

University of Waterloo
SENATE
Notice of Meeting

Date: Monday 15 October 2018

Time: 3:30 p.m.

Place: Needles Hall, room 3407

	OPEN SESSION	Action
3:30	<p><u>Consent Agenda</u> Motion: To approve or receive for information by consent items 1-6 below.</p> <ol style="list-style-type: none"> 1. Minutes of the 17 September 2018 Meeting 2. Reports from Committees and Councils <ol style="list-style-type: none"> a. Graduate & Research Council b. Undergraduate Council 3. Report of the President <ol style="list-style-type: none"> a. Recognition and Commendation 4. Report of the Vice-President, Academic & Provost <ol style="list-style-type: none"> a. University Research Chairs 5. Reports from the Faculties 6. Committee Appointments* 	<p>Decision</p> <p>Information Decision/Information</p> <p>Information</p> <p>Information</p> <p>Information</p> <p>Decision</p>
3:35	<p><u>Regular Agenda</u> 7. Business Arising from the Minutes <ol style="list-style-type: none"> a. <i>Fair Workplaces Act</i> Update </p>	<p>Information</p>
3:40	<p>8. Teaching Presentation – Aldo Caputo, Director of Centre for Extended Learning</p>	<p>Information</p>
3:50	<p>9. Reports from Committees and Councils <ol style="list-style-type: none"> a. Graduate & Research Council </p>	<p>Decision</p>
4:00	<p> b. Joint Report – Graduate & Research and Undergraduate Councils* [Fall Break Pilot presentation attached] </p>	<p>Decision</p>
4:20	<p>10. Report of the President <ol style="list-style-type: none"> a. Strategic Plan 2013-2018 – Fall 2018 Update† </p>	<p>Information</p>
4:40	<p>11. Q&A Period with the President</p>	<p>Information</p>
4:50	<p>12. Report of the Vice-President, Academic & Provost <ol style="list-style-type: none"> a. Degrees, Diplomas, and Certificates* [list of graduands to be available for review online prior to the Senate meeting] </p>	<p>Decision</p>
4:55	<p>13. Report of the Vice-President, University Research*</p>	<p>Information</p>
5:00	<p>14. Other Business</p>	
	CONFIDENTIAL SESSION	
5:05	<p>15. Minutes of the 17 September 2018 Meeting</p>	<p>Decision</p>
5:10	<p>16. Business Arising from the Minutes</p>	

	CONFIDENTIAL SESSION	Action
5:15	17. Report of the President	Information
5:20	18. Other Business	

*material to follow

†packages will be available at the meeting

5 October 2018

KJJ/ees

Karen Jack
University Secretary
Secretary to Senate

University of Waterloo
SENATE
Minutes of the Monday 17 September 2018 Meeting

Present: Katherine Acheson (for Douglas Peers), Jean Andrey, Michael Balogh, Sandra Banks, Lisa Bauer-Leahy, Steven Bednarski, Katherine Bergman, Kankar Bhattacharya, Anne Bordeleau, Carmen Bruni, Kofi Campbell, Jeff Casello, Brian Cepuran**, David Clausi, Tara Collington, Mario Coniglio, Simon Courtenay, Joan Coutu, Eric Croiset, Shannon Dea, Peter Deadman, Charmaine Dean, Mathieu Doucet, Tia Driver, Fraser Easton, Marlene Epp, Paul Fieguth, George Freeman, Shikha Gandhi**, Matthew Gerrits, Robert Gorbet, Julia Goyal, John Haddock, Feridun Hamdullahpur (chair), Craig Hardiman, Dennis Huber, Marios Ioannidis, Karen Jack (secretary), Alysia Kolentsis, Kesen Ma, Tyler Marques, Mungo Marsden, Ian Milligan, Katie Misener, Barb Moffatt, Rick Myers, Cathy Newell Kelly, Erin O'Connell, Daniel O'Connor, Linda Ogechi Iheme, William Pristanski**, Neil Randall, James Rush, Max Salman**, Naima Samuel, Beth Sandore Namachchivaya, Mark Seasons, Hannah Sesink, Marcus Shantz, Joanne Shoveller, James Skidmore, Marlee Spafford (for Robert Lemieux), Richard Staines, Paul Stolee, Pearl Sullivan, Susan Tighe, Bryan Tolson, Stephen Watt, Ross Willard, Richard Wu

Guests: Nandita Basu, Bruce Campbell, Aldo Caputo, David DeVidi, Donna Ellis, Sue Horton, Andrea Kelman, Jennifer Kieffer, Nick Manning, Norah McRae, Diana Parry, Chris Read, Emily Schroeder, Daniela Seskar-Hencic, Allan Starr, Brandon Sweet, Cristina Vanin, Kathy Winter

Absent: Bilal Akhtar, Dominic Barton*, Chris Bauch*, Claudio Canizares*, Fred Chereschski*, David Edwards*, Wendy Fletcher*, Cindy Forbes*, Mark Giesbrecht*, Kelly Grindrod, Thorsten Heins*, Craig Janes*, Spiro Karigiannis*, Martin Karsten*, Scott Kline*, Robert Lemieux*, Teferi Mergo, Grant Mitchell, Douglas Peers*, Hamid Tizhoosh*, Tomson Tran, Maya Venters*, Dan Wolczuk, En-Hui Yang*

*regrets

**joined by telephone

OPEN SESSION

Consent Agenda

The chair welcomed members to the meeting and expressed his hope that all had enjoyed the summer. He noted the item at members' places: a handout re: the United Way 2018 campaign. He also extended a warm welcome to the new provost in his first meeting in this capacity, and to the new associate provost, cooperative and experiential education, Norah McRae.

