University of Waterloo
SENATE EXECUTIVE COMMITTEE
Notice of Meeting

Date: Monday 4 May 2020
Time: 3:30 p.m.
Place: Videoconference

OPEN SESSION	**Action**
1. Minutes of the 7 April 2020 Meeting	Decision
2. Business Arising from the Minutes	
3. Report of the Vice-President, Academic & Provost	
a. Roster of Graduands	Decision
4. Draft 19 May 2020 Senate Agenda	Decision
5. Other Business	Decision

KJJ/ees
28 April 2020

Karen Jack
University Secretary
Secretary to the Executive Committee

University of Waterloo
SENATE EXECUTIVE COMMITTEE
Minutes of the 6 April 2020 Meeting

Present: Kofi Campbell, Jeff Casello, Shannon Dea, Paul Fieguth, Robert Gorbet, Feridun Hamdullahpur (chair), Karen Jack (secretary), Bill Power, James Rush, Naima Samuel, Richard Staines, Bryan Tolson

Regrets: Michael Beauchemin, Mark Giesbrecht, Vivek Unnithan

1. MINUTES OF THE 2 MARCH 2020 MEETING

Members heard a motion to approve the minutes of the 2 March 2020 meeting.

Tolson and Casello. Carried unanimously.

2. BUSINESS ARISING FROM THE MINUTES

There was no business arising.

3. DRAFT 20 APRIL 2020 SENATE AGENDA

The secretary advised that the current item numbered 10.a., re: the course evaluation project update will be brought to the May meeting of Senate, and a new item regarding academic progression rules will be brought to the April meeting instead. [Secretary's note: subsequent to the meeting, the registrar advised that information re: academic progression will be sent to the May meeting of Senate for information.]

In discussion: agreement that the confidential items meant to be considered by Senate in March will be included in the April agenda; acknowledgement that Gerry Schneider will be available to respond to questions relating to the UARC report, and that the usual UARC information/slides will be provided in the agenda package.

Members heard a motion to approve the agenda, subject to the changes as described.

Staines and Dea. Carried unanimously.

4. OTHER BUSINESS

The chair invited feedback with respect to the execution of the March Senate meeting via "Teams". In discussion: agreement that the meeting proceeded well, but future meetings will bear some improvements, including clarity re: chats and which one to use, the ability to enable follow-up questions, and, a suggestion to allow certain Senators, i.e., those who speak often, the ability to speak. There was consensus that inviting members to submit questions in advance, while not precluding anyone from asking questions during the meeting, may help to reduce the number of questions having to be fielded through the chat function.

In discussion relating to the Fall term, and discussions happening within the executive on this front, the chair spoke to the various conversations and meetings occurring within and outside of the University, and his opinion that any decision relating to the Fall term is too early to make at this time. Hamdullahpur advised that Senate will be kept apprised of plans, and in the case any decision needs to be made requiring the Senate's consideration and/or approval, Senate will be properly engaged, including booking extraordinary meetings as needed.

8 April 2020

Karen Jack
University Secretary

University of Waterloo
SENATE EXECUTIVE COMMITTEE
Report of the Vice-President, Academic & Provost
4 May 2020

FOR APPROVAL

Roster of Graduands

Since the roster of graduands will not be available until after the regular meeting of Senate in May and approval is required before the June meeting, the following motion is proposed:

Motion: That the Senate Executive Committee recommend that Senate delegate such approval to its Executive Committee for its 1 June 2020 meeting.

James Rush
Vice-President, Academic & Provost

University of Waterloo
SENATE
Notice of Meeting

Date: Tuesday 19 May 2020
Time: 3:30 p.m.
Place: Videoconference

	OPEN SESSION	Action
3:30	**Consent Agenda** **Motion:** To approve or receive for information by consent items 1-4 below.	
	1. Minutes of the 20 April 2020 Meeting*	Decision
	2. Reports from Committees and Councils	
	a. Executive Committee*	Information
	b. Graduate & Research Council	Decision/Information
	3. Report of the President	
	a. Recognition and Commendation	Information
	4. Reports from the Faculties	Information
	Regular Agenda	
3:35	5. Business Arising from the Minutes	Information
	6. Reports from Committees and Councils	
3:40	a. Graduate & Research Council	Decision
3:50	b. Undergraduate Council*	Information
4:00	7. Report of the President	Information
4:10	8. Q&A Period with the President	Information
	9. Report of the Vice-President, Academic & Provost	
4:20	a. Roster of Graduands	Decision
4:25	b. Course Evaluation Project Team Update	Information
4:35	c. Complementary Teaching Assessment Processes Update	Information
4:45	10. Report of the Vice-President, Research & International*	Information
4:50	11. Other Business	
	CONFIDENTIAL SESSION	
4:55	12. Minutes of the 20 April 2020 Meeting*	Decision
5:00	13. Business Arising from the Minutes	
5:05	14. Other Business	

28 April 2020

Karen Jack
University Secretary
Secretary to Senate

KJJ/ees

*to be distributed

University of Waterloo
SENATE GRADUATE & RESEARCH COUNCIL
Report to Senate
19 May 2020

Senate Graduate & Research Council met on 13 April 2020 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 APPROVAL

GRADUATE STUDIES ACADEMIC CALENDAR CHANGES

Motion: To approve the following Graduate Studies Academic Calendar changes, effective 1 May 2020, at Attachment 1.

1) Removing the Michigan English Language Assessment Battery (MELAB) as an accepted examination for the English language proficiency (ELP) requirements.
   Rationale: The MELAB is no longer being offered. After July 2020, MELAB results will no longer be accepted to meet English language requirements and as such, the MELAB is being removed from the ELP page in the GSAC.

2) Editorial update to the parental leave requirements.
   Rationale: A minor editorial update is being proposed to the parental leave requirements to provide better clarity.

FOR INFORMATION

CURRICULAR SUBMISSIONS

On behalf of Senate, council approved new courses, course revisions, and minor program revisions for the Faculty of Arts (global governance, English, peace and conflict studies, accounting and finance) and Environment (geography and environmental management, global governance, planning).

RENEWAL OF CENTRES AND INSTITUTES

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

/kw

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

Charmaine Dean
Vice President, Research & International

UNIVERSITY OF WATERLOO

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

April 6, 2020

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 information/approval:

1) Removing the Michigan English Language Assessment Battery (MELAB) as an accepted examination for the English language proficiency (ELP) requirements.
2) Editorial update to the parental leave requirements.

1) MELAB

Description and rationale for proposed changes:

The MELAB is no longer being offered. After July 2020, we will no longer accept MELAB results to meet our English language requirements and as such, the MELAB is being removed from the ELP page in the GSAC.

Proposed effective date: Term: Spring Year: 2020

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/english-language-proficiency

Current Graduate Studies Academic Calendar content:	**Proposed Graduate Studies Academic Calendar content**:
English language proficiency The official language of instruction at the University of Waterloo is English. It is the responsibility of the University to ensure that its graduate students have sufficient English language skills to be successful with the demands of the academic environment. You are exempt from submitting an English language proficiency examination score if any one of the following conditions is true: • You have completed three or more years of post-secondary education or completed a graduate degree at a Canadian institution or university	English language proficiency The official language of instruction at the University of Waterloo is English. It is the responsibility of the University to ensure that its graduate students have sufficient English language skills to be successful with the demands of the academic environment. You are exempt from submitting an English language proficiency examination score if any one of the following conditions is true: • You have completed three or more years of post-secondary education or completed a graduate degree at a Canadian institution or university

Current Graduate Studies Academic Calendar content:

- You have completed three or more years of post-secondary education or completed a graduate degree at a university at which English was the primary language of instruction, as indicated on our ELP exemption list*
- You have been employed for at least three years in a position in which English was the language of business in a country listed on our ELP exemption list*

*Information on approved ELP exempted countries and institutions is available on the ~~Discover~~ Graduate Studies website.
Tests must have been taken within the last 24 months at the time the application is submitted. Tests that do not appear on this chart are not accepted for admission consideration. The University of Waterloo reserves the right to request an English language test result from any applicant.

Graduate Studies accepted examinations and required scores

Table of Graduate Studies accepted examinations and required scores					
Internet-based TOEFL (iBT)	IELTS (Academic)	~~MELAB~~	CAEL	PTE (Academic)	EFAS
90; writing 25; speaking 25	7.0; writing 6.5; speaking 6.5	~~85; 80 per section; speaking 3~~	70; 60 per band; 70 writing; 70 speaking	63; writing 65; speaking 65	75% overall in level 400 with at least 75% in writing, oral and academic skills

Graduate Studies accepted examinations and

Proposed Graduate Studies Academic Calendar content:

- You have completed three or more years of post-secondary education or completed a graduate degree at a university at which English was the primary language of instruction, as indicated on our ELP exemption list*
- You have been employed for at least three years in a position in which English was the language of business in a country listed on our ELP exemption list*

*Information on approved ELP exempted countries and institutions is available on the Graduate Studies and Postdoctoral Affairs website.
Tests must have been taken within the last 24 months at the time the application is submitted. Tests that do not appear on this chart are not accepted for admission consideration. The University of Waterloo reserves the right to request an English language test result from any applicant.

Graduate Studies accepted examinations and required scores

Internet-based TOEFL (iBT)	IELTS (Academic)	CAEL	PTE (Academic)	EFAS
90; writing 25; speaking 25	7.0; writing 6.5; speaking 6.5	70; 60 per band; 70 writing; 70 speaking	63; writing 65; speaking 65	75% overall in level 400 with at least 75% in writing, oral and academic skills

Graduate Studies accepted examinations

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

alternative minimum scores

Departments accepting the alternative minimum scores are: Chemical Engineering; Civil and Environmental Engineering; Electrical and Computer Engineering; Mechanical and Mechatronics Engineering; and Systems Design Engineering.

Table of Graduate Studies accepted examinations and alternative minimum scores

Internet-based TOEFL (iBT)	IELTS (Academic)	~~MELAB~~	CAEL	PTE (Academic)	EFAS
80; writing 22; speaking 20; reading 20; listening 18	6.5; writing 6.0; speaking 6.0	~~80; 78 per section; speaking 3~~	60; 60 per band	60; writing 60; speaking 60	75% overall in level 300 with at least 75% in writing, oral and academic skills or 70% in level 400 with at least 70% in writing, oral and academic skills

Graduate Studies accepted examinations and alternative higher scores

and alternative minimum scores

Departments accepting the alternative minimum scores are: Chemical Engineering; Civil and Environmental Engineering; Electrical and Computer Engineering; Mechanical and Mechatronics Engineering; and Systems Design Engineering.

Internet-based TOEFL (iBT)	IELTS (Academic)	CAEL	PTE (Academic)	EFAS
80; writing 22; speaking 20; reading 20; listening 18	6.5; writing 6.0; speaking 6.0	60; 60 per band	60; writing 60; speaking 60	75% overall in level 300 with at least 75% in writing, oral and academic skills or 70% in level 400 with at least 70% in writing, oral and academic skills

Graduate Studies accepted examinations and alternative higher scores

Departments/Schools/programs requiring higher scores are:

- Faculty of Applied Health Sciences: Public Health and Health Systems; Recreation and Leisure Studies

<table>
<tr><th>Current Graduate Studies Academic Calendar content:</th><th>Proposed Graduate Studies Academic Calendar content:</th></tr>
<tr><td>Departments/Schools/programs requiring higher scores are: Accounting and Finance; Anthropology; Architecture; Classical Studies; Climate Change; Computer Science; Data Science and Artificial Intelligence; Digital Experience Innovation; Economic Development and Innovation; English Language and Literature; Environment and Business; Environment, Resources and Sustainability; Fine Arts; Geography and Environmental Management; Global Governance; History; Philosophy; Planning; Public Health and Health Systems; Public Service; Quantitative Finance; Recreation and Leisure Studies; Religious Studies; Sociology and Legal Studies; Sustainability Management.
<table>
<tr><td colspan="6">Table of Graduate Studies accepted examinations and alternative higher scores</td></tr>
<tr><td>Internet-based TOEFL (iBT)</td><td>IELTS (Academic)</td><td>~~MELAB~~</td><td>CAEL</td><td>PTE (Academic)</td><td>EFAS</td></tr>
<tr><td>100; writing 26; speaking 26</td><td>7.5; writing 7.0; speaking 7.0</td><td>~~90; 80 per section; speaking 3~~</td><td>70; 60 per band; 70 writing; 70 speaking</td><td>68; writing 65; speaking 65</td><td>80% overall in level 400 with at least 75% in writing, oral and academic skills</td></tr>
</table>
</td><td>

Faculty of Arts: Accounting and Finance; Anthropology; Classical Studies; Digital Experience Innovation; English Language and Literature; Fine Arts; History; Philosophy; Public Service; Religious Studies; Sociology and Legal Studies
Faculty of Engineering: Architecture
Faculty of Environment: Climate Change; Economic Development and Innovation; Environment and Business; Environment, Resources and Sustainability; Geography and Environmental Management; Global Governance; Planning; Sustainability Management
Faculty of Mathematics: Computer Science; Data Science and Artificial Intelligence; Quantitative Finance

<table>
<tr><td>Internet-based TOEFL (iBT)</td><td>IELTS (Academic)</td><td>CAEL</td><td>PTE (Academic)</td><td>EFAS</td></tr>
<tr><td>100; writing 26; speaking 26</td><td>7.5; writing 7.0; speaking 7.0</td><td>70; 60 per band; 70 writing; 70 speaking</td><td>68; writing 65; speaking 65</td><td>80% overall in level 400 with at least 75% in writing, oral and academic skills</td></tr>
</table>
</td></tr>
</table>

2) Parental leave

Description and rationale for proposed changes:

A minor editorial update is being proposed to the parental leave requirements to provide better clarity.

Proposed effective date: Term: Spring Year: 2020

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#Parental%20leave

Current Graduate Studies Academic Calendar content:	**Proposed Graduate Studies Academic Calendar content**:
Parental leave Students who become parents through birth or adoption may take up to 5 terms of uninterrupted leave during the first ~~year~~ of birth or adoption. If both parents are University of Waterloo students, the leave can be split between the two. Both University of Waterloo parents cannot be on parental leave at the same time; however, one partner can be on parental leave while the other partner is on birth leave. Parental leaves must coincide with the start and end dates of academic terms. Students planning on going on parental leave must request a change of their enrolment status to Inactive by completing the Change of enrolment status form. Students on parental leave are not expected to study or conduct research while on leave, and thus should not expect access to their supervisor. Students who wish to apply for a University of Waterloo parental leave bursary should complete the Graduate Studies Parental Leave Bursary application.	**Parental leave** Students who become parents through birth or adoption may take up to 5 terms of interrupted leave during the first 20 months of birth or adoption. If both parents are University of Waterloo students, the leave can be split between the two. Both University of Waterloo parents cannot be on parental leave at the same time; however, one partner can be on parental leave while the other partner is on birth leave. Parental leaves must coincide with the start and end dates of academic terms. Students planning on going on parental leave must request a change of their enrolment status to Inactive by completing the Change of enrolment status form. Students on parental leave are not expected to study or conduct research while on leave, and thus should not expect access to their supervisor. Students who wish to apply for a University of Waterloo parental leave bursary should complete the Graduate Studies Parental Leave Bursary application.

University of Waterloo
SENATE
Report of the President
19 May 2020

FOR INFORMATION

Recognition and Commendation

Athetics & Recreation celebrated the achievements of the University's top athletes virtually this year. The top awards of the 2019-20 season went to **Taytum Clairmont** of women's hockey and **Tyler Ternowski** of football. Clairmont was named the 2020 **Marsden Trophy winner as the Female Athlete of the Year.** The fifth year Masters of Business Technology student put together the best statistical season in the history of the women's hockey program. She led the OUA in points (28) and assists (17) and was named the OUA Player of the Year, Forward of the Year and a First-Team All-Star. Clairmont is the first player in Warriors history to lead the league in scoring. She also collected a U SPORTS Second-Team All-Canadian recognition and was named the U SPORTS Athlete of the Month in November. Ternowski put together another incredible season in his fourth year with the football program. It is the second straight year a member of football has won the **Totzke Trophy as Male Athlete of the Year**. The fourth year Economics student was named a U SPORTS First-Team All-Canadian and First-Team OUA All-Star. He finished the season with 47 catches (4th most in U SPORTS) and 695 receiving yards (8th best in U SPORTS). His five receiving touchdowns were fourth most in the country and he was ninth with his 86.9 yards per game. Other awards included:

- WUSA Rookies of the Year Awards: **Janelle Clarke** (track and field) and **Pavle Milic** (men's tennis)
- Team of the Year Award**: Women's Golf**
- Imprint Coach of the Year**: Maria Leahy** (field hockey)
- Shield of Excellence Award, given to graduating student-athletes who have achieved an elite level of distinction throughout their university career with their respective teams: **Tyler Ternowski**, **Josh Lorentz**, and **Larissa McLeod**
- Warriors Community Service Award: **Larissa McLeod** and **Mackenzie Strong**
- Directors and J.O. Hemphill Awards presented annually to a male and female who has made a significant administrative contribution to the department: **Ashley Blayney-Hoffer** (track and field) and **Jorden Carthy** (baseball)
- Warrior Campus Service Award**: Maureen Jones**
- Brian Farrance Award **(**student therapists): **Emma Hatcher** (men's volleyball) and **Jacqueline Gu** (women's hockey)

(adapted from the *Athletics & Recreation News*, 3 April 2020)

Associate Professor of English **Sarah Tolmie's** novel about the history of science, *The Little Animals*, was **the Special Citation at the 2020 Philip K Dick Awards**. The novel, published in 2019 by Aqueduct Press, is about Antoni Van Leeuwenhoek, pioneer of the single-lens microscope and one of the founders of microbiology. The Philip K. Dick Award is presented annually with the support of the Philip K. Dick Trust for distinguished science fiction published in paperback original form in the United States during the previous calendar year.

