensions to this recommendation: what we tell the student and how we are perceived by others. The undergraduate focus is on the "what we tell the students" around the value of a SERS degree. This is demonstrated through our learning objectives from our courses and ultimately our program. A general review of our learning objectives and how well we are achieving them will help to solidify the value of a SERS degree. An example of where we are actively doing this is in ERS 100, a core course, where students are exposed to transdisciplinary perspectives in their first semester. This course has been structured around bringing in different SERS professors and graduate students, into the lectures, and having them discuss their unique backgrounds, research areas, and perspectives on environmental problems. Within this course, there was a SERS panel discussion in the final class, aimed at bringing together

multiple perspectives to address the wicked environmental problem of biodiversity loss. This model will be used in future offerings with the potential to include more SERS professors and graduate students.

Dean's Response:
These recommendations relate to a larger, ongoing vision exercise underway in ENV. The discussion includes the establishment of a common entry first year for ENV and a common graduate school (as noted under 1. above). These are structural changes that will be linked to evolving branding, all of which will support increased clarity in 'what ENV does', including at the unit level.

5: Investments in academic community and culture. We recommend a series of actions to enhance the academic culture of the school. First, we recommend the development and management of a Graduate Student Handbook that is updated by SERS staff on an annual basis. Second, we recommend extending the Salon to a more formal SERS Seminar Series, with regular seminars from internal and external presenters (including community partners). These investments will enhance the transdisciplinary culture of the department. Third, to support this academic culture, renovations of the physical space are a key factor, whereby current facilities are less than adequate to support the Salon or expanded Seminar Series within the academic unit. Fourth, we encourage ongoing efforts to reduce teaching commitments from 4 courses per year to 3 courses per year.

Response
Program Response:
GRAD: Recommendations to invest in academic community and culture are fully supported. These investments can be achieved through regular and more casual interactions in a shared space, and through more formalized (i.e., in some cases required) events like seminar series that might be linked to curricula expectations or graduate milestones (e.g., designed into 680/81 and 701/02). Other initiatives to build community have been trialed (e.g., biking events, a SERS grad orientation walk, etc.) and will be encouraged.

With regard to the handbook, we are committed to curating and consolidating information to support graduate student experience. There are concerns about the idea of a single handbook however (e.g., regular maintenance challenges, etc.). There are ongoing faculty level efforts as well that need not be duplicated. Efforts in SERS instead can be placed on developing FAQs and curating access to relevant websites and information sources (e.g., GSPA, campus housing, health and wellbeing services, etc) by

continuing to develop an online 'living document'. Some consideration of 'co-ownership' for the responsibility of building and maintaining information for graduate students is warranted.

The SERS salon continues to be a key community-centered event. Further discussions about its applicability for PhD seminar milestones and more regular speaker seminars (including some consideration of the timeslot) is warranted.

With regard to space, there are limits on our capacity to make changes, but there is an opportunity to assert the importance of the collective spaces we do have (e.g., the fishbowl) and consider how they can be used for combined social/academic activities as well.

UNDERGRAD: We support the idea of building a greater sense of community with our students. We have plans to continue the SERS Mentorship program. Further, we are working alongside the SERS Education Committee to hold a townhall forum in the winter term for students, SERS faculty and staff. The objective is to create a respectful, safe environment for discussions on how to better strengthen the SERS community and to enhance dialogue between students, staff, and faculty. There are opportunities that could be explored to allow for some better connections between our 403 undergraduate students and a potential new graduate seminar series. Other initiatives to connect with our undergraduate students and build community will be explored and prioritized. We will certainly discuss the reduction from 4 courses per year to 3 courses with the Dean but in the meantime, we are moving towards a 4/3 model (i.e., one course reduction every second year).

Dean's Response:
GRAD: I am in agreement with the approach outlined by SERS to help build community and provide updated information to students. Space at SERS is a limitation. In the post-pandemic environment, ENV is also placing an emphasis on building back community, which may have a positive influence on SERS.

UNDERGRAD: The Faculty is moving to a 4/3 teaching load, where feasible. A standardized 3/3 load is not supported by the Dean as resources are constrained.

6: Funding for graduate students Current funding for SERS graduate students is on the lower side of graduate funding at the University of Waterloo. To attract and retain top-quality candidates, we recommend the development of a funding mechanism at the

School or Faculty level whereby supervisors can petition for matching funds to make competitive offers to top candidates. This fund may allow, for example, an offer of guaranteed funding from 1 year to 2 years. There are several models to sustain this fund, including growth in endowments, or a pool of funds whereby faculty members can draw from, but would also be required to payback funds in future years. This kind of fund will allow faculty to confidently recruit students for the full length of their program.

Response

Program Response:

We support the notion of improved graduate funding for SERS MES and PhD students and increases to minimum guaranteed funding commitments for all graduate students. However, we note that core funding for SERS students is determined by the Faculty (Associate Dean's office), not SERS, and is consistently applied across all academic units (GEM, SEED, etc.). Many faculty support graduate students with significant additional financial support (e.g., GRS and GRA funding), but these funding arrangements are tied to individual supervisors and projects.

Dean's Response:

I agree with the Program response – equity across the faculty is an active goal. Graduate funding levels are in part determined by the grants held by supervising faculty, which is where scope may exist to increase support on a case-by-case basis (as noted in the response).

Recommendations Not Selected for Implementation

There are no recommendations not selected for implementation; SERS intends to act on all recommendations.

Implementation Plan

	Recommendations	Proposed Actions	Responsibility for Leading and Resourcing (if applicable) the Actions	Timeline for addressing Recommendations
1.	Undergrad and graduate research methods - Minimum of 2 courses at the grad level - Addition of 1 required course at the undergrad level	Undergraduate: 1) Synthesize key research skills required, those already being taught in present courses, and opportunities to add missing key research competencies to core upper year courses; 2) Consider introduction of a 3B course research methods & proposal development in support of ERS 403 Honours Thesis Program.	Associate Director Undergraduate with support of Director & Dean	2023
		Graduate: Continue to explore needs and capacity for expanded training in quantitative and qualitative methods at the Faculty level. By the end of 2023 make a decision on developing enhanced capacity at either the Faculty or School level.	Director & Associate Director Graduate with support of key faculty members (e.g., Brad Fedy) and the Dean	Early 2024
2.	Cohort-based MES-MRP – transition report component to a single course with one instructor May - August	Explore the potential for developing & implementing the recommended model Augment or extend existing MRP+ program	Associate Director Graduate with support of Director and Dean	2023
3.	Strengthen the undergraduate curriculum with respect to legal, political, social, cultural dimensions of Indigenous leadership in sustainability and adequate coverage of race, racism & justice	Consult UW CTE Indigenous Knowledges Education Developers on content for ERS 100 on Indigenous-settler relations Review present curriculum for Equity, Diversity, Inclusion & Justice content and ensure focus in all core & required courses	Associate Director Undergraduate with support of Director & Dean.	2024

4.	Communicate the strengths of a SERS degree - work with Faculty and University marketing to better communicate value proposition.	Indicate within Course Outlines which of our new learning outcomes are being addressed and how. Conduct a review of how well we are achieving our new learning outcomes. Consider implementing surveys of outgoing students for how well learning outcomes were achieved. We have already begun consulting with our Dean's office with regard to addressing undergraduate recruitment for SERS and associated marketing.	Director with support from Associate Director Undergraduate and Associate Director Graduate	2024
5.	Investments in academic community and culture - develop & maintain a Grad Student Handbook, updated annually, - extend Salon to a more formal SERS Seminar Series & renovate physical space for it, - reduce teaching commitment from 4 to 3 courses per year.	Continue improvement of online access to information required by students including FAQs. Consider role of Salon in PhD seminar milestones & more regular speaker seminars Continue to make the Dean's office aware of SERS' requirements for space, particularly in light of new faculty. Implement a 4/3 teaching schedule for all faculty teaching a full 4 course load and explore with Dean the potential for reduction to 3 course load. Maintain the SERS Mentorship Program Work with ERSSA Undergraduate Education Committee on regular Town Halls.	SERS Administrative Committee	2024

6.	Funding for graduate students – increase funding for top-quality students	Explore opportunities for SERS or ENV matching funds mechanisms with Associate Dean – Grad.	Associate Director - Graduate	2023

The Department Chair/Director, in consultation with the Dean of the Faculty shall be responsible for the Implementation Plan.

Date of next program review ——————————————— **2028-2029**
                                                        Date

Signatures of Approval

                                                        August 25, 2023

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Chair/Director   Date

                                                        August 25, 2023

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Faculty Dean   Date

                                                        August 8, 2023

——
Associate Vice-President, Graduate Studies and Postdoctoral Affairs   Date
(For graduate and augmented programs)
On behalf of the Associate Vice-President, Academic

MEMORANDUM

TO: Senate Graduate and Research Council

CC: Tim Weber-Kraljevski, Secretariat

             Christiane Lemieux, Associate Dean, Math, Operations and Academic
             Sheila Ager, Dean of Arts
             Ramona Bobocel, Associate Dean, Research
             Mark Giesbrecht, Dean of Math
             Bernard Duncker, Associate Vice-President, Research and International

FROM: Charmaine B. Dean, Vice-President, Research and International

DATE: Monday November 6, 2023

SUBJECT: Dissolution: Survey Research Centre (SRC)

             - For action -

The attached documentation was received from Christiane Lemieux, Associate Dean, Math, Operations and Academic in consultation with Shiela Ager- Dean of Arts; Mark Giesbrecht- Dean of Math; Martin Lysy- Director, Statistical Consulting and Collaborative Research Unit; and Executive Director, Survey Research Centre- Leia Minaker, recommending that the Survey Research Centre be dissolved. There were no issues related to this closure identified. This documentation for the dissolution of the Survey Research Centre is to be forwarded to Senate Graduate and Research Council for review and recommendation for Senate approval.

UNIVERSITY OF WATERLOO

MEMORANDUM

To: Charmaine B. Dean, Vice President, Research and International

From: Christiane Lemieux, Associate Dean Operations & Academic, Faculty of Mathematics

Date: October 2, 2023

Re: Dissolution of the SRC

___

The Faculty of Mathematics is seeking the dissolution of the Survey Research Center (SRC).

The SRC was founded in 1999 by co-directors Mary Thompson (Statistics and Actuarial Science, hereafter SAS) and John Goyder (Sociology) for two main reasons: (i) to serve academic and institutional researchers by conducting rigorous surveys, and (ii) to conduct research on surveys as a means of creating valid and reliable datasets for research. For both inaugural co-directors of the SRC, methodological development of survey methods was a primary area of research.

Over the years, and especially with the retirement of Drs. Thompson and Goyder, the activities of the SRC have evolved from research *and* service to almost exclusively the latter. This is because subsequent directors and co-directors of the SRC were not survey methodologists, and instead have been faculty members from across campus who use survey methods in their research, but do not specifically research survey methods. Therefore, the designation of Research Centre at University of Waterloo no longer seems appropriate.

On September 7, 2023, the SRC was officially merged with the Statistical Consulting and Collaborative Research (SCCR) unit in SAS to form the Statistical Consulting and Survey Research (SCSR) unit. The intention is for the existing service activities of both contributing entities to continue unchanged, with ample opportunities for creating new services and improving existing ones due to synergistic restructuring of overlapping tasks. Since the operations of the centre are continuing within their new home in SAS, the budget/funds associated with the SRC have been transferred into the departmental budget and financial operations of SAS. No SRC staff positions have been or will be terminated as a result of the merger.

Thus, the Faculty of Mathematics is now seeking formal approval for dissolution of the SRC. The SRC Governing Board has been informed of this dissolution request and is enthusiastic for the operations of the SRC to continue in its new home in the SCSR unit. There are no outstanding issues to be resolved prior to transferring the SRC's operations to SAS.

200 UNIVERSITY AVENUE WEST, WATERLOO, ON, CANADA N2L 3G1

UNIVERSITY OF WATERLOO

To: Professor Charmaine Dean
Vice-President, Research and International

From: Dr. Sheila Ager, Dean, Faculty of Arts

Date: October 11, 2023

Re: Dissolution of the Survey Research Centre (SRC)

Dear Professor Dean,

In this letter, I hereby confirm my support to move forward with the dissolution of the Survey Research Centre (SRC) as a Research Centre under Policy 44.

I understand that the SRC was originally created by Dr. Mary Thompson from the Department of Statistics and Actuarial Science and Dr. John Goyder from Department of Sociology, and so support from the Dean of Mathematics (Dr. Mark Giesbrecht) and the Dean of Arts is required to move forward with dissolution.

Sincerely,

Dean, Faculty of Arts
University of Waterloo, Canada

FACULTY OF MATHEMATICS | Office of the Dean
519-888-4567, ext. 33474 | fax 519-888-4302
deanmath@uwaterloo.ca | uwaterloo.ca/math

To: Charmaine B. Dean, Vice President, Research and International

From: Mark Giesbrecht, Dean, Faculty of Mathematics

Date: October 11, 2023

Re: Dissolution of the Survey Research Centre (SRC)

To Professor Dean,

In this letter I hereby confirm my support to move forward with the dissolution of the Survey Research Centre (SRC) as a Research Centre under Policy 44.

I understand that the SRC was originally created by Dr. Mary Thompson from the Department of Statistics and Actuarial Science and Dr. John Goyder from Department of Sociology, and so support from the Dean of Mathematics and the Dean of Arts (Dr. Sheila Ager) is required to move forward with dissolution.