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

Andrey and Bergman.

1. MINUTES OF THE 18 JUNE 2018 MEETING

Senate approved the minutes of the meeting.

2. REPORTS FROM COMMITTEES AND COUNCILS

Graduate & Research Council. Senate received the report for information.

Undergraduate Council. Senate heard the following motions:

Faculty of Arts, Bachelor of Arts Breadth Requirements

Motion: That Senate approve the revisions to the Bachelor of Arts breadth requirements as presented in the report, effective 1 September 2019.

Faculty of Arts, Restrictions on Multiple Plan Combinations

Motion: That Senate approve the revisions to the Faculty of Arts restrictions on multiple plan combinations as presented in the report, effective 1 September 2019.

Senate received the remainder of the report for information.

Nominating Committee for Honorary Degrees. Senate received the report for information.

3. REPORT OF THE PRESIDENT

Recognition and Commendation. Senate received the report for information.

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

Call for Nominations for University Professor. Senate received the report for information.

University Research Chairs. Senate received the report for information.

5. REPORTS FROM THE FACULTIES

Senate received the reports for information.

Senator Tolson expressed his gratitude to the Faculty of Mathematics re: the positive changes for four appointments in that Faculty which have moved from “two year, less a day” contracts to “two year or longer” contracts.

The question was called and the motion carried unanimously.

Regular Agenda

6. BUSINESS ARISING FROM THE MINUTES

There was no business arising.

7. RESEARCH PRESENTATION – NANDITA BASU, ASSOCIATE PROFESSOR, CIVIL AND ENVIRONMENTAL ENGINEERING/EARTH AND ENVIRONMENTAL SCIENCES

Dean introduced Nandita Basu, associate professor, water sustainability and ecohydrology. Professor Basu gave a presentation titled, “Back to the Future: How Past Land Use Impacts Today’s Water Quality.”

Following Dr. Basu’s presentation, Senate discussed: the bases upon which models are built; the challenges associated with communicating realities and timelines to the community; cover-crop considerations; the collaborative way that Dr. Basu engages her students from the engineering and environment Faculties.

8. REPORTS FROM COMMITTEES AND COUNCILS

Graduate & Research Council.

New Research Centre, Global Health Policy and Innovation Research Centre. Senate heard a motion to approve the establishment of the Global Health Policy and Innovation Research Centre, as presented in attachment 1.

Dean and Stolee. Carried unanimously.

9. REPORT OF THE PRESIDENT AND Q&A PERIOD

The president provided senators with a broad update including: an admissions update; recent accomplishments and acknowledgements; new faculty hiring data; ranking updates; developments with respect to government relations; graduate target data; the incoming chancellor; construction updates; recent activity re: student mental health; the coming summative report re: the 2013-18 Strategic Plan and the bridge to the 2020 Plan. The chair also spoke to the recent directive from the province with respect to a “Freedom of Speech” policy and advised re: recent conversations with the

province and the Council of Ontario Universities. Senators heard that the University is actively considering this matter and that Senate will hear more about this work over the course of the fall.

In discussion, Senate heard: the need to educate the public as to the University's position on this matter; a suggestion that a policy is not necessary; discussion re: what the University has in place already re: this matter; confirmation that the province's deadline is 31 December 2018.

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

University Research Chair – Revised Policy. Senate heard a motion to approve a change in the selection process as provided in the memorandum such that the final decision will be made by the vice-president, academic & provost.

Rush and Dean. Carried unanimously.

Course Evaluation Project – Phase 2 Update.

Coniglio introduced David DeVidi, chair of the Course Evaluation Project team, who provided an update on Phase 2 of the project.

Following DeVidi's presentation, in discussion: potential changes coming to the course evaluation tool(s) in the future; lessons learned from other institutions' work on this front; the need to incorporate student feedback.

12. REPORT OF THE VICE-PRESIDENT, UNIVERSITY RESEARCH

Dean provided members with a brief report on activities and mentioned how pleased she was with the recent achievements of faculty, staff and students.

13. OTHER BUSINESS

There was no other business.

Senate convened in confidential session.

22 September 2018

Karen Jack
University Secretary

CONFIDENTIAL SESSION

The confidential minutes have been removed.

University of Waterloo
SENATE GRADUATE & RESEARCH COUNCIL
Report to Senate
15 October 2018

Senate Graduate & Research Council met on 10 September 2018 and agreed to forward the following items to Senate for information as part of the consent agenda.

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

FOR INFORMATION

CURRICULAR SUBMISSIONS

On behalf of Senate, council approved new courses, course revisions, and course inactivations for the Faculties of Arts (global governance) and Science (biology, physics and astronomy, school of pharmacy).

