University of Waterloo
SENATE EXECUTIVE COMMITTEE
Notice of Meeting

Date: Monday 3 June 2019
Time: 3:30 p.m.
Place: Needles Hall, Room 3308

AGENDA	Action
1. Minutes of the 6 May 2019 Meeting	Decision
2. Business Arising from the Minutes	
3. Draft 17 June 2019 Senate Agenda	Decision
4. Report of the Vice-President, Academic & Provost	
a. Roster of Graduands†	Decision
5. Other Business	

CONFIDENTIAL SESSION

6. Other Business

27 May 2019   Karen Jack
                                                 University Secretary

†The committee will be notified when the roster is available on the Senate Executive Committee SharePoint site.

University of Waterloo
SENATE EXECUTIVE COMMITTEE
Minutes of the 6 May 2019 Meeting

Present: Michael Beauchemin, Kofi Campbell, Jeff Casello, Shannon Dea, Paul Fieguth, Mark Giesbrecht, Feridun Hamdullahpur (chair), Karen Jack (secretary), Bill Power, James Rush, Richard Staines, Bryan Tolson, Vivek Unnithan

Regrets: Robert Gorbet, Naima Samuel

1. **MINUTES OF THE 1 APRIL 2019 MEETING**
   Members heard a motion to approve the minutes of the 1 April 2019 meeting. Casello and Staines. Carried unanimously.

2. **AMENDMENTS TO SENATE BYLAWS**
   Jack spoke to the proposed changes, and members heard a motion to forward the revisions to Senate for first reading. Rush and Casello.

   In discussion: the changes to the membership of Senate Graduate and Research Council and past practice. Members heard a suggestion that it is likely that the previous members at issue re: elected or appointed faculty members had been appointed, and understood that the secretary would review past practice. [Secretary's note: subsequent to the meeting, the secretary found that in the past, these members were appointed to the committee, not elected.] Members also heard that the report is not an accessible PDF.

   The question was called and the motion carried unanimously.

3. **REPORT OF THE VICE PRESIDENT, ACADEMIC & PROVOST**
   Roster of Graduands. The committee heard a motion to recommend that Senate delegate the approval of the roster of graduands for the June convocation ceremony to its Executive Committee for its 3 June 2019 meeting.

   Rush and Fieguth. Carried unanimously.

4. **DRAFT 21 MAY 2019 SENATE AGENDA**
   Members heard a motion to approve the agenda.

   Rush and Casello.

   In discussion, members heard that Rush will chair Senate in Hamdullahpur's absence and Anton Mosunov, a PhD student in the Department of Pure Mathematics will present. In discussion: the report from the Faculty of Engineering is not an accessible PDF; the definition of part-time and full-time standing for graduate students. Members understood that Casello will revise the consent report from SGRC if needed before distribution to Senate.

   The question was called and the motion carried unanimously.

5. **OTHER BUSINESS**
   There was no other business.

   10 May 2019   Karen Jack
                                                        University Secretary

Date: Monday 17 June 2019
Time: 3:30 p.m.
Place: Needles Hall, room 3407

		OPEN SESSION	Action
3:30		**Consent Agenda** **Motion:** To approve or receive for information by consent items 1-6 below.	
		1. Minutes of the 21 May 2019 Meeting*	Decision

		2. Reports from Committees and Councils
		    a. Graduate & Research Council
		    b. Undergraduate Council
			Information
			Decision/Information

		3. Report of the President a. Recognition and Commendation	Information
		4. Reports from the Faculties	Information
		5. Committee Appointments	Decision
		6. Report of the Vice President, Academic & Provost a. University Research Chairs*	Information
		Regular Agenda	
3:35		7. Business Arising from the Minutes	Information
3:40		8. Research Presentation – Avery Broderick, Associate Professor, Physics & Astronomy	Information
		9. Reports from Committees and Councils	
3:55		a. Executive Committee	Second reading/Decision
4:05		b. Graduate & Research Council	Decision
4:10		c. Undergraduate Council	Decision
4:15		10. Report of the President	Information
4:25		11. Q&A Period with the President	Information
4:35		12. Report of the Vice-President, Academic & Provost	Information
4:45		13. Report of the Vice-President, University Research & International*	Information
4:50		14. Other Business	
		CONFIDENTIAL SESSION	
4:55		15. Minutes of the 21 May 2019 Meeting*	Decision
5:00		16. Business Arising from the Minutes	
5:05		17. Report from Committees a. Nominating Committee for Honorary Degrees	
5:15		18. Other Business	

28 May 2019

KJJ/ejg

Karen Jack
University Secretary
Secretary to Senate

*to be distributed

University of Waterloo
SENATE GRADUATE & RESEARCH COUNCIL
Report to Senate
17 June 2019

Senate Graduate & Research Council met on 13 May 2019 and agreed to forward the following items to Senate for approval or information as part of the consent agenda.

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

FOR INFORMATION

ACADEMIC PROGRAM REVIEW REPORTS
On behalf of Senate, council approved:
- Two-Year Progress Report – Pure Math Program, as presented at Attachment 1.

CURRICULAR SUBMISSIONS
On behalf of Senate, council approved new courses, course revisions, and minor program revisions (e.g., updated the PhD comprehensive examination requirements and calendar descriptions) for the Faculties of Applied Health Sciences (kinesiology, recreation and leisure, public health and health systems), Engineering, and Mathematics (applied mathematics, statistics and actuarial science).

RENEWAL OF CENTRES AND INSTITUTES
On behalf of Senate, council approved the renewal, for a 5-year term, of the Water Institute, as presented.

On behalf of Senate, council approved the renewal, for a 5-year term, of the Waterloo Institute for Sustainable Energy, as presented.

On behalf of Senate, council approved the renewal, for a 5-year term, of the Centre for Advanced Trenchless Technologies, as presented.

GRADUATE AWARDS
On behalf of Senate, council approved the Dean of Mathematics Excellence Scholarship (operating) and the Science Graduate Award (SGA) (operating).

/kw   Jeff Casello   Charmaine Dean
           Associate Vice-President, Graduate Studies and   Vice President, Research & International
           Postdoctoral Affairs

MEMORANDUM

To: Alyssa Voigt, Quality Assurance Office

From: Jeremy Bergen

Date: April 17, 2019

Re: Review of Two-Year Progress Report for Pure Math (MMath/PhD)

Alyssa,

I have reviewed the Two-Year Progress Report (as well as the Final Assessment Report) for Pure Math (MMath/PhD) and recommend that SGRC endorse the report.

All reports have affirmed the high quality of the program. The Final Assessment Report made five recommendations, along with timelines and accountabilities for implementation. According to the Two-Year Progress report, the first four recommendations have been implemented successfully and no further action is required. The fifth recommendation is to develop a 5-year proposal to present to Dean and Provost regarding faculty appointments required to become the strongest doctoral program of its kind in Canada. According to the report, the strategic planning that will lead to such a proposal is underway. Of course, developing a plan is not the same thing as have the resources to implement it. But the development of the plan is in process.

The program should be commended for its positive and timely responses to the recommendations.

Jeremy

Jeremy M. Bergen

Associate Professor of Religious Studies and Theological Studies

Director of Theological Studies

Conrad Grebel University College, University of Waterloo

July 4, 2018

Re: Quality Assurance Office

The Faculty of Mathematics endorses the June 2018 Two year progress report for the Pure Math (MMath/PhD) program. Pure math has completed four of the five recommendations.

The last recommendation, to build the strongest PhD program in Canada, is currently in progress. The chair of the department will be preparing a long-term plan within the next year, and this plan will need to be combined careful with the Math Faculty strategic plan.

Stephen M. Watt
Dean, Faculty of Mathematics

Two-Year Progress Report
Pure Mathematics (MMath/PhD)
February 2019

Background

The program review for the graduate programs in the Department of Pure Mathematics was completed in 2016, with the final assessment report approved by the Senate Graduate and Research Council in December 2017.

The reviewers reported that the Pure Mathematics graduate programs are of very high quality, are well viewed by faculty members, students and alumni and have very good outcomes. The reviewers noted that there were no critical issues that required immediate attention.

The review made five recommendations, several of which were advice in response to topics about which their opinion had been asked. These recommendations and the actions have been taken, or will be taken; details are below. Phrases in square brackets in the statement of the recommendations were added for clarification.

Progress on Implementation Plan:

Recommendation 1.
"We recommend that the Department not offer a direct entry to the PhD program without a MMath (or equivalent) degree."
Status: **completed -** We are following this recommendation. No changes were made or needed.

Recommendation 2.
"We recommend that the Department work with the Office of the Associate Provost, Graduate Studies, (now Office of Graduate Studies and Postdoctoral Affairs) to try to resolve this issue [the issue being the restricted opportunities to take 600 level courses]. On the part of the Department this may involve making the different expectations (including expected extra work) between the two groups of students [the groups being undergraduate and graduate students] clearer and more explicit in all course descriptions."
Status: **completed** - Masters students now have access to standard graduate level courses. It is clearly understood that there are different expectations for graduate and undergraduate students when taking 'held-with' courses.

Recommendation 3.

"We recommend that the Department review the comprehensive exam procedures."

Status: **completed** - The Graduate Officer and Graduate Committee have reviewed the procedures. A proposal to revamp PhD committees and comprehensive exams has been approved by the department, and is working its way through the university approval processes.

Recommendation 4.

"We recommend that the Department provide some flexibility in the MMath program."

Status: **completed** – Flexibility, in terms of time taken to complete the degree, is provided to students on a case-by-case basis. Students typically complete in three terms, but are allowed to take longer (up to two years) in special circumstances.

Recommendation 5.

"The Department should write a 5 year proposal to present to the Dean and the Provost outlining a plan that would achieve this goal [to build the strongest PhD program in Canada] by making appointments above the assistant professor level."

Status: **in progress** - The Math Faculty is currently undertaking a strategic planning process. A long-term plan for the Department will be developed by the Chair over the coming year in accordance with the Faculty strategic plan.

Explain any circumstances that have altered the original implementation plan: N/A

Address any significant developments or initiatives that have arisen since the program review process, or that were not contemplated during the review: N/A

Report on anything else you believe is appropriate to bring to Senate concerning this program: N/A

Updated Implementation Plan:

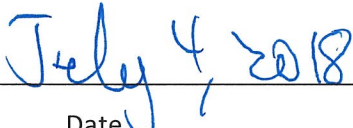|	Recommendations	Proposed Actions	Responsibility for Leading and Resourcing (if applicable) the Actions	Timeline for addressing Recommendations
1.	We recommend that the Department not offer a direct entry to the PhD program without a MMath (or equivalent) degree.	Completed	N/A	N/A
2.	We recommend that the Department work with the Office of the Associate Provost, Graduate Studies, to try to resolve this issue [the issue being the restricted opportunities to take 600 level courses]. On the part of the Department this may involve making the different expectations (including expected extra work) between the two groups of students [the groups being undergraduate and graduate students] clearer and more explicit in all course descriptions."	Completed	N/A	N/A
3.	We recommend that the Department review the comprehensive exam procedures.	Completed	N/A	N/A
4.	We recommend that the Department provide some flexibility in the MMath program.	Completed	N/A	N/A
5.	The Department should write a 5 year proposal to present to the Dean and the Provost outlining a plan that would achieve this goal [to build the strongest PhD program in Canada] by making appointments above the assistant professor level.	The Department will develop a long range hiring plan, in consultation with the Dean, as part of the Math Faculty strategic planning process.	Chair	Spring 2019

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

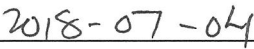Date of next program review: _____2022_____

Date

Signatures of Approval:

_____ July 4, 2018

Chair/Director   Date

_____ _____

AFIW Administrative Dean/Head (For AFIW programs only)   Date

_____ 2018-07-04

Faculty Dean   Date

_____ _____

Associate Vice-President, Academic   Date
(For undergraduate and augmented programs)

_____ December 10, 2018

Associate Vice-President, Graduate Studies and Postdoctoral Affairs   Date
(For graduate and augmented programs)

Senate Undergraduate Council met on 14 May 2019 and agreed to forward the following items to Senate. Council recommends that these items be included for information or approval, as noted, in the consent agenda.

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

FOR APPROVAL

ACADEMIC PLAN CHANGES
Faculty of Mathematics

Computer Science Options

1. **Motion:** That the Artificial Intelligence Option, Bioinformatics Option, Business Option, Computational Fine Arts Option, Digital Hardware Option, Human-Computer Interaction Option, Software Engineering Option be renamed as specializations, effective 1 September 2020.

Rationale: This change is a result of the standardization of the common language for plans. The options that are turning into specializations focus students' work largely in Computer Science specific areas, and are not available to non-Computer Science students. Students can choose which calendar they would like to follow.

Faculty of Mathematics

Computing Option

2. **Motion:** That the Computing Option be renamed the Computing Minor, effective 1 September 2020.

Rationale: This change is a result of the standardization of the common language for plans. The Computing Option is available to non-Computer Science students, and is therefore more properly called a Minor.

ACADEMIC REGULATION CHANGES
Registrar's Office

Scheduled Pauses in the Academic Term

3. **Motion:** That Senate approve clarifications to the regulations around scheduled pauses such that public holidays and statutory holidays are included in the definition of scheduled pauses, and that the definition of reading week includes the weekends on both ends, effective 1 September 2020.

Rationale and Background:
The following changes address clarification questions around scheduled pauses and reading week.
The current text can be found here: http://ugradcalendar.uwaterloo.ca/page/Acad-Regs-Scheduled-Pauses

Text with revisions inline (strikeout=deleted text; bold=new text):

~~Study Days and Reading Weeks~~
Scheduled Pauses

Scheduled pauses are study days, reading weeks, and public holidays recognized by the University.

Instructors are not permitted to administer, and students are not required to sit for examinations, tests, or lectures during a scheduled pause. There are to be no compulsory academic events (e.g., classes, labs, tutorials, seminars, exams). Deadlines for assignments are not permitted during a scheduled pause.

While exceptions may exist (e.g., clinical rotations, Year Four Optometry and Pharmacy courses) the scheduled pauses apply to both undergraduate and graduate students.

Study Days and Reading Weeks

Study days and reading weeks are designated periods where normal class schedules and academic requirements are suspended for a specified period of time. The dates are published in the Calendar of Events and Academic Deadlines.

Student services such as student advising support, Health Services, Counselling Services, the library, and residences continue to provide service.

Study Days
There are one or two study days each term, between the end of the Formal Lecture Period and the beginning of the Final Examination Period. No classes are to be held during study days, except where classes are rescheduled as the result of a campus-wide emergency closure.

Reading Week
Reading Weeks occur in the fall and winter terms; they start with the **Saturday before the** ~~statutory~~ **public** holidays of Thanksgiving Day and Family Day **and end on the following Sunday**.

Registrar's Office

Double counting of courses

4. **Motion:** That Senate approve harmonized rules around the double counting of courses as presented, effective 1 September 2020.

Rationale and Background:

Clarity to the existing rule is being added to address the following:
- All Faculties have agreed to a harmonized interpretation of the rules.
- The definition of "credential" was expanded to include all types of plans appearing on a diploma.
- A specialization is deemed part of the major, so a course used for both isn't a "double count".

The proposal is to replace the following sections of the undergraduate calendar:

http://ugradcalendar.uwaterloo.ca/page/Acad-Regs-Double-Counting-of-Courses

In all faculties, a course can be used to satisfy requirements for a maximum of two credentials

(degrees, diplomas, or certificates). The requirements specified for a degree, diploma, or certificate may stipulate the number of courses which can be double counted. See faculty sections of this Calendar for double-counting rules (if the faculty has such rules) for options, minors, and specializations.

http://ugradcalendar.uwaterloo.ca/page/ARTS-Course-Selection

Double Counting of Courses The practice of counting a course towards two different academic plans is known as "double counting". There is no limit on the number of courses that may be double counted unless otherwise stated.

Double counting of courses applies as follows: once for the plan (e.g., major or minor) and once for a second honours major or concurrent degree, option, minor, certificate, or diploma. Specializations, such as the Finance Specialization in Economics, are regarded as being housed within the main academic plan (i.e., major), and so are not subject to concerns about double counting between them since a specialization is not considered an actual plan but, rather, a sub-plan of the major. Courses used towards fulfilling the Bachelor of Arts' Breadth Requirements are not subject to the double-counting rule.

Under no circumstances are students allowed to "triple count" (i.e., count one course towards three separate academic plans, except for when one of the three plans is a specialization).

https://ugradcalendar.uwaterloo.ca/page/ENG-BASc-and-BSE-Options-Electives-Engineering1

5. Any given course can only be counted for two credentials. For example; the basic degree and one option, or the basic degree and one specialization, or one option and one specialization.

http://ugradcalendar.uwaterloo.ca/page/ENV-Plan-Modifications

Counting Courses
Students may count a course towards a maximum of two academic credentials. Normally, the first would be towards the bachelor degree being granted, as either a core or elective course, and then again towards a second academic credential (joint honours, concurrent degree, diploma, minor, or option).
The School of Planning considers a specialization to be a second academic credential, to which the double count rule applies.

http://ugradcalendar.uwaterloo.ca/page/MATH-Math-Faculty-Policies

Double Counting of Courses
With the exception of specially approved double-degree plans (e.g., BBA/BMath Double Degree plan with Wilfrid Laurier University), the Faculty of Mathematics does not allow students to have more than 50% of the course units that they are counting for Mathematics Faculty degree credit be ones that have previously been used, or that are being used simultaneously, to obtain a second degree from another University of Waterloo faculty or from another university

http://ugradcalendar.uwaterloo.ca/page/SCI-Double-Counting-Rules

Double-Counting Rules Students should familiarize themselves with the following terms, as described in the Glossary of Terms, to better understand the double-counting rules:

- Academic Plan
- Academic Program
- Credential
- Major
- Minor
- Option
- Joint degree
- Concurrent degree

Academic plans are subject to double counting. When completing more than one credential, students should consult their academic advisor to ensure that a course satisfies a maximum of two credentials. A course cannot be counted towards three credentials.
Some minors and options have additional restrictions; consult the plan description for details. Students transferring into Science need to consider transfers rules. Plans within the School of Pharmacy and the School of Optometry and Vision Science may deviate from the regulations outlined above.

The above text will be deleted from the undergraduate calendar and the following new page will be added:

Section of Calendar: University Policies, Guidelines, and Academic Regulations

New page title: Counting of Courses

Courses counted toward an academic plan's requirements (i.e., major, minor, option, specialization, and diploma) can only be used to satisfy a maximum of two credentials. However, when a course(s) is listed as a requirement in both the major and its associated specialization, it is considered a single use of the course.

Registrar's Office

"Consent" in requisites or notes

5. **Motion:** That Senate approve a standardized approach for students who do not have the necessary prerequisite for a course to request permission from the instructor, effective 1 September 2020.

Rationale and Background:
In the list of requisites (or notes) attached to a course in the catalog, some Faculties include "or by permission of the instructor". The usage of this text is inconsistent and, according to Faculty reports, it is not necessary for a course description to contain this text for a student to request and receive permission to enroll in a course for which they do not have the prerequisite.

The purpose of this motion is to standardize the approach to these situations across Faculties and courses by removing existing references to permission/consent in requisites/notes and have an overarching statement. Notwithstanding the foregoing, if all students in a course need to obtain instructor consent to enroll in the course, consent will still be noted as a prerequisite.

Proposed text:
Page: http://ugradcalendar.uwaterloo.ca/page/Course-Descriptions-Index
Many departments are open to the possibility for students outside the department and/or faculty to take their courses. If students are interested in taking a course that has a prerequisite they do not meet, they should discuss the possibility of taking the course with the instructor or the department offering the course.