(adapted from the *Daily Bulletin*, 14 April 2020)

John Cherry, a distinguished professor emeritus from the Department of Earth and Environmental Sciences, Faculty of Science has been named 2020 winner of the prestigious **Stockholm Water Prize**. The announcement was made March 23 by the Stockholm International Water Institute (SIWI). Cherry is the first hydrogeologist and the second Canadian to win the international award, which has gone to academics and organizations worldwide, including the International Water Management Institute in Sri Lanka and Great Britain's Water Aid. Awarded annually since 1991, the Stockholm Water Prize honours individuals and organizations whose work helps to conserve and protect water resources. Cherry is scheduled to receive the award from Princess Victoria of Sweden in late August and will address the opening session of this year's World Water Week conference organized by the Stockholm International Water Institute (SIWI).

(adapted from the *Daily Bulletin*, 16 April 2020)

Professor **Florian Kerschbaum** has received a **2019 Outstanding Young Computer Science Researcher Award** from CS-Can/Info-Can, the nation's professional society dedicated to representing all aspects of computer science and the interests of the discipline to Canadians. Conferred since 2009, these annual awards recognize excellence in computer science research. They are awarded to top faculty members in Canadian computer science departments, schools and faculties who are within the first ten years of their career after completing their PhD. "Florian is an accomplished expert in searching and processing encrypted data — keeping data secure, private and encrypted in the cloud while still allowing it to be searched and processed," said Mark Giesbrecht, director of the David R. Cheriton School of Computer Science. "His contributions to computer security, privacy-enhancing technologies, and database research are both respected internationally by his academic peers as well as adopted by leading high-tech companies, including SAP and Microsoft. His teaching of undergrads, supervision of graduate students at both Waterloo and SAP, and postdoctoral mentorship are exemplary."

(adapted from the *Daily Bulletin*, 17 April 2020)

Norah McRae, Associate Provost for Co-operative and Experiential Education, and **Judene Pretti**, Director of the Waterloo Centre for the Advancement of Co-operative Education (WatCACE), have been recognized by **Co-operative Education and Internship Association (CEIA)** as 2020 award recipients. These awards are given out annually to recognize distinguished achievements and significant impact in the field of work-integrated learning. McRae is awarded **The Dean Herman Schneider Award** for her significant and comprehensive record of contributions towards the advancement of the philosophy and practice of co-operative education. This award is presented annually to those who have demonstrated great success, typically spanning more than ten years, in the practice of co-operative education and internships. McRae's career in the field of work-integrated learning spans more than 20 years. Through her research on topics such as student engagement, community-engaged learning and intercultural competency development, her philosophy and leadership has strongly influenced experiential learning worldwide. Alongside McRae, Pretti is awarded the **Ralph W. Tyler Award** for her outstanding and distinguished research and publication in the field of co-operative education and internships. This award is presented to those who lead research and publications highlighting new knowledge and understanding associated with experiential learning. Pretti's role within WatCACE involves building strong partnerships with key stakeholders in both national and international co-op and work-integrated learning communities. These relationships enable WatCACE to identify priority areas for research and discover findings that are then shared within the global work-integrated learning community.

(adapted from the *Daily Bulletin*, 24 April 2020)

UNIVERSITY OF WATERLOO
REPORT OF THE DEAN OF ENGINEERING TO SENATE
May 19, 2020

FOR INFORMATION

A. ***APPOINTMENTS***

Continuing Lecturers

HURWITZ, Marc, Conrad School of Entrepreneurship and Business, May 1, 2020. PhD, University of Waterloo, Waterloo, ON, 2010; MBA, 2000; MSc, 1988; MSc, 1984; BSc 1983. Dr. Hurwitz, recipient of the Sanford Fleming Award for Teaching Excellence in the Faculty of Engineering, teaches leadership, entrepreneurship, corporate innovation and related subjects in the Conrad School. He publishes in the area of leadership, focusing particularly on followership. In addition to his teaching, Marc serves as Conrad's Associate Director of Undergraduate and Non-degree Programs.

ROBINSON, Mary, Engineering Undergraduate Office, May 1, 2020. MSc University of Waterloo, Waterloo, ON, 2010; BSc, ON, 2005. This position primarily revolves around first-year engineering activities, including academic advising, student outreach and orientation, training of academic staff, and various liaison and policy roles. In addition, the position enriches the Engineering Undergraduate Office with expertise in scholarship related to teaching and pedagogy, as well as teaching in the chemical engineering domain.

Probationary Term

MACDONALD, Ewen, Associate Professor, Department of Systems Design Engineering, July 1, 2020 – June 30, 2023. PhD, University of Toronto, Toronto, ON, 2007; Bachelor degree, ON, 1994. Professor MacDonald's research program centers around speech communication, hearing-aid signal processing and hearing loss. His research interests also include verbal interactions with robots and dementia as well as the design of hearing aid. Professor MacDonald's research fits into our department's strategic objectives of increasing interdisciplinary research in biomedical engineering and in the area of social robotics and health.

Definite Term Reappointment Full-time

AHMADI, Lena, Lecturer, Department of Chemical Engineering, April 30, 2020 – April 28, 2022. PhD, University of Waterloo, Waterloo, ON, 2105; BSc, Iran, 2004.

BASHA, Mohamed, Research Associate Professor, Department of Electrical and Computer Engineering, February 29, 2020 – March 31, 2021. PhD, University of Waterloo, Waterloo, ON, 2007; BSc, Egypt, 1996.

BORJI, Amir, Research Assistant Professor, Department of Electrical and Computer Engineering, March 3, 2020 – June 2, 2020. PhD in Electrical and Computer Engineering, University of Waterloo, Waterloo, ON, 2004; MSc in Electrical and Computer Engineering (Communication Systems), Isfahan, Iran, 1998; BSc in Electrical and Computer Engineering, Isfahan University of Technology, Isfahan, Iran, 1994.

MANDAL, Kalikinkar, Research Assistant Professor, Department of Electrical and Computer Engineering, February 16, 2020 – July 31, 2020. PhD, University of Waterloo, Waterloo, ON, 2013; BSc India, 2005.

NAAHIDI, Sheva, Research Assistant Professor, Department of Electrical and Computer

Engineering, March 1, 2020 – February 28, 2021. PhD, University of Waterloo, Waterloo, ON, 2014; BSc, ON, 2005.

SEDWARDS, Sean, Research Assistant Professor, Department of Electrical and Computer Engineering, April 1, 2020 – March 31, 2022. PhD, University of Trento, Italy, 2009; BEng, United Kingdom 1985.

Visiting Appointments

ABUAWWAD, Nihad, Assistant Professor, Department of Chemical Engineering, June 29, 2020 – September 10, 2020.

IMURA, Shigeyuki, Scientist, Department of Electrical and Computer Engineering, October 1, 2020 – September 30, 2021.

MACEDO JIMENEZ, Maria Fernanda, Researcher, Department of Mechanical and Mechatronics Engineering, May 18, 2020 – August 8, 2020.

SUN, Qiji, Scholar, Department of Mechanical and Mechatronics Engineering, June 1, 2020 – May 31, 2021.

Visiting Reappointments

KAZEMI, NASSER, Professor, Department of Chemical Engineering, April 1, 2020 – March 31, 2021.

SADEGHIMAKKI, Bahareh, Scientist, Department of Electrical and Computer Engineering, March 1, 2020 – February 28, 2022.

ZENG, Delu, Scholar, Department of Electrical and Computer Engineering, May 7, 2020 – November 6, 2020.

Special Appointments

Undergraduate Instruction

BABAEE CHESHMEAHMADREZA, Reza, Lecturer, Department of Department of Electrical and Computer Engineering, May 1, 2020 – August 31, 2020.

Adjunct Appointments

Graduate Supervision and Research

JANABI-SHARIFI, Farrokh, Professor, Department of Mechanical and Mechatronics Engineering, March 1, 2020 – February 28, 2022.

Adjunct Reappointments

Graduate Supervision and Research

WASEF, Albert, Lecturer, Department of Electrical and Computer Engineering, May 1, 2020 – April 30, 2021.

Adjunct Reappointments

Undergraduate Teaching

WASEF, Albert, Lecturer, Department of Electrical and Computer Engineering, May 1, 2020 – April 30, 2021.

ZARNETT, Jeffrey, Lecturer, Department of Electrical and Computer Engineering, May 1, 2020 – April 29, 2022.

Changes in Appointments

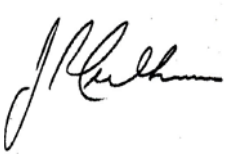
KARIM, Karim, Associate Dean, Outreach, September 17, 2020 – April 30, 2020, (change in end date only).

B. ***ADMINISTRATIVE APPOINTMENTS***

FIEGUTH, Paul, Associate Dean, Outreach, May 1, 2020 – August 31, 2020.

ADMINISTRATIVE REAPPOINTMENTS

GORBET, Maud, Interim Chair, Department of Systems Design Engineering, April 1, 2020 – July 31, 2020.



Richard Culham, Interim Dean
Faculty of Engineering

University of Waterloo
REPORT OF THE DEAN OF MATHEMATICS TO SENATE
May 19, 2020

FOR INFORMATION

A. APPOINTMENTS (for approval by the Board of Governors)

Probationary-Term Appointments

GAO, Lucy (BSc (Hons), 2015, University of Victoria; PhD, 2020 (exp), University of Washington), Assistant Professor, Dept. of Statistics and Actuarial Science, July 1, 2020 – June 30, 2023. Ms. Gao is currently completing her PhD in Biostatistics. Her PhD research is based on Statistical Inference for Multi-View Clustering but she has another ongoing parallel research track in experimental design. Ms. Gao will contribute to strengthening the connections between our biostatistics and classical statistics research groups.

GUGLIELMI, Roberto (BSc, 2007, University of Bari; MSc, 2009, Eberhard Karls Universität Tübingen; PhD, 2013, joint with the University of Rome Tor Vergata and the University of Lorraine), Assistant Professor, Dept. of Applied Mathematics, July 1, 2020 – June 30, 2023. Dr. Guglielmi is currently a research fellow at the Fundacao Getulio Varagas in Rio de Janeiro. His research interests address questions in control theory for infinite dimensional systems at the intersection analysis of partial differential equations, calculus of variations, dynamical systems theory and optimization. His presentation and reference letters confirm that he will be a great teacher, supervisor and colleague with numerous potential collaborations and research interactions with other colleagues in the Department.

MELCZER, Stephen (BSc, 2011; MSc, 2014, both from Simon Fraser University; PhD, 2017 from both the University of Waterloo and the École normale supérieure de Lyon), Assistant Professor, Dept. of Combinatorics and Optimization, July 1, 2020 – June 30, 2023. Dr. Melczer is currently a CRM-ISM Postdoctoral Fellow in the Dept. of Math at the Université du Québec à Montréal. His research involves developing effective tools for mathematics and combinatorics using techniques from computational algebraic geometry, complex analysis, and topology. His talk was well received and it was felt that his research in enumerative questions would add variety to the algebraic combinatorics research in the Department.

XU, Meng (BEngineering, 2014, Nanyang Technological University; PhD, 2020 (exp), Georgia Institute of Technology), Assistant Professor, David R. Cheriton School of Computer Science, July 1, 2021 – June 30, 2024. Mr. Xu is currently completing his PhD degree from the Georgia Institute of Technology. His research is in the area of software security. Mr. Xu's research has focused on the Linux operating system which is widely deployed on the Internet and also the basis for the commercial Android system used in many smartphones. Using software analysis techniques Mr. Xu's research automates the search for implementation faults in Linux. Using his research more than 100 implementation faults in Linux have been found and later fixed. These results underpin the applicability of Mr. Xu's research to real-world security problems. Mr. Xu will complement our security and privacy area.

Probationary-Term Reappointments

SHUM, Park Heng, Assistant Professor, Dept. of Applied Mathematics, July 1, 2020 – June 30, 2023).

TRAN, Giang, Assistant Professor, Dept. of Applied Mathematics, July 1, 2020 – June 30, 2023).

Definite Term - Reappointments
FORREST, Barbara, Lecturer, Office of the Dean, August 28, 2020 – August 26, 2022.

VINETTE, Francine, Lecturer, Office of the Dean, September 1, 2020 – August 31, 2021.

Visiting Appointments
GHAFURIAN, Moojan, Researcher, David R. Cheriton School of Computer Science, May 1, 2020 – April 30, 2021.

Adjunct Appointments
Instructor
LENNOX, Michelle, Lecturer, Dept. of Statistics and Actuarial Science, May 1, 2020 – August 31, 2020.

Adjunct Reappointments
Instructor
AKINYEMI, John, Lecturer, David R. Cheriton School of Computer Science, May 1, 2020 – August 31, 2020.

BROGLY, Chris, Lecturer, David R. Cheriton School of Computer Science, May 1, 2020 – August 31, 2020.

DICKSON, David, Lecturer, Dept. of Statistics and Actuarial Science, May 1, 2020 – August 31, 2020.

HINTZ, Erik, Lecturer, Dept. of Statistics and Actuarial Science, May 1, 2020 – August 31, 2020.

HOLTBY, Dan, Lecturer, David R. Cheriton School of Computer Science, May 1, 2020 – August 31, 2020.

IBRAHIM, Ahmed, Lecturer, David R. Cheriton School of Computer Science, May 1, 2020 – August 31, 2020.

KAMAL, Zille, Lecturer, David R. Cheriton School of Computer Science, May 1, 2020 – August 31, 2020.

McKINNON, Jennifer, Lecturer, Office of the Dean, May 1, 2020 – August 31, 2020.

MOZAFFARI, Ahmad, Lecturer, Dept. of Statistics and Actuarial Science, May 1, 2020 – August 31, 2020.

TURNER, Graeme, Lecturer, Office of the Dean, May 1, 2020 – August 31, 2020.

YUAN, Meng, Lecturer, Dept. of Statistics and Actuarial Science, May 1, 2020 – August 31, 2020.

ZIMA, Eugene, Lecturer, David R. Cheriton School of Computer Science, May 1, 2020 – August 31, 202.

ZORZITTO, Frank, Professor Emeritus, Office of the Dean, May 1, 2020 – August 31, 2020.

Research
DeMAST, Jeroen (The Jheronimus Academy of Data Science), Professor, Dept. of Statistics and Actuarial Science, July 1, 2020 – June 30, 2023.

FAREWELL, Vern, Professor, Dept. of Statistics and Actuarial Science, July 1, 2020 – June 30, 2023.

LAWLESS, Jerald, Professor Emeritus, Dept. of Statistics and Actuarial Science, September 1, 2020 – August 31, 2023.

O'HARA-HINES, Jeanette, Associate Professor Emeritus, Dept. of Statistics and Actuarial Science, September 1, 2020 – August 31, 2023.

Cross Reappointments
CHEN, Helen (Continuing Lecturer, in the School of Public Health & Health Systems), in the Dept. of Statistics and Actuarial Science, March 1, 2020 – February 28, 2022.

Graduate Students appointed as Part-time Lecturers
ALBAYRAK, Gulizar, Dept. of Pure Mathematics, May 1, 2020 – August 31, 2020.

BRANIFF, Nathan, Dept. of Applied Mathematics, May 1, 2020 – August 31, 2020.

KING, Nathan, David R. Cheriton School of Computer Science, May 1, 2020 – August 31, 2020.

KIRK, Keegan, Dept. of Applied Mathematics, May 1, 2020 – August 31, 2020.

NAYLOR, Patrick, Dept. of Pure Mathematics, May 1, 2020 – August 31, 2020.

SINGHAI, Ragini, Dept. of Pure Mathematics, May 1, 2020 – August 31, 2020.

WANG, Chaunzhang, Dept. of Applied Mathematics, May 1, 2020 – August 31, 2020.

Graduate Students reappointed as Part-time Lecturers
FARSI, Milad, Dept. of Applied Mathematics, May 1, 2020 – August 31, 2020.