Yours truly,

Dr. Mark Giesbrecht
Dean, Faculty of Mathematics
University of Waterloo, Canada

200 UNIVERSITY AVENUE WEST, WATERLOO, ON, CANADA N2L 3G1

October 30, 2023

TO: Mike Grivicic, Associate University Secretary

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

RE: Agenda item for Senate Graduate & Research Council – November 20, 2023

Item for Information

Graduate Studies and Postdoctoral Affairs seeks Adjudication Committee Members

GSPA is seeking senior leaders and academic from the Waterloo community to serve as committee members to adjudicate applications for our three Waterloo-administered postdoc programs:

- AMTD Waterloo Global Talent Postdoctoral Fellowship Program
- Provost's Program for Interdisciplinary Postdoctoral Scholars
- Provost's Program for Black and Indigenous Postdoctoral Scholars

Committee members will receive applicant packages in early December 2023, identify a shortlist of candidates by mid-January 2024, and participate in interviews and final selection in late-January or early-February. It is anticipated there will be 45-50 applicants to the AMTD program, based on previous years' numbers, and 30-40 applicants for each of the Provost programs.

Committee members will be required to undergo, or have already undergone, unconscious bias training and will be supported in competency and capacity building, including training for equitable recruitment and selection, Indigenous ways of knowing, anti-oppression, and anti-Black racism.

Those interested in serving as adjudication committee members, are requested to contact Jeff Casello by November 30, 2023.

UNIVERSITY OF WATERLOO

For Approval

To: **Senate Graduate & Research Council**

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

                                                 Angela Christelis,
                                                 Director, Quality Assurance and Continuous Improvement

                                                 David DeVidi,
                                                 Associate Vice-President, Academic

Date of Meeting: **November 20, 2023**

Agenda Item Identification: **Revisions to Institutional Quality Assurance Process (IQAP)**

Recommendation/Motion:

To endorse to Senate the revisions to the Institutional Quality Assurance Process (IQAP), as presented.

Summary:

The Quality Council updated its Quality Assurance Framework (QAF) which necessitated changes to our IQAP. The following list includes the substantial changes:

- Links to new principles in the QAF
- Expands emphasis on continuous improvement
- Removes specific operational details to a separate document (Procedures)
- For new programs:
    - Creates flexible deadline for progress report
- Requires student consultation for major modifications
- For cyclical program reviews:
    - Requires feedback from employers/professional associations for professional programs
    - Replaces "two year progress report" with a mid-cycle report that will facilitate both a review of progress on action plans created in response to reviews and preparation for the next review
    - Clarification of expectations on all parties for Waterloo programs with substantial AFIW involvement

Senate Graduate & Research Council   **1**

- Allows virtual site visits but requires site visits to be in-person if infrastructure/facilities are critical to achieving program learning outcomes
- Requires an institutional self-study for QC audit of QA processes.

The most consequential change is the step to remove operational details to a separate Procedures document. This allows changes to processes to occur without revision to the IQAP itself. This is a significant advantage because material changes to the IQAP require approval by both the Senate and the Quality Council, while procedural changes can be implemented much more readily when it becomes clear that they are warranted. This is a substantial step forward in allowing the Academic Quality Assurance and Continuous Improvement to apply continuous improvement principles to its own work, enabling the University to derive increasing value from the efforts required to carry out program reviews.

Some revisions reflect input from consultations carried out by the QACI Office with representatives of programs that completed cyclical reviews in 2022-23. The revisions have been previously discussed and endorsed at Deans Council, and will also be sent to Senate Undergraduate Council for endorsement.

Documentation Provided:

Appendix A – Proposed Revisions to the IQAP

Senate Graduate & Research Council 2

Institutional Quality Assurance Process (IQAP)

Approved by University of Waterloo Senate MONTH, DAY, YEAR
Ratified by the Quality Council MONTH, DAY, YEAR

Table of Contents

INTRODUCTION

In 2010, the Ontario Universities Council on Quality Assurance (Quality Council or QC) was established by the Ontario Council of Academic Vice-Presidents (OCAV), to provide oversight of a unified undergraduate and graduate quality assurance process under one framework.[1]

The Quality Assurance Framework (QAF) follows "international quality assurance standards" to "… facilitate greater international acceptance of our degrees and improve our graduates' access to university programs and employment worldwide."[2] The QAF was updated in 2020, and includes 15 principles to which the Quality Council and universities commit to follow. The QAF also summarizes Undergraduate Degree Level Expectations (UDLES) and Graduate Degree Level Expectations (GDLES) to which all academic programs must align.[3]

This Institutional Quality Assurance Process (IQAP) is consistent with the QAF.[4] Any significant changes to the IQAP are subject to approval by the University of Waterloo Senate and must be ratified by the Quality Council. Furthermore, the IQAP and associated procedures are subject to regular audit by the Quality Council to ensure that the University of Waterloo adheres to the standards of the QAF.

While consistent with the QAF, the processes described below are understood to advance additional purposes beyond quality assurance. The University of Waterloo is dedicated to the provision of outstanding academic programming. The Quality Assurance process ensures that those who lead the design and delivery of the University's programs are supported as they carry out a systematic review of their programs. The process also provides opportunities for all stakeholders – students, staff, faculty, and alumni – to provide meaningful input on a program's academics and the conditions that facilitate their delivery.

Throughout the QA process, program stakeholders are encouraged to reflect on both the strengths of their offerings as well as opportunities to improve. These reflections, when coupled with assessments from arm's-length experts, regularly affirm our programs' high quality while identifying pathways by which various aspects may be enhanced. For programs, the process results in a set of well-articulated recommended actions that help set the direction for continuous improvement of our academic programming with appropriate transparency to the University and scholarly community.

> **Commented [AC1]:** Continuous improvement (CI) in quality assurance activities is integrated throughout the IQAP. The Quality Council (QC) has an emphasis on CI.
>
> To promote CI and the sharing of best practices, the QC has implemented an "Exchange Forum" to be held during regular QC contact meetings. The Secretariat will collate the findings of each forum into an omnibus report that will be shared with the universities and posted on the Quality Council's website.

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[1] Ontario Universities Council on Quality Assurance (oucqa.ca)
[2] https://oucqa.ca/framework/quality-assurance-the-international-context/
[3] Note: Waterloo has added two UDLES to the list created by OCAV: 1) Experiential Learning; 2) Diversity.
[4] The Quality Assurance Framework will form the standard, should one not be specifically listed within this IQAP.

University of Waterloo Institutional Quality Assurance Process   2

1.1 Authority

The University of Waterloo Senate is the final authority for ensuring the quality of all academic programs, including cyclical program reviews, new program proposals and major modifications to existing programs.

The Vice-President, Academic and Provost has responsibility for the IQAP and is the primary contact with the Quality Council. The Associate Vice-President, Academic (AVPA) and the Associate Vice-President, Graduate Studies and Postdoctoral Affairs (AVPGSPA) have delegated authority for the IQAP on behalf of the Vice-President, Academic and Provost.

Oversight of undergraduate program reviews, new undergraduate programs and major modifications to existing undergraduate programs rests with the AVPA. Responsibility for graduate program reviews, new graduate programs and major modifications to existing graduate programs rests with the AVPGSPA. Responsibility for combined (or augmented) reviews of undergraduate and graduate programs is shared between the respective portfolios.

In 2016, the Quality Assurance (QA) Office was established to support the AVPA and AVPGSPA in the oversight and monitoring of the IQAP. The QA Office is the primary contact for campus stakeholders regarding cyclical program reviews, new program proposals, and major modifications to existing programs. The Office operationalizes the IQAP and provides timely support to programs undergoing cyclical review, developing new programs and proposing academic program changes.

Detailed explanations and procedures for cyclical program reviews, new program proposals and major modifications, as well as contacts in the QA Office are listed on the Academic Program Reviews website. The information on this website constitutes the University of Waterloo's institutional manual as required by the Quality Council.

> **Commented [AM2]:** The procedures exist outside this IQAP but will be hyperlinked upon approval and implementation. Yellow highlights represent areas where links to procedures will be added.

IQAP documentation (e.g., self-studies, External Reviewers' Reports, Final Assessment Reports etc.) is retained in accordance with the University of Waterloo's institutional records retention schedule and Quality Council guidelines.

1.2 Scope of the Quality Assurance Framework

The QAF guides quality assurance processes in the following four areas:

Cyclical Reviews of Existing Programs (QAF 5)
Cyclical Program reviews are "aimed at assessing the quality of existing academic programs, identifying ongoing improvements to programs, and ensuring continuing relevance of the program to stakeholders."[5] Cyclical program reviews culminate with a Final Assessment Report (FAR) – a concise synthesis of the program's overall quality and recommendations to improve or maintain its status – submitted for evaluation and approval by Senate Undergraduate Council or Senate Graduate and Research Council and then Senate. A list of programs that underwent

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[5] Quality Assurance Framework (oucqa.ca) (2021)

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cyclical review and their Final Assessment Reports are submitted annually to the Quality Council for their review.

Note: programs which have been closed or for which admission has been suspended are out of scope and will not be included in a cyclical review.

New Program Approvals & Expedited Approvals of New Programs (QAF 2)
Proposals for new degree programs and Type 2 and 3 graduate diplomas are required to follow the QAF protocol for proposing new for-credit programs. New program proposals are submitted for evaluation and approval at Senate Undergraduate Council or Senate Graduate and Research Council and then Senate. Following Senate approval, new programs are submitted to the Quality Council's Appraisal Committee for their review and approval. The Appraisal Committee has the authority to approve or decline new program proposals. In addition, new programs, where applicable, are submitted to the Ministry of Colleges and Universities (MCU) for approval of tuition rates and grant funding.

Major Modifications to Existing Programs (QAF 4)
To assure program quality of existing programs, any major substantive change made to an existing program (such that the changes are not significant enough to constitute a new program), is considered a major modification to the program. Major modifications are vetted within the program's home Faculty prior to submission to Senate Undergraduate Council or Senate Graduate and Research Council and Senate for approval. A list of major modifications is submitted annually to the Quality Council for their review.

Audit of the Institutional Quality Assurance Process (IQAP) (QAF 6)
The University of Waterloo is subject to regular audit by the Audit Committee of the Quality Council. The panel examines each institution's compliance with its own Institutional Quality Assurance Process. The audit is to be conducted every eight years and the auditor's report and subsequent institutional response is posted on the Quality Council website.

See Appendix A for a full listing of programs and levels and the sequence of approval and reporting.

As directed by the QAF (QAF), Waterloo's IQAP covers: "*… continuing undergraduate and graduate degree/diploma programs whether offered in full, in part, or conjointly by any institutions federated and affiliated with the university*."[6] This also extends "*to programs offered in partnership, collaboration or other such arrangement with other postsecondary institutions including colleges, universities, or institutes*"[6], as well as new program proposals, expedited approvals and major modifications with any of the aforementioned institutions.

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[6] Quality Assurance Framework (oucqa.ca) (2021)

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1.3 Definitions

Quality Council Definitions

The terms listed below receive specific definitions by the Quality Council, and are used in this IQAP as so defined:

- Academic Services
- Collaborative Specialization
- Course Level Outcomes[7]
- Degree
- Degree Level Expectations[8]
- Degree Program
- Diploma Program (Graduate Type 1, 2, 3)
- Emphasis, Option, Minor Program
- Expedited Approvals
- Field
- Graduate Level Course
- Inter-Institutional Program Categories (Conjoint Degree, Cotutelle, Dual Credential, Joint Degree Programs)
- Major Modification
- Micro-credential
- Mode of Delivery
- New Program
- Professional Master's Program
- Program Objectives[6]
- Program-Level Student Learning Outcomes[6]
- Program of Specialization (major, honours program, concentration or similar)

University of Waterloo Definitions

The University of Waterloo also maintains a list of commonly used terms and their definitions. In some cases, terms may be defined by both the QC and the University. In these cases, the University takes steps to ensure that these definitions while not always exactly the same, are consistent in their intentions and interpretations. Waterloo definitions can be found in the following academic calendars:

- Undergraduate Academic Calendar Glossary of Terms
- Graduate Academic Calendar Glossary of Terms

In general, Waterloo defines a **program** as a defined set of requirements or courses common to a particular degree.

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[7] Program Objectives and Program-level Learning Outcomes — Ontario Universities Council on Quality Assurance (oucqa.ca)

[8] Appendix 2: OCAV's Undergraduate and Graduate Degree Level Expectations — Ontario Universities Council on Quality Assurance (oucqa.ca)

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Commented [AC4]: This is new. The draft definition from the QC for a micro-credential is:

A designation of achievement of a coherent set of skills and knowledge, specified by a statement of purpose, learning outcomes, and strong evidence of need by industry, employers, and/or the community. They have fewer requirements and are of shorter duration than a qualification and focus on learning outcomes that are distinct from diploma/degree programs.

A micro-credential is considered a **minor modification** and is not reported to or approved by the QC. However, we had to outline later in this document how we would monitor the approval and quality of such offerings.

Commented [AC5]: New - distinguishes between these two definitions.