OFFICE OF RESEARCH

On behalf of Senate, council approved revisions to the UW/SSHRC grant names and descriptions (as presented in Attachment 1); changes are required by and commensurate with SSHRC's revised grant names and changes made to types of activities that can be funded.

On behalf of Senate, council approved the following Human Research Ethics Committee continuing membership items: (1) re-classified member (to role of chair; 3-year term), and (2) two new members; one as 4-month sabbatical replacement; one for a 3-year term.

ACADEMIC PROGRAM REVIEW REPORTS

On behalf of Senate, council approved the Final Assessment Report for Applied Mathematics (as presented in Attachment 2) and the Final Assessment Report for Statistics & Actuarial Science and Quantitative Finance (as presented in Attachment 3).

GRADUATE AWARDS

On behalf of Senate, council approved the Ripple Graduate Fellows (operating), Emily Ruston Mann Memorial Graduate Scholarship (endowment), Mathematics Domestic Masters Scholarship (operating), DiMarco Graduate Scholarship in Computational Rhetoric (trust), Pasupalak Scholarship in Robotics (endowment), GMAC Master of Business, Entrepreneurship and Technology Scholarship (trust), Science Domestic Graduate Scholarship (operating), Arts Domestic Master's Scholarship (operating), Engineering Domestic Graduate Scholarship (Dean's Entrance) (operating), and Advanced Manufacturing Master's and Doctoral Fellowships in Engineering (AMF-M and AMF-D) (operating).

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

Charmaine Dean
Vice President, University Research

Memo

To: Dr. Kathy Winter, Secretary SGRC

From: Dr. Ruth Knechtel, Senior Manager Office of Research and Secretary to the UW/SSHRC Grant Review Committee

Subject: UW/SSHRC Grant changes

Please accept the following for consideration at the next Senate Graduate and Research Council meeting.

Starting with the December 1st adjudication, the UW/SSHRC Grant Review Committee (<https://uwaterloo.ca/research/terms-reference>), there will be several changes to the UW/SSHRC grants.

Specifically, the described change is below:

The Social Sciences and Humanities Research Council (SSHRC) funds the internal UW/SSHRC grant program through the SSHRC Institutional Grant (SIG) - http://www.sshrc-crsh.gc.ca/funding-financement/programs-programmes/institutional_grants-subventions_institutionnelles-eng.aspx. As of the start of fiscal 2018/19, SSHRC has revised the names of their grants and the types of activities that can be funded using these monies. They require that institutions using these funds change their internal awards to match the new grant names and descriptions. As such, the UW/SSHRC Grant Review committee has revised the grant descriptions to accommodate these changes.

Thus, we are seeking approval for the UW/SSHRC grants to be revised according to the attached descriptions.

For reference, the current descriptions can be found at:

Travel Grant - <https://uwaterloo.ca/research/find-and-manage-funding/find-funding/uwsshrc-travel-grant>

Seed Grant - <https://uwaterloo.ca/research/find-and-manage-funding/find-funding/uwsshrc-seed-grant>

UW/SSHRC Exchange Grant: Knowledge Mobilization*

*Formerly the UW/SSHRC Travel Grant

Introduction

The program is funded by an annual block grant from the Social Sciences and Humanities Research Council (SSHRC). Proposals are reviewed and approved by the UW/SSHRC Grants Review Committee, a sub-committee of the University Senate Graduate and Research Council, and are administered through the Office of Research. To maintain a stream of internal research funding, eligibility for the UW/SSHRC Exchange Grant Program is directly tied to participation in these external SSHRC programs. An exception to this rule is made for new faculty: those in their first three years of appointment are eligible to receive funding without having first sought external SSHRC funds.

The UW/SSHRC Exchange Grant Program is meant to stimulate exchange and transfer of knowledge as well as support outreach initiatives such as conference travel, conference/workshop organization, publications, digital resource creation, exhibitions, and other knowledge mobilization activities (subject to the approval of the UW/SSHRC Committee). See information below in relation to Exchange Grants 1, 2, 3.

For the purposes of this program, we are using SSHRC's definition of Knowledge Mobilization as an "umbrella term encompassing a wide range of activities relating to the production and use of research results, including knowledge synthesis, dissemination, transfer, exchange, and co-creation or co-production by researchers and knowledge users" (http://www.sshrc-crsh.gc.ca/funding-financement/policies-politiques/knowledge_mobilisation-mobilisation_des_connaissances-eng.aspx).

The Exchange program (including Exchange Grants 1, 2, 3) is available to assist with the following Knowledge Mobilization Activities:

- **Exchange Grant 1: costs associated with disseminating current research findings at a conference.** Eligible expenses include the cost of return travel from the participant's residence to the conference location, cancellation insurance, and accommodation costs. Air travel must be claimed at the lowest rate available, not to exceed full economy fare. Invitations to present new research results will be given priority. There is no restriction on the location of travel, (i.e. it may be in Canada or abroad) but maximum funding levels apply (see table below).