List of impacted courses:
With the above statement, the following courses will have their requisites or notes modified as follows, effective Sept 1, 2020:

- ANTH 330: [Note: Instructor consent required for non-Arts students.]
- ANTH 355: [Note: Instructor consent required for non-Arts students.]
- ARCH 120: [Note: Instructor consent required for non-Architecture students. Offered: F]
- BIOL 383: Prereq: BIOL 150/250 or ENVS 200 or ERS 218 or consent of instructor
- EARTH 321: [Instructor consent required for students lacking EARTH 221 prerequisite; Offered: W]
- ENBUS 308: Prereq: ENBUS 202, 204 or instructor consent
- ERS 383: Prereq: ENVS 200 or Instructor Consent
- ERS 484/GEOG 404: Prereq: ENVS 200 or Instructor Consent
- FINE 332: Prereq: Level at least 3A Fine Arts or History or by permission of instructor
- INTEG 230: Prereq: Knowledge Integration Honours students only or Department Consent.
- INTEG 420A: Prereq: Level at least 4A Knowledge Integration or instructor consent
- INTEG 441: Prereq: Level at least 3A or instructor consent
- PSYCH 420: Prereq: Level at least 3A Honours Psychology or permission of instructor; Psychology average at least 74%
- SYDE 384: Prereq: (Level at least 3B Engineering) or (Level at least 3B Honours Life Physics (Biophysics specialization) and permission of instructor)
- SYDE 544: Prereq: BIOL 273 or BME 284 or SYDE 384; Level at least 3A Biomedical Engineering or Level at least 3B Systems Design Engineering or Level at least 3B Honours Life Physics (Biophysics Specialization) and permission of the instructor

FOR INFORMATION

ACADEMIC PROGRAM REVIEWS

Final Assessment Report – Architecture. Council's reviewers commented favorably on the clarity of the report and feasibility of the implementation plan. Discussion included steps taken to address the density and rigidity of the undergraduate curriculum. Following discussion, Council approved the final assessment report on behalf of Senate. See Attachment #1.

Final Assessment Report – Classical Studies. Council's reviewers commented favorably on the report, implementation plan, and responsiveness to requests for additional information. Following discussion, Council approved the final assessment report on behalf of Senate. See Attachment #2.

Two-Year Report – Mennonite Studies. Council's reviewer commented favorably on the report and responsiveness to comments. Discussion included enrolment numbers. Following discussion, Council approved the two-year report on behalf of Senate. See Attachment #3.

UNDERGRADUATE SCHOLARSHIPS, AWARDS & BURSARIES
This report was received for information. See Attachment #4.

MINOR PLAN & CURRICULAR MODIFICATIONS
Council approved the following on behalf of Senate:
- minor plan changes for the faculties of applied health sciences (honours bachelor of science, health sciences, minor in gerontology, option in aging studies, diploma in gerontology); mathematics (computing and financial management, computer science – artificial intelligence specialization, bachelor of mathematics (data science), bachelor of computer science (data science)); science (honours earth sciences, geology specialization, honours earth sciences, geophysics specialization, honours earth sciences, hydrogeology specialization, honours environmental science, geoscience specialization, honours geochemistry).
- new courses for the faculties of applied health sciences (health); mathematics (computer science).
- course changes for the faculties of applied health sciences (health, kinesiology); arts (gender and social justice, management/arts and business); mathematics (applied mathematics, computer science, mathematics); science (chemistry, earth sciences, materials and nanosciences).
- course inactivations for the faculty of science (earth sciences)

Mario Coniglio
/rmw   Associate Vice-President, Academic

Final Assessment Report
Architectural Studies (BAS), Master of Architecture (MArch, MArch Co-op, MArch Water)
November 2018

Summary of the Program Review:

In accordance with the University Institutional Quality Assurance Process (IQAP), this final assessment report provides a synthesis of an external evaluation and the internal response of the Honours Bachelor of Architectural Studies (BAS), and Master of Architecture (MArch), Master of Architecture (MArch Co-op), and Master of Architecture (MArch Water), programs delivered by the School of Architecture. A self-study (Volume I, II, III) was submitted to the Associate Vice-President, Academic and the Associate Vice-President, Graduate Studies and Postdoctoral Affairs on September 21, 2016. The self-study (Volume I) presented the program descriptions and learning outcomes, and an analytical assessment of these four programs, including the data collected from student and alumni surveys, 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 programs were included in Volume II of the self-study.

The external review as per our IQAP requirements was combined with the accreditation visit by the Canadian Architectural Certification Board (CACB). Given that the University would receive the Visiting Team Report (VTR) from the CACB, only one additional arm's-length external reviewer was selected to represent our institutional interests and provide a report. Dr. Terri Fuglem from the University of Winnipeg accompanied the CACB Visiting Team, which included five voting members and one non-voting observer. Dr. Fuglem's independent report, combined with the CACB report, met the requirements of Waterloo's IQAP.

The site visit to the University took place over four days from February 12-15, 2017. The visit included extensive interviews and tours, including meetings with the President, Vice-President, Academic & Provost; Associate Vice-President, Academic and Associate Vice-President, Graduate Studies and Postdoctoral Affairs; Dean of the Faculty of Engineering; the Faculty Associate Dean of Graduate Studies; Director of the School of Architecture, and Architecture faculty members, staff and current students (undergraduate and graduate). The review team also had an opportunity to visit student workshops, a fabrication lab, library, and exhibit space.

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

Program characteristics:

Honours Bachelor of Architectural Studies (BAS)
The Honours Bachelor of Architectural Studies program admitted its first students in 2001. (Prior to that year, the Architecture education at the Unviersity of Waterloo consisted of a BES followed by a BArch). One of the particularities of the Waterloo BAS program is that it meets an important accreditation requirement: comprehensive building design. In all other undergraduate Canadian programs, and in most international programs, the ability to work through all aspects of the design of the building and produce technical drawings and reports that cover design, structural, environmental, as well as heating and cooling aspects is typically covered in the graduate portion of the professional degree.
The Honours Bachelor of Architectural Studies degree provides the foundation of skills, knowledge, judgment and practical experience required for subsequent professional studies in architecture. Students acquire an understanding of the workings of society and culture, of the principles of physics, of materials and techniques of construction, of the human interaction with the natural and built environment, of historical process, of critical thought and of the diverse forms of creative expression.

Master of Architecture (MArch)
The Master of Architecture program admitted its first students in 2000, and had its first graduates by 2001. The professional Master of Architecture degree prepares graduate students for entry into the profession of architecture. Combining elements of a professional Master's program and a research-oriented Master's program, the MArch supports students as they engage in self-directed research. Over the course of a minimum three terms, students develop an independent research and design thesis while completing the required coursework for professional preparation. Introducing students to the ethical, legal, administrative and practical aspects of the profession, the program builds upon a firm commitment toward architecture as a cultural act and supports the development of critical thinking in architecture.

Master of Architecture (MArch Co-op)
The Master of Architecture co-operative program (MArch Co-op) was first offered in the Fall 2016, and had its first graduate in 2018. It is a two-year degree program that makes it possible for students entering Waterloo at the graduate level to experience a Waterloo co-operative education. The University of Waterloo offers students coming into the first year of the program the opportunity to take advantage of Waterloo's well-established co-op program.

Master of Architecture (MArch Water)

Ten departments jointly offer the collaborative program in Water, engaging with 130 faculty members involved in water research at the University of Waterloo, across the Faculties of Arts, Engineering, Environment, Mathematics and Science. Connecting to this large network, the Master of Architecture co-operative program (MArch Water) was first offered in the Fall 2015 to promote multidisciplinary as well as interdisciplinary perspectives related to water. The program had its first graduate in January 2019. The goal of the program is to supplement disciplinary (specialist) training offered in individual departments with perspectives from a variety of water-related disciplines. Students graduating from the collaborative program will be better equipped to work in multidisciplinary teams to solve increasingly complex water issues.

Summary of strengths, challenges and weaknesses based on self-study:

As the professional education in Architecture at Waterloo overlaps both the undergraduate and graduate programs, it is challenging to independently consider their individual strengths. The rigorous structure and professional character of the undergraduate program allows for the necessary freedom at the graduate level to carry on independent research and advance students' critical thinking skills, which in turn augments knowledge developed during the undergraduate degree. For those students joining solely at the graduate level, the School determines based on a review of their education whether they can join directly in the Thesis year or if they are to be admitted in the two-year Masters' program and have an opportunity to engage in a cooperative work term.

Undergraduate Program
Strengths:

Curriculum, cultural history and the Rome program
The curriculum incorporates cultural history, which is a feature that is unique to Architecture at Waterloo. It inspires an affection for a broad range of critical study and creative endeavor within the School. It explains why Waterloo Architecture has produced plays, has a wonderful library, a spectacular collection of rare books, and has operated a program in Rome for more than 30 years.

Cooperative education and the relation to the profession
The School's cooperative system offers a program in which there is no barrier between education and practice. By the time a Waterloo student reaches the graduate program, they will have on average 2 to 3 years of professional experience, some of it international. Last year, nearly 45% of the co-op work placements were outside Canada. The level of practical experience afforded in the undergraduate program has a positive impact on the graduate

program, enabling Waterloo Architecture MArch students to reach a level of independence normally associated with post-professional research degrees.

Internationally recognized faculty

Faculty members work in computation, responsive architecture, urban theory, Renaissance history, Waterloo region architecture, landscape infrastructure, Holocaust history, political installations, building and environmental sciences, artistic and architectural design, intersections between art and urbanism, psychology, contemporary theory, landscape, structural steel and building performance. Waterloo Architecture is characterized by the intensity and diversity of a group of faculty, many recognized internationally and through awards, publications and exhibitions.

Collegiality and the project of education

Students are drawn from across the country and beyond its borders. Around 1350 applicants apply for 75 places. The entire School community is involved in admitting students with artistic talent, capacity in abstract thought, critical ability, social imagination, maturity, self-confidence, and interest in making.

Community: Cambridge, Engineering Faculty, Waterloo and beyond

The School's identity derives from the fact that it is a community in which all members regard each other as equals. The main aim of Waterloo Architecture is to act and to lead, not to set itself apart as an educational institution somehow separate from the rest of the world, but to be a vivid and motivating force for ideas and actions that engage the world outside and the local Cambridge community. Waterloo Architecture is weaving itself in the community to produce a rare learning environment for which Waterloo Architecture has come to be known.

Weaknesses:

Isolation – Physical and Academic

While the strong community engagement of the School with the city of Cambridge represents both a strength and an opportunity, students are, at the same time, often isolated by the location. Students are generally limited to using the facilities available on the Architecture campus, which are in most cases more modest than those available on Waterloo's main campus. Students are also isolated in the sense they are removed from larger urban environments that could have the potential to contribute to their architectural education. Though co-op provides opportunities for students to live in other urban environments, this physical isolation presents challenges to the School's ability to expand learning networks and broaden the audience for student work.

Density and rigidity of the undergraduate curriculum

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Though the rigorous course requirements at the undergraduate level provide students with an excellent foundation for professional practice, it can also restrict students' abilities to begin specializing within their areas of interest. In certain cases, the amount and intensity of courses can have an impact on the quality of work produced, as well as having implications on student health. The School is looking for ways to alleviate this, both by reviewing the mode and number of assessments within each course, as well as by considering a reduction in the number of courses and credits per term.

Challenges:

Human and physical resources to better integrate digital technology
Digital technology is advancing at a slower pace at Waterloo than at some other architecture schools, reflected in the modest resources the Architecture School currently has available for digital design and fabrication. The School has just completed the hire of a new faculty member to improve the integration of digital design and fabrication within the curriculum, and help make the digital resources more robust. Still, one of the program's challenges in the coming years will be to continue to integrate digital technology in a manner that is coherent with the School's core values and vision.

Maintaining the quality of student experience
The School currently finds itself in the middle of a transition in the curriculum, in attempts to address previously-identified inadequacies. While it has been agreed the courses could be improved and streamlined, the transition includes the risk of making an already rigorous curriculum more dense. Furthermore, it will be a challenge to ensure that the School can continue to be committed to all streams (Design Studio, Cultural History and Theory, Landscape and Urbanism, Environment and Technology, and Visual and Digital Media) so that they all remain an integral part of students' education.

Adjusting to the New Resource Allocation Model
The University has moved towards a new budget model, involving revision of the ways in which funds are allocated, in an effort to promote transparency and efficiency. Reduced resources represent an acute challenge to the School, given conditions that are unlike most programs: the success and strength of the program are largely based on the emphasis on design, the accreditation body requires a faculty to student ratio of 1:15, and there is a constant need for practitioners in the capacity of adjuncts, reviewers or examiners. The School will have to ensure it has the resources needed to deliver the curriculum, maintain a culture that promotes research and continue activities that are crucial to the School.

Graduate Program

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Strengths:

Strength of Faculty and diversity of their research and practices

The School is home to many strong faculty, whose diverse research interests benefit the program at both the undergraduate and graduate level. These faculty members foster an openness to diverse research topics for students to pursue in their own independent research work.

High level of Autonomy

The MArch program is extremely open and flexible, with its promotion of student autonomy in research and learning. General consensus amongst faculty and students in the School is that the self-directed, self-initiated character of the MArch is one of the program's greatest strengths.

Critical thinking

While most students enter the program with skills that stem from rigorous curriculum and professional work of their previous program, the MArch specifically allows students to augment these skills with a focus on developing their critical thinking abilities. The graduate program promotes a level of critical thinking not developed through more structured curriculum, allowing students to set the pace and scope of their research.

Community connections – local and global

The strong culture of student initiatives and connection to the Cambridge community allows students to build stronger relationships with specific communities, both locally and globally. The flexibility of the program is such that if students secure funds to travel abroad or undertake field research, they can take up to a term to do so. Many students avail themselves of this opportunity with research trips that vary from a few days to up to four months.

Weaknesses:

Time to completion

While the autonomy of the graduate program is considered one of the program's greatest strengths, it can also be perceived as a weakness since the lack of structure affects some students' times to completion. The main concerns with longer times to completion are the delays for students entering the profession and the demands on resources for supervision.

Increase of Faculty Supervisory Loads

Combined, the effect of an increasing cohort and an average of a two-year completion time means that some 100 to 130 graduate students require to be supervised at any given time. With the equivalent of 21 full-time faculty, this translates to the supervision of an average of

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5 to 7 students per faculty member. This adds stress for faculty availability for supervision and other teaching assignments.

Level of preparation to the Graduate Program

Given that the graduate program is a primarily independent research degree, the level of research preparedness needs to be high. There have been traditionally few opportunities for students to learn skills relating to extended research, and the craft of communicating research through writing. Restructuring undergraduate streams to emphasize critical thinking and research will help better prepare students for the MArch.

Challenges:

Promoting research by design

The School has always valued giving students the freedom to choose and pursue their own unique research interests within the broader discipline, which has resulted in an increasing number of theses that are primarily written, rather than design work. The challenge is to encourage more students to pursue design work at the graduate level. Furthermore, this form of research must be communicated as a legitimate form of not only architectural research, but also academic, and 'fundable' research.

Continuing to attract the best students

One of the greatest challenges facing the graduate program is to continue to attract high-quality students. To attract new students to Waterloo, the two-year MArch was created but designed as a delayed entry, requiring a year of undergraduate study. Promoting the First Year MArch as a genuine graduate-level program will hopefully continue to increase applications to Waterloo MArch, and allow the school to admit competitive students. On the other hand, the School is concerned that since the undergraduate program is so widely regarded across North America and many places in Europe, we often lose our most successful undergraduate students as they choose to pursue graduate studies in other competitive schools, mostly those in the United States.

Maintaining the vitality of the program

Since students are free to choose their topic and will often work independently and in fields seemingly unrelated to their peers, it is a challenge to provide a single structure to support what is a broad academic culture. The students have developed their own approach to this potential isolation, creating research clusters and community events. Each of these groups operate with varying levels of faculty involvement (informal conversations to formal lectures), are self-sustaining and motivating, and require minimal institutional support. The

approach reflects a program that values independence, experimentation, student initiative, peer learning, knowledge transfer, professionalism and entrepreneurship – attributes that need to be constantly cultivated.

Summary of key findings from the external reviewers: The School of Architecture at the University of Waterloo offers robust architectural education, at both the undergraduate and graduate levels. Its reputation, both nationally and internationally, remains strong. The cultural history component, the co-op curriculum, the Rome program and the self-directed MArch thesis continue to attract high quality students. More recently, the considerable successes of some faculty have become well known (the Venice Biennale exhibitions, prominent publications, the work of alumni, etc.). The students have also shown a capacity for vital community initiatives (such as the Bridge project, On Empathy, Treaty Land, Global Stories, etc.). The high desirability and employability of graduates from both the BAS and MArch programs are well known.

The current and ongoing concerns for maintaining this high level of expectation and for further growth include: the operating deficit, the spatial and resource requirements for new programs, the relationship of the main University campus to the satellite campus, the need for equity across faculty in teaching and administrative loads, time-to-completion in the MArch program and the enhancement and growth in research initiatives.

Program response to external reviewer recommendations:

1. **Detailed auditing of faculty loads (teaching and administrative) over five year spans**

   Response
   The Director, with the assistance of the Administrative Academic Manager has already begun a more formal tracking of teaching assignments over the past year. Given the diversity of teaching (studio, seminar, courses) within the School of Architecture, teaching tasks are calibrated in time (days/week) to amount to the 40% teaching requirement that is typical of most faculty appointments. This assessment, which is ongoing, is tracked annually and an average is computed over three years.

   The administrative load, though tracked, is less formally categorized. Over the next year, Architecture plans to create two tailored documents, the first for the annual and bi-annual Performance Evaluation, and the second for Tenure and Promotion. These could include provision on how service load might be fulfilled.

2. **Limiting the MArch Thesis to one or two terms with set deadlines and prominent external examiners**

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Response

While the reviewer recommended limiting the MArch Thesis to one to two terms, it would in fact be detrimental to the program both financially and in relation to the dynamism of the student body. It would also be in contradiction with the current model. The Waterloo Architecture Thesis is set to be flexible and take between a minimum of three terms to a maximum of six terms. The School intends to maintain this flexibility, which enables their students to yield very strong work and engage in field research both in Canada and abroad.

However, in response to concerns raised in the review and voiced within the School, the School is working on improving the structure of the graduate degree, establishing additional benchmarks (interim reviews or presentation) to ensure that the majority of students can take less than 6 terms to complete their thesis. They are also considering an option within the Master's degree that would better support students who wish to complete within three to four terms. This more structured path would likely be desirable for a number of students engaged in Design Theses. The ambition is to run a pilot of this model in 2017-2018. As of Fall 2018, the program has implemented new processes (including compulsory end-of-term reviews for students in their 3rd and 4th term of thesis), and updated the graduate handbook to clarify expectations.

3. **Limiting the number of Thesis students supervised by one Faculty member (e.g. three students)**

   Response
   Architecture is currently working towards the creation of a balloting system that will enable them to distribute the supervisory load more evenly while still maintaining good fit between students and faculty members. The system provides an opportunity for both students and faculty to meet and submit a ranking of three to five students/professors from which supervisors are assigned. This system was tested in Fall 2017 and resulted in a balanced distribution of students amongst faculty for 2017-2018, and again for the year 2018-2019. The intention is to continue with the balloting system, refining it as needed.

4. **Setting minimum enrolments in graduate electives**

   Response
   Architecture aims for enrolments of an average of 12 to 15 students in graduate elective courses. As of Winter 2017, graduate electives which do not meet an enrolment of 10 students within two weeks of the beginning of the term are either not offered, or not counted as part of a faculty's teaching load. If, under exceptional circumstances, a course

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with lower enrolment is offered, the average enrolment in graduate electives during that term should remain above 10 overall.

5. **Auditing and re-distributing credit load for cultural history and technology courses in the undergraduate program to better reflect course demands**

   Response
   Over the next year, the Undergraduate Committee will continue to evaluate the curriculum and offer solutions if the perceived imbalances are real. In addition to the review of credit load for the cultural history courses and technical courses, the Committee will seek to reduce the total amount of course and class times in the denser years (and 1A in particular). The ambition is to create more openness in the schedule and more flexibility in course selections. In May 2018, the School of Architecture faculty voted to reduce the total credit count from 29.5 credits to 28 credits, eliminating one course in the 1A term and 2 courses in upper years, while integrating a greater proportion of elective courses. This will be implemented as of September 2019.

6. **Achieving greater alignment with the University's strategic direction toward transformative research and entrepreneurship; encouraging and emphasis on architectural innovation that stems from interdisciplinary research; supporting new ideas and initiatives with informal and formal events that cross communities; offering structured mentoring and grant-writing support**

   Response
   Building on the importance and recognition of many of Architecture faculty's work, the School must promote the awareness of current interdisciplinary research as well as its growth. The School will work to better support funding applications, motivate additional publications and ensure greater dissemination. The ambition is to increase funded research over the next five years, supporting this goal by the creation of a position of Associate Director, Research. This project goes hand in hand with improving procedures for faculty development that caters to the disciplinary and inter-disciplinary potentials of architecture research within the University, as well as the creation of programs and facilities that foster transformative interdisciplinary research.