Program Objectives
Clear and concise statements that describe the goals of the program, however an institution defines 'program' in its IQAP. Program objectives explain the potential applications of the knowledge and skills acquired in the program; seek to help students connect learning across various contexts; situate the particular program in the context of the discipline as a whole; and are often broader in scope than the program-level learning outcomes that they help to generate.

Program-Level Student Learning Outcomes
Clear and concise statements that describe what successful students should have achieved and the knowledge, skills, and abilities that they should have acquired by the end of the program, however an institution defines 'program' in its IQAP. Program-level student learning outcomes emphasize the application and integration of knowledge – both in the context of the program and more broadly – rather than coverage of material; make explicit the expectations for student success; are measurable and thus form the criteria for assessment/evaluation; and are written in greater detail than the program objectives. Clear and concise program-level learning outcomes also help to create shared expectations between students and instructors.

2. NEW PROGRAM APPROVALS

2.1 Aims of New Program Approvals

The procedures for assessing proposals for new programs should ensure that the program:

- meets or exceeds Waterloo's expectations of academic excellence;
- is appropriately named to align with program content and to be recognizable to students, scholars and employers;
- reflects Waterloo's distinctiveness and advances the University's strategic objectives;
- is at the forefront of contemporary thinking in the discipline(s);
- is creative and innovative in its curriculum content and delivery;
- encourages interdisciplinarity as appropriate;
- has the potential to advance the University's national and global recognition;
- will attract excellent students;
- is sufficiently resourced.

2.2 What Constitutes a New Program

The QAF defines a new program as:

> "*Any degree credential (e.g., BMus, Bachelor of Integrated Studies) or degree program (within an existing degree credential), currently approved by Senate or equivalent governing body, which has not been previously approved for that institution by the Quality Council, its predecessors, or any intra-institutional approval processes that previously applied. A change of name, only, does not constitute a new program; nor does the inclusion of a new program of specialization where another with the same designation already exists (e.g., a new honours program where a major with the same designation already exists).*"[9]

The QAF further clarifies that: "a 'new program' is brand -new: that is to say, the program has substantially different program objectives, program requirements and program-level learning outcomes from those of any existing approved programs offered by the institution."[10]

Examples of new programs are made available by the Quality Council.

Flow chart of QAF Overview of the New Program Approval Process

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[9]Definitions — Ontario Universities Council on Quality Assurance (oucqa.ca)
[10] Definitions — Ontario Universities Council on Quality Assurance (oucqa.ca)

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2.3 New Program Approval Process

The following are the steps included in the development of new programs, as outlined in the QAF:

1. A **Statement of Interest** is completed by the new program proponent and submitted to the QA Office (Procedures);
2. A **Program Proposal Brief** is completed by the program proponent and approved by the Provost, relevant Faculty Undergraduate/Graduate Committee(s), and Faculty Council(s) (Procedures);
3. An **External Evaluation** (QAF 2.2), including a site visit[11], is conducted by qualified, arm's length reviewers, who submit a report on their findings (Procedures);
4. A **Program Response and Dean's Response** (QAF 2.3) are submitted, summarizing the response to the External Reviewers' Report, and plans for implementing the recommendations (Procedures);
5. **Institutional Approval** (QAF 2.4), including approval at Senate Undergraduate Council or Senate Graduate and Research Council, and then Senate takes place (Procedures);
6. **Submission to the Quality Council** (QAF 2.5) occurs separately from the submission to the Ministry of Colleges and Universities, and is coordinated by the QA Office; the Appraisal Committee has the ultimate authority to approve or decline new program proposals.
7. **Submission to the Ministry of Colleges and Universities, where applicable**, occurs, separately from the submission to the Quality Council, and is coordinated by Institutional Analysis and Planning (IAP) (Procedures);
8. A **Progress Report** will monitor the implementation of the program (QAF 2.9.2). The Progress Report is internally reviewed and approved by Senate Undergraduate Council or Senate Graduate and Research Council. The report is subsequently sent to Senate for information (Procedures).

> **Commented [AC6]:** New language from the QC.

> **Commented [AC7]:** Monitoring of new programs must continue; however, the QC no longer requires a written follow up report be submitted to the QC **unless** significant additional action/ resources are required to assure the quality of the program. The QC will identify if a newly approved program requires such a report.

A high-level overview of the University's new program approval process flow chart can be found on the Academic Program Review website.

Detailed procedures for new program proposals (steps 1-8) are hyperlinked outside of the IQAP as they are subject to slight changes (i.e., changes in timelines or revisions to the names of institutions or positions, etc.); however, all procedures adhere to the standards outlined within the QAF. No substantial changes are made to the University's procedures without the approval of Senate and the Quality Council. (Note: Editorial changes, changes to deadlines, and similar minor changes do not require such approval.)

Waterloo has developed a website as well as comprehensive templates for the Statement of Interest, Program Proposal Brief (Volume I, II, III), the External Reviewers' Report, Program Response, Dean's Response, as well as the Progress Report. Programs are encouraged to contact the QA Office at any time for further clarification when developing a new program.

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[11] All programs will include an in-person site visit, where permissible by public health guidelines.

2.3.1 New Joint Programs with other Universities

The University of Waterloo partners with a number of other institutions to offer a variety of joint programs at both the undergraduate and graduate level; these joint programs result in the conferring of a single degree. Excluded from the notion of 'joint' in this context are collaborative programs connected solely at the administrative level in order to assist students to earn mutually independent degrees from each of the partner institutions (e.g., a double degree program - Bachelor of Business Administration from Wilfrid Laurier University and Bachelor of Computer Science from University of Waterloo).

The following principles shall apply to the development process of new joint programs:

- There will be a single new program proposal, which will clearly explain how input was received from faculty, staff and students at each partner institution.
- The selection of arm's length external reviewers will involve participation by each partner institution, including the appointment of an internal reviewer from each partner institution.
- The external review will involve all partner institutions and preferably all sites, if the review is held in person. Reviewers will consult faculty, staff, and students at each partner institution.
- Feedback on the reviewers' report will be solicited from participating units at each partner institution, including the deans.
- A single new program proposal package will be submitted jointly to the Quality Council by all partners.
- All partner institutions will agree on the plan to monitor the new joint program, and participate in this monitoring process.
- If the Quality Council approves a new joint program to commence "with report," each partner institution will sign off on the report before it is submitted to the Quality Council.
- Partner institutions will agree on a common review schedule for the new joint program.

For programs joint with universities outside Ontario, the quality of the program is subject to quality assurance processes in the respective jurisdictions; therefore, the review process must adhere to the procedures outlined in the QAF. It is the responsibility of the Quality Council to determine whether the out-of-province partner is subject to an appropriate quality review process in its own jurisdiction suitably comparable to the Quality Council's assurance processes.

2.3.2 Statement of Interest

The proponent of a new program, in consultation with the Dean(s) and Associate Dean(s) of the Faculty/Faculties, completes a Statement of Interest that provides an overview of the proposed program.

Once completed, the Statement of Interest is submitted to the QA Office, and reviewed and approved by the AVPA, AVPGSPA or designate. The proponent for the new program may then

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begin to prepare the Proposal Brief.

2.3.3 Program Proposal Brief

A Program Proposal Brief (Volumes I, II, III) is completed in consultation with faculty, staff and students and alumni of similar programs. The Proposal Brief must follow the template provided, and address the criteria outlined in the QAF Evaluation Criteria (QAF 2.1.2).

While crafting the proposal brief, proponents are encouraged to engage internal and external stakeholders in formative conversations relative to their portfolios. As examples, proponents should seek input from their Dean on the feasibility of resources that may be necessary; Cooperative and Experiential Education (CEE) should be consulted if the new program may include work integrated learning. It is best practice to have the Proposal Brief informed by potential resource or other limitations.

A critical element in the development of a new program proposal is a financial viability analysis (FVA) conducted by Institutional Analysis and Planning (IAP). Through an FVA, the proposed program's costs – including faculty salaries, space requirements, and other resources (library, technology, etc.) – are compared to the potential revenues from student tuition and government grant. The outcome of the FVA is a report that accompanies the Brief which is then evaluated by the Faculty Dean and the Provost, who formally approves the financial elements of the program.

The completed Program Brief is submitted to the QA Office, which oversees an internal approval process that includes vetting by the AVPA, AVPGSPA or designate. The program is then submitted for approval to the relevant Faculty Undergraduate or Graduate Committee, and then Faculty Council.

2.3.4 External Evaluation

The QAF specifies new program proposals should be assessed by external academic reviewers (QAF 2.2.1) using evaluation criteria outlined in the QAF 2.1.2. In addition, the external reviewers will report on the substance of the new program proposal, comment on the adequacy of existing physical, human and financial resources; and acknowledge any clearly innovative aspects of the proposed program together with recommendations on any essential or otherwise desirable modifications to it (QAF 2.2.2)

The Review Committee (also known as the Site Visit Team) consists of two arm's length external reviewers, and an internal support person from within the institution but outside the discipline.

External reviewers will be selected on following criteria (QAF 2.2.1):

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- normally associate or full professors, or the equivalent—will have suitable disciplinary expertise,

- qualifications and program management experience, including an appreciation of pedagogy and learning outcomes

External reviewers will be nominated by the program in Volume III. The Review Committee is selected by the AVPA, AVPGSPA or designate.

The Review Committee evaluates the academic elements of the proposed program by reading the Proposal Brief (Volumes I and II - CVs) and conducting a site visit to the campus where the program will be offered. While the reviewers may identify additional resources that are of value to the proposed program, a consideration of the financial elements (revenues and expenses) of the proposed program is normally beyond the scope of their assessment. The reviewers' findings from the site visit are presented in an External Reviewers' Report, submitted to the QA Office within two weeks of the site visit. The reviewers are provided with a template for this report to ensure that the report meets the criteria outlined in QAF 2.2.1.

Once received, the report is reviewed by the QA Office and AVPA, AVPGSPA or designate to ensure proper completion. Any major issues or errors raised in the report will be addressed with the reviewers by the QA Office or AVPA/AVPGSPA, if appropriate. Any factual errors reported by the program are kept on file by the QA Office with the original report. In exceptional cases where a report does not provide value to the proposed program, a new review team may be sought, and a second site visit or desk review would supersede the original External Reviewers' Report.

The External Reviewers' Report is not public. Internally, the report is shared with the Vice-President Academic and Provost, AVPA or the AVPGSPA and Postdoctoral Affairs, Faculty Dean, Associate Deans Undergraduate or Graduate, AFIW Dean (if applicable), and the Chair/Director of the program.

==Procedures for the External Evaluation==

2.3.5 Program Response and Dean's Response

Separate responses from the program and the Dean are required. Representatives from the unit proposing the program review the External Reviewers' Report, write a response to each of the reviewers' recommendations, and outline plans for implementing the recommendations. The Proposal Brief is modified, as needed.

Once the QA Office receives the Program Response, it is shared with the relevant Faculty Dean and Affiliated and Federated Institutions of Waterloo (AFIW) Dean, if applicable. The Dean(s) are provided with a template to complete the Dean's Response, in which the Dean addresses the recommendations put forward by the external reviewers, and the program's response to the external reviewers' recommendations. The Dean's response should concentrate on those elements described in QAF 2.1.1.

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2.3.6 Institutional Approval

Major or significant changes to the Proposal Brief require that the proposal return through the initial approval process (i.e., Department/School, Provost, and Faculty-level approvals) prior to institutional approvals. The AVPA or AVPGSPA have final authority over whether re-approval is necessary. A new Financial Viability Assessment may also be necessary if substantive changes to resources or revenues have arisen.

The Proposal Brief (Volumes I and II), Program Response, and Dean's Response are submitted to Senate Undergraduate Council or Senate Graduate and Research Council and Senate for approval (QAF 2.4).

Procedures for Institutional Approval

2.3.7 Submission to & Response from Quality Council

Following Senate approval, the QA Office submits the Proposal Brief (Volume I), External Reviewers Report, Program Response, and Dean's Response, a brief commentary on the qualifications of faculty expertise and supervisory experience, and a submission checklist to the Quality Council Secretariat for approval by the Appraisal Committee (QAF 2.5).

> **Commented [AC8]:** These are new requirements by the QC. They no longer want to receive Volume II (CVs) just a commentary on qualifications of the faculty plus a completed submission checklist.

Once the Quality Council Secretariat acknowledges receipt of the proposal, the program may begin to advertise the program to prospective students. However, any announcements or ads must contain the following statement (QAF 2.7):

> *"Prospective students are advised that offers of admission to a new program may be made only after the university's own quality assurance processes have been completed and the Ontario Universities Council on Quality Assurance has approved the program."*

The Appraisal Committee evaluates the proposal based on (QAF 2.6.2):
- Overall sufficiency of the External Review Report(s);
- Recommendations and suggestions made by the external reviewers, including on the sufficiency and quality of the planned human, physical and financial resources;
- Adequacy of the internal responses by the unit and Dean(s) to the recommendations, or otherwise for single department Faculty; and
- Adequacy of the proposed methods for Assessment of Teaching and Learning given the proposed program's structure, objectives, program-level learning outcomes and assessment methods. (See Evaluation Criteria 2.1.2.4 a) and b))

The Appraisal Committee will then make a recommendation to the Quality Council. After considering the recommendation of the Appraisal Committee, the Quality Council will make one of the following decisions: (QAF 2.7.2):

a) Approved to commence;

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b) Approved to commence, with report;
c) Deferral for up to one year during which time the university may address identified issues and report back; or
d) Not approved.