- Conference attendance will not be funded unless a paper will be presented at the conference¹
- Exchange grant funding cannot be used retroactively for conferences already attended.
- Decisions will be made by the committee based on the nature and importance of the conference to the applicant's discipline, and the expected level of participation or role of the applicant.

Conference Travel (Exchange Grant 1) maximums used by UW/SSHRC committee:

<i>Destination area</i>	<i>Maximum allocation</i>
Destination area North America	Maximum allocation Up to \$1,400.00
Destination area Europe, Middle East, South America	Maximum allocation Up to \$2,000.00
Destination area Africa, Australia, and Asia (India, Pacific Rim)	Maximum allocation Up to \$2,800.00

- **Exchange Grant 2: costs associated with organizing a small-scale research conference or workshop (up to \$4,000)**
 - The event must be hosted by University of Waterloo;
 - Preference will be given to events held on campus or in the Waterloo region. If outside, please provide a clear justification for the choice;
 - A conference is defined as a scholarly event usually lasting one day or longer that focuses on one or more distinct themes, is open to all interested and qualified researchers via a call for papers (although keynote speakers may be invited) – definition adapted from SSHRC;
 - A workshop is defined as a small, invitational event, the object of which is to develop a research agenda or delineate specific research questions, produce a concrete deliverable (such as a paper, report or policy document) – definition adapted from SSHRC;
 - Eligible costs include speaker travel and accommodations, space rental, meals and refreshments (alcoholic beverages not eligible), student salaries, technical services. The conference/workshop must include defined research themes and require no registration fees for attendance;

¹ If funding permits, consideration will be given to full-time faculty members applying to attend a conference in order to learn more about an emerging area of research or to be a discussant. A compelling argument must be made in the application addressing the importance of the meeting to the applicant's research trajectory and the impact that attendance will have.

- Decisions will be made by the committee based on the importance and anticipated impact of the event and its contributions to research and scholarship, the importance of the event in relation to increasing the PI's capability score on a subsequent SSHRC grant, the contribution of the event to enhancing the visibility of research at Waterloo, provisions for the inclusion of Waterloo students;
 - **Please note that these funds CANNOT be used as matching on any SSHRC Grant because they are awarded through the SSHRC Institutional Grant (and you cannot use SSHRC funds as matching on any SSHRC program).**
- **Exchange Grant 3: costs associated with preparing knowledge mobilization outputs associated with research projects.**
 - For example:
 - digital resource creation (websites, databases, digital resources);
 - book preparation costs such as translation fees, indexing fees, copyright and image fees (please note that publication subventions and open access fees are not eligible expenses under this program);
 - adaptation (including translation, e.g., into French, English or Aboriginal languages) of texts or presentations for the purpose of broader knowledge mobilization to different audiences;
 - development of policy briefs, knowledge syntheses and scoping reviews;
 - development of articles for print or online publication in newspapers or weekly or monthly magazines—whether specialized or general interest;
 - media events (such as television/radio presentations);
 - summer schools/institutes;
 - speaker series;
 - public debates;
 - artistic exhibits, performances or festivals;
 - development/use of interactive technologies, audio-visual products or software.

Decisions will be made based on the importance of the output in relation increasing the PI's capability score on a subsequent SSHRC grant application, the anticipated contribution of the output to scholarship, and the potential for the output to increase the visibility of research at Waterloo.

Eligibility

Applicants must be tenured or tenure-track SSHRC-eligible faculty who have applied for, and indicate their intention to apply again for external SSHRC funding. Faculty with a 3-year limited-term appointment will be given consideration to apply so long as they have the support of their Department Chair/School Director and Faculty Dean.

- Applicants who currently hold external SSHRC funding or a RIF award are ineligible to apply for UW/SSHRC Explore and Exchange Grants
 - Applicants cannot apply to the UW/SSHRC Exchange Grant and Humanities and Social Sciences (HSS) Fund for the same research project
 - Applicants may only apply for one Exchange Grant per round. In other words, if they apply for an Exchange Grant 1, they may not also apply for an Exchange Grant 2. Normally, no more than one Exchange grant of each type per two fiscal years (May 1 to April 30) will be awarded to the same individual. In other words, if a researcher applies for an Exchange Grant 1 in 2018, they may not apply again for an Exchange Grant 1 until 2020. However, they may apply for an Exchange Grant 2 or 3 earlier, if applicable.
 - Applicants must have applied to an external SSHRC competition within the last three years. An exception is made for new faculty who are in the first three years of their appointment (further exceptions are possible – please contact the UW/SSHRC secretary for details)
 - If an applicant to the Exchange Grant program is also awaiting results from a recent SSHRC Grant application, they MAY be required to await those results before they can hold the internal funding – this will be determined on a case-by-case basis
 - Applicants can apply for both the Explore and Exchange grants with the stipulation that:
 - Each application shall be judged on its own merit
 - When there is a shortage of funding, both grants might not be awarded
 - Preference for funding both applications will be given to junior colleagues
 - All applicants to the program are expected to apply to an external SSHRC competition within two years of receiving their UW/SSHRC grant
 - Applicants will not be eligible for further support from the UW/SSHRC Program if a final report on previously-funded research has not been received (i.e. Explore Grant or HSS Endowment Report)
 - Exchange grant funding cannot be used retroactively for work completed prior to application or for conferences attended or organized prior to application
-