   Architecture celebrated its 50th anniversary in 2017-2018, and it will continue to seek additional support for events, lecture series and the dissemination of research. To support new initiatives (design-build collaboration with First Nations, new interdisciplinary research), the School will pursue the approval for a financially viable Integrated Design program and/or new research facilities to support new research and collaborations.

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7. **Careful auditing resources (human, equipment, space) when implementing new programs and initiatives in light of the new budget model**

    Response
    The School is currently carefully reviewing a proposed new undergraduate program in Integrated Design. The review will consider facilities, human resources and equipment. In consideration of the implementation of the Waterloo Budget Model, the School is planning carefully so as to measure the impact of any changes and growth on the current budget of the School of Architecture. This new program would be in additional to Architectural Engineering, a collaborative program between the School of Architecture and the Department of Civil and Environmental Engineering that enrolled its first students in September 2018. Significant demand exists for such a program, and its addition would improve the financial viability of the School, while also enriching the academic diversity on the Cambridge Campus.

    While growth of the Cambridge student population with Architectural Engineering and Integrated Design will certainly make the programs in Cambridge more viable financially, it is clear that this growth will need to be supported by renewed efforts in outreach and fundraising. In collaboration with Engineering Advancement, a fundraising plan has been drafted. While this plan indicates the need for support by a fundraising professional over the next six months, and a development officer within the next year, there are currently no resources to fund support specifically for Architecture. At the same time, it is recognized that fundraising is undertaken by a small team who oversees Faculty focused activities, and there are no professionals assigned to any specific unit or department. University and Engineering Advancement will however continue to support Architecture on any leads the School can provide.

8. **Revisiting the name and vision statement of the Faculty of Engineering to be more inclusive of the School of Architecture. The main vision statement "to become a truly world-class school of engineering," does not accommodate the aims of the School of Architecture, the only non-engineering unit in the Faculty**

    Response
    The Faculty of Engineering has announced its intention to initiate conversations around the next strategic plan. Together with the Faculty, the School of Architecture will continue to work on a more inclusive vision for architecture in the Faculty of Engineering's strategic planning exercise.

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Implementation Plan:

	Recommendations	Proposed Actions	Responsibility for Leading and Resourcing (if applicable) the Actions	Timeline for addressing Recommendations
1.	Detailed auditing of faculty loads (teaching and administrative) over five-year spans;	Continue to track teaching load.	Director, with the assistance of Administrative Academic Manager (no resource)	Immediate and for the next 5 years (as suggested), with 3-year assessment for teaching, and 2 year for service.
2.	Limiting the MArch Thesis to one or two terms with set deadlines and prominent external examiners;	The MArch Thesis is set to be flexible and take between a minimum of three terms to a maximum of six terms. This flexibility is an integral part of the School's graduate degree. To respond to the comments, while maintaining integrity of the Waterloo Architecture MArch thesis model: 1) Architecture will work to ensure that the majority of students take less than 6 terms to complete their thesis. It will do this by (1.1) strengthening the structure of TRD1 and TRD2, possibly establishing additional benchmarks and deadlines, and monitoring the impact of the changes; and (1.2) clarifying expectations both for completion and supervisory loads. 2) To better support shorter-term design theses, the School will explore the	Director, Graduate Officer and Graduate Committee (no resource required)	Regularize time to completion by 2019.

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		possibility of a parallel thesis path. If deemed desirable, it will run a pilot structure that could support students pursuing a design thesis who intend to complete within three to four terms.		
3.	Limiting the number of thesis students supervised by one faculty member (e.g. three students);	Require each faculty member to take a minimum of 3 to 4 students annually, and a maximum of 10 overall. This takes into account our faculty complement and limiting the length of studies to a maximum of 6 terms.	Director, Graduate Officer and Graduate Committee (no resource required)	Piloted a balloting system in Fall 2017, successfully allocating 3 to 4 thesis students to each full-time faculty member. Regularize supervisory load by 2019.
4.	Setting minimum enrolments in graduate electives;	Unless exceptional circumstances dictate otherwise, the minimum enrolment should be 10 in any graduate elective.	Director (no resource required)	Immediate
5.	Auditing and re-distributing credit load for cultural history and technology courses in the undergraduate program to better reflect course demands	Assess the actual cause of the perceived imbalance (i.e. course content, single course load or semester course load). Recalibrate if necessary.	Director, Undergraduate officer and Undergraduate Committee (no resource required)	Complete assessment by 2019. Review impact in two years.
6.	Achieving greater alignment with the University's strategic direction toward transformative research and entrepreneurship; encouraging and emphasis on architectural innovation that stems from interdisciplinary research; supporting new ideas and initiatives with informal and formal events that cross communities; offering structured mentoring and grant-writing support;	Establish a mechanism to better support multidisciplinary and architecture research; Reconnect to alumni through celebrations of the 50th anniversary in 2017-2018; Pursue the approval for a financially viable Integrated Design program and initiate fundraising; Seek additional support for events and the lecture series.	Director, Associate Directors with various committees (Integrated Design, 50th and fundraising committees) Resources required: Fundraising by Architecture, and support from Engineering and the University.	Establish structured research support by the end of 2019, and monitor impact on graduate student recruitment; Celebrations of 50th anniversary in 2017-2018 provided opportunity to reconnect with some alumni; Find additional support for events and the lecture series by the end of 2019.

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7.	Careful auditing resources (human, equipment, space) when implementing new programs and initiatives in light of the new budget model;	Ongoing	Director, Administrative Officer, Architecture Financial Officer, and Faculty Financial Officer. (no resource required to conduct the audit)	Approval of Integrated Design on hold until clarity on growth income flow is obtained; Set up process for ongoing review by the end of 2019.
8.	Revisiting the name and vision statement of the Faculty of Engineering to be more inclusive of the School of Architecture. The main vision statement "to become a truly world-class school of engineering," does not accommodate the aims of the School of Architecture, the only non-engineering unit in the Faculty.	Address the issue of a more inclusive vision in the upcoming Engineering strategic planning sessions.	Dean, Directors and Chairs. (no resource required)	Integrate a more inclusive vision in the Faculty of Engineering's next Strategic Plan, due to be completed by May 2020.

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

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Date of next program review: <u>2023/24</u>
                                                                        Date

Signatures of Approval:

_____   _AP RIL B · 201 9_

Chair/Director   Date

_____

AFIW Administrative Dean/Head (*For AFIW programs only*)   Date

_____   _APR 10, 2019_

Faculty Dean   Date

_____

                                                                    April 15, 2019

Associate Vice-President, Academic   Date
(For undergraduate and augmented programs)

_____   April 15, 2019

Associate Vice-President, Graduate Studies and Postdoctoral Affairs   Date
(For graduate and augmented programs)

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Final Assessment Report
Classical Studies (BA, minor), Classics (BA), Greek (minor) and Latin (minor)
April 2019

Summary of the Program Review:

In accordance with the University's Institutional Quality Assurance Process (IQAP), this final assessment report provides a synthesis of the external evaluation and the internal response and assessments of the Classical Studies (BA), Classics (BA), Greek (minor) and Latin (minor) programs delivered by the Department of Classical Studies. A self-study (Volume I) was submitted to the Associate Vice-President, Academic on August 21, 2017. The self-study presented the program descriptions and learning outcomes, an analytical assessment of these programs, including the data collected from a student survey along with the standard data package prepared by the Office of Institutional Analysis & Planning (IAP). Appended to Volume I were the course outlines for all courses in the program. The CVs for each full-time faculty member in the Department were included in Volume II of the self-study.

Two arm's-length external reviewers were selected from Volume III of the self-study. Dr. Rebecca Nagel, Associate Professor of History and Classics, University of Alberta, and Dr. Victoria Wohl, Professor in the Department of Classics, University of Toronto were ranked and selected by the Associate Vice-President, Academic, as well as one internal reviewer (Dr. Vivian Dayeh, Department of Biology).

Reviewers appraised the self-study documentation and conducted a site visit to the University on November 6-7, 2017. The visit included interviews with the Associate Vice-President, Academic; Dean of Arts; Chair of Classical Studies; library representatives; and, Classical Studies faculty members, staff, and current students.

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

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Program characteristics:

Classical Studies (Three-Year General BA, Four-Year General BA, Honours BA)
The Three-Year General Classical Studies major provides students with a strong knowledge of ancient Mediterranean civilizations (especially Greek and Roman), and provides them with a background in the study of history, literature, art, and other material culture. Students with a Three-Year General can go on to further study outside the discipline of Classical Studies. Two examples of such are pursuing a Bachelor of Education or various managerial certifications.

The Four-Year General Classical Studies major, like the Three-Year General but in more profundity, provides students with a foundational knowledge of Ancient Mediterranean civilizations (especially Greco-Roman), and provides them with a background in the study of history, literature, art, and other material culture. Students with a Four-Year General can go on to further post-graduate study outside the discipline of Classical Studies. As with the Three-Year General BA graduate, Teacher's College is a popular option for Four-Year General graduates. They also seek out professional designations in managerial or administrative positions in both the private and public sector, often in a creative or heritage-related setting.

The Honours Classical Studies plan is very similar to the Classics plan, but without Greek and Latin language requirements. The creation of this new plan was motivated by the recognition that in many disciplines, most majors do not go on to graduate school, but have other life plans that do not necessarily include working in the area of their major. Students can major in Classical Studies as a part of the Honours Arts and Business program; this pairing is designed for students who want a degree designation marking their market readiness, and who wish to pursue their major of choice. Before 2016, Classical Studies did not offer an option for students to be in an Honours plan without the languages; this barred students who would otherwise choose to study in this discipline from being in the Arts and Business program, or from pursuing a Joint Honours. The Honours Classical Studies plan allows students to pursue an Honours plan – whether a single Honours, Joint Honours, or Honours Arts and Business – without the barrier of language training.

Classics (Honours BA)
The Honours Classics degree, whether a single Honours, Joint Honours, or Honours Arts and Business, provides students with a detailed and complex knowledge of ancient Greek and Roman history, literature, art, and other material culture, as well as a foundational knowledge of both the Greek and Latin languages. Honours students must complete eight courses in Greek and Latin. This degree gives students the necessary skills to go on to more advanced post- graduate study in the area of Classics, for which knowledge of these languages is required. Honours graduates

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have a wide variety of post-graduate study open to them. Among others, choices include doctoral studies in Classics, Anthropology, Archaeology, or English, and Master's degrees in Library Sciences, Archival Management, Museum Studies, or Business Management. A Law degree is likewise an option.

Minors

Minors may be taken in Classical Studies, Greek, and Latin. The latter two minors are rarely awarded, but the Classical Studies Minor is quite popular. For the approximately thirty students who choose this plan every year, the minor – which consists of a package of eight courses (chosen by the student) – is intended to provide a secondary area of concentration for students who are majoring in other disciplines. However, students seem to experience more breadth than depth in the minor as they most often take 200-level courses rather than 300- or 400-level courses.

Summary of strengths, challenges and weaknesses based on self-study:
Strengths
- Committed and enthusiastic faculty and students
- Diverse examination of the breadth of material in the field and its many sub-disciplines
- Well-Rounded and Well-Grounded Humanities Education: Classical Studies is a naturally well-rounded education in the humanities and offers courses in history, language, literature, and material culture at every level from the first year to graduate study. The individual courses that are offered are also often interdisciplinary.
- Rigorous Language Training: Students are well prepared for graduate studies. The language programs provide strong training in Latin and Greek. The progression of language study is rigorous in its expectations of students and prepares them well for graduate study in Classics, which requires reading proficiency in both languages. The success of undergraduate students in graduate programs elsewhere attests to the strong language training provided.
- Methodologies and Research Intensity: The outcomes on course outlines show purposeful attention is given to both various methodological approaches and to research activities. Undergraduate students are involved in Departmental research projects as undergraduate RA's, in conferences, and have exposure to visiting professors with different ideas. The Department of Classical Studies produces strong research, both qualitatively and quantitatively, grounded in a broad range of methodologies.

Challenges
- It is difficult for the Department of Classical Studies to instruct undergraduate *and*

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graduate courses with seven tenured faculty members, even with the support of sessional help. This funding of these sessionals is also not guaranteed.

- Communicating to the general public, including students, the value of a liberal arts education, as well as its value in preparation for employment
- Attracting and retaining students in a competitive environment, both externally and internally
- Declining enrollments in languages, not just at Waterloo, but elsewhere.
- Pressure to discontinue classes with low enrolment (minimum limit of 15 for undergraduate, 6 for graduate)
- Space: faculty offices are quite small, but at least functional; student space (lounge, library, graduate offices) is very constricted
- The external face and internal culture of the university, which is chiefly known as a technology-oriented institution

Weaknesses
- Currently there is only one faculty member who is a specialist in material cultural studies. Although the Department can sometimes mitigate this challenge through collaboration with other departments, it can limit opportunities for students interested in pursuing studies in this area.
- Lack of consistent and sufficient financial support for experiential learning opportunities

Summary of key findings from the external reviewers:

Over the past ten years, Classical Studies has placed a new emphasis on research, with the establishment of the Waterloo Institute for Hellenistic Studies, the introduction of the MA in Classical Studies, and the reduction of faculty teaching loads. These initiatives are already bearing fruit in the faculty's increased research activity and visibility, both nationally and internationally. The faculty are working actively and creatively to ensure that the benefits of this enhanced research profile are shared by their students, and their efforts have already succeeded in enhancing both the intellectual quality and the student experience of their undergraduate programs. The most important issue now will be maintaining that forward momentum.

Program response to external reviewer recommendations:
    Recommendations
1. The Department should make every effort to ensure that Ron Kroeker's position is converted from a Definite-Term to a Continuing Lecturer Appointment. His continued

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teaching contribution is indispensable to sustaining the courses and programs the Department offers.

Response
This recommendation has been completed. The Dean of Arts, Douglas Peers, gave permission to convert Dr. Kroeker's position to a Continuing Lecturer Appointment in Summer 2017. This was approved by the Faculty of Arts Faculty Tenure and Promotion Committee in December 2017, following approval by the Classical Studies Department Tenure and Promotion Committee, and approved by the Provost in January 2018.

2. The Chair should coordinate with other chairs in the Faculty of Arts who have concerns about meeting teaching demands in order to make a case to the Dean for a more flexible model of calculating enrolment. Calculating enrolment per instructor, rather than on a course-by-course basis, for example, would help the Department to meet the demands of its diverse constituencies and to preserve the core intellectual commitment to the ancient languages while servicing a broad spectrum of non-specialists.

   Response
   The study of the ancient languages Greek and Latin remains central to the discipline of Classical Studies and is a requirement for graduate level study, including the Classical Studies MA program at Waterloo. Classical Studies remains committed to teaching these languages, which in some instances requires offering smaller classes with enrolment less than fifteen students. The program tried to reduce the number of small language courses by combining upper-division courses where possible. They are also committed to offsetting smaller enrolment language courses by continuing to offer large lecture courses that serve the entire university community, including Classical Mythology (CLAS 104), which regularly fills to a maximum capacity of 675 students. This counterbalancing within annual departmental offerings is already done with the full awareness of the Dean of Arts. As this is current practice, there is no reason to coordinate with other chairs in the Faculty of Arts.

3. The Department should solicit further financial support for study abroad, the Canadian Institute in Greece (CIG) internship program, and student attendance at conferences. In addition to external funding, it should continue to seek funding from the Faculty of Arts and the University for these activities.

   Response

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In line with the University of Waterloo Strategic Plan, Classical Studies considers experiential learning and study abroad programs to be important educational opportunities for students and the program is committed to expanding the funding available to support students who take our study abroad CLAS 390 course, participate in the Canadian Institute in Greece (CIG) internship program, or pursue other study abroad or experiential learning options. In the past five years, fundraisers in the Faculty of Arts and the Waterloo Institute for Hellenistic Studies have helped to secure funding for such student opportunities and this will be continued moving forward. Experiential learning and international study are priority fundraising areas for the Faculty of Arts (https://uwaterloo.ca/arts/alumni-friends/support-arts) and the Department will continue to work closely with the Faculty to engage alumni and other donors to support these opportunities.

4. The Department should request Faculty of Arts funding for a year-round work-study Research Assistant to help with conference and events organization and to maintain the Department's social media presence.

   Response
   Classical Studies has in past often been able to hire a student to assist in the organization of conferences or other departmental events, which has contributed to the ability to offer a large number of international conferences, workshops, and research events, which have greatly increased the visibility and reputation of the University of Waterloo within our field. For students in the program, these opportunities have advanced their experiential training and work experience. The Department consistently applies for – and usually is granted - RA funding through the budgeting process and programs such as work-study and co-op. Whenever upcoming conferences, workshops, and special events are planned, individual faculty will continue to pursue external funding opportunities to support RA support for these research events.

5. The Department should request a new tenure-track faculty hire in ancient material culture. This new colleague would enrich the Department's contribution to experiential learning and would meet student demand for courses in material culture. She would also, ideally, help to redress the gender imbalance in the existing faculty.

   Response
   A new tenure-track hire in the field of ancient archaeology would greatly enhance the research and teaching strength of Classical Studies. The Chair will consult and work

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together with colleagues in other units to make a strong case for an interdisciplinary hire in material culture, who will advance broader university research priorities while also providing disciplinary expertise for the Classical Studies. In consultation with the Dean, the Department intends to submit a proposal for a new hire to the Dean in 2020. Should any new position be approved, Classical Studies is committed to making every effort to redress the gender imbalance in the program.

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Implementation Plan:

	Recommendations	Proposed Actions	Responsibility for Leading and Resourcing (if applicable) the Actions	Timeline for addressing Recommendations
1.	Convert Dr. Ronald Kroeker's Definite Term position to a Continuing Lecturer appointment.	Completed	Departmental Chair	Complete as of January 2018.
2.	Make a case to the Dean of Arts for a model in which small enrolment courses taught by faculty are counterbalanced by larger lecturer courses (note: counterbalancing of enrolments across annual departmental offerings already current practice)	Continuation of current practice.	Departmental Chair	Continuation of current practice.
3.	Solicit further funding for study abroad and international student opportunities.	Continuation of current fundraising efforts include: engaging emeriti through newsletters, alumni through online graduate profiles, and a "support Arts" webpage.	Departmental Chair	Ongoing
4.	Request funding for a year-long student RA for departmental activities.	Continuation of current budget, including application to work-study programs and external research bodies.	Departmental Chair	Ongoing

April 2019   Page 8 of 10

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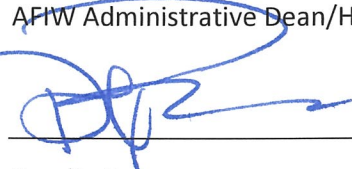| 5. | Request a new tenure-track line in material culture, a hire that would ideally address the Department's gender imbalance. | Pursue an interdisciplinary and cross-departmental/faculty appointment in this area. There is a strong case for an interdisciplinary hire in material culture, who will advance broader university research priorities while also providing disciplinary expertise for Classical Studies. | Departmental Chair | Given "mission critical" hiring restraints announced in 2019, this proposal will be made to the Dean by May 2020. |

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

April 2019   Page 9 of 10

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Date of next program review: _____ **2024-2025**
Date

Signatures of Approval:

_____ _5 September 2018_
Chair/Director Date

_____ _____
AFIW Administrative Dean/Head (*For AFIW programs only*) Date

_____ 4/ix/19
Faculty Dean Date

_____ April 18, 2019
Associate Vice-President, Academic Date
(For undergraduate and augmented programs)

_____ _____
Associate Vice-President, Graduate Studies and Postdoctoral Affairs Date
(For graduate and augmented programs)

NEW UNDERGRADUATE SCHOLARSHIPS, AWARDS, and BURSARIES
to be added to the Undergraduate Awards Database
- submitted for May 14, 2019 meeting of Senate Undergraduate Council -

ENTRANCE AWARDS

Ronald George, Florence Elizabeth and Ronald Thomas Bolce Undergraduate Scholarship
A scholarship, valued at up to $3,000, will be awarded annually to a full-time undergraduate student enrolled in Year One in the Faculty of Applied Health Sciences. Selection will be based on academic excellence (minimum 85% admission average) and extracurricular involvement as assessed through the Admission Information Form. This award is made in loving memory of Ronald George and Florence Elizabeth Bolce and in honour of Ronald Thomas Bolce.