The Quality Assurance Secretariat will convey the decision of the Quality Council to the University. Then the QA Office notifies the program proponent/department/school of the Quality Council's official decision.

A decision of "approved to commence with report" is given when significant additional action, such as a large number of new hires and/or other new resources, are required to assure the quality of the program (QAF 2.6.3). The preparation of the report is the responsibility of the program, in consultation with the dean or deans of the faculties in which the required actions will be implemented. Approval of the report will be the responsibility of the Vice-President, Academic or their delegate. The QA Office will notify the program when their report is due and will review and submit it to the Quality Council on their behalf.

Universities may consult/appeal a decision of b), c), or d) from the Appraisal Committee within 30 days (QAF 2.7.2). Should the result of this reconsideration be unsatisfactory, the University can appeal the Appraisal Committee's final recommendation to the Quality Council (QAF 2.7.2).

Programs will be notified by the Quality Assurance Office as to when they can begin to make offers of admission. Programs may only make offers of admission to new students once the Quality Council and the University have posted the approval of the new program and a brief description of the program on their websites.

> **Commented [AC9]:** New: Waterloo will start posting new programs and their description on the Academic Program Reviews/Quality Assurance website.

After a new program is approved to commence, the program launches with its first student intake within 36 months of the date of approval (QAF 2.9.1) otherwise, the approval will lapse. The new program enters into the cyclical program review cycle, with the first review taking place no later than eight years following the first intake of students (QAF 2.9.3).

New undergraduate and/or graduate programs that have been approved within the period since the previous Audit are eligible for selection for the University's next Cyclical Audit. Note: an audit cannot reverse the approval of a program to commence.

> **Commented [AC10]:** This is new language added by the QC.

Procedures for Approval by Quality Council

2.3.8 Submission to & Response from the Ministry

Once the proposal has been submitted to the Quality Council, IAP submits a program proposal to the Ministry of Colleges and Universities (MCU) for approval of proposed tuition and grant weight. Once MCU approval is confirmed, IAP notifies the department/school and applicable university personnel.

2.3.9 *Progress Report*

A Progress Report is prepared by the program's Chair or Director, submitted to the QA Office and reviewed and approved by the AVPA or AVPGSPA. The submission deadline for the Progress Report is determined on a case-by-case basis but is required no later than 48 months after the program's first student intake. This report satisfies the QAF requirement to ensure the monitoring of new programs (QAF 2.9.2). The purpose of the report is to provide initial data on student progress and implementation of the program, to respond to recommendations and any issues raised in the External Reviewers' Report, and to highlight any additional areas to be considered in the first cyclical review of the new program. In addition, this report will carefully evaluate the program's success in realizing its objectives, requirements, and outcomes, as originally proposed and approved, and any changes that have occurred in the interim, including in response to any Note(s) from the Appraisal Committee.

The Progress Report is internally reviewed and approved by Senate Undergraduate Council or Senate Graduate and Research Council, and subsequently sent to Senate for information. This report is not subject to Quality Council reporting, unless the program received 'approval to commence, with report' (QAF 2.6.3).

<mark>**Procedures for the Progress Report**</mark>

> **Commented [AC11]:** he QC no longer requires a written follow up report **unless** significant additional action/ resources are required to assure the quality of the program. This is referred to as "*Approval to commence, with report*".
>
> "The *with report* condition implies no lack of quality in the program at this point, importantly does not hold up the implementation of the new program, and is not subject to public reference on the Quality Council's website. **The requirement for a report is typically the result of a provision or facility not currently in place but considered essential for a successful program and planned for later implementation.**" (QAF, page 22)
>
> We have adjusted the deadline for progress reports which will be determined on a case-by-case basis and will depend on the program's commitments and the recommendations by external reviewers.

3. EXPEDITED APPROVALS OF NEW PROGRAMS

Proposals for new for-credit Type 2 and 3 graduate diplomas (GDip), as well as, new standalone degree programs arising from a long-standing field in a master's or doctoral program that has undergone at least two Cyclical Program Reviews and has at least two graduating cohorts, follow an expedited approval process (QAF 3).

These proposals have the same required steps as a New Program Proposal with the exception of the external evaluation and subsequent responses. New graduate diplomas are required to submit a Proposal Brief that addresses the relevant QAF Evaluation Criteria (QAF 2.1.2).

The Quality Council's Appraisal Committee conducts an appraisal and will then make a recommendation to the Quality Council. After considering the recommendation of the Appraisal Committee, the Quality Council will make one of the following decisions: (QAF 3.2):

   a) Approved to commence;
   b) Approved to commence, with report;
   c) Not approved.

The Quality Assurance Secretariat will convey the decision of the Appraisal Committee to the Quality Council for information, and then to the University. The QA Office notifies the program proponent of the Quality Council's official decision (QAF 3.2).

A decision of "approved to commence with report" will only be required when significant additional action, such as a large number of new hires and/or other new resources, are required to assure the quality of the program (QAF 2.6.3). The QA Office will notify the program when their report is due and will review and submit it to the Quality Council on their behalf.

The University may appeal a decision of b) or c) using the same process for new program appeals in the QAF 2.7.1 to 2.7.4.

The expedited approval process *may* also be used if the institution requests Quality Council endorsement of a graduate field, or if the institution requests an expedited approval for a major modification to an existing program. However, Waterloo has rarely used this process for graduate fields or major modifications. Note: programs created or modified through the Protocol for Expedited Approvals are not normally subject to the institution's Cyclical Audit.

An approved GDip should be added to the Cyclical Program Review Schedule, for review alongside its "parent" program, where one exists. In the absence of an existing "parent" master's or doctoral degree program, best practice would be to have the proposed GDip externally reviewed by desk review or equivalent method.

Flow chart of QAF Overview of the Expedited Approval Process

<mark>Procedures for Expedited Approvals of New Programs</mark>

Commented [AC12]: New language from the QC.

Type 1 GDips are now handled as major modifications (as are collaborative programs/specializations – this was changed back in 2016).

Added option of the creation of a new standalone degree from an existing field in a graduate program, with associated criteria, to go through the Protocol for Expedited Approval.

Commented [AC13]: New language

Commented [AC14]: This is new. Waterloo has not undertaken desk reviews in the past. Details have been added to the "Procedures" section.

3.1 Proposals for New Undergraduate Minors, Options, Specializations, Certificates and Diplomas

Proposals for a new for-credit undergraduate minors, options, specializations, certificates, or diplomas require, at minimum, Faculty-level approval, Senate Undergraduate Council and Senate approval (Appendix A).

New for-credit undergraduate diplomas are considered major modifications and are subject to the approval process for major modifications (see Section 4). Proposals for new for-credit undergraduate diplomas may be subject to approval by the Ministry of Colleges and Universities for tuition and grant funding. Please consult Institutional Analysis and Planning.

Not-for-credit and for-credit undergraduate or post-graduate diploma programs are not subject to approval or audit by the Quality Council.

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4. MAJOR MODIFICATIONS TO EXISTING PROGRAMS

4.1 Definition of a Major Modification

Major modifications are made by institutions in order to (QAF 4):

- Implement the outcomes of a cyclical program review;
- Reflect the ongoing evolution of the discipline;
- Accommodate new developments in a particular field;
- Facilitate improvements in teaching and learning strategies;
- Respond to the changing needs of students, society, and industry; and/or
- Respond to improvements in technology.

Such modifications provide an opportunity for continuous improvement, improving the student experience and staying current with the discipline.

According to the QAF, the purpose of identifying major modification to existing programs is to ensure "their approval through a robust quality assurance process" and to "assure stakeholders, including the university, students, the public, and the government of the ongoing quality of the institution's academic programs."[12]

A major modification is defined as one or more of the following program changes (QAF 4):

- Requirements that differ significantly from those existing at the time of the previous cyclical program review;

- Significant changes to the program-level learning outcomes that do not, however, meet the threshold of a new program;

- Significant changes to the program's delivery, including to the program's faculty and/or to the essential physical resources as may occur, for example, where there have been changes to the existing mode(s) of delivery (e.g., different campus and/or online/hybrid delivery – see below);

- Change in program name and/or degree nomenclature, when this results in a change in learning outcomes; and/or

- Addition of a single new field to an existing graduate program. Note that universities are not required to declare fields for either master's or doctoral programs. Also note that the creation of more than one field at one point in time or over subsequent years may need to go through the Expedited Protocol.

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[12] Quality Assurance Framework (oucqa.ca) (2021)

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Waterloo defines a *significant change* as revisions or additions (i.e., major modifications) that substantially impact a program. For example, changing *up to* one third of the courses or requirements to a program. Changes that impact *more* than a third of courses or requirements may be considered a new program. The AVPA or AVPSGA will make the decision as to whether the changes constitute a new program, requiring the initiation of the new program protocol.

When changing the mode of delivery of a program to online for all or a significant portion of a program that was previously delivered in-person, consider the following criteria:

- Maintenance of and/or changes to the program objectives and program-level learning outcomes;
- Adequacy of the technological platform and tools;
- Sufficiency of support services and training for teaching staff;
- Sufficiency and type of support for students in the new learning environment; and
- Access.

All major modifications to existing programs require internal approvals. Changes that impact collaborations with other courses, programs, departments/schools and Faculties require consultation in advance of bringing the change forward for approval. IAP must be consulted as some major modifications can impact tuition and grant funding from the Ministry.

In addition, academic support units such as Centre for Teaching Excellence (CTE), Co-operative and Experiential Education (CEE), and the Library must be consulted to assess any impact of the proposed changes.

Furthermore, an assessment of the impact of the proposed modification will have on the program's students, and input from current students and recent graduates of the program must be included in the documented rationale for the major modification. Specifically, including a statement on the way in which the proposed major modification will improve the student experience.

> **Commented [AC15]:** This is a new requirement for all major modifications.

In such cases where a submission of a major modification to the Quality Council is for expedited approval, the submitted Proposal requires:
- Description of, and rationale for, the proposed changes; and
- Application of the relevant criteria, as outlined in Framework Section 2.1.2, to the proposed changes. The University will determine which criteria are deemed relevant for each Proposal and, to meet their own needs and in recognition of the diversity in institutional strategies, institutions may include their own quality assurance requirements, including for example, consideration of equity, diversity and inclusion, special missions and mandates, and student populations that are being encouraged by governments, institutions, and others.

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Any program closure will be considered a major modification and will follow the approval process listed below. The internal approval process will ensure that the proposed modification is in alignment with the relevant program-level learning outcomes.

Major modifications are approved initially at the department/school level and Faculty level (including relevant Faculty Undergraduate or Graduate Committee, and Faculty Council). Subsequently, the major modification is approved at Senate Undergraduate Council or Senate Graduate and Research Council and, finally, by Senate. Major modifications are not subject to Quality Council approval; however, all major modifications are submitted and subject to review by the Quality Council on an annual basis (QAF 4.3). The Quality Council has the final authority to decide if a major modification constitutes a new program and, therefore, must follow the Protocol for New Program Approvals. Note: major modifications are not normally subject to the institution's Cyclical Audit.

Level of approval and reporting for major modifications is listed in Appendix A.

If there is uncertainty as to whether a particular change is major/significant or minor, the program should contact the QA Office. The AVPA or AVPGSPA will be the final arbiter for decisions with regards to major modifications for undergraduate and graduate programs, respectively.

Procedures for Major Modifications

4.2 Minor Modifications

Modifications that do not meet the threshold of a major modification are considered to be minor. These would minimally include: changes to an existing Emphasis, Option, or Minor Program; the creation of a new micro-credential(s); undergraduate certificate(s); and laddering, stacking or similar options or comparable elements. While these modifications do not need Quality Council appraisal and approval, the QC requires that the University of Waterloo detail how the changes will be made and the quality of such changes will be assured.

Minor modifications to academic programs for credit (e.g., Emphasis, Specialization, Option, or Minor, undergraduate certificate(s) or comparable elements) are approved at the department/school level, Faculty level (including relevant Faculty Undergraduate or Graduate Committee, and Faculty Council), and then subsequently approved at Senate Undergraduate Council or Senate Graduate and Research Council. Undergraduate Council or Senate Graduate and Research Council are empowered to approve minor changes on behalf of Senate, as per Senate Bylaw 2.

Minor modifications for non-credit or alternative credentials offerings such as micro-credential(s), laddering, stacking or similar options, or comparable elements, are approved by an Alternative Credentials Approval Committee which is chaired by the AVPA. New offerings are submitted to this Committee for review and approval using a standardized template. The template requires that the offerings detail how they will solicit feedback from participants and provide a timeframe for ongoing evaluation. The Committee will review the report to assess indicators of

Commented [AC16]: New inclusion from the QC.

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the quality of the offering and will recommend steps taken to address any problems that are identified.

Minor modifications are not subject to Quality Council review or reporting. Level of approval and reporting for minor modifications is listed in Appendix A.

Procedures for Minor Modifications

Commented [AC19]: The QC required that we explain how these offerings will be approved and their quality assured.

Note: The wording here is deliberately left a bit loose as ACAC is a relatively new committee and its processes are evolving.