MURRAY, Dean, David R. Cheriton School of Computer Science, May 1, 2020 – August 31, 2020.

Postdoctoral Fellows appointed as Part-time Lecturers
DaRONG, Cheng, Dept. of Pure Mathematics, August 1, 2020 – July 31, 2022.

DENG, Jintao, Dept. of Pure Mathematics, September 1, 2020 – August 31, 2022.

DIXIT, Anup, Dept. of Pure Mathematics, July 1, 2020 – June 30, 2022.

KRISHNAN, Arundhathi, Dept. of Pure Mathematics, January 1, 2021 – December 31, 2022.

ROMANOV, Anna, Dept. of Pure Mathematics, August 1, 2020 – July 31, 2023.

Changes in Appointments
ZHANG, Yizhou, Assistant Professor, David R. Cheriton School of Computer Science, (*ref.* Dean's Report to Senate, September 18, 2019)
From: August 1, 2019 – June 30, 2023
To: October 1, 2019 – June 30, 2024

B. ADMINISTRATIVE REAPPOINTMENTS

DAWOUD, Dina, International Exchange Coordinator, Office of the Dean, April 28, 2020 – August 31, 2021.

SIVALOGANATHAN, Sivabal, Chair, Dept. of Applied Mathematics, July 1, 2020 – June 30, 2023.

VAVASIS, Steve, Associate Dean, Computing, Office of the Dean, July 1, 2020 – December 31, 2020.

C. SABBATICALS (already approved by the Board of Governors)

FUKASAWA, Ricardo (Associate Professor), Dept. of Combinatorics and Optimization, September 1, 2020 – August 31, 2021 with 98.2% salary.

ILYAS, Ihab (Professor), David R. Cheriton School of Computer Science, September 1, 2020 – August 31, 2021, with 85% salary.

(to be approved by the Board of Governors)

LHOTAK, Ondrej (Associate Professor), David R. Cheriton School of Computer Science, September 1, 2020 – August 31, 2021.

LI, Pengfei (Professor), Dept. of Statistics and Actuarial Science, September 1, 2020 – August 31, 2021.

LIN, Jimmy (Professor), David R. Cheriton School of Computer Science, September 1, 2020 – August 31, 2021, with 85% salary.

MA, Bin (Professor), David R. Cheriton School of Computer Science, September 1, 2020 –August 31, 2021.

D. SPECIAL LEAVE (already approved by the Board of Governors)

HARE, Kathryn (Professor), Dept. of Pure Mathematics, September 1, 2020 – December 31, 2020 with 100% salary. This is an administrative leave.

Kevin Hare
Interim Dean

UNIVERSITY OF WATERLOO
REPORT OF THE DEAN OF SCIENCE TO SENATE
May 19, 2020

For information:

A. *APPOINTMENTS*

Definite Term – Full-Time

DELANEY, Keith, Lecturer, Department of Earth and Environmental Sciences, April 30, 2020 to October 31, 2020. [B.A. Honours, Geography, University of Guelph (2003); MES, Geography, Wilfrid Laurier University (2006); Ph.D., Earth and Environmental Sciences, University of Waterloo (2014).]

REZANEZHAD, Fereidoun, Research Associate Professor, Department of Earth and Environmental Sciences, January 1, 2020 to December 31, 2024. [B.Sc., Physics, University of Tabriz, Iran (1998); M.Sc., Physics, University of Zahedan, Iran (2000); Ph.D., Soil and Environmental Physics, University of Heidelberg, Germany (2007).]

WOO, Lisa, Clinical Lecturer, School of Optometry and Vision Science, September 1, 2020 to August 30, 2022. [BA, Microbiology, University of Texas at Austin (1996); OD, University of Houston (2000).]

Adjunct Appointments

Graduate Instruction/Graduate Supervision

TORNERO-VELEZ, Rogelio (Mike), Assistant Professor, School of Pharmacy, March 1, 2020 to February 28, 2023.

Adjunct Reappointments

Undergraduate Instruction

AHMAD, Jauher, Assistant Clinical Professor, School of Pharmacy, March 1, 2020 to December 31, 2020.

Graduate Instruction/Graduate Supervision

NEWMAN, Amy, Associate Professor, School of Pharmacy, January 1, 2020 to December 31, 2022.

Graduate Supervision and Research

CRAIG, Jennifer, Associate Professor, School of Optometry and Vision Science, April 1, 2020 to March 31, 2023.

SCHNETTER, Eric, Assistant Professor, Department of Physics and Astronomy, April 1, 2020 to September 1, 2024.

Cross Reappointment

AUCOIN, Marc, Professor, Department of Chemical Engineering, cross appointed to School of Pharmacy, April 1, 2020 to March 31, 2023.

MOSCA, Michele, Professor, Combinatorics and Optimization, cross appointed to Department of Physics and Astronomy, April 1, 2020 to December 31, 2023.

Special Appointments
Undergraduate Instruction

EL-SHATSHAT, Amna, Lecturer, School of Pharmacy, May 1, 2020 to August 31, 2020.

WAKED, Khrystine, Lecturer, School of Pharmacy, May 1, 2020 to August 31, 2020.

Special Reappointments
Undergraduate Instruction

FERNANDEZ, Heidi, Lecturer, School of Pharmacy, May 1, 2020 to August 31, 2020.

McARTHUR, Robyn, Lecturer, School of Pharmacy, May 1, 2020 to August 31, 2020.

Changes in Appointment

CHOI, Kyung-Soo, Assistant Professor, Department of Physics and Astronomy, second probationary appointment extended one year (Covid-19). New end date June 30, 2022.

HOULE, Sherilyn, Clinical Assistant Professor, second probationary period extended two years (Covid 19 and parental leave). New end date June 30, 2023.

HUG, Laura, Assistant Professor, Department of Biology, second probationary period extended two years (Covid-19 and parental leave). New end date June 30, 2024.

SPAFFORD, Marlee, Associate Dean Undergraduate, Faculty of Science, end date of administrative appointment changed to August 31, 2020.

B. ***ADMINISTRATIVE APPOINTMENT***

BARRA, Monica, Associate Dean Undergraduate Studies, Faculty of Science, September 1, 2020 to August 31, 2023.

EDGINTON, Andrea, Hallman Director of Pharmacy and Associate Dean of Science for Pharmacy, School of Pharmacy, January 1, 2021 to December 31, 2024.

ADMINISTRATIVE REAPPOINTMENT

McKENZIE, Ian, Director, Aviation Program (Geography and Science) appointment joint between Faculty of Environment and Faculty of Science, July 1, 2020 to June 30, 2021.

FOR APPROVAL BY THE BOARD OF GOVERNORS

C. ***SABBATICAL LEAVE***

MacIVER, Sarah, Associate Clinical Professor, School of Optometry and Vision Science, special early sabbatical, July 1, 2020 to December 31, 2020, 100% salary arrangement.

SPAFFORD, Marlee, Professor, School of Optometry and Vision Science, September 1, 2020 to April 30, 2023, 100% salary arrangement.

STANBERRY, Andre, Associate Clinical Professor, School of Optometry and Vision Science, special early sabbatical, July 1, 2020 to December 31, 2020, 100% salary arrangement.

SABBATICAL LEAVE CANCELLATION

CHEN, Jeff, sabbatical leave scheduled for May 1, 2020 to April 30, 2021 has been cancelled.

R.P. Lemieux
Dean

University of Waterloo
SENATE GRADUATE & RESEARCH COUNCIL
Report to Senate
19 May 2020

Senate Graduate & Research Council met on 13 April 2020 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 the addition of a "Work and Health" graduate research field to the School of Public Health and Health Systems field option for both MSc and PhD students, effective 1 September 2020, as presented in Attachment 1.

   Rationale: The School of Public Health and Health Systems introduced six fields to their thesis-based MSc and PhD programs last year. These fields represent a concentration of courses and milestone work in specific areas that represent an emphasis within the broader degree - Public Health & Health Systems. They now propose a seventh field: Work and Health. This is an area that several Faculty members work in. Moreover, with the inactivation of the AHS Collaborative PhD in Work and Health, which is in progress, this provides a new option to recognize the emphasis. The Field includes existing courses.

Faculty of Arts

1. **Motion:** To approve the addition of a graduate research field in Peace Integration within the Master of Arts in Global Governance, effective 1 September 2020, as presented in Attachment 2.

   Rationale: The increasing complexity of global conflict requires sophisticated responses from a new generation of graduates working for peace. The proposed Graduate Research Field in Peace Integration will provide students with the opportunity to enroll in world class, interdisciplinary academic courses offered by programs highlighting holistic and integrated approaches to the study of peace that encapsulates more than simply the absence of violent conflict. Moreover, the Graduate Research Field will enhance the University's reputation as an innovative leader in transformative, graduate-level teaching and research focusing on the advancement of global peace and international change through educating, training, and developing a future generation of peace-builders.

   The Graduate Research Field in Peace Integration is distinctive in that it will go beyond traditional disciplines that study peace, such as Peace and Conflict Studies and International Relations, by integrating knowledge from complementary programs, specifically Global Governance, Climate Change, Development Practice and Public Health and Health Systems. To earn the Graduate Research Field, students will be required to take a core course from the home program, plus three other courses from a menu of existing, peace-related offerings from the other complementary programs. In order to ensure an interdisciplinary experience, students will have to take at least one course each from three of the five participating programs.

   The primary benefit to students will be the integration of knowledge from five different masters programs. Much of what we are proposing with the Graduate Research Field in Peace Integration is a further formalization of existing bilateral collaboration that is already taking place among the participating programs. Indeed, many of the courses that will be part of the Graduate Research Field are already cross-listed among the programs.

   All five of the participating programs have been involved in the development of the proposal and are keen to see it come to fruition.

2. **Motion:** To approve the addition of a graduate specialization in Peace Integration within the Master of Peace and Conflict Studies, effective 1 September 2020, as presented in Attachment 3.

   Rationale: The same rationale presented immediately above applies to the proposed addition of the graduate specialization in Peace Integration.

/*kw*

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

Charmaine Dean
Vice President, Research & International

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 and Postdoctoral Affairs (GSPA).

Faculty: Applied Health Sciences

Program: Master of Science (MSc) in Public Health and Health Systems

Program contact name(s): Ellen MacEachen, Brian Alan Mills

Form completed by: Daniel Rodgers, Ellen MacEachen

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).

Updating the MSc degree requirements to include a "Work and Health" graduate research field. Updating some course titles to reflect previous revisions made to the course catalog.

Is this a major modification to the program? Yes

Rationale for change(s):

Since SPHHS Fields were established, new courses have been added to the SPHHS curriculum (HLTH 628, HLTH 639 Spring Evaluation), making a Work and Health field possible. Additionally, the Work and Health Field would complement build on our faculty-level Work and Health PhD degree.

Proposed effective date: Term: Fall Year: 2020

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

Please include link here. https://uwaterloo.ca/graduate-studies-academic-calendar/applied-health-sciences/school-public-health-and-health-systems/master-science-msc-public-health-and-health-systems

Current Graduate Studies Academic Calendar content:	**Proposed Graduate Studies Academic Calendar content**:
Graduate research fields • Epidemiology and Biostatistics • Health Evaluation • Health Informatics • Health and Environment • Global Health • Aging and Health **Program information** • Admit term(s) o Fall	**Graduate research fields** • Epidemiology and Biostatistics • Health Evaluation • Health Informatics • Health and Environment • Global Health • Aging and Health • Work and Health **Program information** • Admit term(s)

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

• Delivery mode
  o On-campus
• Program type
  o Master's
  o Research
• Registration option(s)
  o Full-time
  o Part-time
• Study option(s)
  o Thesis
 	
Admission requirements
• Minimum requirements
  o 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 the biological sciences, behavioural health, health, public health, or social sciences.
  o Undergraduate experience including coursework in one or more of the behavioural, biological, developmental, health, or social sciences is advantageous, given the multidisciplinary nature of the program. Students should also have a suitable background in research design and statistics to meet prerequisite standards for all graduate level courses.
  o Students may be allowed to transfer into the PhD program directly from the SPHHS Master's programs. Such students must have completed all Master's coursework requirements, have demonstrated a superior academic record, and have evidence of prior research achievements (e.g., adjudicated research report, significant documented contribution as a co-author to a peer-reviewed publication, first author peer-reviewed publication).
• Application materials
  o Curriculum vitae
  o Supplementary information form
  ▪ Indicating reasons for pursuing graduate studies (e.g., discuss how a graduate degree maps onto your career plans) and outlining research
  ▪ Students must submit a copy of previous academic work, such as a publication, term paper, or Honours thesis written during
	o Fall
	• Delivery mode
	  o On-campus
	• Program type
	  o Master's
	  o Research
	• Registration option(s)
	  o Full-time
	  o Part-time
	• Study option(s)
	  o Thesis
	
	Admission requirements
	• Minimum requirements
	  o 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 the biological sciences, behavioural health, health, public health, or social sciences.
	  o Undergraduate experience including coursework in one or more of the behavioural, biological, developmental, health, or social sciences is advantageous, given the multidisciplinary nature of the program. Students should also have a suitable background in research design and statistics to meet prerequisite standards for all graduate level courses.
	  o Students may be allowed to transfer into the PhD program directly from the SPHHS Master's programs. Such students must have completed all Master's coursework requirements, have demonstrated a superior academic record, and have evidence of prior research achievements (e.g., adjudicated research report, significant documented contribution as a co-author to a peer-reviewed publication, first author peer-reviewed publication).
	• Application materials
	  o Curriculum vitae
	  o Supplementary information form
	  ▪ Indicating reasons for pursuing graduate studies (e.g., discuss how a graduate degree maps onto your career plans) and outlining research
	  ▪ Students must submit a copy of previous academic work, such as a publication, term paper, or

Current Graduate Studies Academic Calendar content:	**Proposed Graduate Studies Academic Calendar content**:
the last two years of their undergraduate education. • References o Number of references: 2 o Type of references: preferably from faculty members • English language proficiency (ELP) (if applicable) **Degree requirements** Thesis option: ▪ Graduate Academic Integrity Module (Graduate AIM) ▪ Courses o The normal minimum requirement will be 5 one-term (0.50 unit weight) graduate courses (3 required and 2 free electives or approved equivalents): ▪ Required courses: • HLTH 601 Lifespan ~~Approaches to Disease Prevention and Health Promotion~~ ▪ 2 of the following: • HLTH 605 Regression Models (or equivalent) or HLTH 705 Advanced Statistical Methods for Analyzing Public Health and Health Systems Data* • ~~AHS 600 Foundations of Qualitative Research Methodologies~~ (or equivalent) or HLTH 704 Advanced Qualitative Methods for Health Research* • HLTH 606 Epidemiological Methods (or equivalent) or HLTH 706 Advanced Epidemiological Methods* • HLTH 619 Fundamental Research Methods in Health Informatics (or equivalent) or HLTH 719 Advanced Research Methods in Health Informatics* ▪ Elective courses: • 2 free elective courses, selected in consultation	Honours thesis written during the last two years of their undergraduate education. • References o Number of references: 2 o Type of references: preferably from faculty members • English language proficiency (ELP) (if applicable) **Degree requirements** Thesis option: ▪ Graduate Academic Integrity Module (Graduate AIM) ▪ Courses o The normal minimum requirement will be 5 one-term (0.50 unit weight) graduate courses (3 required and 2 free electives or approved equivalents): ▪ Required courses: • HLTH 601 Lifespan <u>Determinants of Health and Disease</u> ▪ 2 of the following: • HLTH 605 Regression Models (or equivalent) or HLTH 705 Advanced Statistical Methods for Analyzing Public Health and Health Systems Data* • <u>HLTH 625 Foundations of Qualitative Research Methodologies</u> (or equivalent) or HLTH 704 Advanced Qualitative Methods for Health Research* • HLTH 606<u>A</u> Epidemiological Methods (or equivalent) or HLTH 706 Advanced Epidemiological Methods* • HLTH 619 Fundamental Research Methods in Health Informatics (or equivalent) or HLTH 719 Advanced Research Methods in Health Informatics* ▪ Elective courses: • 2 free elective courses, selected in consultation

Current Graduate Studies Academic Calendar content:	**Proposed Graduate Studies Academic Calendar content**:
with the supervisor (may include courses outside SPHHS, or any courses offered by SPHHS, including additional courses from the required list, online courses, etc.) • *It is highly recommended that MSc students with a strong background or previous training in one of these areas take the 700-level equivalent in place of the 600-level course requirement (e.g., those with a strong statistical background may opt to take HLTH 705). Such decisions should be made in collaboration with the supervisor. 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. Students in the MSc in Public Health and Health Systems program may also wish to pursue one of the following Graduate Research Fields: 1. Epidemiology and Biostatistics 2. Health Evaluation 3. Health Informatics 4. Health and Environment 5. Global Health 6. Aging and Health A Graduate Research Field is a University credential that is recognized on the student's transcript and is intended to reflect that a student has successfully completed research and a set of courses that together provide an in-depth study in the area of the Graduate	with the supervisor (may include courses outside SPHHS, or any courses offered by SPHHS, including additional courses from the required list, online courses, etc.) • *It is highly recommended that MSc students with a strong background or previous training in one of these areas take the 700-level equivalent in place of the 600-level course requirement (e.g., those with a strong statistical background may opt to take HLTH 705). Such decisions should be made in collaboration with the supervisor. 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. Students in the MSc in Public Health and Health Systems program may also wish to pursue one of the following Graduate Research Fields: 1. Epidemiology and Biostatistics 2. Health Evaluation 3. Health Informatics 4. Health and Environment 5. Global Health 6. Aging and Health 7. <u>Work and Health</u> A Graduate Research Field is a University credential that is recognized on the student's transcript and is intended to reflect that a student has successfully completed research and a set of courses that together