Applications must include the following:

- 1) Office of Research [Cover Sheet](#) with signatures of the applicant, the applicant's Department Chair/School Director, and the applicant's Faculty Dean
 - a) Please submit the cover sheet, with appropriate signatures, in hard copy (only) to the Secretary, [UW/SSHRC Grants Committee](#) in the [Office of Research](#)
- 2) One electronic copy (PDF) of the appropriate application form (see links above in relation to Exchange Grants 1, 2, 3) and all supporting documents. The single PDF file containing all documents (except the cover sheet) should be submitted via e-mail to the [Secretary](#), UW/SSHRC Grants Committee. All files must be combined into one PDF; applications not presented in this format will be rejected. Please combine the following:
 - Application form (Adobe Reader is most compatible) – please choose the appropriate version for the type of Exchange Grant

- Confirmation of invitation or acceptance of paper (if applying for conference travel – Exchange Grant 1)
- Information on sponsoring organization (if applying for conference travel - Exchange Grant 1 -required only if no link to conference website is available)
- SSHRC CV (with 4-page research contributions document) or Canadian Common CV (CCV)
- UW/SSHRC Seed Grant (now Explore Grant), UW/SSHRC Exchange Grant, HSS Endowment and/or 4A Award (RIF) final reports from the last five years (if applicable)

All questions should be directed to the Secretary, UW/SSHRC Grants Committee at 519-888-4567, ext. 37094 or uwsshrc@uwaterloo.ca.

Deadlines: June 1 and December 1

- **Please note that off-cycle Conference Travel grants (Exchange Grant 1) will only be accepted for adjudication if the applicant can prove that s/he received confirmation of acceptance after one of the two internal deadlines (June 1 or Dec 1) and therefore s/he was not able to apply in a regular round. Otherwise, off-cycle Exchange Grants will not be accepted.**

Notification: decisions will be e-mailed to applicants by the end of August and the end of February, respectively.

Applications for conference travel support must be submitted in advance of the conference date. Changes in conference venue will necessitate a reapplication to the next UW/SSHRC Exchange Grant competition and will void the currently awarded travel activity.

Requirements

Final Report: Three months following the termination of an Exchange Grant 2 or 3, a one-page final report including a summary of the results and their general significance is to be submitted to the Secretary of the UW/SSHRC Grant Review Committee (not required for Exchange Grant 1 - conference travel). The summary should describe the event or output and how it increased the research visibility of both the PI and Waterloo. In addition, it should describe how the event or output relates to (and will improve) a subsequent external application to SSHRC.

Please note that a researcher will not be eligible for further support from the UW/SSHRC program until a report on the previously-funded research has been submitted.

Ethics: Successful applicants whose research involves human participants must submit a research ethics [application form \(ORE 101\)](#) to the Office of Research Ethics for review and clearance before a research account can be activated.

Successful applicants whose research involves live, non-human vertebrate animals must submit an Animal Utilization Project Proposal (AUPP) to the Office of Research Ethics for review and approval before a research account can be activated.

[Office of Research Ethics](#)

Acknowledgement

Please acknowledge the support provided through the University of Waterloo SSHRC Institutional Grant (SIG) in any publication, conference presentation, event, or other KMB output resulting from the grant.

Evaluation of applications

Funding decisions for this program will be made by the UW/SSHRC Grant Review Committee based on the applicant's need for support; the quality of the proposal; the link established between the Exchange Grant project and a forthcoming external SSHRC grant application; and the research record, or potential, of the applicant. When the Committee requires further input to arrive at a decision, the applicant's Department Chair/School Director and Faculty Dean will be asked for a confidential evaluation of the proposal.

[Terms of reference](#)

Revised: August 2018

UW/SSHRC Explore Grant: Seed*

*Formerly the UW/SSHRC Seed Grant

Introduction

The UW/SSHRC Explore Grant program is funded by an annual block grant from the Social Sciences and Humanities Research Council (SSHRC). Proposals are reviewed and approved by the UW/SSHRC Grants Review Committee, a sub-committee of the University Senate Graduate and Research Council, and are administered through the Office of Research. To maintain a stream of internal research funding, eligibility for the UW/SSHRC Explore Grant Program is directly tied to participation in these external SSHRC programs. An exception to this rule is made for new faculty: those in their first three years of appointment are eligible to receive funding without having first sought external SSHRC funds.

These funds cover research expenses for projects with budgets up to \$7,000 in the Social Sciences and Humanities and Fine- and Performing-Arts, and are considered to be seed funding for subsequent applications to SSHRC. UW/SSHRC Explore Grant funding is available for one year (May 1 to April 30) plus one extension year. Further extensions will be made on a case-by-case basis and will necessitate the submission of a written request with a revised budget to the Secretary of the UW/SSHRC Grants Review Committee.