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5. CYCLICAL REVIEWS OF EXISTING PROGRAMS

5.1 Purpose of Cyclical Reviews

Cyclical reviews of academic programs are conducted to:

- help each program achieve and maintain the highest possible standards of academic excellence, through systematically reflecting on its strengths and weaknesses, and look forward to determine what actions would further enhance quality in the program;
- assess the quality of the program relative to counterpart programs in Ontario, Canada and internationally;
- meet public accountability expectations through a credible, transparent, and action-oriented review process;
- create an institutional culture that values continuous improvement, while recognizing the significant workload implications such proactive steps require.

A key outcome from a Cyclical Review is the Final Assessment Report which forms the basis of a continuous improvement process that monitors the recommendations in the Implementation Plan.

Given its commitment to continuous improvement and excellence in academic programs, the University of Waterloo also reviews undergraduate diplomas, minors, options, and specializations, which exceeds the requirements of the QAF. Offerings such as participation certifications and language diplomas are excluded from a cyclical review.

Academic programs are typically, but not always, associated with an academic department. In cases where program administration spans multiple academic units, provisions are made to review these offerings (joint programs and multi- or inter-disciplinary programs) in a way that is appropriate for the University. Faculty-based programs – those administered through the Faculty Dean's Office – follow the same process as their counterparts housed in traditional academic departments/schools.

Waterloo encourages combined or 'augmented' reviews (i.e., where related undergraduate and graduate are reviewed concurrently) where feasible as such reviews tend to be more efficient. More importantly, augmented reviews often have academic merit, as there are typically interactions between the undergraduate and graduate programs, so benefits of the program review process are greater when the programs are considered together.

Note: regardless of the "bundling" of program reviews, the quality of each academic program and the learning environment of the students in each program will be explicitly addressed in the self-study and the external reviewers' report.

5.2 Frequency of Reviews

Waterloo's cyclical program reviews are generally scheduled to take place every seven years.

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According to the QAF, program reviews must be reviewed in a cycle not to exceed eight years (QAF 5.1.1). To achieve alignment between the timing of reviews of undergraduate and graduate programs, the scheduling of the review can be adjusted, with approval from the AVPA or AVPGSPA, but the interval between reviews shall not exceed eight years. Failure to complete the review within the eight-year timeline would put the University of Waterloo out of compliance with the QAF. Every effort is made at all levels of the University to adhere to the QAF timelines.

The program review schedule is posted on the Academic Program Review website and is updated annually. Note: programs which have been closed or for which admission has been suspended are out of scope. The review schedule includes all program offerings, including those that are joint/inter-institutional, multi-disciplinary, interdisciplinary or at multiple sites. The Schedule will also include all modes of program delivery and can reflect independent or concurrent review of a university's undergraduate and graduate programs, and/or with other departments and academic units.

Commented [AC20]: This is new.

Flow chart of QAF Overview of Cyclical Program Review Process

5.3 Cyclical Program Review Process

The cyclical review process typically takes up to 18 months to complete. There are five components to complete the cyclical program review, as outlined in the QAF:

1. The **self-study** (QAF 5.1.3) is prepared by faculty and staff with input from faculty, students and alumni of the program. Professional programs must also seek feedback from employers and/or professional associations. (Procedures);

   Commented [AC21]: This is new.

2. An **external evaluation** (QAF 5.2.1), including a site visit[13], is conducted by qualified, arm's length reviewers, who submit a report on their findings (Procedures);
3. The **Program Response, Implementation Plan & Dean's Response** (QAF 5.3.2) are submitted, summarizing the response to the External Reviewers' Report and plans for implementing the recommendations (Procedures);
4. A **Final Assessment Report (FAR)** (QAF 5.3.2), which is a synopsis of the self-study, reviewers' recommendations, Program and Dean's Responses, and the Implementation Plan, is prepared by the QA Office (Procedures);
5. **Approval and Reporting** (QAF 5.4.1, 5.4.2) requires that the FAR is reviewed by the AVPA or AVPGSPA, then the Program Chair or Director and the Dean for factual corrections. The FAR is then reviewed and approved by Senate Undergraduate Council or Senate Graduate and Research Council (note: these bodies have delegated authority to approve such items on behalf of Senate), and then sent to Senate for information. Upon Senate approval, the FAR is sent to the Program Chair or Director, Dean and Associate Dean and is posted publicly on the University's website. The FARs are submitted annually to the Quality Council (Procedures)

   Commented [AC22]: his is new and seen as a formal transfer of accountability to the Program and Dean to follow through with the actions laid out in the recommendations and Implementation Plan.

In order to ensure that the full quality improvement value of the cyclical review process is

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[13] All programs will include an in-person site visit, where permissible by public health guidelines.

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attained, the University of Waterloo has monitoring and reporting steps as required in the QAF 5.4.1:

6. The **Progress Report** provides an update on progress made on the Implementation Plan. The Report is reviewed and approved by Senate Undergraduate Council or Senate Graduate and Research Council, as appropriate, then sent to Senate for information, whereupon it is posted on the University's website. This report is not subject to QC reporting (<mark>Procedures</mark>);

Detailed procedures for cyclical program reviews (steps 1-7) are hyperlinked outside of the IQAP as they are subject to slight changes (i.e., changes in timelines or revisions to the names of institutions or positions, etc.); however, all procedures adhere to the standards outlined within the QAF. Any substantial changes made to these procedures requires the approval of Senate and the Quality Council. Note: Editorial changes, changes to deadlines, and similar minor changes are not subject to such approval.

The QA Office maintains the Academic Program Reviews website which includes resources for those involved in any stage of the cyclical review process, including comprehensive templates for the self-study (Volume I, II, III), External Reviewers' Report, Program Response and Implementation Plan, Dean's Response, and Final Assessment Report (FAR), as well as the Two-Year and Five-Year Progress Reports. Programs are encouraged to contact the QA Office at any time for further clarification on matters pertaining to their cyclical program review.

5.3.1 Self-Study

As per Waterloo's schedule of cyclical program reviews, the QA Office, on behalf of the AVPA or AVPGSPA, notifies the Chair/Director of the program of the upcoming review approximately a year in advance of the deadline for submission of the self-study. The programs and any associated "bundling" of programs are denoted in the program review schedule and distinct versions of each program must be identified at the beginning of the process, including the various delivery modes and sites.

An orientation presentation is organized by the QA Office, which covers the nature of the review process, an overview of the self-study template and the associated timelines. The preparation of the self-study, consisting of three volumes of documentation (Volume I, II, III), has typically required 8-10 months. This duration is a result of the need for meaningful consultation with stakeholders including faculty, students, staff and alumni, as well as feedback on professional programs from employers and/or professional associations; receipt of partners' contributions (e.g., cooperative education, library, and others); the gathering of faculty data including access to up-to-date CVs; and the allocation of time for program leaders to engage in a broad-based, reflective, forward-looking and critical analysis.

> **Commented [AC23]:** Expanded consultation required.

Each program receives a self-study (Volume I) template pre-populated with numerical data relevant to their program(s). These data quantify critical program attributes – student demand, enrollments, and retention; faculty teaching and students' perceptions of quality; research output and funding; and composition of the program's faculty and staff. The intention of providing these data is to allow

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the program to interpret the quantitative representation in ways that advance the goals of the review – identifying strengths and opportunities for enhancement.

Data for the self-study are provided primarily by IAP, reflecting centrally compiled institutional data, and ensuring consistency and integrity in definitions, sources and dates. These data are for internal uses and not publicly available. In cases where programs have concerns with the data that are provided, opportunities exist in the self-study process to verify the validity of these data with IAP, the QA Office, and other sources.

The cyclical review covers the seven previous fiscal years (spring/fall/winter), with emphasis on the most recent years.

The structure and content of the self-study follow the requirements of the QAF (QAF 5.1.3.). Programs and ultimately external reviewers are required to articulate and evaluate:

- consistency of the program's learning outcomes with the institution's mission and Degree Level Expectations, and how graduates achieve those outcomes;
- program-related data and measures of performance, including applicable provincial, national and professional standards (where available);
- integrity of the data;
- evaluation criteria and quality indicators (QAF 5.1.3.1);
- Identify any unique curriculum or program innovations, creative components, or significant high impact practices;
- concerns and recommendations raised in previous reviews (including items flagged for monitoring or follow-up with the QC for new programs undergoing their first cyclical review);
- areas identified through the self-study as requiring improvement;
- areas identified as holding potential for enhancement and/or opportunities for curricular change as identified by the program's faculty, staff and/or students;
- academic services that directly contribute to the academic quality of each program under review;
- participation of program faculty,[14] staff, students, and alumni in the self-study

The completed self-study is subject to review and approval of the AVPA, AVPGSPA or designate.

All documentation associated with the self-study is confidential and not publicly available.

Procedures for Completing the Self-Study

5.3.2 External Evaluation

The QAF specifies that the review of existing programs should be assessed by external academic reviewers guided by QAF 5.2 using the QAF's evaluation criteria in QAF 5.1.3.1. The Review

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[14] Faculty who regularly teach in the program, and faculty from the Affiliated and Federated Institutions of Waterloo (AFIW) are to be consulted.

Committee consists of two external reviewers who are arm's length from the program under review, one from inside and one from outside the Province of Ontario, and an internal support person, as needed, from within the institution, but outside the program/discipline.

External reviewers will be selected on following criteria (QAF 5.2.1):

- normally associate or full professors, or the equivalent—will have suitable disciplinary expertise,

- qualifications and program management experience, including an appreciation of pedagogy and learning outcomes
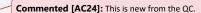
External reviewers (including employers and/or professional associations related to professional programs) are nominated by the program in Volume III. From the full list of nominees, the Review Committee (also known as the Site Visit Team) will be selected, as appropriate, by the AVPA, AVPGSPA or designate. The criteria for selection of the reviewers include at minimum associate or full professor level, previous administrative leadership, evidence of current research and teaching, and similarity of the externals' academic discipline to the program(s) being reviewed. External reviewers for professional programs will be selected based on length and quality of expertise in industry or profession as well as current level of activity in the field.

Commented [AC24]: This is new from the QC.

The Review Committee will evaluate the program by reading the self-study and Volume II (CVs) and conducting a site visit. During the site visit, the AVPA, AVPGSPA or designate ensure the reviewers understand their role and respect the confidentiality of the review process. During the site visit, the reviewers meet with faculty, staff, students, and administrators connected to the program(s) under review and view related facilities.

Commented [AC25]: Referenced to in-person site visits removed. The criteria for virtual site visits is included in the Procedures document.

The reviewers are provided with an External Reviewers' Report template that includes the criteria outlined in the QAF 5.2.1. Reviewers are instructed to present their findings from the site visit in one joint report using the External Reviewers' template and submit it to the QA Office. Reviewers are asked to identify and commend the notably strong and creative attributes of each discrete program documented in the self-study, as well as, each discrete program's respective strengths, areas for improvement, and opportunities for enhancement. In addition, reviewers are asked to provide evidence of any significant innovation or creativity in the content and/or delivery of the program relative to other such programs. This report must include a minimum of three recommendations for specific steps to be taken that will lead to the continuous improvement of the program, distinguishing between those the program can itself take and those that require external action. Reviewers must articulate and demonstrate the value of any suggested additional resources, such as faculty complement and/or space requirements, and how these are directly tied to issues of program quality or sustainability. The QA Office requests to receive this report within two weeks of the site visit.

Commented [AC26]: This is new from QC.

Commented [AC27]: This is new from QC.

Once received, the report is reviewed by the QA Office and AVPA, AVPGSPA or designate to ensure proper completion. Any major issues or errors identified in this review are addressed with the reviewers by the QA Office, and AVPA or AVPGSPA, if appropriate. Any factual errors reported by the

program are kept on file by the QA Office with the original report. In the unlikely case where a report does not provide sufficient value to the program under review, a new Review Committee may be sought, and a second site visit or desk review conducted which would supersede the original External Reviewers' Report.

The External Reviewers' Report is not publicly available. The document is shared internally with the Vice-President Academic and Provost, AVPA or AVPGSPA, Faculty Dean(s), Associate Deans Undergraduate or Graduate, AFIW Dean (if applicable), and the Chair/Director of the program.

<mark>**Procedures for the External Evaluation**</mark>

5.3.3 Program Response, Implementation Plan and Dean's Response

Representatives from the program, typically those responsible for the development of the self-study, review the External Reviewers' Report and write a response to each of the reviewers' recommendations using a template provided by the QA Office. The program also drafts a plan for the implementation of the recommendations and prioritizes recommendations selected for action. Once the QA Office receives the Program Response and Implementation Plan, the documents are shared with the relevant Faculty Dean(s) and, if applicable, AFIW Dean. The Dean(s) is provided with a template to complete the Dean's Response.

In their response, the Dean reflects upon the actions the program proposed in their self-study report, the recommendations put forward by the external reviewers, and the program's response to the external reviewers' recommendations and their Implementation Plan. The Dean is asked to comment specifically on the consistency and alignment of the program's intended actions with Faculty- and University-level priorities. Moreover, the Dean addresses any Faculty resource implications that may be necessary for the program to respond effectively to the recommendations.

Naturally (and appropriately), there may be instances where the program's and Dean's assessments of future pathways may not be entirely aligned. In such cases, these stakeholders are encouraged to address any differences. Collectively, the Program Response and the Dean's Response should provide clarity to the program, the Faculty, and the University on:

- what actions will follow from specific recommendations and prioritizes recommendations selected for action;
- any changes in organization, policy or governance that would be necessary to follow the recommendations;
- resources – financial or otherwise – required to support the implementation of selected recommendations;
- who will be responsible for providing resources;
- a proposed timeline and responsibility for oversight for implementation of any of those recommendations; and
- priorities for implementation and realistic timelines for initiating and monitoring actions.