Method of Financing: endowment

Stephen Burns-BMROSS Scholarship
A scholarship, valued at $3,000, will be awarded annually to an outstanding undergraduate student enrolled in Year One of Civil Engineering. This fund is made possible by a donation from B.M. Ross & Associates Limited and Stephen Burns.

Method of Financing: annual donation (five-year pledge)

Class of 1970 Chemical Engineering Scholarship
One scholarship, valued at $1,000, will be provided annually to an outstanding full-time undergraduate student enrolling in Year One of the Chemical Engineering program. This fund is made possible by a group donation from the Class of 1970 Chemical Engineering who, in gratitude for the educational foundation received from Waterloo Engineering, would like to invest in future engineers.

Method of Financing: one-time donation (to cover scholarships for 11 years)

Faculty of Environment Student Engagement Award
This award is available for up to 25 incoming Environment students. Candidates must submit an online application in which they describe their previous volunteer, leadership, and/or sustainability-related activities in their communities.

Method of Financing: Faculty funds

H.K. Kesavan Legacy Scholarship
A scholarship, valued at up to $1,200, will be awarded annually to a full-time undergraduate student enrolled in Year One of Systems Design Engineering. Selection is based on academic achievement combined with extracurricular and leadership involvement as assessed through the Admission Information Form (AIF). This fund is made possible by donations from family and friends in memory of Professor H.K. Kesavan.

Method of Financing: endowment

Knowledge Integration Cornerstone Entrance Scholarship
Several scholarships, valued at $2,500 each, will be awarded annually to full-time undergraduate students enrolled in Year One of the Bachelor of Knowledge Integration program. Selection is based on academic achievement and extracurricular involvement as assessed through the Admission Information Form (AIF). The Cornerstone award is given to students who best exemplify Knowledge Integration's foundational values of community, creativity, interdisciplinarity, and engagement. This fund is made possible by donation to support the Knowledge Integration program.

Method of Financing: Department and donor funds (ongoing)

NEW UNDERGRADUATE SCHOLARSHIPS, AWARDS, and BURSARIES

to be added to the Undergraduate Awards Database

- submitted for May 14, 2019 meeting of Senate Undergraduate Council -

Raaflaub Family Entrance Scholarship for Women in STEM

One scholarship, valued at $2,000, will be awarded to an outstanding undergraduate female student admitted to Year One of a science, technology, engineering, or mathematics (STEM) degree program in which women are underrepresented on the basis of academic achievement. This fund is made possible by a donation from the Raaflaub family to inspire young women to pursue studies in STEM disciplines.

Method of Financing: annual donation (five-year pledge)

SNC-Lavalin Scholarship in Civil Engineering

A scholarship, valued at $5,000, will be awarded annually to a full-time undergraduate student enrolled in Year One of the Civil Engineering program. Selection is based on academic excellence (minimum 85% admission average) combined with extracurricular involvement and participation in volunteer activities. This fund is made possible by a donation from SNC-Lavalin.

Method of Financing: annual donation (ten-year pledge)

Donald R. Snider Memorial Entrance Scholarship

A scholarship, valued at up to $1,500, will be awarded annually to an outstanding undergraduate student from the Region of Waterloo who is entering Year One of Architectural, Civil or Mechanical Engineering. This fund is made possible by a donation from James Snider in honour of his father, Donald Snider.

Method of Financing: endowment

Professor Donna Strickland - AMTD Entrance Scholarship

One or more scholarships, valued at up to $3,000 each, will be awarded annually to outstanding full-time undergraduate students entering Year One of any program in the Department of Physics and Astronomy in the Faculty of Science. Selection will be based on academic excellence (minimum admission average of 90%). This fund is made possible by a donation from AMTD Foundation in honour of the awarding of the Nobel Prize in Physics to Professor Donna Strickland.

Method of Financing: endowment

John Tattersall Memorial Scholarship

A scholarship, valued at $2,000, will be awarded annually to an outstanding undergraduate student entering Year One of any program in the Faculty of Engineering from the Prairie Provinces or Northern Territories (AB, MB, SK, NT, YT, or NU). This fund is made possible by a donation from The Tattersall Family.

Method of Financing: annual donation (five-year pledge)

NEW UNDERGRADUATE SCHOLARSHIPS, AWARDS, and BURSARIES

to be added to the Undergraduate Awards Database

- submitted for May 14, 2019 meeting of Senate Undergraduate Council -

UPPER-YEAR AWARDS

Class of 1977 Systems Design Engineering Award
One award, valued at $1,000, may be given annually to a fourth-year undergraduate student enrolled in Biomedical or Systems Design Engineering. Selection will be based on accomplishments and demonstrated creativity in any field or combination of fields, including sports, politics, academics, work terms, philanthropy, business, the arts, or community service. Students may apply on their own behalf or be nominated by other student(s) currently enrolled in the Department of Systems Design Engineering or by a faculty member in the Department. Applications/ nominations are due by October 1. This award is made possible by donations from graduates of the Class of 1977 Systems Design Engineering who believe that if ever an engineering class embodied "think different", it was the Class of 1977.

Method of Financing: endowment

Knowledge Integration Experience Awards
One or two awards, valued at up to $1,000 each, will be provided annually to full-time undergraduate students enrolled in Year Two, Three, or Four of the Bachelor of Knowledge Integration (KI) program to help support an activity which will enhance their learning experience such as an international exchange, an entrepreneurial venture, or other worthy project (excluding the museum field trip). The experience must be undertaken during the current academic year (Fall, Winter, or Spring). Selection will be based on academic merit as well as a statement from the candidate describing how the experience will enhance their educational goals and a budget of estimated expenses along with other potential sources of funding. Following the experience, recipients will be asked to provide a brief report in which they reflect on their learning. They will also be encouraged to work with KI to share their experiences with current and future KI students. This fund is made possible by donations in support of the Knowledge Integration program. Interested students may submit their application to the Department of Knowledge Integration by October 1 or February 1.

Method of Financing: Department and donor funds (ongoing)

Knowledge Integration Museum Field Trip Bursaries
Up to three bursaries, valued at $500 each, are available annually for full-time undergraduate students enrolled in Year Two of the Bachelor of Knowledge Integration (KI) program who require financial assistance to cover the required costs associated with the KI museum field trip (INTEG 230). Candidates must be Canadian citizens or permanent residents. An application is required by October 1. This fund is made possible by donations in support of the Knowledge Integration program.

Method of Financing: Department and donor funds (ongoing)

La Esperanza Undergraduate Bursary
A bursary, valued at $2,000, will be provided annually to a full-time undergraduate student enrolled in second-, third-, or fourth-year in the Faculty of Arts (excluding students in School of Accounting and Finance) who has a demonstrated financial need. Candidates must have a minimum 70% cumulative average. Interested students should submit a Full-time Bursary application by October 15. This bursary is made possible by generous donors who wish to remain anonymous. The donors named the Award "La Esperanza" which is Spanish for hope.

Method of Financing: one-time donation (to cover bursaries for five years)

NEW UNDERGRADUATE SCHOLARSHIPS, AWARDS, and BURSARIES

to be added to the Undergraduate Awards Database

- submitted for May 14, 2019 meeting of Senate Undergraduate Council -

Norm Li Visualization Award

Multiple awards will be presented annually to full-time undergraduate students in the School of Architecture who are enrolled in an advanced visualization course. Selection will be based on a strong understanding and passion for design, as evidenced by architectural visualizations completed in any elective or core advanced visualization course (e.g., ARCH 313), demonstrating outstanding storytelling, artistic composition, and technical skill in the field. This fund is made possible by a donation from Norm Li.

Method of Financing: annual donation (five-year pledge)

Dr. David McKenna Memorial Scholarship

A scholarship, valued at $1,500, is awarded annually to a full-time undergraduate student enrolled in Year One in the School of Optometry & Vision Science from the East Coast of Canada. Selection will be based on demonstrated leadership skills, community involvement, and academic excellence (minimum admission average of 80%). Preference will be given to students from Prince Edward Island (PEI). Interested students should submit an application by October 1. This fund is made possible by the Canadian Optometric Education Trust Fund (COETF) in memory of David McKenna, OD '82. Dr. McKenna practiced optometry in PEI and was a leader in the profession.

Method of Financing: annual donation (ongoing)

Not-for-Profit Undergraduate Award

An award, valued at $2,000, will be provided annually to a full-time undergraduate student enrolled in second-, third-, or fourth-year in the Faculty of Arts (excluding the School of Accounting and Finance), who is participating in a co-op or other work experience, or a field placement with a not-for-profit or NGO organization locally, nationally, or abroad with little or no remuneration. The experience must be for a minimum of 12 weeks in length. Selection is based on academic achievement (minimum 75% overall average) and the nature of the experience. Interested students should apply prior to the work term, by March 15 for Spring or Fall experiences. This award is made possible by generous donors who wish to remain anonymous.

Method of Financing: one-time donation (to cover awards for five years)

President's Award of Excellence

Each year, the University awards three Governor General's Academic Silver Medals to the undergraduate students who achieve the highest academic standing upon graduation from a Bachelor's program, with equitable distribution between Faculties. In years in which the medal is not awarded in a given Faculty, the President's Award of Excellence will be awarded to the Faculty's student with the top graduating average. The award consists of a framed certificate.

Method of Financing: University funds

NEW UNDERGRADUATE SCHOLARSHIPS, AWARDS, and BURSARIES
to be added to the Undergraduate Awards Database
- submitted for May 14, 2019 meeting of Senate Undergraduate Council -

ATHLETIC AWARDS

Hudda Musa Athletics and Community Excellence Award
One award, valued at $2,000 or two awards valued at $1,000, are given to student-athletes on the varsity football or men's basketball teams. Preference will be given to students who are involved in community service and/or volunteer activities outside of the University of Waterloo. This fund is supported by Waterloo alumnus Sadig Sadig, in honour of his mother, who lives her life with a smile on her face and a dedication to helping others.

Method of Financing: annual donations and matching funds (five-year pledge)

Maura Purdon Athletics Excellence Award
One or more awards, valued at up to $4,000, are given to student-athletes on any women's varsity team. Preference will be given to members of the women's varsity volleyball team. These awards recognize leadership, athletic talent and contribution to Warriors Athletics and Recreation, their team, the school and their community. This fund is supported by Warriors women's volleyball alumna Maura Purdon (BA, '80, Recreation and Leisure Studies).

Method of Financing: annual donations and matching funds (three-year pledge)

INTERNATIONAL EXPERIENCE AWARDS

Marga I. Weigel German Study Abroad Award
Up to five awards, valued at $1,000 each, will be provided annually to full-time undergraduate students in any program who are participating in the Waterloo Summer Language School in Germany. Selection is based on academic achievement (minimum 75% cumulative average) and an application explaining how knowledge of German language and culture will assist the applicant in realizing their career and professional goals. Interested students should submit their one-page letter to the Waterloo Center for German Studies by March 1. This fund is made possible by a donation from Dr. Marga I. Weigel, a proud UWaterloo alumna, to encourage Waterloo students to learn German in order to increase transcultural interactions between Canada and the German-speaking world.

Method of Financing: annual donation (five-year pledge)

Two-Year Progress Report
Mennonite Studies (Minor)
November 2018

Background:

The last program review was conducted in 2016-17. The self-study was written by the Director of the Mennonite Studies (MS) Minor (and currently Dean) Dr. Marlene Epp, with administrative support from the Dean's assistant and the College's registration and scheduling officer. Current students and alumni were consulted via a brief survey. Faculty who teach core courses in the Minor provided input and the Conrad Grebel Archivist-Librarian completed the section on library resources. The Institute of Anabaptist and Mennonite Studies Advisory Group (IAMS), which oversees the Minor, met several times to offer input for the review. Institutional Analysis and Planning provided statistical support as requested.

A site visit was held in November 2016, hosting UWaterloo reviewers Steven Bednarski (St. Jerome's University) and Stefan Idziak (Physics and Astronomy). The reviewers submitted their recommendations within the required timeline and the IAMS group met several times to discuss the recommendations and an implementation plan. The Director of Mennonite Studies submitted a response to the recommendations and proceeded to oversee the implementation plan.

The Final Assessment Report was approved by Senate Undergraduate Council on June 19, 2018, and presented to Senate for information.

Progress on Implementation Plan:
Recommendations:

1. Identify a set of degree level expectations and learning outcomes, and make them visible online and in print advertising.

    Status: **completed**
    Details: The Institute of Anabaptist and Mennonite Studies Advisory Group (which oversees the Minor) developed the following set of degree level expectations and learning outcomes. These have been posted on the program webpage.
    https://uwaterloo.ca/grebel/academics/undergraduate-studies/mennonite-studies

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Graduates with a Mennonite Studies Minor will:

1. Demonstrate an understanding of the history of Anabaptist-Mennonite origins within 16th century European religious reformations.
2. Articulate the basic religious beliefs of Anabaptist-Mennonites.
3. Demonstrate knowledge of Mennonites from a variety of disciplinary, contextual, and experiential perspectives.
4. Demonstrate an understanding of the diverse groups of Mennonites globally and locally.
5. Articulate the present-day role of Mennonites in the organizational and institutional life of Waterloo Region.
6. Demonstrate an understanding of the place of ethnic and religious minorities in Canada and their contribution to the creation of multicultural identities.
7. Show basic competency in working with primary source material.
8. Demonstrate understanding of the role of archives in Mennonite Studies research.
9. Have experienced local Mennonite culture and religion through field trips and volunteer activity.
10. Demonstrate critical research and writing skills.

2. Have IAMS take a greater leadership role to help guide and shape the program, particularly in light of upcoming retirements.

Status: **completed**
Details: IAMS does have leadership in guiding and shaping the program. The group meets regularly to plan the research and teaching activity of the Mennonite Studies program. Conrad Grebel University College hired a new Music Department faculty member in July 2019 who will maintain the church music and worship components of the course offerings. The College will not likely be hiring in the area of English Literature and thus the course on Mennonite Literature will probably need to be de-activated. This topic represented particular expertise of a retired faculty member; because Conrad Grebel does not have teaching equity in English, we do not normally hire in this discipline.

3. Establish an independent MS rubric and cross-list, where appropriate and possible, courses offered by other units.
Status: **completed**
Details: A Mennonite Studies course indicator – MENN – was approved in Spring 2018 and takes effect January 2019. At this time we don't see the value in cross-listing existing courses.

4. Cross-list ARTS 125 with MS 125 and HIST and / or RS courses to improve visibility and enrolment.

   Status: **completed**
   Details: The Religious Studies Department declined the invitation to cross-listed ARTS 125 (Who are the Mennonites?) because they do not want more 100-level courses. We already have several History cross-lists with Mennonite Studies courses and decided this was not appropriate. Instead, and in keeping with recommendation 3, we renumbered Arts 125 as MENN 125. The counsel given to us was not to cross-list this course.

5. Create a Special Topics or Directed Readings course within the MS rubric if the enrolment in MS grows significantly.

   Status: **completed**
   Details: Two new courses were approved in Spring 2018 and will be effective January 2019: MENN 390, Special Topics in Mennonite Studies; and MENN 397, Directed Readings in Mennonite Studies. We hope to offer a special topics course in the 2019-20 academic year.

6. Expand upon the experiential learning / primary research project conducted in HIST 247 to allow for greater library and archive internship work elsewhere in the curriculum.

   Status: **ongoing**
   Details: A library-archives assignment, resulting in a museum-ready exhibit, has been developed as an ongoing component of HIST 247 (Mennonite History). We continue to explore options for similar assignments in other Mennonite Studies courses. In 2018, we offered the first not-for-credit Archives Internship, incorporated into an existing academic award. This allows students to explore and develop their skills in historical research and archives work, and to assist the Archives itself in processing collections and developing exhibits. We hope to create a for-credit option in the future.

7. Make explicit in print and online other experiential learning components of the MS Minor, such as opportunities to interact with local members of the Mennonite community. Standardize and promote the experiential learning components on the program.

   Status: **ongoing**
   Details: We continue to work at making the experiential components of the MS Minor more explicit in our course descriptions, syllabi, and advertising. We are not sure that standardization of these is possible or practical, as new opportunities arise each year that demand flexibility in the program.

8. Advertise at other AFIW and Waterloo locations.

    Status: **ongoing**

    Details: We developed a new poster and other print materials in 2017-18. These were circulated to appropriate units at UWaterloo and in the AFIW. We have worked at greater clarity and visibility in the program's online presence.

Explain any circumstances that have altered the original implementation plan:

We have followed through with the implementation plan originally presented. The Mennonite Studies Minor continues to face the challenge of working program development with very few resources of time; the Director receives no time release for overseeing the program and there are no dedicated staff for the program.

Implementation Plan: Recommendations for Mennonite Studies Minor, in response to program review, March 2017
Updated November 2018

	Recommendations	Proposed Follow-up	Responsibility for Leading and Resourcing (if applicable) Follow-up	Timeline for addressing Recommendation
1.	Identify a set of degree level expectations and learning outcomes, and make them visible online and in print advertising;	We will draw on the objectives now listed in the core required courses and also generalize them to suit the whole Minor.	Director of Mennonite Studies Minor, working with Institute of Anabaptist and Mennonite Studies (IAMS) Advisory Group and Conrad Grebel Dean.	Completed Fall 2018 and posted on website.
2.	Have IAMS take a greater leadership role to help guide and shape the program, particularly in light of upcoming retirements;	IAMS does have leadership in guiding and shaping the program and will make its program needs known to the College Dean in light of upcoming retirements.	Director of Mennonite Studies Minor, working with Institute of Anabaptist and Mennonite Studies (IAMS) Advisory Group.	Complete. New faculty in Music hired July 2018 with specialties in church, music, and worship, thus maintaining those components of the course offerings.
3.	Establish an independent MS rubric and cross-list, where appropriate and possible, courses offered by other units;	We have already inquired about the process for creating a new course code and, if approved, hope to have this in place for 2018-19.	Director of Mennonite Studies Minor, working with Institute of Anabaptist and Mennonite Studies (IAMS) Advisory Group and Conrad Grebel Dean.	Complete. New course rubric, MENN, was approved in spring 2018, effective January 2019.
4.	Cross-list ARTS 125 with MS 125 and HIST and / or RS courses to improve visibility and enrolment;	We have already put in a request to the Religious Studies Department for a cross-listing. Declined.	Director of Mennonite Studies Minor, working with Institute of Anabaptist and Mennonite Studies (IAMS) Advisory Group,	Complete. ARTS 125 was renumbered as MENN 125. We decided not to cross list this course since RS declined and other

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			Religious Studies Department, and Conrad Grebel Dean.	disciplinary crosslistings were not advisable.
5.	Create a Special Topics or Directed Readings course within the MS rubric if the enrolment in MS grows significantly;	We will give some thought to this after the MS course rubric is created; this is contingent on faculty resources to offer a special topics course, as well as student demand.	Director of Mennonite Studies Minor, working with Institute of Anabaptist and Mennonite Studies (IAMS) Advisory Group and Conrad Grebel Dean.	Complete. Two new courses were approved in Spring 2018 and will be effective January 2019: MENN 390, Special Topics in Mennonite Studies; and MENN 397, Directed Readings in Mennonite Studies. We hope to offer a MENN 390 soon.
6.	Expand upon the experiential learning / primary research project conducted in HIST 247 to allow for greater library and archive internship work elsewhere in the curriculum;	We will incorporate library-archives assignments as an ongoing component of History 247 and will explore options for similar assignments in other MS courses. As well, we will develop an Archives Internship that will allow students to explore and develop their skills in historical research and archives work, and also assist the Archives itself in processing collections and developing exhibits.	Director of Mennonite Studies Minor, working with Institute of Anabaptist and Mennonite Studies (IAMS) Advisory Group, Archivist, and Conrad Grebel Dean.	Ongoing. A library-archives assignment, resulting in a museum-ready exhibit, has been developed as an ongoing component of HIST 247 (Mennonite History). We continue to explore options for similar assignments in other Mennonite Studies courses. In 2018, we offered the first not-for-credit archives internship, incorporated into an existing academic award. This allows students to explore and develop

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			their skills in historical research and archives work, and also assist the Archives itself in processing collections and developing exhibits. We hope to create a for-credit option in the future.
7.	Make explicit in print and online other experiential learning components of the MS Minor, such as opportunities to interact with local members of the Mennonite community. Standardize and promote the experiential learning components on the program;	We will make the experiential components of the MS Minor more explicit in our course descriptions, syllabi, and advertising. We will discuss whether standardization of these is possible or practical.	Director of Mennonite Studies Minor, working with Institute of Anabaptist and Mennonite Studies (IAMS) Advisory Group, Instructors of MS courses, and Conrad Grebel Dean.	Ongoing. We continue to work at making the experiential components of the MS Minor more explicit in our course descriptions, syllabi, and advertising. In particular, at least 3 courses (MENN 125, SOC 275, and HIST 247) include one or more field trips. We advertise these each term as a feature of the course offering. We are not sure that standardization of these is possible or practical, as new opportunities arise each year that demand flexibility in the program.