Current Graduate Studies Academic Calendar content:	**Proposed Graduate Studies Academic Calendar content**:
Research Field. A student will only obtain the Graduate Research Field on their transcript if they have completed the requirements associated with the MSc degree and the requirements associated with the Graduate Research Field. All MSc Graduate Research Fields in the SPHHS consist of Graduate Studies Seminars I and II, a Master's Thesis that is confirmed by the SPHHS to be in the chosen Graduate Research Field, and a set of 5 graduate (0.50 weight) level courses. This set of courses is comprised of a mix of required and elective courses. Required courses are those that are prescribed as part of the Graduate Research Field. Elective courses are those that are on a list of courses designated as electives for a given Graduate Research Field. For any of the Graduate Research Fields below, a directed studies course (HLTH 620 or HLTH 720) focused on the Graduate Research Field may replace a required or elective course, with the approval of the Associate Director, Research Graduate Program, School of Public Health and Health Systems. The course requirements for each of the Graduate Research Fields are described below. *1.Graduate Research Field in Epidemiology and Biostatistics* Students must successfully complete 3 required courses and 2 elective courses. An assessment of whether or not the student's thesis warrants the Epidemiology and Biostatistics Graduate Research Field designation will be completed by the SPHHS. Required courses: ▪ HLTH 601 Lifespan ~~Approaches to Disease Prevention and Health Promotion~~ ▪ HLTH 605A Regression ~~Methods~~ ▪ HLTH 606A Epidemiological Methods Elective courses: select 2 from the following list: ▪ HLTH 634 Environmental Epidemiology ▪ HLTH 672 Epidemiological Methods in Aging ▪ HLTH 705 Advanced Statistical Methods for Analyzing ~~PHHS~~ Data ▪ HLTH 706 Advanced Epidemiological Methods *2.Graduate Research Field in Health Evaluation* Students must successfully complete 2 required courses and 3 elective courses. An assessment of	provide an in-depth study in the area of the Graduate Research Field. A student will only obtain the Graduate Research Field on their transcript if they have completed the requirements associated with the MSc degree and the requirements associated with the Graduate Research Field. All MSc Graduate Research Fields in the SPHHS consist of Graduate Studies Seminars I and II, a Master's Thesis that is confirmed by the SPHHS to be in the chosen Graduate Research Field, and a set of 5 graduate (0.50 weight) level courses. This set of courses is comprised of a mix of required and elective courses. Required courses are those that are prescribed as part of the Graduate Research Field. Elective courses are those that are on a list of courses designated as electives for a given Graduate Research Field. For any of the Graduate Research Fields below, a directed studies course (HLTH 620 or HLTH 720) focused on the Graduate Research Field may replace a required or elective course, with the approval of the Associate Director, Research Graduate Program, School of Public Health and Health Systems. The course requirements for each of the Graduate Research Fields are described below. *1.Graduate Research Field in Epidemiology and Biostatistics* Students must successfully complete 3 required courses and 2 elective courses. An assessment of whether or not the student's thesis warrants the Epidemiology and Biostatistics Graduate Research Field designation will be completed by the SPHHS. Required courses: ▪ HLTH 601 Lifespan <u>Determinants of Health and Disease</u> ▪ HLTH 605A Regression <u>Models</u> ▪ HLTH 606A Epidemiological Methods Elective courses: select 2 from the following list: ▪ HLTH 634 Environmental Epidemiology <u>for Public Health</u> ▪ HLTH 672 Epidemiological Methods in Aging <u>Research</u> ▪ HLTH 705 Advanced Statistical Methods for Analyzing <u>Public Health and Health Systems</u> Data ▪ HLTH 706 Advanced Epidemiological Methods *2.Graduate Research Field in Health Evaluation*

Current Graduate Studies Academic Calendar content:	**Proposed Graduate Studies Academic Calendar content**:
whether or not the student's thesis warrants the *Health Evaluation* Graduate Research Field designation will be completed by the SPHHS. Required courses: ▪ HLTH 601 Lifespan ~~Approaches to Disease Prevention and Health Promotion~~ ▪ HLTH 655 Health Measurement and Survey Methods Elective courses: Select 1 from the following list: ▪ HLTH 605A Regression ~~Methods~~ or HLTH 656 Quantitative Methods and Analysis ▪ HLTH 625 Foundations of Qualitative Research Methodologies or HLTH 652 Qualitative Methods and Analysis Select 1 or 2 from the following list: ▪ HLTH 614 Foundations of Program Evaluation ▪ HLTH 651 Theory and Applications in Program Evaluation ▪ HLTH 653 Evaluation Practice and Management ▪ HLTH 654 Systems Thinking and Analysis in Health Program Planning and Evaluation Select 1 from the following list, if only 1 course was selected from the category above: ▪ HLTH 603 Health Policy ▪ HLTH 626 Analysis and Management of Health Information ▪ HLTH ~~620~~ Experiential Learning in Evaluation *3.Graduate Research Field in Health Informatics* Students must successfully complete 2 required courses and 3 elective courses. An assessment of whether or not the student's thesis warrants the *Health Informatics* Graduate Research Field designation will be completed by the SPHHS. Required courses: ▪ HLTH 601 Lifespan ~~Approaches to Disease Prevention and Health Promotion~~ ▪ HLTH 619 Fundamental Research Methods in Health Informatics Elective courses: Select 1 from the following list:	Students must successfully complete 2 required courses and 3 elective courses. An assessment of whether or not the student's thesis warrants the *Health Evaluation* Graduate Research Field designation will be completed by the SPHHS. Required courses: ▪ HLTH 601 Lifespan <u>Determinants of Health and Disease</u> ▪ HLTH 655 Health Measurement and Survey Methods Elective courses: Select 1 from the following list: ▪ HLTH 605A Regression <u>Models</u> or HLTH 656 Quantitative Methods and Analysis ▪ HLTH 625 Foundations of Qualitative Research Methodologies or HLTH 652 Qualitative Methods and Analysis Select 1 or 2 from the following list: ▪ HLTH 614 Foundations of Program Evaluation ▪ HLTH 651 Theory and Applications in Program Evaluation ▪ HLTH 653 Evaluation Practice and Management ▪ HLTH 654 Systems Thinking and Analysis in Health Program Planning and Evaluation Select 1 from the following list, if only 1 course was selected from the category above: ▪ HLTH 603 Health <u>Systems and</u> Policy ▪ HLTH 626 Analysis and Management of Health Information <u>in Aging Populations</u> ▪ HLTH <u>639</u> Experiential Learning in Evaluation *3.Graduate Research Field in Health Informatics* Students must successfully complete 2 required courses and 3 elective courses. An assessment of whether or not the student's thesis warrants the *Health Informatics* Graduate Research Field designation will be completed by the SPHHS. Required courses: ▪ HLTH 601 Lifespan <u>Determinants of Health and Disease</u> ▪ HLTH 619 Fundamental Research Methods in Health Informatics

Current Graduate Studies Academic Calendar content:	**Proposed Graduate Studies Academic Calendar content**:
▪ HLTH 605A Regression ~~Methods~~ OR HLTH 705 Advanced Statistical Methods for Analyzing Public Health and Health Systems Data ▪ HLTH 625 Foundations of Qualitative Research Methodologies or HLTH 652 Qualitative Methods and Analysis or HLTH 704 Advanced Qualitative Methods for Health Research ▪ HLTH 606A Epidemiological Methods or HLTH 706 Advanced Epidemiological Methods Select 1 from the following list: ▪ HLTH 633 Digital Health ▪ HLTH 629 Information Visualization ▪ HLTH 626 Analysis and Management of Health Information in Aging Populations ▪ HLTH 615 Requirements Specification and Analysis in Health Systems ▪ HLTH 616 Decision Making and Systems Thinking in Health Informatics ▪ HLTH 637 Public Health Informatics Select 1 from the following list: ▪ COGSCI 600 Cognitive Science ▪ SYDE 642 Cognitive Engineering Methods ▪ SYDE 644 Human Factors Testing ▪ CS 634 Security and Privacy for Health Systems ▪ CS 792 Data Structures and Standards in Health Informatics *4.Graduate Research Field in Health and Environment* Students must successfully complete 2 required courses and 3 elective courses. An assessment of whether or not the student's thesis warrants the *Health and Environment* Graduate Research Field designation will be completed by the SPHHS. Required courses: ▪ HLTH 601 Lifespan ~~Approaches to Disease Prevention and Health Promotion~~ ▪ HLTH 604 Public Health and the Environment Elective courses: Select 2 from the following list: ▪ HLTH 606A Epidemiological Methods	Elective courses: Select 1 from the following list: ▪ HLTH 605A Regression <u>Models</u> OR HLTH 705 Advanced Statistical Methods for Analyzing Public Health and Health Systems Data ▪ HLTH 625 Foundations of Qualitative Research Methodologies or HLTH 652 Qualitative Methods and Analysis or HLTH 704 Advanced Qualitative Methods for Health Research ▪ HLTH 606A Epidemiological Methods or HLTH 706 Advanced Epidemiological Methods Select 1 from the following list: ▪ HLTH 633 Digital Health ▪ HLTH 629 Information Visualization ▪ HLTH 626 Analysis and Management of Health Information in Aging Populations ▪ HLTH 615 Requirements Specification and Analysis in Health Systems ▪ HLTH 616 Decision Making and Systems Thinking in Health Informatics ▪ HLTH 637 Public Health Informatics Select 1 from the following list: ▪ COGSCI 600 <u>Seminar in</u> Cognitive Science ▪ SYDE 642 Cognitive Engineering Methods ▪ SYDE 644 Human Factors Testing ▪ CS 634 Security and Privacy for Health Systems ▪ CS 792 Data Structures and Standards in Health Informatics *4.Graduate Research Field in Health and Environment* Students must successfully complete 2 required courses and 3 elective courses. An assessment of whether or not the student's thesis warrants the *Health and Environment* Graduate Research Field designation will be completed by the SPHHS. Required courses: ▪ HLTH 601 Lifespan <u>Determinants of Health and Disease</u> ▪ HLTH 604 Public Health and the Environment Elective courses: Select 2 from the following list:

Current Graduate Studies Academic Calendar content:	**Proposed Graduate Studies Academic Calendar content**:
▪ HLTH 605A Regression ~~Methods~~ or HLTH 656 Quantitative Methods and Analysis ▪ HLTH 625 Foundations of Qualitative Research Methodologies or HLTH 652 Qualitative Methods and Analysis Select 1 from the following list: ▪ HLTH 623 Risk and Exposure Assessment in Public Health ▪ HLTH 624 Environmental Toxicology in Public Health ▪ HLTH 634 Environmental Epidemiology ▪ HLTH 631 Public Health Surveillance ▪ HLTH 661 ~~GIS~~ and Public Health ▪ HLTH 662 Global Health *5.Graduate Research Field in Global Health* Students must successfully complete 2 required courses and 3 elective courses. An assessment of whether or not the student's thesis warrants the *Global Health* Graduate Research Field designation will be completed by the SPHHS. Required courses: ▪ HLTH 601 Lifespan ~~Approaches to Disease Prevention and Health Promotion~~ ▪ HLTH 662 Global Health Elective courses: Select 2 from the following list: ▪ HLTH 605A Regression ▪ HLTH 606A Epidemiological Methods ▪ HLTH 625 Foundations of Qualitative Research Methodologies or HLTH 652 Qualitative Methods and Analysis ▪ HLTH 619 Fundamental Research Methods in Health Informatics Select 1 from the following list (these courses are global-health focused in all examples and assignments): ▪ HLTH 632 Health Economics and Public Health ▪ HLTH 654 Systems Thinking and Analysis in Health Program Planning and Evaluation *6.Graduate Research Field in Aging and Health*	▪ HLTH 606A Epidemiological Methods ▪ HLTH 605A Regression <u>Models</u> or HLTH 656 Quantitative Methods and Analysis ▪ HLTH 625 Foundations of Qualitative Research Methodologies or HLTH 652 Qualitative Methods and Analysis Select 1 from the following list: ▪ HLTH 623 Risk and Exposure Assessment in Public Health ▪ HLTH 624 Environmental Toxicology in Public Health ▪ HLTH 634 Environmental Epidemiology <u>for Public Health</u> ▪ HLTH 631 Public Health Surveillance ▪ HLTH 661 <u>Geographic Information Systems</u> and Public Health ▪ HLTH 662 Global Health *5.Graduate Research Field in Global Health* Students must successfully complete 2 required courses and 3 elective courses. An assessment of whether or not the student's thesis warrants the *Global Health* Graduate Research Field designation will be completed by the SPHHS. Required courses: ▪ HLTH 601 Lifespan <u>Determinants of Health and Disease</u> ▪ HLTH 662 Global Health Elective courses: Select 2 from the following list: ▪ HLTH 605A Regression <u>Models</u> ▪ HLTH 606A Epidemiological Methods ▪ HLTH 625 Foundations of Qualitative Research Methodologies or HLTH 652 Qualitative Methods and Analysis ▪ HLTH 619 Fundamental Research Methods in Health Informatics Select 1 from the following list (these courses are global-health focused in all examples and assignments): ▪ HLTH 632 Health Economics and Public Health ▪ HLTH 654 Systems Thinking and Analysis in Health Program Planning and Evaluation

Current Graduate Studies Academic Calendar content:	**Proposed Graduate Studies Academic Calendar content**:
Students must successfully complete 1 required course and 4 elective courses. An assessment of whether or not the student's thesis warrants the *Aging and Health* Graduate Research Field designation will be completed by the SPHHS. Required course: ▪ HLTH 601 Lifespan ~~Approaches to Disease Prevention and Health Promotion~~ Elective courses: Select 2 from the following list: ▪ HLTH 625 Foundations of Qualitative Research Methodologies or HLTH 652 Qualitative Methods and Analysis ▪ HLTH 672 Epidemiologic Methods in Aging Research ▪ HLTH 605A Regression ▪ HLTH 606A Epidemiological Methods ▪ HLTH 619 Fundamental Research Methods in Health Informatics Select 2 from the following list: ▪ HLTH 642 Interdisciplinary Perspectives on Aging ▪ HLTH 627 Dementia Care ▪ HLTH 630 Geriatric Medicine ▪ HLTH 626 Analysis Management of Health Informatics in Aging Population ▪ Link(s) to courses o Health Studies (HLTH) courses o Graduate course search ▪ Academic Integrity Workshop ▪ Graduate Studies Seminar I o The Fall term segment of the seminar will provide a weekly opportunity for MSc students in their first term of study to attend research seminars led by SPHHS faculty members and senior graduate students. In addition, opportunities will be arranged for students to participate in workshops relating to research methods, presentation skills, grantsmanship, or to attend guest lectures delivered by scholars from outside SPHHS. ▪ Graduate Studies Seminar II o The Winter term segment of the seminar will provide a weekly	*6.Graduate Research Field in Aging and Health* Students must successfully complete 1 required course and 4 elective courses. An assessment of whether or not the student's thesis warrants the *Aging and Health* Graduate Research Field designation will be completed by the SPHHS. Required course: ▪ HLTH 601 Lifespan <u>Determinants of Health and Disease</u> Elective courses: Select 2 from the following list: ▪ HLTH 625 Foundations of Qualitative Research Methodologies or HLTH 652 Qualitative Methods and Analysis ▪ HLTH 672 Epidemiologic Methods in Aging Research ▪ HLTH 605A Regression <u>Models</u> ▪ HLTH 606A Epidemiological Methods ▪ HLTH 619 Fundamental Research Methods in Health Informatics Select 2 from the following list: ▪ HLTH 642 Interdisciplinary Perspectives on Aging ▪ HLTH 627 <u>Advanced</u> Dementia Care ▪ HLTH 630 <u>Advanced</u> Geriatric Medicine <u>and Healthcare</u> ▪ HLTH 626 Analysis Management of Health Informatics in Aging Population <u>*7.Graduate Research Field in Work and Health*</u> <u>Students must successfully complete 2 required courses and 3 elective courses. An assessment of whether or not the student's thesis warrants the Work and Health Research Field designation will be completed by the SPHHS.</u> <u>Required courses:</u> • <u>HLTH 601 Lifespan Determinants of Health and Disease</u> • <u>HLTH 628 What is Fair? International Perspectives On Equity In Work and Health</u> <u>Elective courses:</u> <u>Select 2 from the following list:</u>

Current Graduate Studies Academic Calendar content:	**Proposed Graduate Studies Academic Calendar content**:
opportunity for MSc students in their second term of study to participate in a journal club led by members of their cohort. Each student will be responsible for selecting one article, providing an electronic copy to the instructors to allow for placement on the course website, and then leading discussion around the article's purpose, content, strengths, and limitations. In addition, students will be expected to read through the articles chosen by their colleagues, and actively participate in the discussion held each week. ▪ Master's Thesis o For the Master's thesis, an approved topic is required and will be defended in an oral examination. The MSc thesis committee consists of a minimum of three faculty and includes the student's supervisor, appointed in the School, and at least one other member of the School of Public Health and Health Systems faculty. One committee member may be from outside the School (whether from within the university or from another university). The composition of the Thesis Advisory Committee must be approved by the School's Graduate Committee.	• HLTH 605A Regression Models • HLTH 606A Epidemiological Methods • HLTH 625 Foundations of Qualitative Research Methodologies or HLTH 652 Qualitative Methods and Analysis • HLTH 619 Fundamental Research Methods in Health Informatics Select 1 from the following list: • HLTH 623 Risk and Exposure Assessment in Public Health • HLTH 614 Foundations of Program Evaluation • HLTH 639 Experiential Learning in Evaluation • HLTH 654 Systems Thinking and Analysis In Health Program Planning and Evaluation ▪ Link(s) to courses ▪ Health Studies (HLTH) courses ▪ Graduate course search ▪ Academic Integrity Workshop ▪ Graduate Studies Seminar I o The Fall term segment of the seminar will provide a weekly opportunity for MSc students in their first term of study to attend research seminars led by SPHHS faculty members and senior graduate students. In addition, opportunities will be arranged for students to participate in workshops relating to research methods, presentation skills, grantsmanship, or to attend guest lectures delivered by scholars from outside SPHHS. ▪ Graduate Studies Seminar II o The Winter term segment of the seminar will provide a weekly opportunity for MSc students in their second term of study to participate in a journal club led by members of their cohort. Each student will be responsible for selecting one article, providing an electronic copy to the instructors to allow for placement on the course website, and then leading discussion around the article's purpose, content, strengths, and limitations. In addition, students will be expected to read through the articles chosen by their colleagues, and actively participate in the discussion held each week.