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The details, most of which are verbatim, from the Program Response, Implementation Plan, and Dean's Response are used by the QA Office to prepare the Final Assessment Report (FAR); however, the Program Response and Dean's Response documents are not publicly available.

Procedures for Completing the Program Response, Implementation Plan and Dean's Response

5.3.4 Final Assessment Report

The Final Assessment Report (FAR) is the key outcome of a cyclical review and forms the basis of a continuous improvement process that monitors the recommendations in the Implementation Plan. The QA Office prepares the FAR and it is reviewed by the AVPA or AVPGSPA. The FAR is a synopsis of the entire cyclical review and is based on information extracted, in many cases verbatim, from the self-study, External Reviewers' Report, Program Response and Dean's Response. The FAR identifies strengths of the program, opportunities for program enhancement, and sets out an implementation plan for all of the external reviewer's recommendations (except, where an approved rationale is provided for not including a specific recommendation(s)). Furthermore, any additional recommendations that the program/unit, the Dean(s) and/or the University may have identified as requiring action as a result of the program's review will be included in the FAR.

The FAR includes an Executive Summary, and Implementation Plan, which outlines who is responsible for providing resources for the recommendations, who is responsible for acting on the recommendations, and timelines for acting on and monitoring the implementation of the recommendations (QAF 5.3.2). The Final Assessment Report will not include any confidential information.

Procedures for Completing the Final Assessment Report (FAR)

5.3.5 Approval and Reporting

After the FAR and associated Implementation Plan are reviewed by the AVPA or AVPGSPA, they are shared with the Program Chair or Director and the Dean for review of any factual corrections. Before they go to Senate for information they are reviewed and approved by members of Senate Undergraduate Council or Senate Graduate and Research Council (note: these bodies have delegated authority to approve such items on behalf of Senate). Once through Senate, they are sent to the Program Chair or Director for them to "own" and act on, as appropriate, and are posted publicly on the Academic Program Reviews website and the website of any affiliated institution. Programs are also encouraged to post the FAR and associated Implementation Plan on their own websites. The FARs, including the Implementation Plans, are submitted annually to the Quality Council and to the Board of Governors. The annual report and related Cyclical Program Review processes will occasionally be reviewed for compliance by the Quality Council and, if issues are found, the Quality Council may decide to initiate a Focused Audit (see Section 6).

Procedures for Approval and Reporting

> **Commented [AC28]:** A new requirement from the QC.

> **Commented [AC29]:** New.

> **Commented [AC30]:** Also new.
> A Focused Audit is a mini-audit added to closely examine a specific aspect(s) of the university's QA practices/processes arising from causes for concern from a Cyclical Program Review or triggered by other QA concerns of a systemic nature.

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5.3.6 *Progress Report*

The Program Chair or Director is responsible for the preparation and submission of a Progress Report, submitted approximately four years after the start of each cyclical review. In this report, programs are asked to outline their progress on their Implementation Plan from their last program review. This report is an opportunity for the program to explain any circumstances that have altered the original implementation plan, address any significant developments or initiatives that have arisen since the program review process or that were not contemplated during the review, and report on anything else the Program Chair or Director believes is appropriate to bring to Senate concerning the program.

The progress report is reviewed by the AVPA or AVPGSPA, and subsequently approved by Senate Undergraduate Council or Senate Graduate and Research Council. Finally, the progress report is sent to Senate for information and posted publicly on the Academic Program Reviews website.

<mark>Procedures for Completing the Progress Report</mark>

5.4 Programs at Federated or Affiliated Institutions

The University of Waterloo has one federated university (St. Jerome's University) and three affiliated university colleges (Conrad Grebel University College, Renison University College, United College). All academic programs offered completely by, or in conjunction with, these Affiliated and Federated Institutions of Waterloo (AFIW) fall under the purview of the University of Waterloo's IQAP and follow the same quality assurance process and standards as other programs offered by the University of Waterloo. When a program is primarily based within one of the AFIW, the lead role for the program review is taken by the relevant institution.

For a number of Waterloo programs, a substantial contribution is made to program delivery by one or more of the AFIW, and in a few cases there is a parallel unit to the Waterloo department primarily responsible for the delivery of the program. Success in such situations is facilitated by active cooperation and communication between the units involved, and it is expected that such units will use the review process as an opportunity to explore ways in which the program(s) under review can be strengthened. In such cases the following principles should apply:

- the Waterloo department in which the program is housed will be primarily responsible for preparation of the self-study, for hosting site visitors, and for responding to recommendations;
- the self-study should accurately reflect the role of the AFIW in the delivery of the program;
- the Waterloo unit is responsible for ensuring that there is meaningful consultation with the AFIW units (or where there is no unit, colleagues who are involved in the delivery of the program to a considerable degree) during the preparation of the self-study and the response to recommendations;

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- in cases where implementing recommendations may require changes to processes and practices not only with the Waterloo units but within the AFIW as well, program and Deans' responses to the recommendations should clearly indicate what steps will be taken in each institution. If a recommendation is to be acted on in one unit but not another, a rationale should be provided.

Commented [AC32]: Clarification of expectations for programs with AFIW involvement.

Conversely, for programs whose delivery is primarily the responsibility of a unit within one or more AFIW, appropriate involvement of relevant Waterloo departments or colleagues in the preparation of self-studies and response to recommendations is required.

The Affiliated and Federated Institutions of Waterloo may opt to have their program reviews considered at their own councils, in parallel to their review and approval at Senate Undergraduate Council or Senate Graduate and Research Council. The Final Assessment Reports (FARs) and Progress Reports for AFIW-based programs will be centrally posted on the Academic Program Reviews website as well as on the AFIW's own website.

5.5 Programs Joint with other Universities

The University of Waterloo partners with a number of other institutions to offer a variety of joint programs at both the undergraduate and graduate level; these joint programs result in the conferring of a single degree. Excluded from the notion of 'joint' in this context are collaborative programs connected solely at the administrative level in order to assist students to earn mutually independent degrees from each of the partner institutions (e.g., a double degree program - Bachelor of Business Administration from Wilfrid Laurier University and Bachelor of Computer Science from University of Waterloo).

Procedures for joint programs with other universities

In the case of joint programs with other postsecondary institutions in Ontario, the participating institutions will agree on a common review schedule. Cyclical reviews will be conducted according to the IQAP of the institution administering the review (usually the institution at which the current director holds appointment) and under the leadership of that institution's program director. For purposes of consistency, the institution that holds directorship of the joint program at the beginning of the cyclical review will be responsible for leading the process through to the completion of the Final Assessment Report, Implementation Plan, and the Progress Report.

For programs joint with universities outside Ontario, the quality of the program is subject to quality assurance processes in the respective jurisdictions; therefore, the review process must adhere to the procedures outlined in the QAF. It is the responsibility of the Quality Council to determine whether the out-of-province partner is subject to an appropriate quality review process in its own jurisdiction suitably comparable to the Quality Council's assurance processes. Waterloo includes information in the self-study relevant to the out-of-province offering. The review may not necessarily require a site visit to the other institution; however, the program includes information that would normally be gained during a site visit about the components of

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the program completed outside Ontario (e.g., video, photos, floor plans, etc.).

5.6 Accredited Programs

Beyond the Quality Assurance process, many academic programs are evaluated and accredited by organizations in their disciplines. Examples at the University of Waterloo include Engineering programs that are accredited by [CEAB](#) while the School of Planning is accredited at the Provincial and Federal levels. It is important to understand the similarities and differences between accreditation processes and the Institutional Quality Assurance Process.

According to the Quality Council, accreditation is described as "a process by which a program or institution is evaluated to determine if it meets certain pre-determined minimal criteria or standards." Quality assurance, on the other hand, is described as "as on-going and continuous evaluation for the purpose of quality improvement. Quality assurance processes include assessing, monitoring, guaranteeing, maintaining and improving."[15] Inherently, accreditation typically asks if a program is meeting the minimum requirements to ensure graduates have necessary attributes to engage professionally. The IQAP process, as articulated throughout this document, concentrates on continuous improvement with systematic, transparent monitoring by (internal) stakeholders.

Despite the differences in objectives, these two processes have overlapping elements. To support programs that have accreditation requirements, the University's IQAP, at the discretion of the AVPA or AVPGSPA may:

- allow programs' timelines for Quality Assurance to be modified to coincide with accreditation, provided that timeline does not exceed the maximum interval between cyclical reviews;
- allow external site visits by accreditation and program reviewers to occur concurrently; and
- allow content (data, analyses, or evaluations) developed for accreditation processes to be used for Quality Assurance when the accreditation materials directly satisfy the IQAP requirements.

The Associate Vice Presidents and the QA Office encourage open and frank conversations with programs about the opportunities to reduce workloads while still maintaining the integrity of the Quality Assurance process.

In the event that the Associate Vice Presidents allow elements of a cyclical program review to be substituted or augmented with elements from an accreditation review, a record of each substitution or addition will be kept as well as a record of the AVP's decision making ([QAF 5.5](#)). A Record of Substitution or Addition, and the grounds on which decisions were made, is eligible for

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[15] [5.5 Use of Accreditation and Other External Reviews in the Institutional Quality Assurance Process — Ontario Universities Council on Quality Assurance (oucqa.ca)](#)

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Cyclical Audit by the QC.

Commented [AC33]: New.

6. AUDIT PROCESS

The Quality Council will audit each university once every eight years. An audit provides necessary accountability to post-secondary education's principal stakeholders (QAF 6). As the QAF states,

> *"the objectives of the Cyclical Audit…are to ensure transparency and accountability in the development and review of academic programs, to assure students, citizens and the government of the international standards of quality assurance processes, and to monitor the degree to which a university has:*
>
> a) *Improved/enhanced its quality assurance processes and practices;*
>
> b) *Created an ethos of continuous improvement; and*
>
> c) *Developed a culture that supports program-level learning outcomes and student-centred learning."[16]*

Cyclical Program Reviews that were undertaken within the period between audits and any new undergraduate and/or graduate programs that have been approved since the previous audit are eligible for selection for the university's next Cyclical Audit. Note that an audit cannot reverse the approval of a program to commence.

> **Commented [AC34]:** This is new.

The University is required to complete the following:

- participate in a half-day briefing with the Quality Council Secretariat and an Audit Team member approximately one-year prior to the scheduled Cyclical Audit;
- prepare an institutional self-study;
- describe the process for the preparation of the institutional self-study;

> **Commented [AC35]:** This is a new requirement.

- assign responsibility for the preparation of the self-study and submission of the self-study and desk audit documentation to the Quality Council Secretariat;
- establish the schedule for the site visit so that the audit team meet with all the stakeholders (listed in QAF 6.2.6);
- submit a report on the factual accuracy of the audit report draft;
- if necessary, submit a follow-up report frame with details about how the issues have been addressed;
- if necessary, make changes in the follow-up report;
- if required, participate in a focused audit and act accordingly;
- publish the Audit Report, absent any confidential information, on its website;
- publish the Follow-up Response Report, as well as the associated auditors' report on its website; and
- publish any Focused Audit Report on its website.
- The AVPA and AVPGSPA, with support from the QA Office, are jointly responsibility for drafting the institutional self-study. The following academic support units that are involved in new programs, cyclical reviews, and major modifications, will be asked for

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[16] Quality Assurance Framework (oucqa.ca) (2021)

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their input into the self-study: Institutional Analysis and Planning (IAP), Graduate Studies and Postdoctoral Affairs Office, Centre for Teaching Excellence, Centre for Extended Learning, Registrar's Office, Marketing and Undergraduate Recruitment, Co-op and Experiential Education, the Library, EDI-R and the Indigenous Relations Office and others as needed.

A lack of compliance with concerns raised from an audit can result in the Quality Council suspending enrolment in a particular program(s) or delaying or suspending new program approvals (Part One: QAF Principles). In addition, the University of Waterloo may be required to participate in a subsequent Focused Audit (QAF 6.3) when the Quality Council has some concerns about the quality assurance processes at the University.

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[Appendix A](#): Sequence of Approval and Reporting

IQAP Item	Faculty-Level	Externally Reviewed	[SUC](#)*/[SGRC](#)*/ [ACAC](#)*	Senate	Quality Council	Ministry
Cyclical Program Reviews						
Final Assessment Report (FAR)	Dean's Signature	Yes	Approval	Information	Information	N/A
Progress Report	Dean's Signature	No	Approval	Information	No	N/A
New Program Proposals						
Undergraduate Major	Approval	Yes, if 'brand-new'	Approval	Approval	Yes, if 'brand-new'	Yes, in [non-core areas](#)[17]
Undergraduate Degree	Approval	Yes	Approval	Approval	Approval	Yes, in [non-core areas](#)[17]
Type 2 & 3 Graduate Diploma	Approval	No	Approval	Approval	Approval	Yes, if Type 3 GDip
Graduate Degree	Approval	Yes	Approval	Approval	Approval	Yes
Progress Report for new programs	Dean's Signature	No	Approval	Information	Yes, if 'approved to commence, with report'	No
Major Modifications						
Major Modification to Existing Program	Approval	No	Approval	Approval	Information	Information
Minor Modification to Existing Program	Approval	No	Approval	No	No	No
New minor modification, non-credit (e.g., micro-credentials, badges etc.)	No	No	ACAC Approval	No	No	Yes- if OSAP eligible
New Undergraduate Diploma, Minor, Option, or Certificate	Approval	No	Approval	Approval	Information	Information, except UG Diplomas in [non-core areas](#)[17]
Graduate Field	Approval	No	Approval	Approval	Information	No
Graduate Specialization, Type 1 GDip	Approval	No	Approval	Approval	Information	No
Graduate Collaborative Program	Approval	No	Approval	Approval	Information	Yes– if tuition or grant funding is impacted

*As delegated by Senate

> **Commented [AC36]:** New addition.