November 2018   Page 7 of 9

| 8. | Advertise at other AFIW and Waterloo locations. | We will develop more online and print materials to advertise the Plan at UWaterloo, focusing on academic units where we think there might be most interest. | Director of Mennonite Studies Minor, working with Institute of Anabaptist and Mennonite Studies (IAMS) Advisory Group, Conrad Grebel Communications staff, and relevant academic units at UWaterloo. | Ongoing. We developed a new poster and other print materials in 2017-18. These were circulated to appropriate units at UWaterloo and in the AFIW. We have worked at greater clarity and visibility in the program's online presence. |

Report on anything else you believe is appropriate to bring to Senate concerning this program:
N/A

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Date of next program review: _____2023 24_____
                                                                        Date

Signatures of Approval:

_____   Nov 27/2018
Chair/Director   Date

_____   Nov 30/2018
AFIW Administrative Dean/Head (For AFIW programs only)   Date

_____   5/xii/18
Faculty Dean   Date

_____   February 19, 2019
Associate Vice-President, Academic   Date
(For undergraduate and augmented programs)

_____   _____
Associate Vice-President, Graduate Studies and Postdoctoral Affairs   Date
(For graduate and augmented programs)

FOR INFORMATION

_____

Recognition and Commendation

Out of 100 students competing at the Data Open Championship, 11 of them were from the University of Waterloo, making it the institution with the largest number of competitors to compete in the championship.
Congratulations to the 11 students for making it to the Championship:

- Priyank Jaini, PhD candidate, Computer Science
- Ankai Jie, undergraduate, Data Science
- Ryan Kinnear, Master's candidate, Electrical & Computer Engineering
- Patrick Li, Master's candidate, Statistics
- Neil Liu, undergraduate, Computer Science and Statistics
- Sai Praneeth, Master's candidate, Applied Science, Mechanical and Mechatronics Engineering
- Kevin Wang, undergraduate, Mathematics, Computer Science and Optimization
- Richard Wi, undergraduate, Computer Science
- Alexandre Xiao, undergraduate, Mathematics, Combinatorics and Statistics
- Richard Zhang, undergraduate, Computer Science and Statistics

(adapted from the Daily Bulletin, 14 May 2019)

Three Vanier Canada Graduate Scholarship recipients will pursue their doctoral studies at the University of Waterloo.
Tyler Hampton
- Tyler is a PhD candidate in the Department of Earth and Environmental Sciences. His research proposal - modelling water quality changes from streams draining forested landscapes in response to timber harvesting and wildfire – will help predict the effects of these activities on drinking water quality in forested regions of Canada.

Steven Pretty
- Steven is a PhD candidate in the Department of Kinesiology. His research proposal - characterization of trochanteric soft tissue mechanics: informing the development of personalized protective devices - will add to our understanding of falls on the hip. Steven is investigating the interaction between hip protectors and underlying soft tissues.

Lei Yang
- Lei is a PhD candidate in the Department of Physics and Astronomy. Her research proposal - using duality to investigate the effects of interactions between electrons in topological quantum materials - may have application to the increase in speed and miniaturization of semiconductor electronic devices.

(adapted from Graduate Studies & Postdoctoral Affairs News, 16 May 2019)

Each month, the Office of the President recognizes students, faculty, staff and alumni who go above and beyond. The President's Accolades celebrate stories of dedication, passion and contribution from our University community. Congratulations to the University of Waterloo community members currently being recognized from April 2019:

- Professor James "Skid" Skidmore, whose term on the University's Senate recently ended, is heralded for his informative and entertaining "Senate Digest" that he wrote after every meeting;
- The members of the International Peer Community (IPC), who dedicate their time to building meaningful connections with first-year international students;
- Waterloo student Prashant Bagga, who won a Microsoft hackathon and a coveted internship;
- PhD candidate Vanessa Lam, who has made a difference to her students as a business ethics instructor;
- The Safety Office's Andrew Scheifele, who, along with his family, have fostered puppies being trained as career service dogs; and
- Pharmacy student Ryan Pelletier, who volunteers with Sanguen Health, an organization that works with and supports those at risk for or living with Hepatitis C.

(adapted from the Daily Bulletin, 23 May 2019)

University of Waterloo
REPORT OF THE DEAN OF APPLIED HEALTH SCIENCES TO SENATE

June 17, 2019

FOR INFORMATION

A. **APPOINTMENTS**
    Probationary Term Appointment
    EHGOETZ, MARTENS, Kaylena, Assistant Professor, Department of Kinesiology, July 1, 2019. Professor Ehgoetz Martens received her B.Sc. (2010) from Wilfrid Laurier University, M.A. (2012) and Ph.D. (2015) from the University of Waterloo. She did a postdoctoral fellowship (2017-2019) at the University of Sydney. Dr. Ehgoetz Martens' research focusses on developing and understanding the neural mechanisms that are involved in the control of mobility with a specific focus on cognitive and affective determinants among older adults and those with neurodegenerative disease. She is a strong fit with the Department of Kinesiology.

    Adjunct Appointments
    Graduate Supervision
    JOPPE, Marion, Professor, Department of Recreation and Leisure Studies, March 1, 2019 – February 28, 2021.

    Research
    MILLIGAN, James, Assistant Professor, Department of Kinesiology, April 15, 2019 – June 30, 2022.

    Adjunct Re-appointment
    Graduate Supervision and Research
    DUIZER, Lisa, Associate Professor, Department of Kinesiology, July 1, 2019 – June 30, 2021.

    Special Appointments
    Undergraduate Instruction
    TORABIAN, Pooneh, Lecturer, Department of Recreation and Leisure Studies, May 1, 2019 – August 31, 2019.

    Postdoctoral Re-appointment
    VALAITIS, Renata, School of Public Health and Health Systems, April 1, 2019 – March 31, 2020.

B. **ADMINISTRATIVE APPOINTMENT**
    MacEACHEN, Ellen, Associate Professor and Acting Director, School of Public Health and Health Systems, July 1, 2020 – June 30, 2021.

Paul Stolee, Interim Dean
Faculty of Applied Health Sciences

UNIVERSITY OF WATERLOO
REPORT OF THE DEAN OF THE FACULTY OF ARTS TO SENATE
June 17, 2019

FOR INFORMATION

A. APPOINTMENTS
Probationary Term Appointments

MOLNAR, Adam, (BA 2004 York University, MA 2008 PhD 2014 University of Victoria), Assistant Professor, Department of Sociology and Legal Studies, July 1, 2019 to June 30, 2022. Dr. Molnar's is an expert in the socio-legal implications of technology for policing, security, surveillance, and privacy. Adam Molnar served as Lecturer in Criminology at Deakin University from 2014 to 2019. He is a member of the Alfred Deakin Institute for Citizenship and Globalisation, the Centre for Cyber Security Research and Innovation, the Australian Privacy Foundation, and visiting professor in the Citizen Lab at the Munk School of Global Affairs. Dr. Molnar expertise will augment the Department's teaching and research in the thematic area of Crime, Law, and Security.

TURNBULL, Sarah, (BA 2002 Simon Fraser University, MA 2003 PhD 2012 University of Toronto), Assistant Professor, Department of Sociology and Legal Studies, July 15, 2019 to June 30, 2022. Dr. Turnbull is an expert in the areas of immigration detention and deportation, border criminology, foreign national prisoners, and race and gender. She has additional expertise in the field of corrections as author of the book *Parole in Canada: Gender and Diversity in the Federal System* (UBC Press, 2016). Dr. Turnbull served as Lecture in Criminology in the School of Law at Birkbeck, University of London from 2016 to 2019 and as Postdoctoral Fellow at the Centre for Criminology, University of Oxford from 2013 to 2016. Dr. Turnbull's expertise will augment the Department's teaching and research in the thematic area of Migration, Borders, and Transnationalism.

Probationary Term Reappointments

ROZOTTO, David, (BA 1999 M ContEd 2005 University of Saskatchewan, MA 2008 PhD 2012 University of Ottawa), Assistant Professor, Department of Spanish & Latin American Studies, July 1, 2019 to June 30, 2022.

Visiting Appointment

SCOTT, Thomas, Visiting Scholar, School of Accounting and Finance, April 1, 2019 to June 30, 2021.

Adjunct Appointments – Instruction

KASTRATI, Brikena, Lecturer, Department of Germanic and Slavic Studies, August 27, 2019 to April 30, 2020.

PEARCE, Joanna, Lecturer, Department of History, May 1, 2019 to August 31, 2019.

Adjunct Reappointments – Instruction

ARNOLD, Brian, Lecturer, School of Accounting and Finance, May 1, 2019 to August 31, 2019.

BENVENUTI, Courtney, Lecturer, School of Accounting and Finance, May 1, 2019 to August 31, 2019.

BIANCHI, Andria, Lecturer, Department of Philosophy, May 1, 2019 to August 31, 2019.

BRIGGS, Catherine, Lecturer, Department of History, May 1, 2019 to August 31, 2019.

COCARLA, Sasha, Lecturer, Department of Philosophy, May 1, 2019 to August 31, 2019.

CYR, Dylan, Lecturer, Department of History, May 1, 2019 to August 31, 2019.

DEFRAEYE, Julien, Lecturer, Department of French Studies, May 1, 2019 to August 31, 2019.

DRUMMOND, Glen, Lecturer, Stratford School of Interaction Design and Business, May 1, 2019 to August 31, 2019.

IV, Kieng, Lecturer, School of Accounting and Finance, May 1, 2019 to August 31, 2019.

LEE, Richard, Lecturer, School of Accounting and Finance, May 1, 2019 to August 31, 2019.

MEINYKEVYCH, Viktoriya, Lecturer, Department of Germanic and Slavic Studies, May 1, 2019 to August 31, 2019.

RAHMAN, Fiona, Lecturer, Department of Economics, May 1, 2019 to August 31, 2019.

RUFFUDEEN, Zamal, Lecturer, School of Accounting and Finance, May 1, 2019 to August 31, 2019.

SCHWEITZER, David, Lecturer, Department of History, May 1, 2019 to August 31, 2019.

STETTNER, Shannon, Lecturer, Department of Philosophy, May 1, 2019 to August 31, 2019.

TANGUAY, Greg, Lecturer, Department of Economics, May 1, 2019 to August 31, 2019.

WANG, Bo, Lecturer, School of Accounting and Finance, May 1, 2019 to August 31, 2019.

WARRINER, Keith, Associate Professor (Associate Professor Emeritus), Department of Sociology and Legal Studies, May 1, 2019 to August 31, 2019.

Adjunct Reappointments – Cancelled
DEFRAEYE, Julien, Lecturer, Department of French Studies, May 1, 2019 to August 31, 2019.

Adjunct Reappointments – Graduate Supervision
DOUGLAS, Heather, Associate Professor, Department of Philosophy, April 1, 2019 to April 1, 2020.

Graduate Students Appointed as Part-Time Lecturers
BERIAULT, Phillipe, Department of Philosophy, May 1, 2019 to August 31, 2019.

CORNEIL, Rebekka, Department of Germanic and Slavic Studies, May 1, 2019 to August 31, 2019.

DUSOWOTH, Sushma, Department of French Studies, May 1, 2019 to August 31, 2019.

ETMANSKI, Brittany, Department of Sociology and Legal Studies, May 1, 2019 to August 31, 2019.

LALONDE, Patrick, Department of Sociology and Legal Studies, May 1, 2019 to August 31, 2019.

MCCHESNEY, Dylon, Department of Philosophy, May 1, 2019 to August 31, 2019.

MORRISON, Kathryn, Department of Philosophy, May 1, 2019 to August 31, 2019.

OFILI, Patricia, Department of English Language and Literature, May 1, 2019 to August 31, 2019.

PIEREDER, Jinelle, Department of Political Science, May 1, 2019 to August 31, 2019.

SEWELL, Jamie, Department of Philosophy, May 1, 2019 to August 31, 2019.

WAGNER-RIZVI, Tracey, Department of Political Science, May 1, 2019 to August 31, 2019.

Staff Appointments to Faculty
CAMPBELL, Greg, Lecturer, Department of Communication Arts, May 1, 2019 to August 31, 2019.

B. ADMINISTRATIVE APPOINTMENTS
BETZ, Emma, Associate Chair, Undergraduate Studies, Department of Germanic and Slavic Studies, July 1, 2019 to June 30, 2021.

PIERARD, Emma, Associate Chair, Undergraduate Studies, Department of Economics, July 1, 2019 to June 30, 2021.

C. RETIREMENT
BLOOM, Kathleen, Associate Professor, Department of Psychology, effective September 1, 2019.

CARRINGTON, Peter, Professor, Department of Sociology & Legal Studies, effective September 1, 2019.

MIRAGLIA, Anne Marie, Professor, Department of French Studies, effective September 1, 2019.

D. SABBATICAL LEAVES
For approval by the Board of Governors:
OREND, Brian, Professor, Department of Philosophy, January 1, 2020 to June 30, 2020, six months at 100% salary.

YOUNG, Vershawn, Professor, Department of Communication Arts, September 1, 2019 to February 29, 2020, six months at 85% salary.

Douglas M. Peers
Dean, Faculty of Arts

UNIVERSITY OF WATERLOO
REPORT OF THE DEAN OF ENGINEERING TO SENATE
June 17, 2019

FOR INFORMATION

A. ***APPOINTMENTS***
Probationary Term
POUDINEH, Mahla, Assistant Professor, Department of Electrical & Computer Engineering, January 1, 2020 – June 30, 2023. PhD Electrical Engineering, University of Toronto, Toronto, ON, 2016; MSc Electrical Engineering, University of Tehran, Tehran, Iran, 2012; BSc Electrical Engineering, University of Tehran, Tehran, Iran, 2010. Mahla Poudineh will be joining us on January 1, 2020, to fill the second position in Electrical and Computer Engineering related to the Faculty of Engineering's new undergraduate program in Biomedical Engineering. Her work spans biomedical aspects with nanotechnology, and we are excited that she will be able to help us bridge the gap between the two sub-disciplines within ECE.

New Definite Term- full-time
NASSAR, Mohammed, Lecturer, Department of Electrical & Computer Engineering, May 1, 2019 – April 30, 2020.

Definite Term Reappointment- full-time
EL-HAG, Ayman, Lecturer, Department of Electrical & Computer Engineering, September 1, 2019 – August 31, 2020. Dr. El-Hag's appointment is being renewed to provide support for teaching many of ECE's first and second year courses in circuits and power. We welcome his expertise and dedication to our students.

Visiting Appointments
CHEN, Aixi, Professor, Department of Electrical &Computer Engineering, August 1, 2019 – August 21, 2019.

CZECH, Hannah, Scholar, Department of Chemical Engineering, September 1, 2019 – February 29, 2020.

DENG, Li, Associate Professor, Department of Electrical &Computer Engineering, August 1, 2019 – August 21, 2019.

LUO, Shenghang, Scholar, Department of Electrical &Computer Engineering, May 1, 2019 – August 30, 2019.

ROMERO CANTU, Hector David, Scholar, Department of Chemical Engineering, May 27, 2018 – August 7, 2019.

PAYEN, Benjamin, Scholar, Department of Systems Design Engineering, May 20, 2019 – August 16, 2019.

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SURESH KUMAR, Neeraj Menon, Scholar, Department of Electrical & Computer Engineering, August 24, 2019 – September 8, 2019.

VIVALDO-LIMA, Eduardo, Professor, Department of Chemical Engineering, August 1, 2019 – July 31, 2020.

WU, Chengjie, Scholar, Department of Systems Design Engineering, July 8, 2019 – September 8, 2019.

ZHANG, Haijun, Professor, Department of Systems Design Engineering, November 1, 2019 – January 31, 2020.

ZHAO, Lei, Assistant Professor, Department of Chemical Engineering, April 22, 2019 – April 21, 2021.

ZHENG, Qipeng, Associate Professor, Department of Chemical Engineering, September 1, 2019 – December 15, 2019.

Special Appointments
Undergraduate Instruction
AHMED, Haytham, Lecturer, Department of Electrical & Computer Engineering, May 1, 2019 – August 31, 2019.

ATKINS, Andrea, Lecturer, School of Architecture, May 1, 2019 – August 31, 2019.

BELLINI, Christian, Lecturer, School of Architecture, May 1, 2019 – August 31, 2019.

BETTIO, Walter, Lecturer, School of Architecture, May 1, 2019 – August 31, 2019.

BISSETT, Tara, Lecturer, School of Architecture, May 1, 2019 – August 31, 2019.

DAMIANI, Roberto, Lecturer, School of Architecture, May 1, 2019 – August 31, 2019.

ENGLAND, Craig, Lecturer, School of Architecture, May 1, 2019 – August 31, 2019.

ESPOSITO, Jennifer, Lecturer, School of Architecture, May 1, 2019 – August 31, 2019.

FONSEKA, Jaliya, Lecturer, School of Architecture, May 1, 2019 – August 31, 2019.

HOLT, Christopher, Lecturer, Conrad School of Entrepreneurship and Business, May 1, 2019 – August 31, 2019.

KOLLER, Heinz, Lecturer, School of Architecture, May 1, 2019 – August 31, 2019.

LEVITT, Janna, Lecturer, School of Architecture, May 1, 2019 – August 31, 2019.

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LIM TUNG, Fiona, Lecturer, School of Architecture, May 1, 2019 – August 31, 2019.

MEHRANNIA, Pouya, Lecturer, Department of Electrical & Computer Engineering, May 1, 2019 – August 31, 2019.

MORYOUSSEF, Anya, Lecturer, School of Architecture, May 1, 2019 – August 31, 2019.

PEARSON, Christine, Lecturer, School of Architecture, May 1, 2019 – August 31, 2019.

SCOTT, Tim, Lecturer, School of Architecture, May 1, 2019 – August 31, 2019.

SHARIFI, Alireza, Lecturer, Department of Electrical & Computer Engineering, May 1, 2019 – August 31, 2019.

SORLI, Scott, Lecturer, School of Architecture, May 1, 2019 – August 31, 201.

VANRIESEN, Matthew, Lecturer, School of Architecture, May 1, 2019 – August 31, 2019.

YOUNIS, Rizwan, Lecturer, School of Architecture, May 1, 2019 – August 31, 2019.

__Special Appointments__
Graduation Instruction
BARTHOLOMEW, Rachel, Lecturer, Conrad School of Entrepreneurship and Business, July 1, 2019 – July 31, 2019.

BEYNON, Doug, Lecturer, Conrad School of Entrepreneurship and Business, July 1, 2019 – July 31, 2019.

GRYGUC, Andrew, Lecturer, Department of Mechanical and Mechatronics Engineering, January 1, 2019 – April 30, 2019.

HURWITZ, Marc, Lecturer, Conrad School of Entrepreneurship and Business, May 1, 2019 – August 31, 2019.

ROSE, David, Lecturer, Conrad School of Entrepreneurship and Business, May 1, 2019 – June 30, 2019.

SALVINI, Paul, Lecturer, Conrad School of Entrepreneurship and Business, May 1, 2019 – June 30, 2019.

WANG, Chaoran, Lecturer, Conrad School of Entrepreneurship and Business, May 1, 2019 June 30, 2019.

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__Adjunct Appointments__
Graduate Supervision and Research
AHMED, Mohamed, Assistant Professor, Department of Electrical & Computer Engineering, June 1, 2019 – June 30, 2022.

LEE, Denny, Professor, Department of Electrical & Computer Engineering, June 1, 2018 – June 30, 2021.

__Adjunct Reappointments__
Research and Graduate Supervision
KAZUYOSHI, Nishijima, Associate Professor, Department of Mechanical and Mechatronics Engineering, May 1, 2019 – April 30, 2022.