Eligibility

Applicants must be tenured or tenure-track SSHRC-eligible faculty who have applied to an external SSHRC competition or held an external SSHRC grant as a Principal Investigator within the previous three years. An exception to this is new faculty: those in their first three years of appointment are eligible to receive UW/SSHRC Seed Grant funding without having first sought external SSHRC funds. As well, consideration may be given to regular faculty who have not recently applied for or held a SSHRC grant, but who can demonstrate that they are undertaking a significant change in research direction that requires start-up funds and is SSHRC-related. Faculty with a 3-year limited-term appointment will be given consideration to apply so long as they have the support of their Department Chair/School Director and Faculty Dean.

- Applicants can hold either a UW/SSHRC grant or a SSHRC grant, but not both^A
 - If a researcher successfully applies for a UW/SSHRC Explore grant and is also awaiting the results of an external SSHRC application, funds will not be released until the SSHRC results are available. If the researcher has been successful on the external SSHRC grant, they *will not* be eligible to also receive the internal UW/SSHRC funding
 - If a researcher successfully applies for a UW/SSHRC Explore grant and then also applies for an external SSHRC grant thereafter (and is successful), they may keep

both awards. However, if a researcher holds a UW/SSHRC Explore grant, then applies unsuccessfully to an external SSHRC grant and their application is RIF-eligible, they *will not* be eligible for the RIF ([Research Incentive Fund](#)). Researchers cannot hold two internal grants simultaneously.

- Applicants who currently hold external SSHRC funding are ineligible to apply for UW/SSHRC Explore and Exchange Grants
- Applicants who currently hold a RIF Award are ineligible to apply for UW/SSHRC Explore and Exchange Grants
- If a researcher currently holds a UW/SSHRC Explore Grant, s/he is ineligible to apply to the program until all funds are expended and the final report is received
- Applicants cannot apply to the UW/SSHRC Explore Grant and Humanities and Social Sciences (HSS) Fund for the same research project
- Applicants can apply for both the Explore and Exchange Grant with the stipulation that:
 - Each application shall be judged on its own merit
 - When there is a shortage of funding, both grants may not be awarded and priority will be given to awarding Seed grants over Travel grants in such cases
 - Preference for funding both applications will be given to junior colleagues
- All UW/SSHRC Explore Grant recipients are required to apply to an external SSHRC competition within two years of receiving their UW/SSHRC Explore Grant.
- While an applicant may not be a Principal Investigator on more than one UW/SSHRC Explore Grant at the same time, s/he may be a co-investigator on any number of concurrent applications
- Applicants will not be eligible for further support from the UW/SSHRC Program if a final report on previously-funded research has not been received (i.e. Explore Grant or HSS Endowment Report)

Priorities

The purpose of the UW/SSHRC Explore Grant Program is to support the early-stage development of high-quality research in the fine and performing arts, social sciences, and humanities. The UW/SSHRC Grants Review Committee will prioritize funding for preliminary work for a new project^B and bridge-funding for a project linked to a new SSHRC proposal.

Eligible expenses

The UW/SSHRC Explore Grant Program will cover the following expenses: salaries of research assistants, minor equipment, databases, supplies, and travel essential for the conduct of the research. Costs of short distance travel within Southwestern Ontario must be justified. Requests for equipment or software must be justified and identified as essential to the success of the project, and must explain why available on-campus facilities are not adequate. Requests for conference travel funding must be made through the UW/SSHRC Exchange Grant program.

Applications must include the following:

- 1) Office of Research Cover Sheet
 - a) Please submit the cover sheet, with appropriate signatures, in hard copy (only) to the Secretary, UW/SSHRC Grants Committee in the Office of Research
- 2) One electronic copy (PDF) of the application form and all supporting documents. The single PDF file containing all documents (except the cover sheet) should be submitted via e-mail to the Secretary, UW/SSHRC Grants Committee. All files must be combined into one PDF; applications not presented in this format will be rejected. Please include the following in the PDF:
 - UW/SSHRC Research Grant application form (PDF) (Adobe Reader is most compatible)
 - Detailed description of proposal (4 pages maximum)
 - List of references (1 page maximum)
 - Budget justification (1 page maximum)
 - SSHRC CV (with 4-page research contribution document) or Canadian Common CV
 - UW/SSHRC Seed Grant (now Explore Grant), UW/SSHRC Exchange Grant, HSS Endowment and/or 4A Award (RIF) final reports from the last five years (if applicable)

All questions should be directed to the Secretary, UW/SSHRC Grants Committee at 519-888-4567, ext. 37094 or uwsshrc@uwaterloo.ca.

Deadlines: June 1 and December 1

- **off-cycle Explore Grants will not be accepted**

Notification: decisions will be e-mailed to applicants by the end of August and the end of February, respectively

Requirements

Final report requirement: Three months following the termination of the grant, a one-page final report including a summary of the research results and their general significance is to be submitted to the Secretary of the UW/SSHRC Grant Review Committee. The summary should describe how the research evolved from the objectives set out in the proposal and, where possible, knowledge mobilization activities were achieved.

Please note that a researcher will not be eligible for further support from the UW/SSHRC program until a report on the previously-funded research has been submitted.

Ethics: Successful applicants whose research involves human participants must submit a research ethics application form (ORE 101) to the Office of Research Ethics for review and clearance before a research account can be activated.