> **Commented [AC37]:** Pre-2016 were treated as new programs using New Program approval protocol but are now handled as a major modification.

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[17] Consult Institutional Analysis and Planning (IAP) for Ministry core/non-core areas.

University of Waterloo Institutional Quality Assurance Process   33

Graduate Studies
Program Revision Template

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

Faculty: Arts

Program: Master of Accounting (MAcc)

Program contact name(s): David Ha, Dan Rogozynski, Keria So

Form completed by: David Ha, Dan Rogozynski, Keria So

Description of proposed changes:

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

Adding a part-time registration option to the program.

Is this a major modification to the program? Yes

Rationale for change(s):

Currently, a part-time tuition fee structure is not defined for the MAcc program. When a student needs to take less than a full-time load due to an accommodation, or as part of an approved petition that permits a student to retake a course (i.e. due to a prior incomplete or failure), the student is charged full-time tuition and then must apply to be reimbursed. This change will create a part-time tuition fee structure so that students will not have to apply for reimbursement, making the process easier for them and for administration. This change does not change current practice in the MAcc program and is not intended to imply that there is a part-time entry option. The MAcc program remains a full-time, 2 term program. This change will only impact students who enter the program as full-time students and then need to re-take a course(s) to complete the program. Approval to re-take a course(s) will be assessed by the Program Director on a case-by-case basis for special circumstances or accommodations in consultation with GSPA. The part-time option will allow students to pay per course tuition fees (i.e. ¼ of the full-time per term tuition fee based on the standard four course load per term).

Proposed effective date: Term: Winter   Year: 2024

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

https://uwaterloo.ca/graduate-studies-academic-calendar/arts/school-accounting-and-finance/master-accounting-macc

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

Program information
 	
• Admit term(s)
  ○ Winter
	Program information
	
	• Admit term(s)
	  ○ Winter

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

• Delivery mode
  o On-campus
 	
• Length of program
  o 2 terms (8 months)
 	
• Program type
  o Master's
  o Professional
 	
• Registration option(s)
  o Full-time
 	
• Study option(s)
  o Master's Research Paper
  o Coursework
	• Delivery mode
	  o On-campus
	
	• Length of program
	  o 2 terms (8 months)
	
	• Program type
	  o Master's
	  o Professional
	
	• Registration option(s)
	  o Full-time
	  o <u>Part-time</u>
	
	• <u>Registration option(s) information</u>
	  o <u>Note direct entry into the MAcc program is only available through the full-time option.</u>
	  o <u>Students must obtain approval from the Program Director to transfer to the part-time option, which will be assessed on a case-by-case basis.</u>
	
	• Study option(s)
	  o Master's Research Paper
	  o Coursework

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

The MAcc program remains a full-time, 2 term program. This change will only impact current students if any need to re-take courses to complete the program (i.e. as a result of an accommodation to take less than a full course load, or as part of an approved petition that permits a student to retake a course due to a prior incomplete or failure).

Department/School approval date (mm/dd/yy): 06/23/23
Reviewed by GSPA (for GSPA use only) ⊠ date (mm/dd/yy): 06/23/23
Faculty approval date (mm/dd/yy): 10/24/23
Senate Graduate & Research Council (SGRC) approval date (mm/dd/yy):
Senate approval date (mm/dd/yy) (if applicable):

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

Faculty: Arts

Program: Master of Taxation (MTax)

Program contact name(s): Deb Kraft

Form completed by: Deb Kraft

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

1) *Updating the process for students to enter the full-time option of the regular MTax program.*
2) *Removing the required sequencing of the courses for the full-time option.*

Is this a [major modification](#) to the program? No

Rationale for change(s):

1) *The process to enter the full-time option of the regular MTax program is being updated since a new direct entry full-time Co-operative option is being added to the MTax program. The Co-operative option will be the default for the full-time stream of the program.*
2) *Removing the required course sequencing will provide more flexibility for students and the program.*

Proposed effective date: Term: Winter   Year: 2024

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

[https://uwaterloo.ca/graduate-studies-academic-calendar/arts/school-accounting-and-finance/master-taxation-mtax](#)

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

MASTER OF TAXATION (MTAX)
 	
Program information
 	
- **Admit term(s)**
  - Fall
 	
- **Delivery mode**
  - Off-campus (downtown Toronto)
  - Online
 	
- **Delivery mode information**
	MASTER OF TAXATION (MTAX)
	
	Program information
	
	- **Admit term(s)**
	  - Fall
	
	- **Delivery mode**
	  - Off-campus (downtown Toronto)
	  - Online
	
	- **Delivery mode information**

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

o Full-time students complete the program off-campus in Toronto and part-time students complete the program online.
 	
• **Length of program**
  o Full-time: 3 terms (12 months) ~~(plus 2 practice terms**)~~
  o Part-time: 6 terms (24 months)
 	
• **Program type**
  o Master's
  o Professional
 	
• **Registration option(s)**
  o Full-time
  o Part-time
 	
• **Study option(s)**
  o Coursework
 	
Admission requirements
 	
• **Minimum requirements**
  o Students from a wide variety of backgrounds are welcome.
  o Successful completion of a four-year Honours Degree, or equivalent, with at least a 75% average is required or a three-year Degree, or equivalent, with at least a 75% average, 8 years of Canadian tax-related work experience showing career advancement and a Graduate Management Admission Test (GMAT) score of at least 550, or equivalent Graduate Record Examination (GRE) score using ETS's GRE Comparison Table for Business Schools.
  o A one page statement detailing your interest in the Master of Taxation program.
  o Students will be assessed by an Admissions Committee. Students who are lacking the necessary fundamentals of Canadian income taxation and accounting to begin work in the tax field will be required to successfully complete TAX 600 Introductory Tax and Accounting for MTax Students, a course covering these areas.
  o An interview may also be required.
  o GMAT may be required.
 	
• **Application materials**
	o Full-time students complete the program off-campus in Toronto and part-time students complete the program online.
	
	• **Length of program**
	  o Full-time: 3 terms (12 months)
	  o Part-time: 6 terms (24 months)
	
	• **Program type**
	  o Master's
	  o Professional
	
	• **Registration option(s)**
	  o Full-time
	  o Part-time
	
	• <u>**Registration option(s) information**</u>
	  o <u>Note direct entry into the Master of Taxation (MTax) program is only available through the part-time option.</u>
	  o <u>Students may transfer into the full-time option on a case-by-case basis with approval from the Program Director.</u>
	
	• **Study option(s)**
	  o Coursework
	
	Admission requirements
	
	• **Minimum requirements**
	  o Students from a wide variety of backgrounds are welcome.
	  o Successful completion of a four-year Honours Degree, or equivalent, with at least a 75% average is required or a three-year Degree, or equivalent, with at least a 75% average, 8 years of Canadian tax-related work experience showing career advancement and a Graduate Management Admission Test (GMAT) score of at least 550, or equivalent Graduate Record Examination (GRE) score using ETS's GRE Comparison Table for Business Schools.
	  o A one page statement detailing your interest in the Master of Taxation program.
	  o Students will be assessed by an Admissions Committee. Students who are lacking the necessary fundamentals of Canadian income taxation and accounting to begin work in the tax field will be required to successfully

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

o Résumé
    ▪ Detailing the student's previous work experience.
o Supplementary information form
o Transcript(s)
 	
• **References**
  o Number of references: 2
  o Type of references: at least 1 academic
 	
• **English language proficiency (ELP)** (if applicable)
 	
Degree requirements
 	
• **Graduate Academic Integrity Module (Graduate AIM)**
 	
• **Courses**
  o Full-time: the full-time option involves three academic terms of 4 courses each (0.50 unit weight)~~, interspersed with two practice terms**~~. Classes are held in Toronto. Students are required to ~~take~~ the following courses ~~and practice terms in sequence~~:
    ▪ ~~Term One (fall):~~
      ▪ TAX 614 An Introduction to Accounting for Income Taxes
      ▪ TAX 616 Tax Research and Statutory Interpretation
      ▪ TAX 619 Taxation of Corporations
      ▪ TAX 620 Introduction to Business Structuring
    ▪ ~~Practice Term (winter)**~~
    ▪ ~~Term Two (spring):~~
      ▪ TAX 625 Tax Policy
      ▪ TAX 627 International Tax I
      ▪ TAX 628 Tax Planning for the Owner-Manager and Executive
      ▪ TAX 629 Tax Risk Management
    ▪ ~~Practice Term (fall)**~~
    ▪ ~~Term Three (winter):~~
      ▪ TAX 626 Business Structuring
      ▪ TAX 636 Estate & Retirement Planning
	complete TAX 600 Introductory Tax and Accounting for MTax Students, a course covering these areas.
	  o An interview may also be required.
	  o GMAT may be required.
	
	• **Application materials**
	  o Résumé
	    ▪ Detailing the student's previous work experience.
	  o Supplementary information form
	  o Transcript(s)
	
	• **References**
	  o Number of references: 2
	  o Type of references: at least 1 academic
	
	• **English language proficiency (ELP)** (if applicable)
	
	Degree requirements
	
	• **Graduate Academic Integrity Module (Graduate AIM)**
	
	• **Courses**
	  o Full-time: the full-time option involves three academic terms of 4 courses each (0.50 unit weight). Classes are held in Toronto. Students are required to <u>successfully complete</u> the following courses:
	    ▪ TAX 614 An Introduction to Accounting for Income Taxes
	    ▪ TAX 616 Tax Research and Statutory Interpretation
	    ▪ TAX 619 Taxation of Corporations
	    ▪ TAX 620 Introduction to Business Structuring
	    ▪ TAX 625 Tax Policy
	    ▪ TAX 627 International Tax I
	    ▪ TAX 628 Tax Planning for the Owner-Manager and Executive
	    ▪ TAX 629 Tax Risk Management
	    ▪ TAX 626 Business Structuring
	    ▪ TAX 636 Estate & Retirement Planning
	    ▪ TAX 637 International Tax II
	    ▪ TAX 638 Research Paper
	    ▪ There are no elective courses.
	  o Candidates must obtain an overall average of at least 75% in the courses presented in fulfilment of the degree

Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
- TAX 637 International Tax II - TAX 638 Research Paper ~~**not a degree requirement~~ - There are no elective courses. - Candidates must obtain an overall average of at least 75% in the courses presented in fulfilment of the degree requirements. The records will be reviewed of those whose cumulative average at the end of each term is below 75% and the candidate may be required to withdraw from the program. - Part-time: the part-time option involves six academic terms of 2 courses each (0.50 unit weight), with no practice terms. Classes are held online in real-time. Over the six academic terms, students are required to successfully complete the following courses: - TAX 614 An Introduction to Accounting for Income Taxes - TAX 616 Tax Research and Statutory Interpretation - TAX 619 Taxation of Corporations - TAX 620 Introduction to Business Structuring - TAX 625 Tax Policy - TAX 626 Business Structuring - TAX 627 International Tax I - TAX 628 Tax Planning for the Owner-Manager and Executive - TAX 629 Tax Risk Management - TAX 636 Estate & Retirement Planning - TAX 637 International Tax II - TAX 638 Research Paper - Candidates must obtain an overall average of at least 75% in the courses presented in fulfilment of the degree requirements. The records will be reviewed of those whose cumulative average at the end of each term is below 75% and the candidate may be required to withdraw from the program.	- requirements. The records will be reviewed of those whose cumulative average at the end of each term is below 75% and the candidate may be required to withdraw from the program. - Part-time: the part-time option involves six academic terms of 2 courses each (0.50 unit weight), with no practice terms. Classes are held online in real-time. Over the six academic terms, students are required to successfully complete the following courses: - TAX 614 An Introduction to Accounting for Income Taxes - TAX 616 Tax Research and Statutory Interpretation - TAX 619 Taxation of Corporations - TAX 620 Introduction to Business Structuring - TAX 625 Tax Policy - TAX 626 Business Structuring - TAX 627 International Tax I - TAX 628 Tax Planning for the Owner-Manager and Executive - TAX 629 Tax Risk Management - TAX 636 Estate & Retirement Planning - TAX 637 International Tax II - TAX 638 Research Paper - Candidates must obtain an overall average of at least 75% in the courses presented in fulfilment of the degree requirements. The records will be reviewed of those whose cumulative average at the end of each term is below 75% and the candidate may be required to withdraw from the program.

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

Full-time students currently enrolled will have the opportunity to transfer to the co-op stream. No impact on part-time students.

Page **7** of **58**

Department/School approval date (mm/dd/yy): 06/23/23

Reviewed by GSPA (for GSPA use only) ☒   date (mm/dd/yy): 09/13/23

Faculty approval date (mm/dd/yy): 10/24/23

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

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

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

Faculty: Arts

Program: Master of Taxation (MTax) - Co-operative Program

Program contact name(s): Deb Kraft

Form completed by: Deb Kraft

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

Adding a direct entry Co-operative program/option to the MTax program.