__Cross Appointments__
CAMPBELL, Melanie, Professor, Department of Physics and Astronomy to Department of Systems Design Engineering, February 1, 2019 – January 31, 2022.

DICKERSON, Clark, Professor, Department of Kinesiology to Department of Systems Design Engineering, February 1, 2019 – January 31, 2022.

Pearl Sullivan
Dean, Faculty of Engineering

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FOR INFORMATION
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A. APPOINTMENTS

Probationary Term Appointments

LEONARD, Kelsey, Assistant Professor, Faculty of Environment, September 1, 2020 to June 30, 2023: PhD, McMaster University, ABD; JD, Duquesne University School of Law, 2015; MSc, University of Oxford, 2012; Hons BA, Harvard University, 2010. Ms. Leonard will join the Faculty of Environment following a one-year Banting Postdoctoral Fellowship at McMaster. Her research program is concerned with the composition of Indigenous Legal Systems and their ability to enforce and regain authority for the management of natural resources, notably water. Ms. Leonard is deeply engaged with Canadian and US Indigenous communities and is an internationally recognized emerging scholar who is a solid candidate for a CRC nomination.

RUTTY, Michelle, Assistant Professor, Faculty of Environment, October 1, 2019 to June 30, 2023: PhD, Waterloo, 2014; MES, Waterloo, 2009; Hons BA, University of Guelph, 2007. Dr. Rutty is currently an Assistant Professor at Michigan State University and is a member of the Abitibiwinni First Nation. Her research is focused on the improvement of policies that support tourism stakeholders in the dual goals of sustaining environmental resources and enhancing community wellbeing. Dr. Rutty is the recipient of four international research awards, including recognition from the United Nations Environment Program as a sustainable tourism thought leader. She is a strong emerging scholar and is a solid candidate for a CRC nomination.

WILSON, Jeffrey, Assistant Professor, School of Environment, Enterprise and Development [SEED], July 1, 2019 to June 30, 2022: PhD, Dalhousie University, 2013; MA, Dalhousie, 2005; BES, Waterloo, 1999. Dr. Wilson currently holds appointments with Dalhousie University [as an adjunct lecturer] and with Shanghai Jiao Tong University in China [as a graduate student advisor and teacher]. His research interests are focused on understanding behavior and behavior change within the context of low carbon economy transitions, building new economic narratives, and advancing understanding of economic and social drivers of human consumption. His diverse teaching experience is relevant across several of the School's programs including Sustainability Management, Environment and Business, Local Economic Development, and International Development.

Definite-Term Appointment

GUNN, Grant, Assistant Professor, Department of Geography and Environmental Management, October 1, 2019 to September 30, 2023: PhD, Waterloo, 2015; MSc, Waterloo, 2010; Hons BES, Waterloo, 2008. Dr. Gunn's research is focused on understanding change and/or monitoring the physical components of temperature and cold region processes. His teaching background in geographic information systems and remote sensing theory and applications is well suited to most of the courses offered in the Geomatics plan of the department.

Definite-Term Reappointment

CURTIS, Kevin, Lecturer, School of Planning, September 1, 2019 to August 31, 2021: PhD, Waterloo, 1995; MPL, Queen's University, 1984; BES, Waterloo, 1980.

Adjunct Appointments

Graduate Supervision
BALTZER, Jennifer, Associate Professor, School of Environment, Resources and Sustainability, April 1, 2019 to March 31, 2022.

FISHMAN, Tomer, Assistant Professor, School of Environment, Enterprise and Development, January 1, 2019 to December 31, 2022.

Graduate Supervision and Research
McGRATH, Darby, Assistant Professor, School of Environment, Resources and Sustainability, April 1, 2019 to March 31, 2022.

SUFFLING, Roger, Professor, School of Planning, June 1, 2019 to May 31, 2020.

Special Appointments
Instruction
LETOURNEAU, Marcus, Lecturer, School of Planning, May 1, 2019 to August 31, 2019.

ZHANG, Shuping, Lecturer, School of Planning, May 1, 2019 to August 31, 2019.

Cross Appointment
SWANSON, Heidi, Assistant Professor, Department of Biology [Faculty of Science] to the School of Environment, Resources and Sustainability, April 1, 2019 to December 31, 2022.

Graduate Student appointed as Part-time Lecturer
BERNASCONI, Stephen, School of Environment, Enterprise and Development, May 1, 2019 to August 31, 2019.
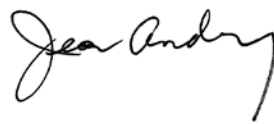
B. **ADMINISTRATIVE APPOINTMENT**
NAYAK, Prateep, Associate Director, Graduate Studies [Professional Programs], School of Environment, Enterprise and Development, July 1, 2019 to June 30, 2022.

ADMINISTRATIVE REAPPOINTMENTS
DRESCHER, Michael, Undergraduate Officer, School of Planning, July 1, 2019 to June 30, 2020.

LARSON, Brendon, Associate Dean, Undergraduate Studies, July 1, 2019 to June 30, 2022.

Jean Andrey
Dean

University of Waterloo
REPORT OF THE DEAN OF MATHEMATICS TO SENATE
June 17, 2019

FOR INFORMATION

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A.   APPOINTMENTS (already approved by the Board of Governors)

Probationary-Term Appointments

AAFER, Yousra (BSc, 2009, Al Akhawayn University; MSc, 2011; PhD, 2016, both from Syracuse University), Assistant Professor, David R. Cheriton School of Computer Science, January 1, 2020 – June 30, 2023. Dr. Yousra Aafer is an excellent security researcher who is completing a postdoctoral fellowship at Purdue University following a PhD from the University of Syracuse in 2016. Her research interests are in the area of mobile and smart systems security and identifying and addressing security threats. Her recent focus is on software security for Android-based devices, helping Android developers identify potential security flaws. This work has already seen real-world impact, discovering dozens of vulnerabilities in consumer devices and thus protecting millions of smartphone users around the world. Her presence will broaden and further strengthen the School's research presence in the area of computer security.

ZHAO, Jian (BEng, 2009, Zhejiang University; PhD, 2015, University of Toronto), Assistant Professor, David R. Cheriton School of Computer Science, November 1, 2019 – June 30, 2023. Previous to joining Waterloo, Dr. Zhao was a Research Scientist at FXPAL in Palo Alto, California and a Postdoctoral Researcher at Autodesk Research in Toronto. Dr. Zhao's research area is data visualization. He designs explanatory visualizations that aid human users in understanding complex processes, as well as exploratory visualizations for data scientists. Dr. Zhao is author of more than 50 papers and lead inventor on more than a dozen patents and patent applications. He will complement our Human Computer Interaction research group.

Probationary-Term Reappointments

MARTIN-MARTINEZ, Eduardo, Assistant Professor, Dept. of Applied Mathematics, July 1, 2019 – June 30, 2022.

Visiting Reppointments

HACKMAN, Robert, Research Associate, David R. Cheriton School of Computer Science, May 1, 2019 – April 30, 2020.

MARZOUK, Mirette, Research Associate, David R. Cheriton School of Computer Science, May 1, 2019 – August 31, 2020.

MUNSON, William, Research Associate, Dept. of Combinatorics & Optimization, May 1, 2019 – April 30, 2021.

Adjunct Appointments

Research

GODSIL, Christopher (Professor Emeritus), Professor, Dept. of Combinatorics & Optimization, May 1, 2019 – April 30, 2022.

SIEGEL, David (Professor Emeritus), Professor, Dept. of Combinatorics & Optimization, May 1, 2019 – April 30, 2022.

Adjunct Reappointments
Instructor
EMMS JONES, Sandra, Lecturer, Office of the Dean, March 25, 2019 – December 31, 2019.

KHARAL, Rosin, Lecturer, David R. Cheriton School of Computer Science, May 1, 2019 – August 31, 2019.

LENNOX, Michelle, Lecturer, Dept. of Statistics and Actuarial Science, May 1, 2019 – August 31, 2019.

SORENSEN, Ashley, Lecturer, Office of the Dean, September 1, 2019 – August 31, 2021.

Research
RICHMOND, Bruce (Professor Emeritus), Professor, July 1, 2019 – June 30, 2022.

Graduate Students reappointed as Part-time Lecturers
DUNNE, Murray, David R. Cheriton School of Computer Science, May 1, 2019 – August 31, 2019.

GRAF, Alessandra, Dept. of Combinatorics & Optimization, May 1, 2019 – August 31, 2019.

LEONARDI, Christopher, Dept. of Combinatorics & Optimization, May 1, 2019 – August 31, 2019.

TOTH, William, Dept. of Combinatorics & Optimization, May 1, 2019 – August 31, 2019.

Postdoctoral Fellow reappointed as part-time Lecturers
RAHAMAN, Mizanur, Dept. of Pure Mathematics, August 1, 2019 – July 31, 2020.

Change in Appointment
MOURSI, Walaa (BSc, 1999; MSc, 2004, both from Mansoura University; PhD, 2016, University of British Columbia), Assistant Professor, Dept. of Combinatorics & Optimization (*ref. Dean's Report, April 2018)*
From*:   July 1, 2019 – June 30, 2022
To: June 1, 2019 – June 30, 2022

B.   ADMINISTRATIVE APPOINTMENTS
LI, Yuying, Director of Data Science (Graduate), David R. Cheriton School of Computer Science, January 1, 2019 – December 31, 2021.

SWAMY, Chaianya, Acting Chair, Dept. of Combinatorics & Optimization, September 1, 2019 – June 30, 2020.

C.   RETIREMENT
COWAN, Bill, Professor, David R. Cheriton School of Computer Science, effective July 1, 2019.

RICHTER, Bruce, Professor, Dept. of Combinatorics & Optimization, effective September 1, 2019.

D.   **SPECIAL LEAVE**
DUNBAR, Fiona, Continuing Lecturer, Office of the Dean, May 1, 2019 – April 30, 2020.

Stephen M. Watt
Dean

UNIVERSITY OF WATERLOO
REPORT OF THE DEAN OF SCIENCE TO SENATE
June 17, 2019

For information:

A.   *APPOINTMENTS*

New Definite Term

CUMMINGS, Karen, Lecturer, Department of Physics and Astronomy, September 1, 2019 to August 31, 2022.   [B.S., University Albany, State University of New York (1991); M.S., University of Albany (1993); Ph.D., University of Albany (1996).]   Known as a master teacher and professor of physics, Dr. Cummings is widely known for her research on physics education. Dr. Cummings has visited Waterloo in the past and has lectured on physics education at the Physics and Astronomy Department's annual teaching retreat.   We look forward to her joining us in the Fall.

Adjunct Appointments

Graduate Supervision

DEVITO, Kevin, Professor, Department of Biology, February 1, 2019 to January 31, 2021.

NGO, William, Assistant Professor, School of Optometry and Vision Science, May 1, 2019 to April 30, 2022.

Graduate Instruction, Graduate Supervision and Research

KWONG, Jeffrey, Associate Professor, School of Pharmacy, April 1, 2019 to March 31, 2022.

TADROUS, Mina, Assistant Professor, School of Pharmacy, April 1, 2019 to March 31, 2022.

Adjunct Reappointments

Undergraduate Instruction

FARRELL, Barbara, Assistant Professor, School of Pharmacy, June 1, 2019 to May 31, 2022.

LILLIE, Elaine, Assistant Professor, School of Pharmacy, May 1, 2019 to December 31, 2020.

Graduate Supervision

QUEZADA-CALVILLO, Roberto, Professor, Department of Biology, March 20, 2019 to March 19, 2022.

Graduate Supervision and Research

LUMSDEN, John, Professor, Department of Biology, March 1, 2019 to February 28, 2022.

SCRIMGEOUR, Garry, Professor, Department of Biology, July 1, 2019 to June 30, 2022.

Cross Appointments

EMELKO, Monica, Professor, Department of Civil and Environmental Engineering, cross appointed to Department of Biology, May 1, 2019 to May 31, 2023.

Special Appointments

GONDORA, Nyasha, Lecturer, School of Pharmacy, May 1, 2019 to August 31, 2019.

Staff Appointed as Part-Time Lecturer

GAO, Angela, Lecturer, Department of Chemistry, May 1, 2019 to August 31, 2019.

Postdoctoral Fellow Appointed as Part-Time Lecturer

RACICOT, Leanne, Lecturer, Department of Chemistry, May 1, 2019 to August 31, 2019.

Special Reappointment

HRYCYSHYN, Matthew, Lecturer, Department of Biology, May 1, 2019 to August 31, 2019.

ROSAMOND, Madeline, Lecturer, Department of Earth and Environmental Sciences, May 1, 2019 to August 31, 2019.

Staff Reappointed as Part-Time Lecturer

MARTIN-MARTINEZ, Eduardo, Lecturer, Department of Physics and Astronomy, May 1, 2019 to August 31, 2019.

Research Associate Reappointed as Part-Time Lecturer

LEE, Brenda Y., Lecturer, Department of Physics and Astronomy, May 1, 2019 to August 31, 2019.

LYNCH, Michael, Lecturer, Department of Biology, May 1, 2019 to August 31, 2019.

B.   *ADMINISTRATIVE APPOINTMENTS*

ENDRES, Anthony, Associate Chair, Undergraduate Studies, Department of Earth and Environmental Sciences, May 1, 2019 to April 30, 2021.

ADMINISTRATIVE REAPPOINTMENTS

FRAPE, Shaun, Associate Chair, Undergraduate Studies, Department of Earth and Environmental Sciences, May 1, 2019 to August 31, 2019.

RICHARD, Cynthia, Associate Director, Curriculum, School of Pharmacy, September 1, 2019 to August 31, 2022.

C.   *FOR APPROVAL BY THE BOARD OF GOVERNORS*

SABBATICAL LEAVE

CAMPBELL, Melanie, Professor, Department of Physics and Astronomy, September 1, 2019 to August 31, 2020, 100% salary arrangements.

JONES, Deborah, Clinical Professor, School of Optometry and Vision Science, September 1, 2019 to October 31, 2020, 100% salary arrangements.

McCONKEY, Brendan, Associate Professor, Department of Biology, September 1, 2019 to August 31, 2020, 100% salary arrangements.

RP. Lemieux
Dean

RPL:lw

FOR APPROVAL
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Committee and Appointments
Motion: To approve the following appointment:

- **Senate Graduate & Research Council:** Kareem Tarek Mostafa as graduate student representative from the Faculty of Engineering, term to 30 April 2021.

University of Waterloo
SENATE EXECUTIVE COMMITTEE
REPORT TO SENATE
17 June 2019

A number of changes are proposed to Senate bylaws 1, 2, and 4 in light of restructuring and title changes in the Office of Research, and the office of the Associate Vice-President, Graduate Studies and Postdoctoral Affairs. They are:

- the title "Vice-President, University Research" has been changed to "Vice-President, Research and International";
- replacement of other former titles with current titles and revisions to reflect current structures;
- a change for 12 members from elected positions to *ex officio* positions to reflect actual, long-standing practice for these members to be the associate deans (graduate studies, and research) from the Faculties.

In addition, a correction has been made in bylaw 2, Section 4.02 to properly refer to the body as a council and the word "government" has been changed to "governance" in bylaw 2, Sections 4.03 and 5.03.

Thus, it is proposed that Senate Bylaws 1, 2, and 4 be revised as provided below. In accordance with Section 14.01* of Bylaw 1: A bylaw relating generally to the business and affairs of Senate of the University of Waterloo, and its committees and councils, the bylaw changes are recommended to Senate for second reading at the 17 June 2019 meeting.

For Approval
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Motion: That Senate receive the proposed bylaw changes for second reading at its 17 June 2019 meeting.

The passage of a new bylaw or amendment(s) to an existing bylaw is accomplished in two readings by Senate. At the first reading, such discussion as is deemed appropriate by Senate shall take place. At the second reading, further discussion may take place and the vote on the document shall be taken. The two readings shall take place at different, but not necessarily consecutive, meetings of Senate.

Feridun Hamdullahpur
President

Senate Bylaw 1

A bylaw relating generally to the business and affairs of Senate of the University of Waterloo, and its Committees and Councils.

BE IT ENACTED as a bylaw of Senate of the University of Waterloo, as follows:

1. Interpretation

1.01		In all the bylaws of Senate,
	a.	"academic year" means the twelve-month period dating from 1 May of one year to 30 April of the succeeding year.
	b.	"Senate" means Senate of the University of Waterloo.
	c.	"Executive Committee" means the Executive Committee of Senate as established in the Senate bylaws.
1.02		Throughout all the bylaws of Senate of the University of Waterloo:
	a.	Where the title "president" appears, an acting president or president pro tem, so designated by the Board of Governors, shall serve in the place of the president, with the latter's full rights and responsibilities.
	b.	Where the title "vice-president, academic & provost" appears, an acting vice-president, academic & provost or vice-president, academic & provost pro tem, so designated by the president and/or the Board of Governors, shall serve in the place of the vice-president, academic & provost, with the latter's full rights and responsibilities.
	c.	Where the title "vice-president, administration & finance" appears, an acting vice-president, administration & finance or vice-president, administration & finance pro tem, so designated by the president, shall serve in the place of the vice-president, administration & finance, with the latter's full rights and responsibilities.
	d.	Where the title "vice-president, advancement" appears, an acting vice-president, advancement or vice-president, advancement pro tem, so designated by the president, shall serve in the place of the vice-president, advancement, with the latter's full rights and responsibilities.
	e.	Where the title "vice-president, university relations" appears, an acting vice-president, university relations or vice-president, university relations pro tem, so designated by the president, shall serve in the place of the vice-president, university relations, with the latter's full rights and responsibilities.
	f.	Where the title "vice-president, ~~university research~~research and international" appears, an acting vice-president, ~~university research~~research and international or vice-president, ~~university research~~research and international pro tem, so designated by the president and/or the Board of Governors, shall serve in the place of the vice-president, ~~university research~~research and international, with the latter's full rights and responsibilities.
	g.	Where the title "associate vice-president, academic" appears, an acting associate vice-president, academic or associate vice-president, academic pro tem, so named to serve by the president, shall serve in the place of the associate vice-president, academic, with the latter's full rights and responsibilities.
	h.	Where the title "associate vice-president, graduate studies and postdoctoral affairs appears, an acting associate vice-president, graduate studies and postdoctoral affairs or associate vice-president, graduate studies and postdoctoral affairs pro tem, so named to serve by the president, shall serve in the place of the associate vice-president, graduate studies and postdoctoral affairs, with the latter's full rights and responsibilities.

i.	Where the title "deputy provost, integrated planning and budgeting" appears, an acting deputy provost, integrated planning and budgeting or deputy provost, integrated planning and budgeting pro tem, so designated by the president, shall serve in the place of the deputy provost, integrated planning and budgeting, with the latter's full rights and responsibilities.
j.	Where the titles "dean of each faculty" appear, an acting dean, or dean pro tem, so named to serve by the vice-president, academic & provost, shall serve in the place of the dean, with the latter's full rights and responsibilities.

2. Schedule of meetings

2.01	The schedule of meetings for Senate and its committees and councils shall be approved by the chair of Senate and published by the Secretariat prior to the new academic year.

3. Meetings of Senate

3.01	**General meetings** Senate shall normally hold ten (10) general meetings during each academic year. Notice of each meeting shall be communicated to the university community in such places and ways as may be designated from time to time by Senate.
3.02	**Place of meetings** Meetings of Senate shall be held upon the campus of the university.
3.03	**Notice of an agenda and background material for general meetings** Notice in writing of each general meeting and the agenda and available background material for any such meeting, shall be available to all members of Senate at least seven (7) days prior to the date of each such meeting.
3.04	**Special meetings** Special meetings of Senate shall be called by one of the following: The chair of Senate, upon the receipt of a request of the Executive Committee for such meeting; or The secretary of Senate, upon receipt by the secretary of a written request for such meeting signed by at least twenty (20) members of Senate, with such request to state the reason for calling the special meeting. Special meetings shall be called promptly. Notice in writing of each special meeting, together with the agenda and available background material shall be available to each member of Senate at least seven (7) days prior to the date of the meeting, provided that the chair of Senate shall have the power and authority to abridge such seven-day period when, in the chair's absolute discretion, the urgency of any item of business to be dealt with at such meeting so requires. Notice in writing of each special meeting shall be communicated to the university community in such places and ways as may be designated from time to time by Senate.