Successful applicants whose research involves live, non-human vertebrate animals must submit an Animal Utilization Project Proposal (AUPP) to the Office of Research Ethics for review and approval before a research account can be activated.

Office of Research Ethics

Acknowledgement

Please acknowledge the support provided through the University of Waterloo SSHRC Institutional Grant (SIG) in any publication resulting from the grant.

Evaluation of applications

Funding decisions for this program will be made by the UW/SSHRC Grant Review Committee based on the applicant's need for support; the quality of the proposal; the link established between the Explore Grant project and a forthcoming external SSHRC grant application; and the research record, or potential, of the applicant. When the Committee requires further input to arrive at a decision, the applicant's Department Chair/School Director and Faculty Dean will be asked for a confidential evaluation of the proposal.

Terms of Reference

A. Some exceptions apply, such as applicants who hold a Connection grant

B. Requests for support for networking activities will be considered. Applicants must make a compelling case that this activity is integral to the development of a new project, and requests for such funding will be considered on a case-by-case basis.

Revised: August 2018



Final Assessment Report

Applied Mathematics (MMath, PhD)

June 2018

Summary of the Program Review:

In accordance with the University Institutional Quality Assurance Process (IQAP), this final assessment report provides a synthesis of the external evaluation and the internal response and assessments of the MMath and PhD programs delivered by the Department of Applied Mathematics. A self-study (Volume I) was submitted to the Office of the Associate Provost, Graduate Studies on July 21, 2015. The self-study presented the program descriptions, learning outcomes, an analytical assessment of these two programs, and program data which included data collected from a student survey along with the standard data package prepared by the Office of Institutional Analysis & Planning (IAP). Appended were the course outlines for all courses in the program and the CVs (Volume II) for each full-time faculty member in the Department.

Two arm's-length external reviewers (Volume III), (Dr. Nicholas Kevlahan, Professor of Mathematics, McMaster University and Dr. Ralph Smith, Distinguished Professor of Mathematics, North Carolina State University) were chosen by the Associate Provost, Graduate Studies, in addition, one internal reviewer (Dr. John Garcia, Professor of Practice/ School of Public Health and Health Systems) was selected by the Associate Provost, Graduate Studies.

They reviewed the self-study documentation and then conducted a site visit to the University on May 9-10, 2016. The visit included interviews with the Vice-President Academic & Provost; Associate Provost, Graduate Studies; Dean of the Faculty; Faculty Associate Dean of Graduate Studies, Chair of the Department, Faculty members, staff and meetings with a group of current graduate students, and support staff.

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

Program characteristics:

The Department of Applied Mathematics was created in 1967 when the Faculty of Mathematics was established. Applied Mathematics has traditionally been seen as providing a bridge between Mathematics and Science through the construction and analysis of mathematical models. It can be said that the discipline of Applied Mathematics arose from the intimate connections between Mathematics and Physics.

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

Strengths

- Very strong students (based on undergraduate performance and past academic records)
- Students are assigned 3 teaching assistantships per year usually in two out of the three terms, in order to allow for time devoted exclusively to research in the third term.
- Diverse research carried out by faculty members of the Department; from development of theoretical and computational methods to the application of those methods to study cutting-edge problems in science and engineering.
- The breadth of research and novel teaching facilities provided by experimental labs.

Challenges

- Lack of space for growth; at or near capacity for offices for faculty, students, postdoctoral fellows.
- Lack of sufficient funding to support graduate students for some faculty members – more specifically, AM Faculty are required to commit on average \$15K/year to support a graduate student. Several members of the department obtain funding primarily from the NSERC Mathematics Panel where the average grant is on the order of \$15K.
- More staff support required for current level of departmental activity.(ie grad student expansion, increased number of postdocs, increased number of academic visitors, 5 experimental labs)

Weakness

- Inadequate job preparedness of graduates (in terms of interview strategies, CV structuring and other practical considerations for the general job market) other than for positions in academia.

Summary of key findings from the external reviewers:

The external reviewers rated both programs as “excellent and internationally competitive graduate programs”. They commented on several aspects of the programs, noting that for a mathematics department, “the faculty have excellent funding levels and top-level research programs and publication records.” Additionally, the external reviewers’ remarked that the four laboratories are unique internationally and are a highly distinctive aspect of graduate training in the Department. They found the facilities to be of high quality, but did note that there appears to be lack of space for further growth of graduate enrollment. Lastly, they commended the program for implementing a graduate recruitment day which they found to be extremely important as it positively impacts the programs.

Program response to external reviewer recommendations:

Recommendations

1. *Graduate student net pay should be equalized on a monthly basis and increased at a rate commensurate with inflation and cost of living in the Waterloo area.(our rates remain on a par with Math Faculty recommendations, but clearly would be great to increase support which has lagged behind inflation and cost of living)*

Response

All scholarships are paid at the beginning of the term through the Graduate Studies Office. The Department does not have any control over this; however, the Department tries to ensure that graduate student pay is distributed equally between the three terms. Graduate students are provided with a letter at the start of each term which outlines what their gross financial support for the term will be and how it will be distributed between scholarships and teaching assistantships. The Department further revised the letter to outline which funding support will come on a monthly basis and which is paid out once per term. Students will also be informed at Orientation how and when they can expect to be paid. The Department is also committed to reviewing graduate student support on an annual basis and will use the change in Teaching Assistantship rate and increases in graduate tuition to determine the appropriate rate of increase for Graduate Research Assistantships.