Current Graduate Studies Academic Calendar content:	**Proposed Graduate Studies Academic Calendar content**:
	▪ Master's Thesis o For the Master's thesis, an approved topic is required and will be defended in an oral examination. The MSc thesis committee consists of a minimum of three faculty and includes the student's supervisor, appointed in the School, and at least one other member of the School of Public Health and Health Systems faculty. One committee member may be from outside the School (whether from within the university or from another university). The composition of the Thesis Advisory Committee must be approved by the School's Graduate Committee.

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

Students who are already in the program will have the option to declare these Graduate Research Fields before graduation, if they have taken the required courses.

Department/School approval date (mm/dd/yy): 09/20/19

Reviewed by GSPA (for GSPA use only) ☒ date (mm/dd/yy): 04/02/2020
Faculty approval date (mm/dd/yy):
Senate Graduate & Research Council (SGRC) approval date (mm/dd/yy):
Senate approval date (mm/dd/yy) (if applicable):

Graduate Studies
Program Revision Template

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

Faculty: Applied Health Sciences

Program: Doctor of Philosophy (PhD) in Public Health and Health Systems

Program contact name(s): Ellen MacEachen, Brian Alan Mills

Form completed by: Daniel Rodgers, Ellen MacEachen

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).

Updating the PhD degree requirements to include a "Work and Health" graduate research field. Updating some course titles to reflect previous revisions made to the course catalog.

Is this a major modification to the program? Yes

Rationale for change(s):

Since SPHHS Fields were established, new courses have been added to the SPHHS curriculum (HLTH 628, HLTH 639), making a Work and Health field possible. Additionally, the Work and Health Field would complement build on our faculty-level Work and Health PhD degree.

Proposed effective date: Term: Fall Year: 2020

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

Please include link here. https://uwaterloo.ca/graduate-studies-academic-calendar/applied-health-sciences/school-public-health-and-health-systems/doctor-philosophy-phd-public-health-and-health-systems

Current Graduate Studies Academic Calendar content:	**Proposed Graduate Studies Academic Calendar content**:
Graduate research fields • Epidemiology and Biostatistics • Health Evaluation • Health Informatics • Health and Environment • Global Health • Aging and Health **Program information**	**Graduate research fields** • Epidemiology and Biostatistics • Health Evaluation • Health Informatics • Health and Environment • Global Health • Aging and Health • Work and Health **Program information**

Current Graduate Studies Academic Calendar content:	**Proposed Graduate Studies Academic Calendar content**:
• Admit term(s) o Fall • Delivery mode o On-campus • Program type o Doctoral o Research • Registration option(s) o Full-time o Part-time • Study option(s) o Thesis **Admission requirements** • Minimum requirements o Students applying to the program should have completed a Master's degree (or its equivalent) with content related to ongoing faculty research in areas such as health, public health, health systems, gerontology, health informatics, global health, occupational health, and evaluation. o A minimum 75% average in Master's level coursework. o Completion of a Master's degree and evidence of prior research achievements (e.g., Master's thesis, first author peer-reviewed publication, adjudicated research report). o Before applying to the program, students are strongly advised to establish contact with potential supervisors. o Students may be allowed to transfer into the PhD program directly from the SPHHS Master's programs. Such students must have completed all Master's coursework requirements, have demonstrated a superior academic record, and have evidence of prior research achievements (e.g., adjudicated research report, significant documented contribution as a co-author to a peer-reviewed publication, first author peer-reviewed publication). o Students are sometimes accepted for direct admission to the PhD in the SPHHS program if they have an Honours Bachelor of Science degree or the equivalent and have exceptional academic and research performance, including evidence of prior research achievements (e.g., adjudicated	• Admit term(s) o Fall • Delivery mode o On-campus • Program type o Doctoral o Research • Registration option(s) o Full-time o Part-time • Study option(s) o Thesis **Admission requirements** • Minimum requirements o Students applying to the program should have completed a Master's degree (or its equivalent) with content related to ongoing faculty research in areas such as health, public health, health systems, gerontology, health informatics, global health, occupational health, and evaluation. o A minimum 75% average in Master's level coursework. o Completion of a Master's degree and evidence of prior research achievements (e.g., Master's thesis, first author peer-reviewed publication, adjudicated research report). o Before applying to the program, students are strongly advised to establish contact with potential supervisors. o Students may be allowed to transfer into the PhD program directly from the SPHHS Master's programs. Such students must have completed all Master's coursework requirements, have demonstrated a superior academic record, and have evidence of prior research achievements (e.g., adjudicated research report, significant documented contribution as a co-author to a peer-reviewed publication, first author peer-reviewed publication). o Students are sometimes accepted for direct admission to the PhD in the SPHHS program if they have an Honours Bachelor of Science degree or the equivalent and have exceptional academic and research performance, including evidence of prior research

Current Graduate Studies Academic Calendar content:	**Proposed Graduate Studies Academic Calendar content**:
research report, significant documented contribution as a co-author to a peer-reviewed publication, first author peer-reviewed publication). Directly admitted students will be required to complete 9 (required and elective) graduate courses, graduate milestones and a doctoral thesis. • Application materials o Résumé/Curriculum vitae o Supplementary information form ▪ Indicating reasons for pursuing graduate studies (e.g., discuss how a graduate degree maps onto your career plans) and outlining research interests. o Transcript(s) o Writing sample ▪ Students must submit a copy of previous academic work, such as copies of preprints, reprints, or master's thesis, or other evidence of written scholarly work. • References o Number of references: 3 o Type of references: academic • English language proficiency (ELP) (if applicable) **Degree requirements** Thesis option: • Graduate Academic Integrity Module (Graduate AIM) • Courses o 9 one-term graduate courses beyond the Bachelor's degree, including at least 4 courses (2 required and 2 electives) beyond the Master's degree, is the normal minimum requirement. • Required courses (2) o HLTH 701 Interdisciplinary Seminar in Public Health and Health Systems • 1 of the following required methods courses: o HLTH 704 Advanced Qualitative Methods for Health Research o HLTH 705 Advanced Statistical Methods for Analyzing Public Health and Health Systems Data o HLTH 706 Advanced Epidemiological Methods o HLTH 719 Advanced Research Methods in Health Informatics	achievements (e.g., adjudicated research report, significant documented contribution as a co-author to a peer-reviewed publication, first author peer-reviewed publication). Directly admitted students will be required to complete 9 (required and elective) graduate courses, graduate milestones and a doctoral thesis. • Application materials o Résumé/Curriculum vitae o Supplementary information form ▪ Indicating reasons for pursuing graduate studies (e.g., discuss how a graduate degree maps onto your career plans) and outlining research interests. o Transcript(s) o Writing sample ▪ Students must submit a copy of previous academic work, such as copies of preprints, reprints, or master's thesis, or other evidence of written scholarly work. • References o Number of references: 3 o Type of references: academic • English language proficiency (ELP) (if applicable) **Degree requirements** Thesis option: • Graduate Academic Integrity Module (Graduate AIM) • Courses o 9 one-term graduate courses beyond the Bachelor's degree, including at least 4 courses (2 required and 2 electives) beyond the Master's degree, is the normal minimum requirement. • Required courses (2) o HLTH 701 Interdisciplinary Seminar in Public Health and Health Systems • 1 of the following required methods courses: o HLTH 704 Advanced Qualitative Methods for Health Research o HLTH 705 Advanced Statistical Methods for Analyzing Public Health and Health Systems Data o HLTH 706 Advanced Epidemiological Methods

Current Graduate Studies Academic Calendar content:	**Proposed Graduate Studies Academic Calendar content**:
• Elective courses (2) o 1 methods elective course at the 600-or 700-level, selected in consultation with the supervisor (may include courses outside the School of Public Health and Health Systems (SPHHS), or courses offered by SPHHS, including additional courses from the required course list. o 1 additional elective, selected in consultation with the supervisor. Students without a background in public health and health systems, and focusing in research areas other than Health Informatics, should take HLTH 601 Lifespan ~~Approaches to Disease Prevention and Health Promotion~~. Students focusing in Health Informatics may choose to take HLTH 611 The Health Care System or an equivalent course approved by the SPHHS Graduate Officer. • Plus other free electives as may be required o It is important to keep in mind that these are minimum requirements. Many students complete at least three courses within their area of research interest, which may require the addition of one or more extra courses to the minimum coursework requirement. • 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. Students in the SPHHS PhD program may also wish to pursue one of the following Graduate Research Fields: 1. Epidemiology and Biostatistics 2. Health Evaluation 3. Health Informatics 4. Health and Environment 5. Global Health 6. Aging and Health	o HLTH 719 Advanced Research Methods in Health Informatics • Elective courses (2) o 1 methods elective course at the 600-or 700-level, selected in consultation with the supervisor (may include courses outside the School of Public Health and Health Systems (SPHHS), or courses offered by SPHHS, including additional courses from the required course list. o 1 additional elective, selected in consultation with the supervisor. Students without a background in public health and health systems, and focusing in research areas other than Health Informatics, should take HLTH 601 Lifespan <u>Determinants of Health and Disease</u>. Students focusing in Health Informatics may choose to take HLTH 611 The Health Care System or an equivalent course approved by the SPHHS Graduate Officer. • Plus other free electives as may be required o It is important to keep in mind that these are minimum requirements. Many students complete at least three courses within their area of research interest, which may require the addition of one or more extra courses to the minimum coursework requirement. • 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. Students in the SPHHS PhD program may also wish to pursue one of the following Graduate Research Fields: 1. Epidemiology and Biostatistics 2. Health Evaluation 3. Health Informatics 4. Health and Environment 5. Global Health 6. Aging and Health 7. <u>Work and Health</u>

Current Graduate Studies Academic Calendar content:	**Proposed Graduate Studies Academic Calendar content**:
A Graduate Research Field is a University credential that is recognized on the student's transcript and is intended to reflect that a student has successfully completed research and a set of courses that together provide an in-depth study in the area of the Graduate Research Field. A student will only obtain the Graduate Research Field on their transcript if they have completed the requirements associated with the PhD degree and the requirements associated with the Graduate Research Field. All PhD Graduate Research Fields in the School of Public Health and Health Systems (SPHHS) consist of a Comprehensive Examination, a PhD Thesis that is confirmed by the SPHHS to be in the chosen Graduate Research Field, and a set of 4 graduate (0.50 weight) level courses. This set of courses is comprised of a mix of required and elective courses. Required courses are those that are prescribed as part of the Graduate Research Field. Elective courses are those that are on a list of courses designated as electives for a given Graduate Research Field. Students who have completed the MSc in SPHHS and obtained a Graduate Research Field can obtain the same or another Field or (by taking the applicable required/elective courses) as part of their PhD program. For any of the Graduate Research Fields below, a directed studies course (HLTH 620 or HLTH 720) focused on the Graduate Research Field or an appropriate alternate course may replace a required or elective course, with the approval of the Associate Director, Research Graduate Program, School of Public Health and Health Systems. The course requirements for the Graduate Research Fields are described below. 1. Graduate Research Field in Epidemiology and Biostatistics Students must successfully complete 3 required courses and 1 elective course. An assessment of whether or not the student's thesis warrants the Epidemiology and Biostatistics Graduate Research Field designation will be completed by the SPHHS. Required courses: • HLTH 701 Interdisciplinary Seminar in Public Health and Health Systems • HLTH 705 Advanced Statistical Methods for Analyzing ~~PHHS~~ Data	A Graduate Research Field is a University credential that is recognized on the student's transcript and is intended to reflect that a student has successfully completed research and a set of courses that together provide an in-depth study in the area of the Graduate Research Field. A student will only obtain the Graduate Research Field on their transcript if they have completed the requirements associated with the PhD degree and the requirements associated with the Graduate Research Field. All PhD Graduate Research Fields in the School of Public Health and Health Systems (SPHHS) consist of a Comprehensive Examination, a PhD Thesis that is confirmed by the SPHHS to be in the chosen Graduate Research Field, and a set of 4 graduate (0.50 weight) level courses. This set of courses is comprised of a mix of required and elective courses. Required courses are those that are prescribed as part of the Graduate Research Field. Elective courses are those that are on a list of courses designated as electives for a given Graduate Research Field. Students who have completed the MSc in SPHHS and obtained a Graduate Research Field can obtain the same or another Field or (by taking the applicable required/elective courses) as part of their PhD program. For any of the Graduate Research Fields below, a directed studies course (HLTH 620 or HLTH 720) focused on the Graduate Research Field or an appropriate alternate course may replace a required or elective course, with the approval of the Associate Director, Research Graduate Program, School of Public Health and Health Systems. The course requirements for the Graduate Research Fields are described below. 1. Graduate Research Field in Epidemiology and Biostatistics Students must successfully complete 3 required courses and 1 elective course. An assessment of whether or not the student's thesis warrants the Epidemiology and Biostatistics Graduate Research Field designation will be completed by the SPHHS. Required courses: • HLTH 701 Interdisciplinary Seminar in Public Health and Health Systems

Current Graduate Studies Academic Calendar content:	**Proposed Graduate Studies Academic Calendar content**:
• HLTH 706 Advanced Epidemiological Methods Elective courses: select 1 from the following list: • HLTH 634 Environmental Epidemiology • HLTH 672 Epidemiological Methods in Aging 2. Graduate Research Field in Health Evaluation Students must successfully complete 1 required course and 3 elective courses. An assessment of whether or not the student's thesis warrants the Health Evaluation Graduate Research Field designation will be completed by the SPHHS. Required course: □ HLTH 701 Interdisciplinary Seminar in Public Health and Health Systems Elective courses: Select 1 from the following list: • HLTH 705 Advanced Statistical Methods for Analyzing Public Health and Health Systems • HLTH 704 Advanced Qualitative Methods or Health Research • HLTH 655 Health Measurement and Survey • Methods Select 1 or 2 from the following list: • HLTH 614 Foundations of Program Evaluation • HLTH 651 Theory and Applications in Program Evaluation • HLTH 653 Evaluation Practice and Management • HLTH 654 Systems Thinking and Analysis in Health Program Planning and Evaluation Select 1 from the following list if only 1 course was selected above: • HLTH 603 Health Policy • HLTH 626 Analysis and Management of Health Information • HLTH ~~620~~ Experiential Learning in Evaluation 3. Graduate Research Field in Health Informatics Students must successfully complete 2 required courses and 2 elective courses. An assessment of whether or not the student's thesis warrants the Health	• HLTH 705 Advanced Statistical Methods for Analyzing <u>Public Health and Health Systems</u> Data • HLTH 706 Advanced Epidemiological Methods Elective courses: select 1 from the following list: • HLTH 634 Environmental Epidemiology <u>for Public Health</u> • HLTH 672 Epidemiological Methods in Aging <u>Research</u> 2. Graduate Research Field in Health Evaluation Students must successfully complete 1 required course and 3 elective courses. An assessment of whether or not the student's thesis warrants the Health Evaluation Graduate Research Field designation will be completed by the SPHHS. Required course: □ HLTH 701 Interdisciplinary Seminar in Public Health and Health Systems Elective courses: Select 1 from the following list: • HLTH 705 Advanced Statistical Methods for Analyzing Public Health and Health Systems <u>Data</u> • HLTH 704 Advanced Qualitative Methods or Health Research • HLTH 655 Health Measurement and Survey • Methods Select 1 or 2 from the following list: • HLTH 614 Foundations of Program Evaluation • HLTH 651 Theory and Applications in Program Evaluation • HLTH 653 Evaluation Practice and Management • HLTH 654 Systems Thinking and Analysis in Health Program Planning and Evaluation Select 1 from the following list if only 1 course was selected above: • HLTH 603 Health <u>Systems and</u> Policy • HLTH 626 Analysis and Management of Health Information <u>in Aging Populations</u> • HLTH <u>639</u> Experiential Learning in Evaluation