4. Committees and councils - agenda and background material to be available

4.01	Notice in writing of each general meeting of any committee or council shall be available at least seven (7) days prior to the date of each such meeting.
4.02	The agenda and available background material for any general meeting of any committee or council shall be available at least seven (7) days prior to the date of each such meeting.

5. Quorum

5.01	At all meetings of Senate and of its committees and councils, a majority of the members shall constitute a quorum for the transaction of the business and affairs of the body.

6. Meetings in open session

6.01	Subject to section 7 of this bylaw, all general and special meetings of Senate and its committees and councils shall be open to members of the university community, the public-at-large, and representatives of the news media. Senate will make every effort to hold its meetings in a room sufficiently large to accommodate those who indicate to the secretary of Senate, two full working days in advance of the meeting, their desire to attend.
6.02	Non-members in attendance at meetings shall not disrupt the proceedings of the meeting nor cause any disturbance by unreasonable noise or vocal expression. The chair may remove any such person when, in the chair's sole judgment, such person is engaging in improper or disruptive conduct that is detrimental to Senate carrying out its business.

7. Meetings in closed session

7.01	Notwithstanding the provisions of section 6 of this bylaw, and provided that all meetings shall begin in open session, Senate and its committees and councils shall have the right to hold any meeting or part thereof in closed session. This provision may exclude therefrom all persons, save for members and such resource persons as may be agreed should be in attendance, for the purpose of considering confidential financial matters of the university or where intimate financial or personal matters of any person may be disclosed, unless such person requests that such part of the meeting be open to the public. The Executive Committee shall determine for purposes of the Senate agenda whether any matter is of a confidential nature and such matter shall be so designated on the agenda for such Senate meeting and shall be designated and described in a manner consistent with maintaining the confidentiality of such matter. The chair or chair(s) of any committee or council of Senate will determine whether any matter is of a confidential nature and such matter shall be so designated on the agenda for such meeting and shall be designated and described in a manner consistent with maintaining the confidentiality of such matter. Senate or its committees or councils shall initially deal with any such confidential matter in closed session, but, after receiving the pertinent information relative to the confidential matter, may direct that the matter be thereupon considered in open session.

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).

9. Representations to meetings

9.01	Any members of the university community, or of the public-at-large, wishing to make representations to any meeting of a committee or council shall file with the secretary of the relevant committee or council, at least two full working days prior to the date of such proposed meeting, written notice to that effect with such notice to designate the nature of the proposed representations.

10. Time limit on representations

10.01	The chair of any committee or council may limit the time to be allotted to members of the university community and the public-at-large for committee or council representations.

11. Secretary

11.01	The university secretary shall be the non-voting secretary of Senate.
11.02	The university secretary shall appoint one or more associate secretaries of Senate to act as secretary of Senate in the absence of the university secretary.
11.03	The university secretary, or designate, shall be the non-voting secretary of each committee or council of Senate.

12. Limit on service on committees

12.01	An elected member of Senate shall not serve on more than one of the Executive, Finance or Long Range Planning Committees.

13. Term of office

13.01	Except where specified by Senate bylaws, the term of office on committees or councils shall be one year, with members eligible for re-election.

14. Bylaws - general

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

15. Faculty constitutions

15.01	Each faculty and each academic department and school of the university may adopt a formal constitution governing its operations, provided that each such constitution and any amendments thereto shall be inoperative and ineffective until approved by Senate. No provision of the constitutions shall be inconsistent with any provisions of *The University of Waterloo Act, 1972*, as amended, and no provision of any constitution shall be exempt from the provisions of any of the bylaws or established policies of the university which are within the final jurisdiction of Senate, except as expressly approved by Senate.

Amended/consolidated from Bylaws 1, 6, 7, and 10 in two readings in September and October 2014.

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Senate Bylaw 2

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A bylaw to establish Committees and Councils of Senate of the University of Waterloo.

BE IT ENACTED as a bylaw of Senate of the University of Waterloo, as follows:

1. Executive Committee

1.01	There shall be a standing committee of Senate called the Executive Committee.
1.02	**Executive Committee Membership** The membership of this committee shall consist of the following: *Ex Officio* The president of the university, who shall chair this committee. The vice-president, academic & provost. The associate vice-president, graduate studies and postdoctoral affairs The president of the Faculty Association of the University of Waterloo. Elected One faculty member of Senate from each faculty of the university. Three members from the student members of Senate, at least one of whom shall be an undergraduate student and at least one of whom shall be a graduate student. One member of Senate from among the community-at-large members of the Board of Governors. One faculty member of Senate from the affiliated and federated institutions of Waterloo. One member from among the alumni members of Senate.
1.03	The term of office of members elected pursuant to paragraph 1.02.b shall be one year. Each member is eligible for re-election.
1.04	**Powers and duties of Executive Committee** The Executive Committee shall have the following powers and duties: To request special meetings of Senate, in accordance with Senate Bylaw 1. On those occasions when the agenda does not, in the estimation of the Executive Committee, warrant a meeting of Senate, to cancel any such meeting of Senate, and to exercise the powers of Senate, within the limits of *The University of Waterloo Act, 1972,* on all matters considered by the Executive Committee in its discretion to be of sufficient urgency that they must be decided prior to the next regular meeting of Senate, provided that the Executive Committee shall have no power under any circumstances to repeal, amend or modify Senate bylaws, or to exercise Senate's responsibilities under Policies 45, 48, 50 and 68. All such actions are to be reported to Senate. To prepare the agenda for all regular and special meetings of Senate. To receive and review reports from the deans of the university prior to their submission to Senate at each regular meeting. To present to Senate, normally at the last regular meeting in the academic year in April, a list of nominations for the committees and councils of Senate.

To make recommendations to Senate as may be necessary from time to time regarding the establishment of ad hoc committees of Senate, such recommendations to include the terms of reference of any such committee and a list of nominations for the membership thereof.
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.
To act on behalf of Senate on such matters as Senate may from time to time designate.
To report to Senate, as expeditiously as possible, with respect to the conduct of such matters as shall be delegated by Senate to the committee from time to time.

1.05 **Meetings of the Executive Committee**
The committee shall normally hold ten (10) regular meetings during each academic year, each such meeting to be held approximately two weeks prior to the date of each general meeting of Senate. Special meetings of the committee shall be called by the chair of the committee.

2. Finance Committee

2.01 There shall be a standing committee of Senate called the Finance Committee.

2.02 **Finance Committee Membership**

The membership of this committee shall consist of the following:

Ex Officio

The president of the university, who shall chair this committee.
The vice-president, academic & provost.
The vice-president, administration & finance.
The vice-president, ~~university research~~research and international.
The associate vice-president, graduate studies and postdoctoral affairs
The deputy provost, integrated planning and budgeting
The dean of each faculty.

Elected

One member from the community-at-large members of the Board of Governors.
One elected faculty member of Senate from each faculty and one faculty member of Senate from the affiliated and federated institutions of Waterloo.
Three members from the elected student members of Senate, at least one of whom shall be an undergraduate student and at least one of whom shall be a graduate student.
One member from among the alumni members of Senate.

2.03 The term of office of members elected pursuant to paragraph 2.02.b shall be one year. Each member is eligible for re-election.

2.04 **Powers and Duties of Finance Committee**
The Finance Committee shall have the following powers and duties:

To consider, study, and review all matters pertaining to the financial operations of the university and to make recommendations to Senate thereon.
To consider, study, and review the general policies governing the internal allocation of the university's financial resources and to make recommendations to Senate thereon.

To receive each year from the vice-president, academic & provost, for consideration, study, and review, on behalf of Senate, a detailed operating budget for the university and to make recommendations to Senate thereon.

3. Long Range Planning Committee

| 3.01 | There shall be a standing committee of Senate called the Long Range Planning Committee. |

| 3.02 | **Long Range Planning Committee Membership** |

The membership of this committee shall consist of the following:

Ex Officio

The president of the university.
The vice-president, academic & provost, who shall chair this committee.
The vice-president, administration & finance.
The vice-president, ~~university research~~research and international.
The associate vice-president, graduate studies and postdoctoral affairs
The deputy provost, integrated planning and budgeting
The dean of each faculty.

Elected

One elected faculty member of Senate from each faculty and one faculty member of Senate from the affiliated and federated institutions of Waterloo.
One member from the Board of Directors of the Faculty Association of the University of Waterloo.
Three members of Senate from the elected student members, at least one of whom shall be an undergraduate student and at least one of whom shall be a graduate student.
One member of Senate from the community-at-large members of the Board of Governors.
One member from among the alumni members of Senate.

| 3.03 | The term of office of members elected pursuant to paragraph 3.02.b shall be one year. Each member is eligible for re-election. |

| 3.04 | **Powers and duties of Long Range Planning Committee** |

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

To make recommendations to Senate in all matters pertaining to the co-ordination of the planning of the academic, physical, and operational development of the university and the achievement of a planned rate and scope of such development.
To receive from the president, for consideration, study and review, on behalf of Senate, plans for the development of the university and to make recommendations to Senate thereon.
To undertake such studies as Senate may designate from time to time.
To report to Senate, as expeditiously as possible, with respect to the conduct of such matters as shall be delegated by Senate to the committee from time to time.

4. Graduate & Research Council

4.01	There shall be a council of the university, appointed by and responsible to Senate, called the Graduate & Research Council.
4.02	**Graduate & Research Council Membership** The membership of this council shall consist of the following: *Ex Officio* The president of the university. The vice-president, academic & provost. The vice-president, ~~university research~~research and international, who shall co-chair this council. The associate vice-president, graduate studies and postdoctoral affairs, who shall co-chair this ~~committee~~council. ~~The associate dean of graduate studies in the graduate studies and postdoctoral affairs office~~An assistant vice-president, graduate studies and postdoctoral affairs appointed on the recommendation of the associate vice-president, graduate studies and postdoctoral affairs. The associate vice-president, ~~university~~ interdisciplinary research. The associate vice-president, ~~external~~ research oversight and analysis. The associate dean for graduate studies from each Faculty. The associate dean for research from each Faculty. The ~~chief ethics officer~~director of research ethics. The director, research partnerships. The director, graduate academic services. The university librarian, or designate. The president of the Graduate Student Association. Elected / Appointed ~~Two faculty members with Approved Doctoral Dissertation Supervisor status from each faculty, one of whom must be an associate dean with a research and/or graduate studies portfolio. Associate deans serve without term limits; others serve for a two-year term.~~ One faculty member from the affiliated and federated institutions of Waterloo, who shall serve for a term of two years. One graduate student from each faculty, each of whom shall serve for a term of two years.
4.03	**Powers and Duties of the Graduate & Research Council** The Graduate & Research Council shall consider all questions relating to the academic quality of graduate studies and research activity within the university and, without intending to restrict the generality of the foregoing, the Graduate & Research Council shall, Make recommendations to Senate with respect to the ~~government~~governance, direction and management of, or any changes in rules, regulations or policies for graduate studies and research in the university. Advise the vice-president, academic & provost on all matters relating to graduate studies and research. Receive, consider, study and review briefs on any aspect of graduate studies and research from members of the university.

Make recommendations to Senate with respect to any financial matter pertaining to graduate studies and research.

Consider, study and review all proposals for new graduate programs, the deletion of graduate programs, major changes to existing graduate programs, arrange for internal appraisals as the council shall see fit, and make recommendations to Senate thereon.

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

Consider, study and review all proposals for new centres and institutes, and the closure of centres and institutes, and make recommendations to Senate thereon.

On behalf of Senate, consider and approve renewals for centres and institutes, and report such renewals to Senate for information. Any matter of controversy that might arise may be referred to Senate.

On behalf of Senate, consider and approve all new graduate scholarships and awards. Any matter of controversy that might arise may be referred to Senate.

5. Undergraduate Council

| 5.01 | There shall be a council of the university, appointed by and responsible to Senate, called the Undergraduate Council. |

| 5.02 | **Undergraduate Council Membership** |

The membership of this council shall consist of the following:

Ex Officio

The president of the university.
The vice-president, academic & provost.
The associate vice-president, academic, who shall co-chair this council.
The dean of the federated university.
The associate dean for undergraduate studies for each faculty.
The registrar of the university.
The university librarian, or delegate.
The vice-president (education) or equivalent from the Undergraduate Student Association of each faculty of the university.

Elected / Appointed

One member of the faculty from each faculty of the university which offers undergraduate programs, each of whom shall serve for a term of two years.
One member of faculty from the federated university, who shall serve for a term of two years.
One member of faculty from the affiliated university colleges, who shall serve for a term of two years.
A director appointed from Co-operative Education & Career Action.
An executive member appointed from the Federation of Students.

5.03 **Powers and Duties of the Undergraduate Council**
The Undergraduate Council shall consider all questions relating to the academic quality of undergraduate studies within the university and, without intending to restrict the generality of the foregoing, the Undergraduate Council shall,

Make recommendations to Senate with respect to rules and regulations for the ~~government~~governance, direction and management of undergraduate studies in the university.
Make recommendations to Senate with respect to new undergraduate programs/plans, the deletion of undergraduate programs/plans, and major changes to undergraduate programs/plans.
On behalf of Senate, consider and approve all new undergraduate courses, the deletion of undergraduate courses, and proposed changes to existing undergraduate courses and minor changes to programs and/or plans, and provide Senate with a summary of council's deliberations in this regard. Any matter of controversy that might arise may be referred to Senate.
Advise the vice-president, academic & provost on all matters relating to undergraduate studies.
Consider, study and review briefs on any aspect of undergraduate studies from members of the university.

Amended/consolidated from Bylaws 2, 3, 4, 8 and 9 in two readings, September and October 2014.

Senate Bylaw 4

A bylaw relating to the naming of additional *ex officio* members of Senate of the University of Waterloo.

BE IT ENACTED as a bylaw of Senate of the University of Waterloo, as follows:

1. *Ex officio* members

WHEREAS *The University of Waterloo Act, 1972* provides in section 18.a.9 that Senate of the university may add to its membership such other *ex officio* members as Senate by bylaw may, from time to time, designate; and

WHEREAS *The University of Waterloo Act, 1972* provides in section 18.b.2 that elected members of the faculty shall equal in number one more than the total number of all other members of Senate; and

WHEREAS *The University of Waterloo Act, 1972* provides in section 18.c. that upon the designation of and addition, from time to time, by Senate of any additional *ex officio* members, the number of elected members from the Board of Governors, the undergraduate students, the graduate students and the alumni shall be increased by whatever numbers are necessary to retain the ratios, in each case, of the number of such elected persons to the number of elected faculty.

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

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

a.   The vice-president, advancement.
b.   The vice-president, university relations.
c.   The vice-president, ~~university research~~research and international.
d.   The associate vice-president, academic.
e.   The deputy provost, integrated planning and budgeting.
f.   The president of the Faculty Association of the University of Waterloo.
g.   The president of the Federation of Students, University of Waterloo.
h.   The president of the Graduate Student Association - University of Waterloo.

That the chief returning officer be empowered upon passage of this bylaw to take whatever steps are necessary to carry out such elections or by-elections as may be necessary to comply with the provisions of *The University of Waterloo Act, 1972*, cited above and arising from the designation of *ex officio* members of Senate by the passage or amendment of this bylaw.

Approved by Senate 20 May 1975.
Amended by Senate in two readings, December 1980 and January 1981.
Amended by Senate in two readings, December 1983 and January 1984.
Amended by Senate in two readings, May and June 1987.
Amended by Senate in two readings, May and June 1990.
Amended by Senate in two readings, October and November 2012.
Amended by Senate in two readings, November 2013 and January 2014.
Amended from Bylaw 11 by Senate in two readings, September and October 2014.
Amended by Senate in two readings, March and May 2015.

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University of Waterloo
SENATE GRADUATE & RESEARCH COUNCIL
Report to Senate
17 June 2019

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Senate Graduate & Research Council met on 13 May 2019 and agreed to forward the following items to Senate for approval as part of the regular agenda.

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

FOR APPROVAL

PROGRAM CHANGE
Faculty of Applied Health Sciences

1. **Motion:** To approve curricular modifications and adjustments to the length of the Master of Public Health (MPH), effective 1 September 2019, as presented at Attachment 1.

   Rationale: The School of Public Health and Health Systems is seeking formal, International accreditation of the MPH program from the Council on Education for Public Health (CEPH). As such, curricular modifications and adjustments to the length of the program are required in order to meet foundational knowledge and core competency requirements. See: https://storage.googleapis.com/media.ceph.org/wp_assets/2016.Criteria.pdf.

GRADUATE STUDIES ACADEMIC CALENDAR CHANGES

2. **Motion:** To approve Graduate Studies Academic Calendar changes pertaining to add / drop regulations for graduate students, effective 1 September 2019, as presented at Attachment 2.

   Rationale: Changes to the course drop protocol for graduate studies are being proposed to provide clarity and consistency in the process. Students who proceed with a course beyond the drop period, but withdraw from the course will have their participation recorded as a grade of withdrawn (WD) on the student record. Note that WD is not an academic penalty.

/kw   Jeff Casello   Charmaine Dean
        Associate Vice-President, Graduate Studies and   Vice President, Research & International
        Postdoctoral Affairs

UNIVERSITY OF WATERLOO

**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 Office.

Faculty: Applied Health Science

Program: Master of Public Health (MPH)

Program contact name(s): Craig Janes

Form completed by: Craig Janes

Description of proposed changes:
Note: changes to courses and milestones also require the completion/submission of the SGRC Course/Milestone-New/Revision/Inactivation form (PC docx version or MAC docx version).

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

Is this a major modification to the program? Yes

Rationale for change(s):

The School of Public Health and Health Systems is seeking formal, international accreditation of the MPH program from the Council on Education for Public Health (CEPH). The following curricular modifications and adjustments to the length of the program are required in order to meet foundational knowledge and core competency requirements. See: https://storage.googleapis.com/media.ceph.org/wp_assets/2016.Criteria.pdf. The modifications mainly involve moving courses currently required for only those completing the "Socio-Behavioural Sciences" field to the core program for all students. The Socio-Behavioural Sciences field option is thus no longer needed and should be eliminated. CEPH requires all accredited MPH programs to be the equivalent of 42 credit hours in length (in the U.S. system). This is roughly equivalent to 7.50 unit weights of coursework in the University of Waterloo system. This requires that we increase the total course requirements by one, 0.50 unit weight course. The renaming of the Environmental Health Sciences Field is to be consistent with new University definitions.

Proposed effective date: Term: Fall   Year: 2019

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-and-health-systems/master-public-health-mph

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

Graduate research fields
 	
- ~~Environmental Health Sciences~~
- ~~Socio-Behavioural Sciences~~
 	
Program information
 	
- Admit term(s)
  - Fall
- Delivery mode
  - Online
- Delivery mode information
  - ~~The program is also offered on campus or in a mix of online and on-campus formats~~.
- Length of program
  - Full-time: two years (20 months).
  - Part-time: four years from initial program entry.
  - Courses are offered in three terms of each academic year. For all, continuous registration for each term of the program is required.
- Program type
  - Master's
  - Professional
- Registration option(s)
  - Full-time
  - Part-time
- Study option(s)
  - **Coursework**
 	
Admission requirements
 	
- Minimum requirements
  - Successful completion of a four-year Honours Bachelor's degree (or equivalent) with a minimum 75% average. The Bachelor's degree will normally be in a field relevant to public health.
  - Students must submit a personal essay of no more than 500 words explaining the education, work and life experiences 1) that have brought them to the decision to apply to the
	Graduate research fields
	
	Program information
	
	- Admit term(s)
	  - Fall
	- Delivery mode
	  - Online
	- Delivery mode information
	  - All students must attend (two) two week on-campus courses. The rest of the courses can be completed fully online. Some courses may also be offered on campus.
	- Length of program
	  - Full-time: two years.
	  - Part-time: four years from initial program entry.
	  - Courses are offered in three terms of each academic year. For all, continuous registration for each term of the program is required.
	- Program type
	  - Master's
	  - Professional
	- Registration option(s)
	  - Full-time
	  - Part-time
	- Study option(s)
	  - **Coursework**
	
	Admission requirements
	
	- Minimum requirements
	  - Successful completion of a four-year Honours Bachelor's degree (or equivalent) with a minimum 75% average. The Bachelor's degree will normally be in a field relevant to public health.
	  - Students must submit a personal essay of no more than 500 words explaining the education, work and life experiences 1) that have brought them to the decision to apply to the

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

MPH program; and 2) how the MPH will help them in their future career.
 	
o Students must have ~~at least~~ ~~one year of~~ prior work experience in a public health setting, either through full or part-time employment or through co-operative work terms as an undergraduate (volunteer experience ~~may be~~ applicable).
 	
o ~~Although statistics is not a prerequisite for admission~~, students ~~should~~ have a suitable background in statistics to meet prerequisite standards for all graduate level courses~~,~~ before beginning coursework. An undergraduate course in ~~research~~ methods (with a minimum 75%) is ~~recommended~~.
 	
o Students will be recruited as recent graduates from 4-year Bachelor of Science (BSc) or Bachelor of Arts (BA) programs in Health Studies and related disciplines, or alternatively as mature students holding a 4-year degree in a related discipline with relevant work experience in population and public health. Students with advanced professional degrees in recognized health disciplines (e.g. MD, DVM) ~~will~~ also ~~be~~ eligible for admission.
 	