Is this a major modification to the program? Yes

Rationale for change(s):

Since inception, the full-time stream of the Master of Taxation program has included three academic terms with two work-integrated learning (WIL) terms interspersed between the academic terms. While the WIL experience has formed an integral part of the student's learning experience, the WIL terms have not been a degree requirement.

The goal is to formalize the WIL experiences as official co-op terms, whereby the co-op terms will become a degree requirement for the full-time stream. The formal addition of the co-op terms as a degree requirement continues to align with the programs learning outcomes. The benefit for students is the opportunity to identify that their degree includes a co-op component. The co-op designation will also be included as part of the degree name.

The program has a long history of outstanding employment rates for both the WIL terms and at graduation. Students have consistently provided positive feedback about the co-op experience. The program will remain involved with employer relationships, which is essential to the program's long-term success. The co-op program/option will be fully supported by the MTax program/School of Accounting and Finance.

.**Proposed effective date:**   Term: Winter   Year: 2024
Current Graduate Studies Academic Calendar (GSAC) page (include the link to the web page where the changes are to be made):

https://uwaterloo.ca/graduate-studies-academic-calendar/arts/school-accounting-and-finance/master-taxation-mtax

Page **9** of **58**

Current MTax Graduate Studies Academic Calendar content:	Proposed MTax - Co-operative Program Graduate Studies Academic Calendar content:

MASTER OF TAXATION (MTAX)
 	
Program information
 	
- **Admit term(s)**
  - Fall
 	
- **Delivery mode**
  - Off-campus (downtown Toronto)
  - Online
 	
- **Delivery mode information**
  - Full-time students complete the program off-campus in Toronto and part-time students complete the program online.
 	
- **Length of program**
  - Full-time: 3 terms (12 months) (plus 2 practice terms**)
  - Part-time: 6 terms (24 months)
 	
- **Program type**
  - Master's
  - Professional
 	
- **Registration option(s)**
  - Full-time
  - Part-time
 	
- **Study option(s)**
  - Coursework
 	
Admission requirements
 	
- **Minimum requirements**
  - Students from a wide variety of backgrounds are welcome.
  - Successful completion of a four-year Honours Degree, or equivalent, with at least a 75% average is required or a three-year Degree, or equivalent, with at least a 75% average, 8 years of Canadian tax-related work experience showing career advancement and a Graduate Management Admission Test (GMAT) score of at least 550, or equivalent Graduate Record Examination (GRE) score using ETS's GRE Comparison Table for Business Schools.
	MASTER OF TAXATION (MTAX) - CO-OPERATIVE PROGRAM
	
	Program information
	
	- **Admit term(s)**
	  - Fall
	
	- **Delivery mode**
	  - Off-campus (downtown Toronto)
	  - ~~Online~~
	
	- **Delivery mode information**
	  - Full-time students complete the program off-campus in Toronto ~~and part-time students complete the program online~~.
	
	- **Length of program**
	  - <u>Full-time: 5 terms (20 months)</u>
	  - ~~Full-time: 3 terms (12 months) (plus 2 practice terms**)~~
	  - ~~Part-time: 6 terms (24 months)~~
	
	- **Program type**
	  - <u>Co-operative</u>
	  - Master's
	  - Professional
	
	- **Registration option(s)**
	  - Full-time
	  - ~~Part-time~~
	
	- **Study option(s)**
	  - Coursework
	
	Admission requirements
	
	- **Minimum requirements**
	  - Students from a wide variety of backgrounds are welcome.
	  - Successful completion of a four-year Honours Degree, or equivalent, with at least a 75% average is required or a three-year Degree, or equivalent, with at least a 75% average, 8 years of Canadian tax-related work experience showing career advancement and a Graduate Management Admission Test (GMAT) score of at least 550, or equivalent Graduate Record Examination (GRE) score using ETS's

Current MTax Graduate Studies Academic Calendar content:	Proposed MTax - Co-operative Program Graduate Studies Academic Calendar content:
- A one page statement detailing your interest in the Master of Taxation program. - Students will be assessed by an Admissions Committee. Students who are lacking the necessary fundamentals of Canadian income taxation and accounting to begin work in the tax field will be required to successfully complete TAX 600 Introductory Tax and Accounting for MTax Students, a course covering these areas. - An interview may also be required. - GMAT may be required. **Application materials** - Résumé - Detailing the student's previous work experience. - Supplementary information form - Transcript(s) **References** - Number of references: 2 - Type of references: at least 1 academic **English language proficiency (ELP)** (if applicable) **Degree requirements** **Graduate Academic Integrity Module (Graduate AIM)** **Courses** - Full-time: the full-time option involves three academic terms of 4 courses each (0.50 unit weight), interspersed with two practice terms**. Classes are held in Toronto. Students are required to take the following courses and practice terms in sequence: - Term One (fall): - TAX 614 An Introduction to Accounting for Income Taxes - TAX 616 Tax Research and Statutory Interpretation - TAX 619 Taxation of Corporations - TAX 620 Introduction to Business Structuring - Practice Term (winter)**	GRE Comparison Table for Business Schools. - A one page statement detailing your interest in the Master of Taxation program. - Students will be assessed by an Admissions Committee. Students who are lacking the necessary fundamentals of Canadian income taxation and accounting to begin work in the tax field will be required to successfully complete TAX 600 Introductory Tax and Accounting for MTax Students, a course covering these areas. - An interview may also be required. - GMAT may be required. **Application materials** - Résumé - Detailing the student's previous work experience. - Supplementary information form - Transcript(s) **References** - Number of references: 2 - Type of references: at least 1 academic **English language proficiency (ELP)** (if applicable) **Degree requirements** The MTax - Co-operative Program enables students to combine graduate studies with related work experience. The program includes completion of 2 required work terms. The work terms typically take place in terms 2 and 4. The work terms must meet program requirements. Students will apply to jobs related to their program of study. Note: the program must start and end on an academic term. **Graduate Academic Integrity Module (Graduate AIM)** **Courses** ~~Full-time:~~ The program ~~full-time option~~ involves three academic terms of 4 courses each (0.50 unit weight), interspersed with two co-op work ~~practice~~ terms**. Classes are held in Toronto. Students are required to

Current MTax Graduate Studies Academic Calendar content:	Proposed MTax - Co-operative Program Graduate Studies Academic Calendar content:

- Term Two (spring): - TAX 625 Tax Policy - TAX 627 International Tax I - TAX 628 Tax Planning for the Owner-Manager and Executive - TAX 629 Tax Risk Management - Practice Term (fall)** - Term Three (winter): - TAX 626 Business Structuring - TAX 636 Estate & Retirement Planning - TAX 637 International Tax II - TAX 638 Research Paper **not a degree requirement - There are no elective courses. - Candidates must obtain an overall average of at least 75% in the courses presented in fulfilment of the degree requirements. The records will be reviewed of those whose cumulative average at the end of each term is below 75% and the candidate may be required to withdraw from the program. - Part-time: the part-time option involves six academic terms of 2 courses each (0.50 unit weight), with no practice terms. Classes are held online in real-time. Over the six academic terms, students are required to successfully complete the following courses: - TAX 614 An Introduction to Accounting for Income Taxes - TAX 616 Tax Research and Statutory Interpretation - TAX 619 Taxation of Corporations - TAX 620 Introduction to Business Structuring - TAX 625 Tax Policy - TAX 626 Business Structuring - TAX 627 International Tax I - TAX 628 Tax Planning for the Owner-Manager and Executive - TAX 629 Tax Risk Management - TAX 636 Estate & Retirement Planning - TAX 637 International Tax II - TAX 638 Research Paper	successfully complete ~~take~~ the following courses ~~and practice terms in sequence~~:
	- ~~Term One (fall):~~
	  - TAX 614 An Introduction to Accounting for Income Taxes
	  - TAX 616 Tax Research and Statutory Interpretation
	  - TAX 619 Taxation of Corporations
	  - TAX 620 Introduction to Business Structuring
	- ~~Practice term (winter)**~~
	- ~~Term Two (spring):~~
	  - TAX 625 Tax Policy
	  - TAX 627 International Tax I
	  - TAX 628 Tax Planning for the Owner-Manager and Executive
	  - TAX 629 Tax Risk Management
	- ~~Practice term (fall)**~~
	- ~~Term Three (winter):~~
	  - TAX 626 Business Structuring
	  - TAX 636 Estate & Retirement Planning
	  - TAX 637 International Tax II
	  - TAX 638 Research Paper
	- ~~**not a degree requirement~~
	- There are no elective courses.
	
	o Candidates must obtain an overall average of at least 75% in the courses presented in fulfilment of the degree requirements. The records will be reviewed of those whose cumulative average at the end of each term is below 75% and the candidate may be required to withdraw from the program.
	o ~~Part-time: the part-time option involves six academic terms of 2 courses each (0.50 unit weight), with no practice terms. Classes are held online in real-time. Over the six academic terms, students are required to successfully complete the following courses:~~
	  - ~~TAX 614 An Introduction to Accounting for Income Taxes~~
	  - ~~TAX 616 Tax Research and Statutory Interpretation~~

Current MTax Graduate Studies Academic Calendar content:	Proposed MTax - Co-operative Program Graduate Studies Academic Calendar content:
○ Candidates must obtain an overall average of at least 75% in the courses presented in fulfilment of the degree requirements. The records will be reviewed of those whose cumulative average at the end of each term is below 75% and the candidate may be required to withdraw from the program.	• ~~TAX 619 Taxation of Corporations~~ • ~~TAX 620 Introduction to Business Structuring~~ • ~~TAX 625 Tax Policy~~ • ~~TAX 626 Business Structuring~~ • ~~TAX 627 International Tax I~~ • ~~TAX 628 Tax Planning for the Owner-Manager and Executive~~ • ~~TAX 629 Tax Risk Management~~ • ~~TAX 636 Estate & Retirement Planning~~ • ~~TAX 637 International Tax II~~ • ~~TAX 638 Research Paper~~ ○ ~~Candidates must obtain an overall average of at least 75% in the courses presented in fulfilment of the degree requirements. The records will be reviewed of those whose cumulative average at the end of each term is below 75% and the candidate may be required to withdraw from the program.~~ • **<u>Graduate Studies Work Report</u>** ○ <u>Students must complete two work-term experiences. A work report must be submitted to the School for review and credit by the end of each work term.</u>

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

Students will benefit from the addition of the official 'co-op' status added to their transcript.

Department/School approval date (mm/dd/yy): 06/23/23
Reviewed by GSPA (for GSPA use only) ☒ date (mm/dd/yy): 09/13/23
Faculty approval date (mm/dd/yy): 10/24/23
Senate Graduate & Research Council (SGRC) approval date (mm/dd/yy):
Senate approval date (mm/dd/yy) (if applicable):

NSERC CREATE: Strategies for Success

October, 2023

Presentation to SGRC

Leslie Copp

Director, FANS

WHAT WE HEARD FROM YOU

- **Consider both gaps/needs from top-down and germs of ideas from bottom-up**
- **Reduce transactional load for applicants**
- **Consider value of the program for grads, e.g. how do CREATE modules/internships fit with 'regular program'?**
- **Prioritize CREATEs as part of a bigger program, not the prime element**
- **Leverage resources of URCI's in proposal development where appropriate**
- **Engage graduates in the process**

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PRESENTING TWO APPROACHES

- **One for top-down and one for bottom-up**
- **Engage both research and graduate leadership in the process to reflect the aims and needs of the CREATE program**
- **Aim to reduce transactional load for PIs:**
  - **Provision of feedback early in process**
  - **Provision of multiple supports**
  - **Early decisions on who is approved to apply within the quota and what institutional commitments they can expect (the joint gifts of time and clarity)**

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STRATEGIC APPROACH: TOP-DOWN

RFP for strategic CREATE proposals:

- *ADRs, ADGs, etc., identify training gap(s) that align with institutional research strategic goal(s)*

- *Provide funding commitments (pre- and post-award) <u>upfront</u> to incentivize applicants, including writer/project manager support for application*

- *Help identify external partners (CRPMs, CEE)*

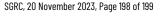- *Broad call to UW researchers – preferably in <u>fall</u> term*

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STRATEGIC APPROACH: BOTTOM-UP

Mandatory Pitch session (open):

- *Panel (ADRs/ADGs/EDs/CREATE PIs/Grads/GSPA?)*
- *Evaluate integration of research and training, feasibility & sustainability, strength of team, EDI, novelty, external partnerships*

Once proposals accepted within quota:

- *Start conversations about institutional support*
- *Mentorship with successful CREATE PIs*
- *Connect with CRPMs, Manager, non-profit/public sector partnerships, CEE*

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UNIVERSITY OF WATERLOO

QUESTIONS FOR DISCUSSION:

- **Should we have one approach or both (top-down and/or bottom-up)?**
- **If both, how do we distribute the quota*?**
- **Who should determine RFP topics & expectations?**
- **Who should provide recommendations for which submissions to be invited to be part of quota?**
- **Do we hold quota positions for any submissions under NSERC review?**
- **How do we coordinate/mesh the two approaches?**

*Waterloo's quota has been 6 since CREATE started