Current Graduate Studies Academic Calendar content:	**Proposed Graduate Studies Academic Calendar content**:
Informatics Graduate Research Field designation will be completed by the SPHHS. Required courses: • HLTH 701 Interdisciplinary Seminar in Public Health and Health Systems • HLTH 719 Advanced Research Methods in Health Informatics OR Equivalent Elective courses: Select 1 from the following list: • HLTH 633 Digital Health • HLTH 629 Information Visualization • HLTH 626 Analysis and Management of Health Information in Aging Populations • HLTH 615 Requirements Specification and Analysis in Health Systems • HLTH 616 Decision Making and Systems Thinking in Health Informatics • HLTH 637 Public Health Informatics Select 1 from the following list: • CS 634 Security and Privacy for Health Systems • CS 792 Data Structures and Standards in Health Informatics • COGSCI 600 Cognitive Science • SYDE 642 Cognitive Engineering Methods • SYDE 644 Human Factors Testing • CS 846 Software Engineering for Big Data 4. Graduate Research Field in Health and Environment Students must successfully complete 2 required courses and 2 elective courses. An assessment of whether or not the student's thesis warrants the Health and Environment Graduate Research Field designation will be completed by the SPHHS. Required courses: • HLTH 701 Interdisciplinary Seminar in Public Health and Health Systems • HLTH 604 Public Health and the Environment (or equivalent) Elective courses: Select 1 from the following list:	3. Graduate Research Field in Health Informatics Students must successfully complete 2 required courses and 2 elective courses. An assessment of whether or not the student's thesis warrants the Health Informatics Graduate Research Field designation will be completed by the SPHHS. Required courses: • HLTH 701 Interdisciplinary Seminar in Public Health and Health Systems • HLTH 719 Advanced Research Methods in Health Informatics OR Equivalent Elective courses: Select 1 from the following list: • HLTH 633 Digital Health • HLTH 629 Information Visualization • HLTH 626 Analysis and Management of Health Information in Aging Populations • HLTH 615 Requirements Specification and Analysis in Health Systems • HLTH 616 Decision Making and Systems Thinking in Health Informatics • HLTH 637 Public Health Informatics Select 1 from the following list: • CS 634 Security and Privacy for Health Systems • CS 792 Data Structures and Standards in Health Informatics • COGSCI 600 <u>Seminar in</u> Cognitive Science • SYDE 642 Cognitive Engineering Methods • SYDE 644 Human Factors Testing • CS 846 <u>Advanced Topics in Software Engineering: Topic 30</u> Software Engineering for Big Data 4. Graduate Research Field in Health and Environment Students must successfully complete 2 required courses and 2 elective courses. An assessment of whether or not the student's thesis warrants the Health and Environment Graduate Research Field designation will be completed by the SPHHS. Required courses: • HLTH 701 Interdisciplinary Seminar in Public Health and Health Systems

Current Graduate Studies Academic Calendar content:	**Proposed Graduate Studies Academic Calendar content**:
• HLTH 704 Advanced Qualitative Methods for Health Research • HLTH 705 Advanced Statistical Methods for • Analyzing Public Health and Health Systems Data • HLTH 706 Advanced Epidemiological Methods Select 1 from the following list: • HLTH 623 Risk and Exposure Assessment in Public Health • HLTH 624 Environmental Toxicology in Public Health • HLTH 634 Environmental Epidemiology • HLTH 631 Public Health Surveillance • HLTH 661 ~~GIS~~ and Public Health • HLTH 662 Global Health 5. Graduate Research Field in Global Health Students must successfully complete 2 required courses and 2 elective courses. An assessment of whether or not the student's thesis warrants the Global Health Graduate Research Field designation will be completed by the SPHHS. Required courses: • HLTH 701 Interdisciplinary Seminar in Public Health and Health Systems • HLTH 662 Global Health (or equivalent) Elective courses: Select 1 from the following list: • HLTH 704 Advanced Qualitative Methods for Health Research • HLTH 705 Advanced Statistical Methods for Analyzing Public Health and Health Systems Data • HLTH 706 Advanced Epidemiological Methods • HLTH 719 Advanced Research Methods in Health Informatics Select 1 from the following list (these courses are global-health focused in all examples and assignments): • HLTH 632 Health Economics and Public Health • HLTH 654 Systems Thinking and Analysis in Health Program Planning and Evaluation 6. Graduate Research Field in Aging and Health	• HLTH 604 Public Health and the Environment (or equivalent) Elective courses: Select 1 from the following list: • HLTH 704 Advanced Qualitative Methods for Health Research • HLTH 705 Advanced Statistical Methods for • Analyzing Public Health and Health Systems Data • HLTH 706 Advanced Epidemiological Methods Select 1 from the following list: • HLTH 623 Risk and Exposure Assessment in Public Health • HLTH 624 Environmental Toxicology in Public Health • HLTH 634 Environmental Epidemiology <u>for Public Health</u> • HLTH 631 Public Health Surveillance • HLTH 661 <u>Geographic Information Systems</u> and Public Health • HLTH 662 Global Health 5. Graduate Research Field in Global Health Students must successfully complete 2 required courses and 2 elective courses. An assessment of whether or not the student's thesis warrants the Global Health Graduate Research Field designation will be completed by the SPHHS. Required courses: • HLTH 701 Interdisciplinary Seminar in Public Health and Health Systems • HLTH 662 Global Health (or equivalent) Elective courses: Select 1 from the following list: • HLTH 704 Advanced Qualitative Methods for Health Research • HLTH 705 Advanced Statistical Methods for Analyzing Public Health and Health Systems Data • HLTH 706 Advanced Epidemiological Methods • HLTH 719 Advanced Research Methods in Health Informatics

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

Students must successfully complete 2 required courses and 2 elective courses. An assessment of whether or not the student's thesis warrants the Aging and Health Graduate Research Field designation will be completed by the SPHHS.
 	
Required courses:
 	
• HLTH 701 Interdisciplinary Seminar in Public Health and Health Systems
• HLTH 750 Fundamentals of Aging, Health and Well Being (over two terms, parts A and B)
 	
Elective courses:
 	
Select 1 from the following list:
 	
• HLTH 704 Advanced Qualitative Methods for Health Research
• HLTH 705 Advanced Statistical Methods for Analyzing Public Health and Health Systems Data
• HLTH 706 Advanced Epidemiological Methods
 	
Select 1 from the following list:
 	
• ~~HLTH 751 Aging Health and Well Being Research Seminar~~
• HLTH 642 Interdisciplinary Perspectives on Aging
• HLTH 627 Dementia Care
• HLTH 630 Geriatric Medicine
• HLTH 626 Analysis Management of Health Informatics in Aging Population
• HLTH 672 Epidemiologic Methods in Aging Research
 	
• Link(s) to courses
  o Health Studies (HLTH) courses
  o Graduate course search
 	
• Academic Integrity Workshop
• PhD Comprehensive Examination
  o Students are required to meet the University-level PhD Comprehensive Examination minimum requirements outlined in the "Minimum requirements for the PhD degree" section of the Graduate Studies Academic Calendar (GSAC), with certain noted differences that are specific to the Faculty of Applied Health Sciences
	Select 1 from the following list (these courses are global-health focused in all examples and assignments):
	
	• HLTH 632 Health Economics and Public Health
	• HLTH 654 Systems Thinking and Analysis in Health Program Planning and Evaluation
	
	6. Graduate Research Field in Aging and Health
	
	Students must successfully complete 2 required courses and 2 elective courses. An assessment of whether or not the student's thesis warrants the Aging and Health Graduate Research Field designation will be completed by the SPHHS.
	
	Required courses:
	
	• HLTH 701 Interdisciplinary Seminar in Public Health and Health Systems
	• HLTH 750 Fundamentals of Aging, Health and Well Being (over two terms, parts A and B)
	
	Elective courses:
	
	Select 1 from the following list:
	
	• HLTH 704 Advanced Qualitative Methods for Health Research
	• HLTH 705 Advanced Statistical Methods for Analyzing Public Health and Health Systems Data
	• HLTH 706 Advanced Epidemiological Methods
	
	Select 1 from the following list:
	
	• HLTH 642 Interdisciplinary Perspectives on Aging
	• HLTH 627 <u>Advanced</u> Dementia Care
	• HLTH 630 <u>Advanced</u> Geriatric Medicine <u>and Healthcare</u>
	• HLTH 626 Analysis Management of Health Informatics in Aging Population
	• HLTH 672 Epidemiologic Methods in Aging Research
	
	<u>7. Graduate Research Field in Work and Health</u>
	
	<u>Students must successfully complete 2 required courses and 2 elective courses. An assessment of whether or not the student's thesis warrants the Work and Health Research Field designation will be completed by the SPHHS.</u>

Current Graduate Studies Academic Calendar content:	**Proposed Graduate Studies Academic Calendar content**:
Comprehensive Examination minimum requirements: ▪ Comprehensive examination purpose: Consistent with University-level minimum requirements. Note: In the Faculty of Applied Health Sciences, the novel research topic is tested through a separate thesis proposal process. ▪ Timing: Consistent with University-level minimum requirements. ▪ Committee: Consistent with University-level minimum requirements with the exception that in the Faculty of Applied Health Sciences, the composition of the comprehensive examining committee will be approved by the Associate Chair or Director, Graduate Studies for the student's Department/School, as delegated by the Associate Dean, Graduate Studies. ▪ Who Chairs an examination: Consistent with University-level minimum requirements. ▪ Format / Content: Consistent with University-level minimum requirements. ▪ Academic integrity: Consistent with University-level minimum requirements. o In addition to the University-level and Faculty-level PhD Comprehensive Examination minimum requirements, students in the PhD in Public Health and Health Systems program must also note the following: ▪ The purpose of the comprehensive examination is to test the breadth and depth of the candidate's comprehension of the methodological and theoretical aspects of their field of study. The process is designed to enable candidates to acquire a solid grounding in their core area of public health research that will provide a foundation for undertaking dissertation research. The	Required courses: • HLTH 701 Interdisciplinary Seminar in Public Health and Health Systems • HLTH 728 What is Fair? International Perspectives On Equity In Work and Health Elective courses: Select 1 from the following list: • HLTH 704 Advanced Qualitative Methods for Health Research • HLTH 705 Advanced Statistical Methods for Analyzing Public Health and Health Systems Data • HLTH 706 Advanced Epidemiological Methods • HLTH 719 Advanced Research Methods in Health Informatics • Select 1 from the following list: • HLTH 731 Approaches to Research in Work and Health • HLTH 623 Risk and Exposure Assessment in Public Health • HLTH 614 Foundations of Program Evaluation • HLTH 639 Experiential Learning in Evaluation • HLTH 654 Systems Thinking and Analysis In Health Program Planning and Evaluation • Link(s) to courses o Health Studies (HLTH) courses o Graduate course search • Academic Integrity Workshop • PhD Comprehensive Examination o Students are required to meet the University-level PhD Comprehensive Examination minimum requirements outlined in the "Minimum requirements for the PhD degree" section of the Graduate Studies Academic Calendar (GSAC), with certain noted differences that are specific to the Faculty of Applied Health Sciences Comprehensive Examination minimum requirements: ▪ Comprehensive examination purpose: Consistent with

Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
examination will also test the candidate's ability to critically evaluate the literature and synthesize information from sources to identify knowledge gaps and recommend solutions. ▪ The comprehensive examination consists of three written questions followed by an oral examination. The written questions must be completed within eight weeks from the start date and the oral defence should be completed within four weeks of submission of the written examination. • PhD Thesis o A PhD thesis on an approved topic is required, which is to be defended in an oral examination. The research is to be conducted under the supervision of the student's supervisor and the advisory committee. The PhD thesis advisory committee consists of at least three members, with the supervisor and at least one other committee member being faculty from within the School of Public Health and Health Systems. The proposal will be defended before the thesis committee; however, upon completion of the thesis, the final document will be defended before a five-person Examination Board.	University-level minimum requirements. Note: In the Faculty of Applied Health Sciences, the novel research topic is tested through a separate thesis proposal process. ▪ Timing: Consistent with University-level minimum requirements. ▪ Committee: Consistent with University-level minimum requirements with the exception that in the Faculty of Applied Health Sciences, the composition of the comprehensive examining committee will be approved by the Associate Chair or Director, Graduate Studies for the student's Department/School, as delegated by the Associate Dean, Graduate Studies. ▪ Who Chairs an examination: Consistent with University-level minimum requirements. ▪ Format / Content: Consistent with University-level minimum requirements. ▪ Academic integrity: Consistent with University-level minimum requirements. o In addition to the University-level and Faculty-level PhD Comprehensive Examination minimum requirements, students in the PhD in Public Health and Health Systems program must also note the following: ▪ The purpose of the comprehensive examination is to test the breadth and depth of the candidate's comprehension of the methodological and theoretical aspects of their field of study. The process is designed to enable candidates to acquire a solid grounding in their core area of public health research that will provide a foundation for undertaking dissertation research. The examination will also test the candidate's ability to critically evaluate the literature and synthesize information from

Current Graduate Studies Academic Calendar content:	**Proposed Graduate Studies Academic Calendar content**:
	sources to identify knowledge gaps and recommend solutions. o The comprehensive examination consists of three written questions followed by an oral examination. The written questions must be completed within eight weeks from the start date and the oral defence should be completed within four weeks of submission of the written examination. • PhD Thesis o A PhD thesis on an approved topic is required, which is to be defended in an oral examination. The research is to be conducted under the supervision of the student's supervisor and the advisory committee. The PhD thesis advisory committee consists of at least three members, with the supervisor and at least one other committee member being faculty from within the School of Public Health and Health Systems. The proposal will be defended before the thesis committee; however, upon completion of the thesis, the final document will be defended before a five-person Examination Board.

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

Students who are already in the program will have the option to declare these Graduate Research Fields before graduation, if they have taken the required courses.

Department/School approval date (mm/dd/yy): 09/20/19
Reviewed by GSPA (for GSPA use only) ☒ date (mm/dd/yy): 04/02/2020
Faculty approval date (mm/dd/yy):
Senate Graduate & Research Council (SGRC) approval date (mm/dd/yy):
Senate approval date (mm/dd/yy) (if applicable):

Graduate Studies
Program Revision Template

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

Faculty: Arts and Environment

Program: Master of Arts (MA) in Global Governance

Program contact name(s): Andrew Thompson

Form completed by:

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).

Update of the MA in Global Governance degree requirements to include a new Graduate Research Field in Peace Integration.

Is this a major modification to the program? Yes

Rationale for change(s):

The increasing complexity of global conflict requires sophisticated responses from a new generation of graduates working for peace. The proposed Graduate Research Field in Peace Integration will provide students with the opportunity to enroll in world class, interdisciplinary academic courses offered by programs highlighting holistic and integrated approaches to the study of peace that encapsulates more than simply the absence of violent conflict. Moreover, the Graduate Research Field will enhance the University's reputation as an innovative leader in transformative, graduate-level teaching and research focusing on the advancement of global peace and international change through educating, training, and developing a future generation of peace-builders.

The Graduate Research Field in Peace Integration is distinctive in that it will go beyond traditional disciplines that study peace, such as Peace and Conflict Studies and International Relations, by integrating knowledge from complementary programs, specifically Global Governance, Climate Change, Development Practice and Public Health and Health Systems. To earn the Graduate Research Field, students will be required to take a core course from the home program, plus three other courses from a menu of existing, peace-related offerings from the other complementary programs. In order to ensure an interdisciplinary experience, students will have to take at least one course each from three of the five participating programs.

The primary benefit to students will be the integration of knowledge from five different masters programs. Much of what we are proposing with the Graduate Research Field in Peace Integration is a further formalization of existing bilateral collaboration that is already taking place among the participating programs. Indeed, many of the courses that will be part of the Graduate Research Field are already cross-listed among the programs.