• Application materials
  o Résumé
    ▪ Indicating past academic and professional experience.
  o Supplementary information form
  o Transcript(s)
• References
  o Number of references: 2
  o Type of references:
    o 1 academic
    o 1 professional
    o If applicants have been out of school for an extended period of time (>5 years) and are unable to supply an academic reference they may submit
	MPH program; and 2) how the MPH will help them in their future career.
	
	o <u>Normally</u>, students <u>will</u> have prior work experience in a public health setting, either through full or part-time employment or through co-operative work terms as an undergraduate (volunteer experience <u>is</u> applicable).
	
	o Students <u>must</u> have a suitable background in statistics to meet prerequisite standards for all graduate level courses before beginning coursework. An undergraduate course in <u>statistical</u> methods <u>completed within the past five years</u> with a minimum <u>mark</u> of 75% is <u>required</u>. <u>Exceptions to this requirement may be made on occasion by admission committees considering student background and demonstrated analytic abilities.</u>
	
	o Students will be recruited as recent graduates from 4-year Bachelor of Science (BSc) or Bachelor of Arts (BA) programs in Health Studies and related disciplines, or alternatively as mature students holding a 4-year degree in a related discipline with relevant work experience in population and public health. Students with advanced professional degrees in recognized health disciplines (e.g. MD, DVM) <u>are</u> also eligible for admission.
	
	• Application materials
	  o Résumé
	    ▪ Indicating past academic and professional experience.
	  o Supplementary information form
	  o Transcript(s)
	• References
	  o Number of references: 2
	  o Type of references:
	    o 1 academic
	    o 1 professional
	    o If applicants have been out of school for an extended period of time (>5 years) and are unable to supply an academic reference they may submit

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

two professional references. Please ensure that one professional referee is able to comment on the applicants academic ability and potential.
 	
• **English language proficiency (ELP)** (if applicable)
 	
Degree requirements
 	
    Coursework option:
 	
• **Graduate Academic Integrity Module (Graduate AIM)**
• Courses
    o The minimum course requirements are ~~10~~ one-term (0.50 unit weight) graduate courses, 2 two-week block courses (0.50 total weight) and a practicum (1.50 unit weight).
    o Students will attend on-campus on two occasions for 2-week block courses. The first, HLTH 602A Foundations of Public Health, will occur at the start of the program and the second, HLTH 602B Capstone Integrative Seminar for Public Health, will bring students back together at the end of the program after completion of all coursework and the practicum:
        ▪ The objective of HLTH 602A, the Foundations of Public Health course ~~is both to~~ orient the student to the philosophical and practical bases of public health, and to kindle the student's passion for public health as a career and as a societal activity.
        ▪ HLTH 602B, ~~the MPH capstone course, will provide an opportunity to apply public health tools, concepts and best practice to address current issues facing public health organizations and build relationships with front line~~
	two professional references. Please ensure that one professional referee is able to comment on the applicants academic ability and potential.
	
	• English language proficiency (ELP) (if applicable)
	
	Degree requirements
	
	    Coursework option:
	
	• Graduate Academic Integrity Module (Graduate AIM)
	• Courses
	    o The minimum course requirements are <u>11</u> one-term (0.50 unit weight) graduate courses, 2 block courses <u>requiring two-weeks on campus</u> (0.50 total weight) and a practicum (1.50 unit weight).
	    o Students will attend on-campus on two occasions for 2-week block courses. The first, HLTH 602A Foundations of Public Health, will occur at the start of the program and the second, HLTH 602B Capstone Integrative Seminar for Public Health, will bring students back together at the end of the program after completion of all coursework and the practicum:
	        ▪ The objective of HLTH 602A, the Foundations of Public Health course is <u>to provide students with foundational knowledge of public health</u>, orient the student to the philosophical and practical bases of public health, and to kindle the student's passion for public health as a career and as a societal activity.
	        ▪ HLTH 602B, <u>the final MPH capstone course, is a culminating integrated learning experience that provides a context for</u>

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

~~public health practitioners. On campus preparation and completion of assignments during the spring term are also requirements for the completion of HLTH 602B.~~
 	
  o Additional required courses are as follows:
     ▪ HLTH 604 Public Health and the Environment
     ▪ HLTH 605B Quantitative Methods and Analysis
     ▪ HLTH 606B Principles of Epidemiology for Public Health
     ▪ HLTH 607 Social, Cultural and Behavioural Aspects of Public Health I
     ▪ HLTH 608 Health and Risk Communication in Public Health
     ▪ HLTH 609 Management and Administration of Public Health Services
     ▪ ~~PHS 603 Health Policy in Public Health~~
     ▪ ~~PHS 641~~ **Professional Experience Practicum**
 	
  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.
 	
  o To graduate from the environmental health sciences stream, a student is required to complete the required
	<u>students to demonstrate their achievement of the foundational knowledge and core competencies of public health. On-campus workshops and preparation and presentation of a capstone project are required for the completion of this course.</u>
	
	  o Additional required courses are as follows:
	     ▪ <u>HLTH 603</u> <u>Health Systems and Policy</u>
	     ▪ HLTH 604 Public Health and the Environment
	     ▪ HLTH 605B Quantitative Methods and Analysis
	     ▪ HLTH 606B Principles of Epidemiology for Public Health
	     ▪ HLTH 607 Social, Cultural and Behavioural Aspects of Public Health I
	     ▪ HLTH 608 Health and Risk Communication in Public Health
	     ▪ HLTH 609 Management and Administration of Public Health Services
	     ▪ <u>HLTH 614 Foundations of Program Evaluation</u>
	     ▪ <u>HLTH 617 Population Intervention for Disease Prevention and Health Promotion</u>
	     ▪ <u>HLTH 640 Professional Experience Practicum</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 <u>of Public Health and Health Systems (SPHHS)</u> and may result in a student being required

Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
core courses plus ~~2 stream specific courses~~ HLTH 624 Environmental Toxicology in Public Health and HLTH 634 Environmental Epidemiology for Public Health. ~~and at least 1 elective from the listed HLTH or equivalent courses.~~ o ~~To graduate from the socio-behavioural sciences stream, a student is required to complete the required core courses plus 2 stream specific courses HLTH 614 Foundations of Program Evaluation and HLTH 617 Population Intervention for Disease Prevention and Health Promotion and at least 1 elective from the listed HLTH or equivalent courses.~~ o MPH general degree students will be required to complete the required core courses as well as ~~3~~ elective HLTH courses. Graduate courses from other departments may be acceptable if approved by the MPH Program Committee. o Students admitted for a probationary year will be required to complete HLTH 605B Quantitative Methods and Analysis (fall term) and HLTH 606B Principles of Epidemiology for Public Health (winter term) with an average of at least 73%. If a student's average on these courses falls below 73% but not below 70%, their status will be reviewed by the ~~Department Graduate Committee~~. Normally a student will not continue on probationary status for more than two terms.	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. o To graduate from the environmental health sciences concentration, a student is required to complete the required core courses plus HLTH 624 Environmental Toxicology in Public Health and HLTH 634 Environmental Epidemiology for Public Health. o MPH general degree students will be required to complete the required core courses as well as 2 elective HLTH courses. Graduate courses from other departments may be acceptable if approved by the SPHHS Professional Graduate Programs Committee. o Students admitted for a probationary year will be required to complete HLTH 605B Quantitative Methods and Analysis (fall term) and HLTH 606B Principles of Epidemiology for Public Health (winter term) with an average of at least 73%. If a student's average on these courses falls below 73% but not below 70%, their status will be reviewed by the SPHHS Professional Graduate Programs Committee. Normally a student will not continue on probationary status for more than two terms.

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

Students currently in the program will complete the requirements specified during the calendar year of their entry. Only students matriculating after Fall 2019 will be required to take the slightly revised curriculum provided here.

Departmental approval date (mm/dd/yy): 01/28/19

Reviewed by GSO (for GSO use only) ☐ date (mm/dd/yy):
Faculty approval date (mm/dd/yy): 01/28/19
Senate Graduate & Research Council (SGRC) approval date (mm/dd/yy): Senate approval date (mm/dd/yy) (if applicable)

UNIVERSITY OF WATERLOO

Graduate Studies and Postdoctoral Affairs
Waterloo, Ontario, Canada N2L 3G1
uwaterloo.ca/graduate-studies | gsoffice@uwaterloo.ca

May 6, 2019

TO: Kathy Winter, Privacy Officer and Assistant University Secretary,
        Senate Graduate and Research Council

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

RE: Graduate Studies Academic Calendar changes

Items for approval:
1) Clarifying the add / drop regulations for graduate students.

Description and rationale for proposed changes:

Changes to the course drop protocol for graduate studies are being proposed to provide clarity and consistency in the process. Students who proceed with a course beyond the drop period, but withdraw from the course will have their participation recorded as a grade of withdrawn (WD) on the student record. Note that WD is not an academic penalty.

Proposed effective date: Term: Fall   Year: 2019

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/general-information-and-regulations/enrolment-and-time-limits

Current Graduate Studies Academic Calendar content:	**Proposed Graduate Studies Academic Calendar content**:
Course drop/add date ~~During the first three weeks of term, students must drop or add graduate courses using Quest, the University of Waterloo's online student information system.~~ For courses with enrolment restrictions, students must obtain permission through their Department Graduate ~~Assistant~~. Graduate students who wish to enrol in an undergraduate course may petition using a Drop/Add form, obtainable through their Department or Graduate Studies and Postdoctoral Affairs (GSPA). Signature of the instructor, supervisor and Department Graduate Officer are required. ~~After the first three weeks of term,~~ students may not drop or add a course except by petition using the Drop/Add form, and only under	**Course drop/add date** Students can enroll in courses until the end of the third week of classes. Students who drop a course prior to the completion of third week of classes will have no record of that course on their transcript. Students who drop a course in the period between the fourth and tenth week of classes will have a record of the course on their transcript and a grade of withdrawn (WD). After the tenth week of classes, students may not drop or add a course except by petition using the Drop/Add form, and only under exceptional circumstances with the signature of the instructor, supervisor, Department Graduate Officer and the Associate Dean (Graduate Studies) of their home Faculty.

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Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
exceptional circumstances with the signature of the instructor, supervisor, Department Graduate Officer and the Associate Dean (Graduate Studies) of their home Faculty. These are Graduate Studies and Postdoctoral Affairs (GSPA) deadlines. Individual Faculties may have earlier deadlines. (Please check with your Associate Dean's Office.) ~~Courses may not be dropped or added, nor course status changed, after the examination period begins.~~	<u>Comparable dates will be used for courses with non-traditional meeting schedules.</u> For courses with enrolment restrictions, students must obtain permission through their Department Graduate <u>Coordinator</u>. These are Graduate Studies and Postdoctoral Affairs (GSPA) deadlines. Individual Faculties may have earlier deadlines (please check with your Associate Dean's Office). <u>Undergraduate courses</u> Graduate students who wish to enrol in an undergraduate course may petition using a Drop/Add form, obtainable through their Department or Graduate Studies and Postdoctoral Affairs (GSPA). Signature of the instructor, supervisor and Department Graduate Officer are required.

Graduate Operations Committee approval date (mm/dd/yy): 04/23/2019

Senate Undergraduate Council met on 14 May 2019 and agreed to forward the following items to Senate for approval. Council recommends these items be included in the regular agenda.

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

FOR APPROVAL

_____

CHANGES TO ACADEMIC PLANS

Faculty of Mathematics
Mathematics/Chartered Professional Accountancy (Math/CPA)

1. **Motion:** To approve the restructuring of the Mathematics/Chartered Professional Accountancy-Finance Option into a Plan 10, Mathematics/Chartered Professional Accountancy plan and a Plan 20, Finance Specialization, effective 1 September 2020.

Old Structure	New Structure – Plan 10	New Structure – Plan 20
Mathematics/Chartered Professional Accountancy-Finance Option	Mathematics/Chartered Professional Accountancy	Finance Specialization

The text for the existing plan can be found at: http://ugradcalendar.uwaterloo.ca/page/MATH-Math-Chart-Prof-Accounting-Finance-OptionCoop.

Text with revisions inline (strikeout=deleted text; bold=new text):

This plan has the same course requirements as Honours Mathematics/Chartered Professional Accountancy (Math/CPA) plan with the following additional requirements:

~~Students in this option must fulfil all the requirements in Table I. This must include at least 18 math courses, and the following specific requirements:~~

> ~~One of~~
> ~~CS 115 Introduction to Computer Science 1~~
> ~~CS 135 Designing Functional Programs~~
> ~~CS 145 Designing Functional Programs (Advanced Level)~~
>
> ~~One of~~
> ~~CS 116 Introduction to Computer Science 2~~
> ~~CS 136 Elementary Algorithm Design and Data Abstraction~~
> ~~CS 146 Elementary Algorithm Design and Data Abstraction (Advanced Level)~~
>
> ~~One of~~
> ~~MATH 127 Calculus 1 for the Sciences~~
> ~~MATH 137 Calculus 1 for Honours Mathematics~~

~~MATH 147 Calculus 1 (Advanced Level)~~

~~One of~~
~~MATH 128 Calculus 2 for the Sciences~~
~~MATH 138 Calculus 2 for Honours Mathematics~~
~~MATH 148 Calculus 2 (Advanced Level)~~

~~One of~~
~~MATH 135 Algebra for Honours Mathematics~~
~~MATH 145 Algebra (Advanced Level)~~

~~One of~~
~~MATH 136 Linear Algebra 1 for Honours Mathematics~~
~~MATH 146 Linear Algebra 1 (Advanced Level)~~

One of
MATH 237 Calculus 3 for Honours Mathematics
MATH 247 Calculus 3 (Advanced Level)

~~One of~~
~~STAT 230 Probability~~
~~STAT 240 Probability (Advanced Level)~~

~~One of~~
~~STAT 231 Statistics~~
~~STAT 241 Statistics (Advanced Level)~~

All of
ACTSC 231 Introductory Financial Mathematics
~~AFM 272/ACTSC 291 Corporate Finance 1~~
~~AFM 372/ACTSC 391 Corporate Finance 2~~
~~AFM 476/ACTSC 471 Advanced Corporate Finance~~
~~STAT 373 Regression and Forecasting Models in Finance~~
AFM 205 Introduction to Financial Services

~~One of~~
~~AFM 231/LS 283 Business Law~~
~~COMM 231 Commercial and Business Law for Mathematics Students~~

~~All of~~
~~AFM 101 Introduction to Financial Accounting~~
~~AFM 102 Introduction to Managerial Accounting~~
~~AFM 132 Introduction to Business Stages*~~
~~AFM 205 Introduction to Financial Services~~
~~AFM 212 Financial Analysis and Planning~~
~~AFM 291 Intermediate Financial Accounting 1~~
~~AFM 311 Connections to Ethical Context~~
~~AFM 341 Accounting Information Systems~~
~~AFM 351 Audit Strategy~~
~~AFM 362 Taxation 1 - Foundations~~

~~AFM 363 Taxation 2 – Integration~~
~~AFM 391 Intermediate Financial Accounting 2~~
~~AFM 401 Accounting Theory~~
~~AFM 433 Business Strategy~~
~~AFM 462 Taxation 3 – Tax Planning Topics~~
~~AFM 479 Cases and Applications in Finance II~~
~~AFM 481 Cost Management Systems~~
~~AFM 482 Performance Measurement and Organization Control~~
~~AFM 491 Advanced Financial Accounting~~
~~COMM 103/ECON 100 Principles of Economics or (ECON 101 Introduction to Microeconomics and ECON 102 Introduction to Macroeconomics)~~
~~SPCOM 111 Leadership, Communication, and Collaboration~~

~~One of~~
~~AFM 206 Introduction to Tax~~
~~AFM 207 Introduction to Analytics~~
~~AFM 208 Introduction to Assurance~~

Two of
ACTSC 371 Introduction to Investments
CS 335 Computational Methods in Business and Finance
MATBUS 471 Fixed Income Securities
MATBUS 472 Risk Management
STAT 334 Probability Models for Business and Accounting

Two of
AFM 321 Personal Financial Planning
AFM 322 Derivative Securities
AFM 328 and AFM 329, or AFM 328 and AFM 428, or AFM 329 and AFM 429 Investment Management (0.25 unit each)
AFM 415 Special Topics or AFM 416 Special Topics in Finance
AFM 423 Topics in Financial Econometrics
AFM 434 Governance and Enterprise Risk Management for Global Organizations
AFM 477 Mergers and Acquisitions
AFM 478 International Financial Management
AFM 492 Financial Statement Analysis

Two additional math courses (1.0 unit).

Notes
1. ~~AFM 363, AFM 401, AFM 462, AFM 482, AFM 491 may be substituted with an acceptable 300-/400-level AFM elective, with the understanding that any such substitution would forfeit MAcc admission eligibility and will impact the path to a CPA designation pursued through CPA Ontario.~~
2. Students in this ~~option~~ **specialization** may take AFM 322 and AFM 424 to replace the AFM 479 ~~degree~~ **CPA** requirement. If so, students need only take one of the remaining AFM courses in the above "Two of" list of AFM courses.
3. ~~There is very little flexibility for altering the academic/work-term sequence prescribed for the Mathematics/Chartered Professional Accountancy (Math/CPA) - Finance option (see Study/Work Sequence) because of limited term offerings and structured prerequisites for most AFM courses. Since deviations from this sequence can cause a delay in graduation of as much as one calendar~~

year, alterations should not be considered without careful consultation with the CPA academic advisor.

4. ~~The order in which required non-math courses in this plan are taken is very important, and there is little room for flexibility (for the same reasons in Note 3 above). During the class enrolment period each term, students should be sure to consult with their academic advisor.~~

5. ~~Students may not repeat an AFM course in which they have obtained a grade of 60% or higher. AFM courses completed with a grade in the range 50 - 59% may be repeated, but only once, and then only with approval from the School of Accounting and Finance.~~

6. ~~Students who have attempted, to the satisfaction of the Standings and Promotions (S&P) Committee and Co-operative Education and Career Action, to gain employment for all four available work terms, but are successful in so doing for only three work terms, will be eligible for a co-op degree, provided they have received credit for all three of their work terms and all three of their work reports, and they have successfully completed all academic graduation requirements. (Students who are successful in gaining acceptable employment for four work terms will be required to have credit for all four work terms and all four work reports in order to qualify for a co-op degree.)~~

7. ~~Students who meet all the academic graduation requirements for this option, but who do not meet the minimum requirements for a co-op degree (see preceding Note 4) may, in exceptional circumstances and at the discretion of the S&P Committee, be awarded a regular Honours Mathematics/Chartered Professional Accountancy degree.~~

8. In order to meet the requirements of both the Faculty of Mathematics and the School of Accounting and Finance, the Math/CPA - Finance ~~option~~ **Specialization** requires the successful completion of 42 courses.

~~Tuition~~

~~This is a high free plan. As such, tuition higher than the normal University of Waterloo tuition is required.~~

~~Eligibility for Waterloo's Master of Accounting (MAcc) Academic Plan~~
~~The Math/CPA plan is designed to lead to the University of Waterloo Master in Accounting (MAcc) degree. Students should consult the MAcc website to ascertain specific MAcc admission criteria for Math/CPA graduates.~~

Rationale:
The Faculty of Mathematics proposes the restructuring of the Math/CPA Option, which will result in the discontinuation of the option and creation of a specialization, in order to reflect the standardization of common language for plans in the Faculty.

Mario Coniglio
/rmw   Associate Vice-President, Academic