All five of the participating programs have been involved in the development of the proposal and are keen to see it come to fruition.

Proposed effective date: Term: Fall Year: 2020

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

https://uwaterloo.ca/graduate-studies-academic-calendar/arts/global-governance/master-arts-ma-global-governance

https://uwaterloo.ca/graduate-studies-academic-calendar/environment/global-governance/master-arts-ma-global-governance

Current Graduate Studies Academic Calendar content:	**Proposed Graduate Studies Academic Calendar content**:
Graduate research fields • Conflict and Security • Global Environment • Global Justice and Human Rights • Global Political Economy • Global Social Governance • Multilateral Institutions and Diplomacy **Degree requirements** **Master's Research Paper option:** • **Graduate Academic Integrity Module (Graduate AIM)** • **Courses** o Students must complete 6 courses during the first two terms, as follows: ▪ Core course component: GGOV 600 Global Governance ▪ History component: 1 of the following courses (or an appropriate alternative): ▪ HIST 605 Global Governance in Historical Perspective ▪ HIST 606 International Development in Historical Perspective ▪ HIST 607 Human Rights in Historical Perspective I ▪ HIST 608 Human Rights in Historical Perspective II ▪ HIST 612 Indigenous Rights and Claims: A Global Perspective ▪ HIST 660 Transnational and Global History: Old Problems and New Directions ▪ Economics component: 1 of the following courses (or an appropriate alternative):	**Graduate research fields** • Conflict and Security • Global Environment • Global Justice and Human Rights • Global Political Economy • Global Social Governance • Multilateral Institutions and Diplomacy • Peace Integration **Degree requirements** **Master's Research Paper option:** • **Graduate Academic Integrity Module (Graduate AIM)** • **Courses** o Students must complete 6 courses during the first two terms, as follows: ▪ Core course component: GGOV 600 Global Governance ▪ History component: 1 of the following courses (or an appropriate alternative): ▪ HIST 605 Global Governance in Historical Perspective ▪ HIST 606 International Development in Historical Perspective ▪ HIST 607 Human Rights in Historical Perspective I ▪ HIST 608 Human Rights in Historical Perspective II ▪ HIST 612 Indigenous Rights and Claims: A Global Perspective ▪ HIST 660 Transnational and Global History: Old Problems and New Directions ▪ Economics component: 1 of the following courses (or an appropriate alternative):

Current Graduate Studies Academic Calendar content:	**Proposed Graduate Studies Academic Calendar content**:
▪ GGOV 610/PSCI 688/PACS 630 Governance of Global Economy ▪ GGOV 611/PSCI 686 Emerging Economies in Global Governance ▪ GGOV 613/PSCI 668 The Politics of National Innovation Systems ▪ GGOV 614/PSCI 614 Global Business and Development ▪ GGOV 615/PSCI 615 Global Poverty ▪ GGOV 618 Special Topics in Global Political Economy ▪ GGOV 619 Readings in Global Political Economy ▪ GGOV 621/PSCI 606/ERS 606 Governing Global Food and Agriculture Systems ▪ GGOV 663/PSCI 619 China and Global Governance ▪ ECON 637 Economic Analysis and Global Governance ▪ ECON 631 International Trade ▪ ECON 635 International Trade and Development ▪ ECON 673 Special Topics in Economics ▪ Political Science component: 1 of the following courses: ▪ GGOV 610/PSCI 688 Governance of Global Economy (GV 731 at WLU) ▪ GGOV 620/ERS 604/PSCI 604 Advanced Topics in Global Environmental Governance (GV 732 at WLU) ▪ GGOV 621/ERS 606/PSCI 606 Governing Global Food and Agriculture Systems ▪ GGOV 630/PSCI 678/PACS 634 Security Ontology-Theory (GV	▪ GGOV 610/PSCI 688/PACS 630 Governance of Global Economy ▪ GGOV 611/PSCI 686 Emerging Economies in Global Governance ▪ GGOV 613/PSCI 668 The Politics of National Innovation Systems ▪ GGOV 614/PSCI 614 Global Business and Development ▪ GGOV 615/PSCI 615 Global Poverty ▪ GGOV 618 Special Topics in Global Political Economy ▪ GGOV 619 Readings in Global Political Economy ▪ GGOV 621/PSCI 606/ERS 606 Governing Global Food and Agriculture Systems ▪ GGOV 663/PSCI 619 China and Global Governance ▪ ECON 637 Economic Analysis and Global Governance ▪ ECON 631 International Trade ▪ ECON 635 International Trade and Development ▪ ECON 673 Special Topics in Economics ▪ Political Science component: 1 of the following courses: ▪ GGOV 610/PSCI 688 Governance of Global Economy (GV 731 at WLU) ▪ GGOV 620/ERS 604/PSCI 604 Advanced Topics in Global Environmental Governance (GV 732 at WLU) ▪ GGOV 621/ERS 606/PSCI 606 Governing Global Food and Agriculture Systems ▪ GGOV 630/PSCI 678/PACS 634 Security Ontology-Theory (GV 733 at WLU)

Current Graduate Studies Academic Calendar content:	**Proposed Graduate Studies Academic Calendar content**:
733 at WLU) ▪ GGOV 631/PSCI 679/PACS 635 Security Ontology-Issues & Institutions ▪ GGOV 640/PSCI 658/PACS 633 Human Rights in the Globalized World ▪ GGOV 642/PSCI 639 Global Social Governance (GV 735 at WLU) ▪ PSCI 657/GGOV 650 International Organizations and Global Governance ▪ Elective component: 2 additional courses chosen from the following list: ▪ ECON 635 International Trade and Development ▪ GGOV 611/PSCI 686 Emerging Economies in Global Governance ▪ GGOV 613/PSCI 668 The Politics of National Innovation Systems ▪ GGOV 614/PSCI 614 International Business and Development ▪ GGOV 615/PSCI 615 Global Poverty ▪ GGOV 618 Special Topics in Global Political Economy ▪ GGOV 619 Readings in Global Political Economy ▪ GGOV 622 Complexity and Global Governance ▪ GGOV 628 Special Topics in Global Environmental Governance ▪ GGOV 629 Readings in Global Environmental Governance ▪ GGOV 632 Post-War Reconstruction and State Building ▪ GGOV 633 Managing Nuclear Risk ▪ GGOV 634/PSCI 620 Gender and Global Politics	▪ GGOV 631/PSCI 679/PACS 635 Security Ontology-Issues & Institutions ▪ GGOV 640/PSCI 658/PACS 633 Human Rights in the Globalized World ▪ GGOV 642/PSCI 639 Global Social Governance (GV 735 at WLU) ▪ PSCI 657/GGOV 650 International Organizations and Global Governance ▪ Elective component: 2 additional courses chosen from the following list: ▪ ECON 635 International Trade and Development ▪ GGOV 611/PSCI 686 Emerging Economies in Global Governance ▪ GGOV 613/PSCI 668 The Politics of National Innovation Systems ▪ GGOV 614/PSCI 614 International Business and Development ▪ GGOV 615/PSCI 615 Global Poverty ▪ GGOV 618 Special Topics in Global Political Economy ▪ GGOV 619 Readings in Global Political Economy ▪ GGOV 622 Complexity and Global Governance ▪ GGOV 628 Special Topics in Global Environmental Governance ▪ GGOV 629 Readings in Global Environmental Governance ▪ GGOV 632 Post-War Reconstruction and State Building ▪ GGOV 633 Managing Nuclear Risk ▪ GGOV 634/PSCI 620 Gender and Global Politics ▪ GGOV 638 Special Topics in Conflict and Security ▪ GGOV 639 Readings in Conflict and Security

Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
▪ GGOV 638 Special Topics in Conflict and Security ▪ GGOV 639 Readings in Conflict and Security ▪ GGOV 641 International Human Rights (GV 760 at WLU) ▪ GGOV 643 Global Health Governance ▪ GGOV 644/SOC 784 International Migration: Practice, Theory and Regulation ▪ GGOV 648 Special Topics in Human Rights and Global Justice ▪ GGOV 649 Readings in Human Rights and Global Justice ▪ GGOV 651/PSCI 617 Unconventional Diplomacy ▪ GGOV 652/PSCI 618 Non-State Actors in Global Governance ▪ GGOV 653 International Organizations and Public Policy ▪ GGOV 658 Special Topics in Multilateral Institutions and Diplomacy ▪ GGOV 659 Readings in Multilateral Institutions and Diplomacy ▪ GGOV 660 Public International Law ▪ GGOV 661 International Organizations Law ▪ GGOV 662/SOC 781 Global Development Governance ▪ GGOV 663 China and Global Governance ▪ GGOV 668 Special Topics in Global Social Governance ▪ GGOV 669 Readings in Global Social Governance ▪ HIST 604 Theory and Practice of Insurgency and Counterinsurgency: Historical and	▪ GGOV 641 International Human Rights (GV 760 at WLU) ▪ GGOV 643 Global Health Governance ▪ GGOV 644/SOC 784 International Migration: Practice, Theory and Regulation ▪ GGOV 648 Special Topics in Human Rights and Global Justice ▪ GGOV 649 Readings in Human Rights and Global Justice ▪ GGOV 651/PSCI 617 Unconventional Diplomacy ▪ GGOV 652/PSCI 618 Non-State Actors in Global Governance ▪ GGOV 653 International Organizations and Public Policy ▪ GGOV 658 Special Topics in Multilateral Institutions and Diplomacy ▪ GGOV 659 Readings in Multilateral Institutions and Diplomacy ▪ GGOV 660 Public International Law ▪ GGOV 661 International Organizations Law ▪ GGOV 662/SOC 781 Global Development Governance ▪ GGOV 663 China and Global Governance ▪ GGOV 668 Special Topics in Global Social Governance ▪ GGOV 669 Readings in Global Social Governance ▪ HIST 604 Theory and Practice of Insurgency and Counterinsurgency: Historical and Contemporary Issues ▪ HIST 606 International Development in Historical Perspective ▪ HIST 610 War and Society in the Twentieth Century I ▪ HIST 611 War and Society in the Twentieth Century II

Current Graduate Studies Academic Calendar content:	**Proposed Graduate Studies Academic Calendar content**:
Contemporary Issues ▪ HIST 606 International Development in Historical Perspective ▪ HIST 610 War and Society in the Twentieth Century I ▪ HIST 611 War and Society in the Twentieth Century II ▪ HIST 626 Modern European History I ▪ HIST 627 Modern European History II ▪ HIST 632 History of the United States I ▪ HIST 651 Historians and Public Policy ▪ PSCI 639/GGOV 642 Global Social Governance ▪ PSCI 651 Democracy and Development ▪ PSCI 657/GGOV 650 International Organizations and Global Governance ▪ PSCI 658/GGOV 640 Human Rights in the Globalized World ▪ PSCI 680 Critical Security Studies ▪ PSCI 681 Power Politics and World Order Studies ▪ PSCI 684 Special Topics in International Diplomacy ▪ Note: Not all courses are offered each year and more courses may be available. Consult the respective departments for information on available courses in any given year. Consult the graduate studies calendar for full course descriptions. • **Link(s) to courses** o Global Governance (GGOV) courses o Graduate course search • **Academic Integrity Workshop** • **Master's Seminar**	▪ HIST 626 Modern European History I ▪ HIST 627 Modern European History II ▪ HIST 632 History of the United States I ▪ HIST 651 Historians and Public Policy ▪ PSCI 639/GGOV 642 Global Social Governance ▪ PSCI 651 Democracy and Development ▪ PSCI 657/GGOV 650 International Organizations and Global Governance ▪ PSCI 658/GGOV 640 Human Rights in the Globalized World ▪ PSCI 680 Critical Security Studies ▪ PSCI 681 Power Politics and World Order Studies ▪ PSCI 684 Special Topics in International Diplomacy ▪ Note: Not all courses are offered each year and more courses may be available. Consult the respective departments for information on available courses in any given year. Consult the graduate studies calendar for full course descriptions. • Students in the MA program may also wish to pursue a Graduate Research Field in Peace Integration. • A Graduate Research Field is a University credential that is recognized on the student's transcript and is intended to reflect that a student has successfully completed research and a set of courses that together provide an in-depth study in the area of the Graduate Research Field. A student will only obtain the Graduate Research Field on their transcript if they have completed the requirements associated with the MA degree and the requirements associated with the Graduate Research Field. • The course requirements for the Graduate Research Field in Peace Integration are described below. • Students must successfully complete the following courses: ▪ GGOV 600 Global Governance

Current Graduate Studies Academic Calendar content:	**Proposed Graduate Studies Academic Calendar content**:
o Students must attend the program seminar. The seminar will meet regularly throughout the first and second term. Meetings will include visiting speakers (at both the University of Waterloo and the Centre for International Governance Innovation), guest talks by core faculty members and, during the second term, discussions of the research plans of students for the Master's Research Paper (MRP). Attendance at the Seminar is required, but grades will be assigned on a credit/non-credit (or pass/fail) basis. • **Master's Internship** o All students are required to spend the equivalent of one academic term as an intern working on global governance issues in the public or private sector, at a research institute, or for a non-governmental organization. The work-term will normally take place in the third term of the program. A written report arising out of the internship experience will be required and will be evaluated. This report is distinct from the MRP, but could build towards it. • **Master's Research Paper** o After the completion of the internship, students will concentrate during their fourth term on the completion of a MRP. The MRP provides students with an opportunity to pursue a specific research topic of their choosing relating to the study of global governance. The minimum length is 40 pages double-spaced and the maximum is 60 pages double-spaced.	▪ 1 course from the following list: ▪ PACS 601 Systems of Peace, Order, and Good Governance ▪ PACS 602 Practice of Peace ▪ PACS 603 Building Civil Society ▪ PACS 604 Conflict Analysis ▪ PACS 605 Conflict Transformation and Peacebuilding ▪ 2 courses from the following list (note: each of the 2 courses must be from a different subject code/area): ▪ INDEV 604/PACS 650 Sustainable Food Systems ▪ INDEV 605/PACS 651 Economics for Sustainable Development ▪ INDEV 608/PACS 652 Water and Security ▪ INDEV 609 Sustainability Concepts, Applications and Key Debates ▪ INDEV 613 Water, Human Security and Development ▪ GEMCC 602 Climate Change: Vulnerability and Adaptation ▪ GEMCC 622 Climate Change, Natural Hazards and Disaster Risk Reduction ▪ GEMCC 640 Climate Change Governance: From Global Treaties to Local Innovation ▪ HLTH 604 Health and the Environment (blended on-campus/online offering ▪ HLTH 607 Social and Cultural Aspects of Public Health (blended on-campus/online offering) ▪ HLTH 614 Foundations of Program Evaluation ▪ HLTH 632 Health Economics and Public Health (online offering) ▪ HLTH 603 Health Systems and Policy ▪ HLTH 661 Geographic

Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
	Information Systems and Public Health (online offering) ▪ HLTH 662 Global Health ▪ 2 additional courses from the following list (note: each of the 2 courses must be from a different subject code/area): ▪ History component: 1 of the following courses (or an appropriate alternative): ▪ HIST 605 Global Governance in Historical Perspective ▪ HIST 606 International Development in Historical Perspective ▪ HIST 607 Human Rights in Historical Perspective I ▪ HIST 608 Human Rights in Historical Perspective II ▪ HIST 612 Indigenous Rights and Claims: A Global Perspective ▪ HIST 660 Transnational and Global History: Old Problems and New Directions ▪ Economics component: 1 of the following courses (or an appropriate alternative): ▪ GGOV 610/PSCI 688/PACS 630 Governance of Global Economy ▪ GGOV 611/PSCI 686 Emerging Economies in Global Governance ▪ GGOV 613/PSCI 668 The Politics of National Innovation Systems ▪ GGOV 614/PSCI 614 Global Business and Development ▪ GGOV 615/PSCI 615 Global Poverty ▪ GGOV 618 Special Topics in Global Political Economy ▪ GGOV 619 Readings in Global Political Economy ▪ GGOV 621/PSCI 606/ERS 606 Governing Global Food and Agriculture Systems

Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
	▪ GGOV 663/PSCI 619 China and Global Governance ▪ ECON 637 Economic Analysis and Global Governance ▪ ECON 631 International Trade ▪ ECON 635 International Trade and Development ▪ ECON 673 Special Topics in Economics ▪ Political Science component: 1 of the following courses: ▪ GGOV 610/PSCI 688 Governance of Global Economy (GV 731 at WLU) ▪ GGOV 620/ERS 604/PSCI 604 Advanced Topics in Global Environmental Governance (GV 732 at WLU) ▪ GGOV 621/ERS 606/PSCI 606 Governing Global Food and Agriculture Systems ▪ GGOV 630/PSCI 678/PACS 634 Security Ontology-Theory (GV 733 at WLU) ▪ GGOV 631/PSCI 679/PACS 635 Security Ontology-Issues & Institutions ▪ GGOV 640/PSCI 658/PACS 633 Human Rights in the Globalized World ▪ GGOV 642/PSCI 639 Global Social Governance (GV 735 at WLU) ▪ PSCI 657/GGOV 650 International Organizations and Global Governance • **Link(s) to courses** o Global Governance (GGOV) courses o Graduate course search • **Academic Integrity Workshop** • **Master's Seminar** o Students must attend the program seminar. The seminar will meet regularly

Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
	throughout the first and second term. Meetings will include visiting speakers (at both the University of Waterloo and the Centre for International Governance Innovation), guest talks by core faculty members and, during the second term, discussions of the research plans of students for the Master's Research Paper (MRP). Attendance at the Seminar is required, but grades will be assigned on a credit/non-credit (or pass/fail) basis. • **Master's Internship** o All students are required to spend the equivalent of one academic term as an intern working on global governance issues in the public or private sector, at a research institute, or for a non-governmental organization. The work-term will normally take place in the third term of the program. A written report arising out of the internship experience will be required and will be evaluated. This report is distinct from the MRP, but could build towards it. • **Master's Research Paper** o After the completion of the internship, students will concentrate during their fourth term on the completion of a MRP. The MRP provides students with an opportunity to pursue a specific research topic of their choosing relating to the study of global governance. The minimum length is 40 pages double-spaced and the maximum is 60 pages double-spaced.

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

Current students won't be impacted at all. The 2020-2021 cohort of students will be the first ones to take advantage of the new field.

Department/School approval date (mm/dd/yy):
Reviewed by GSPA (for GSPA use only) ☒ date (mm/dd/yy): 11/01/2019
Faculty approval date (mm/dd/yy): 03/17/20
Senate Graduate & Research Council (SGRC) approval date (mm/dd/yy):
Senate approval date (mm/dd/yy) (if applicable):

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 and Postdoctoral Affairs (GSPA).

Faculty: Arts

Program: Master of Peace and Conflict Studies (MPACS)

Program contact name(s): Nathan Funk, Chair, Peace and Conflict Studies

Form completed by:

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).

Update of the MPACS degree requirements to include a new Graduate Specialization in Peace Integration.

Is this a major modification to the program? Yes

Rationale for change(s):

The increasing complexity of global conflict requires sophisticated responses from a new generation of graduates working for peace. The proposed Graduate Specialization in Peace Integration will provide students with the opportunity to enroll in world class, interdisciplinary academic courses offered by programs highlighting holistic and integrated approaches to the study of peace that encapsulates more than simply the absence of violent conflict. Moreover, the Graduate Specialization will enhance the University's reputation as an innovative leader in transformative, graduate-level teaching and research focusing on the advancement of global peace and international change through educating, training, and developing a future generation of peace-builders.

The Graduate Specialization in Peace Integration is distinctive in that it will go beyond traditional disciplines that study peace, such as Peace and Conflict Studies and International Relations, by integrating knowledge from complementary programs, specifically Global Governance, Climate Change, Development Practice and Public Health and Health Systems. To earn the Graduate Specialization, students will be required to take a core course from the home program, plus three other courses from a menu of existing, peace-related offerings from the other complementary programs. In order to ensure an interdisciplinary experience, students will have to take at least one course each from three of the five participating programs.

The primary benefit to students will be the integration of knowledge from five different masters programs. Much of what we are proposing with the Graduate Specialization in Peace Integration is a further formalization of existing bilateral collaboration that is already taking place among the participating programs. Indeed, many of the courses that will be part of the Graduate Specialization are already cross-listed among the programs.

Proposed effective date: Term: Fall Year: 2020

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

https://uwaterloo.ca/graduate-studies-academic-calendar/arts/department-peace-and-conflict-studies/master-peace-and-conflict-studies-mpacs

Current Graduate Studies Academic Calendar content:	**Proposed Graduate Studies Academic Calendar content**:
Degree requirements **Coursework option:** • **Graduate Academic Integrity Module (Graduate AIM)** • **Courses** o The program requires successful completion of 10 courses (5.00 units total). o Full-time students will normally be expected to complete the degree requirements over a consecutive four-term period, enrolling in three courses for the first two terms and at least two courses in the last two terms. o Part-time students are expected to complete at least two courses per academic year and must complete the program within five years. o Students must complete the following courses: ▪ 2.50 units of: ▪ PACS 601 Systems of Peace, Order, and Good Governance ▪ PACS 602 The Practice of Peace ▪ PACS 603 Building Civil Society ▪ PACS 604 Conflict Analysis ▪ PACS 605 Conflict Transformation and Peacebuilding ▪ At least 1.00 units of: ▪ PACS 610 Contemporary Nonviolent Movements ▪ PACS 611 Reconciliation ▪ PACS 612 Culture, Religion, and Peacebuilding ▪ PACS 620 Special Topics in Peace and Conflict Studies ▪ PACS 621 Peace Research ▪ PACS 625 Internship ▪ PACS 626 Conflict Resolution Skills Training	**Graduate specializations** • Peace Integration **Degree requirements** **Coursework option:** • **Graduate Academic Integrity Module (Graduate AIM)** • **Courses** o The program requires successful completion of 10 courses (5.00 units total). o Full-time students will normally be expected to complete the degree requirements over a consecutive four-term period, enrolling in three courses for the first two terms and at least two courses in the last two terms. o Part-time students are expected to complete at least two courses per academic year and must complete the program within five years. o Students must complete the following courses: ▪ 2.50 units of: ▪ PACS 601 Systems of Peace, Order, and Good Governance ▪ PACS 602 The Practice of Peace ▪ PACS 603 Building Civil Society ▪ PACS 604 Conflict Analysis ▪ PACS 605 Conflict Transformation and Peacebuilding ▪ At least 1.00 units of: ▪ PACS 610 Contemporary Nonviolent Movements ▪ PACS 611 Reconciliation ▪ PACS 612 Culture, Religion, and Peacebuilding ▪ PACS 620 Special Topics in Peace and Conflict Studies ▪ PACS 621 Peace Research ▪ PACS 625 Internship

Current Graduate Studies Academic Calendar content:	**Proposed Graduate Studies Academic Calendar content**:
▪ An additional 1.50 units that can be chosen from: ▪ Additional courses from PACS 610 - PACS 626 ▪ PACS 630/GGOV 610/PSCI 688 Governance of Global Economy ▪ PACS 631/GGOV 612/PSCI 612 Theories of Globalization ▪ PACS 632/GGOV 632/PSCI 654 Post-War Reconstruction and State Building ▪ PACS 633/GGOV 640/PSCI 658 Human Rights in the Globalized World ▪ PACS 634/GGOV 630/PSCI 678 Security Ontology-Theory ▪ PACS 635/GGOV 631/PSCI 679 Security Governance: Actors, Institutions, and Issues ▪ PACS 650/INDEV 604 Sustainable Cities ▪ PACS 651/INDEV 605 Economics for Sustainable Development ▪ PACS 652/INDEV 608 Water and Security ▪ PACS 660/PSCI 624 Justice and Gender ▪ PACS 661/PSCI 655 Ethnic Conflict and Conflict Resolution I ▪ PACS 662/PSCI 659 Conflict and Conflict Resolution ▪ PACS 670/TS 637 War and Peace in Christian Theology ▪ PACS 671/TS 619 The Bible and Peace ▪ PACS 672/TS 731 Christianity's Encounter with Other Faiths o Students may request permission from the PACS Graduate Advisor to enrol in elective courses in other University of Waterloo or Wilfrid Laurier University graduate courses that will complement	▪ PACS 626 Conflict Resolution Skills Training ▪ An additional 1.50 units that can be chosen from: ▪ Additional courses from PACS 610 - PACS 626 ▪ PACS 630/GGOV 610/PSCI 688 Governance of Global Economy ▪ PACS 631/GGOV 612/PSCI 612 Theories of Globalization ▪ PACS 632/GGOV 632/PSCI 654 Post-War Reconstruction and State Building ▪ PACS 633/GGOV 640/PSCI 658 Human Rights in the Globalized World ▪ PACS 634/GGOV 630/PSCI 678 Security Ontology-Theory ▪ PACS 635/GGOV 631/PSCI 679 Security Governance: Actors, Institutions, and Issues ▪ PACS 650/INDEV 604 Sustainable Cities ▪ PACS 651/INDEV 605 Economics for Sustainable Development ▪ PACS 652/INDEV 608 Water and Security ▪ PACS 660/PSCI 624 Justice and Gender ▪ PACS 661/PSCI 655 Ethnic Conflict and Conflict Resolution I ▪ PACS 662/PSCI 659 Conflict and Conflict Resolution ▪ PACS 670/TS 637 War and Peace in Christian Theology ▪ PACS 671/TS 619 The Bible and Peace ▪ PACS 672/TS 731 Christianity's Encounter with Other Faiths o Students may request permission from the PACS Graduate Advisor to enrol in

Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
their program of study. Permission must also be granted by the department or program in which the courses are offered. o The program offers 3 non-traditional courses which will be managed as follows: ▪ PACS 621 Peace Research: an agreement between the student and the supervising faculty member about research expectations, length of paper, format, topic, types of sources that can be used, and anticipated outcomes is required. Students will be required to prepare a detailed proposal prior to registration in this course that will fully explain the proposed research as well as provide a short bibliography to ensure that adequate sources exist to successfully complete the research. Students will meet periodically with their instructor throughout the term to ensure that milestones are reached. Written work will be evaluated per normal academic criteria. ▪ PACS 625 Internship: students will be required to submit a petition outlining the details of the proposed internship such as place, position, cost, academic work expectations, security concerns, etc. Students will be expected to engage in substantial research on issues related to the host agency as part of the internship. While PACS has the agreement of over ten organizations who are interested in hosting interns, it is anticipated that internships will be negotiated to fit the unique long-term goals of each student. Host agencies will be expected to submit a reference evaluating the student intern at the end of the internship. Written work submitted by the student (evidence of research and reflective report) will be evaluated per normal academic criteria.	elective courses in other University of Waterloo or Wilfrid Laurier University graduate courses that will complement their program of study. Permission must also be granted by the department or program in which the courses are offered. o The program offers 3 non-traditional courses which will be managed as follows: ▪ PACS 621 Peace Research: an agreement between the student and the supervising faculty member about research expectations, length of paper, format, topic, types of sources that can be used, and anticipated outcomes is required. Students will be required to prepare a detailed proposal prior to registration in this course that will fully explain the proposed research as well as provide a short bibliography to ensure that adequate sources exist to successfully complete the research. Students will meet periodically with their instructor throughout the term to ensure that milestones are reached. Written work will be evaluated per normal academic criteria. ▪ PACS 625 Internship: students will be required to submit a petition outlining the details of the proposed internship such as place, position, cost, academic work expectations, security concerns, etc. Students will be expected to engage in substantial research on issues related to the host agency as part of the internship. While PACS has the agreement of over ten organizations who are interested in hosting interns, it is anticipated that internships will be negotiated to fit the unique long-term goals of each student. Host agencies will be expected to submit a reference evaluating the student intern at the end of the internship. Written work submitted by the student (evidence of research and

Current Graduate Studies Academic Calendar content:	**Proposed Graduate Studies Academic Calendar content**:
▪ PACS 626 Conflict Resolution Skills Training: this course offers an opportunity for students to take skills-training workshops. Program consent is required to ensure that workshops selected by students, plus the expected additional assigned academic work, are appropriate. • **Link(s) to courses** o Peace and Conflict Studies (PACS) courses o Graduate course search • **Academic Integrity Workshop** o Students will be required to complete a non-credit Academic Integrity Workshop for graduate students offered by the University of Waterloo within their first two terms of study. Once completed, this milestone will be shown on each student's academic record. • **Graduate Studies Colloquium** o The Colloquium will be completed towards the end of the student's program. All students will be required to present publicly, at a Colloquium of MPACS faculty, students and guests, one of the papers they have written for an MPACS course. Length will normally be 25-30 pages (7,500 words). Each student will consult with the professor for whom the original paper was written to identify the core issues to emphasize and the best methods to employ to present the paper. The presentation will be followed by a formal peer response and open discussion. In addition to presenting their own research paper, each student will be required to read and present an oral evaluation of one of the other research papers presented at a Colloquium.	reflective report) will be evaluated per normal academic criteria. ▪ PACS 626 Conflict Resolution Skills Training: this course offers an opportunity for students to take skills-training workshops. Program consent is required to ensure that workshops selected by students, plus the expected additional assigned academic work, are appropriate. o Students in the MPACS program may also choose to pursue the Graduate Specialization in Peace Integration. o A Graduate Specialization is a University credential that is recognized on the student's transcript but not on the diploma and is intended to reflect that a student has successfully completed a set of courses that together provide an in-depth study in the area of the Graduate Specialization. A student will only obtain the Graduate Specialization on their transcript if they have completed the requirements associated with the MPACS degree and the requirements associated with the Graduate Specialization. o The course requirements for the Graduate Specialization in Peace Integration are described below. o Students must complete the following courses: ▪ PACS 605 Conflict Transformation and Peacebuilding ▪ 1.50 units from the following list (note: each 0.50 unit/course must be from a different subject code/area): ▪ GGOV 610/PSCI 688/PACS 630 Governance of Global Economy ▪ GGOV 622 Complexity and Global Governance ▪ GGOV 630/PSCI 678/PACS 634 Security Ontology-Theory ▪ GGOV 631/PSCI 679/PACS 635 Security Governance: Actors, Institutions, and Issues

Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
	▪ GGOV 633 Managing Nuclear Risk ▪ GGOV 662/SOC 781 Global Development Governance ▪ INDEV 604/PACS 650 Sustainable Food Systems ▪ INDEV 605/PACS 651 Economics for Sustainable Development ▪ INDEV 608/PACS 652 Water and Security ▪ INDEV 609 Sustainability Concepts, Applications and Key Debates ▪ INDEV 613 Water, Human Security and Development ▪ GEMCC 602 Climate Change: Vulnerability and Adaptation ▪ GEMCC 622 Climate Change, Natural Hazards and Disaster Risk Reduction ▪ GEMCC 640 Climate Change Governance: From Global Treaties to Local Innovation ▪ HLTH 604 Health and the Environment (blended on-campus/online offering ▪ HLTH 607 Social and Cultural Aspects of Public Health (blended on-campus/online offering) ▪ HLTH 614 Foundations of Program Evaluation ▪ HLTH 632 Health Economics and Public Health (online offering) ▪ HLTH 603 Health Systems and Policy ▪ HLTH 661 Geographic Information Systems and Public Health (online offering) ▪ HLTH 662 Global Health ▪ 2.00 units of:

Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
	▪ PACS 601 Systems of Peace, Order, and Good Governance ▪ PACS 602 The Practice of Peace ▪ PACS 603 Building Civil Society ▪ PACS 604 Conflict Analysis ▪ At least 1.00 units of: ▪ PACS 610 Contemporary Nonviolent Movements ▪ PACS 611 Reconciliation ▪ PACS 612 Culture, Religion, and Peacebuilding ▪ PACS 620 Special Topics in Peace and Conflict Studies ▪ PACS 621 Peace Research ▪ PACS 625 Internship ▪ PACS 626 Conflict Resolution Skills Training • **Link(s) to courses** o Peace and Conflict Studies (PACS) courses o Graduate course search • **Academic Integrity Workshop** o Students will be required to complete a non-credit Academic Integrity Workshop for graduate students offered by the University of Waterloo within their first two terms of study. Once completed, this milestone will be shown on each student's academic record. • **Graduate Studies Colloquium** o The Colloquium will be completed towards the end of the student's program. All students will be required to present publicly, at a Colloquium of MPACS faculty, students and guests, one of the papers they have written for an MPACS course. Length will normally be 25-30 pages (7,500 words). Each student will consult with the professor for whom the original paper was written to identify the core issues to emphasize and the best methods to employ to present the paper. The presentation will

Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
	be followed by a formal peer response and open discussion. In addition to presenting their own research paper, each student will be required to read and present an oral evaluation of one of the other research papers presented at a Colloquium.

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

Currently registered students will be able to complete the Graduate Specialization in Peace Integration if they fulfill the requirements.

Department/School approval date Approved by PACS and Conrad Grebel College Council, March 1, 2019.
Reviewed by GSPA (for GSPA use only) ☐ date (mm/dd/yy):
Faculty approval date (mm/dd/yy): 03/17/20
Senate Graduate & Research Council (SGRC) approval date (mm/dd/yy):
Senate approval date (mm/dd/yy) (if applicable):

University of Waterloo
REPORT OF THE VICE-PRESIDENT, ACACEMIC & PROVOST
Report to Senate
19 May 2020

FOR APPROVAL

Roster of Graduands

Since the roster of graduands will not be available until after the regular meeting of Senate in May and approval is required before the June meeting, the following motion is proposed:

Motion: That Senate delegate such approval to its Executive Committee for its 1 June 2020 meeting.