2. *The University should support the development of a co-op/internship opportunity for graduate students in Applied Mathematics. Ideally, these opportunities would not increase the overall time to completion.*

Response

In the past, internships have been difficult to arrange as they relied on the student or the supervisor having a contact in industry. In general, the introduction of co-op tends to inevitably increase time to completion for a degree program. However, the Department will pursue a formal co-op option for the Master's program. If co-op is successful, expanding the option to the PhD program may be considered. At the same time, the Department will also facilitate students participating in internships through the MITACS Accelerate program which can facilitate internships on a financial basis but the help of the University Research Outreach Team and the Managers for Corporate Research Partnerships will be needed in order to establish contacts with industry.

3. *Provide institutionalized in-department training for research and job skills and ensure students are made aware of and encouraged to take advantage of similar opportunities at the University level. Examples include preparation of CV's and resumes, preparation of research and teaching statements, explanation of career opportunities, interview strategies, and skills development in poster design, as well as oral and written communication.*

Response

The Department will implement a mandatory first year course milestone that would meet once per week with guest speakers presenting seminars/workshops on various research and job skills. They will also incorporate some modules available through GradVenture into the course, to provide excellent professional opportunity training.

4. *Invigorate the colloquium to enhance the scientific culture and cohesiveness of the department and the broader training of the graduate students. One way to do this might be to establish a Lecture Series with four lectures per year with the goal of inviting speakers at the level of plenaries at major national and international conferences. They should be planned well in advance and widely advertised to the campus community.*

Response

The Department has been trying to run the aforementioned colloquium since 2012. However, due to poor attendance the 2015-16 colloquium has been cancelled. As a result, the Department will be implementing a milestone for graduate students which will require them to attend a certain number of seminars/colloquia during their graduate studies. To this end, the Applied Math Colloquium has been revamped, and with an increased allocated budget, we expect to have 4-6 very high profile speakers over the course of the year. It is expected that attendance of the majority of the Applied Math Colloquia will be a requirement for all graduate students (once approved by the AM Grad Committee)

5. *Continue to prioritize the recruitment of women and underrepresented minorities. This goal should be included explicitly as a weighting or factor in ranking student applications.*

Response

The Department is committed to continuing this practice by promoting scholarships for women, underprivileged and visible minorities. Supervisors will be informed that such scholarships exist. The Department will also explore ways to increase the number of applications from women such as leveraging the publicity of the HeForShe campaign and participating in outreach activities such as the summer schools for undergraduate women which have previously been held in Waterloo in August 2013 and August 2014. Other initiatives to reach out to the undergraduate cohort of students, that are currently on

campus, will be through female AM Faculty members giving talks at the undergrad societies of the Math Faculty. In June/July of 2018, the Dept of Applied Math will be running an “Advances in Applied Mathematics” three-day workshop, where all invited speakers are leading female researchers in various areas of applied mathematics.

Recommendations that were not selected for implementation:

1. *Update course requirements and content to reflect evolving trends in Applied Mathematics. Specific recommendations include the following: (i) reduce the breadth requirement from three to two courses, (ii) increase options for acceptable courses, (iii) update course content to reflect emerging trends in applied mathematics research, (iv) rotate instructors for core courses, (v) develop a core modelling course.*

Response

Regarding item (i), the Department feels that the current breadth requirement of three courses is necessary to cover essential applied mathematical tools (analysis, approximation methods and computational methods), and is not too onerous. With respect to item (ii), students are permitted to take any course they want outside of their breadth requirement and students who did their degree at another university can count an equivalent course towards their degree. With reference to item (iii), courses are updated periodically to reflect modern developments and perspectives. Regarding item (iv), the Department notes that the majority of core courses are taught, at most, two times by the same instructor. With respect to item (v), the Department feels that many of the Applied Math courses already incorporate aspects of modelling (which is an essential aspect of Applied Math), and thus it would be artificial and unnecessary to develop a stand-alone modelling course. The Department also found items (i) and (v) in conflict as the former suggested reducing the breadth requirement of courses while the latter recommended adding another requirement. The Department proposes to do a full review of the graduate core curriculum during the 2017-18 academic year during which they will determine what will be “minimum necessary academic credentials” for both the Applied Mathematics Master’s and PhD graduates.

2. *Explore the possibility of developing an interdisciplinary field to train graduate students for non-academic careers including government laboratories and industry and academic careers.*

Response

The Department feels that the students receive enough interdisciplinary training with expertise in mathematics and/or computing and an area of application. Students are

encouraged to take courses outside of the department as dictated by their research interests. Additionally, students who do not wish to do in-depth research in a particular field can pursue the Essay option, which allows them to take more courses.

Implementation Plan:

	Recommendations	Proposed Actions	Responsibility for Leading and Resourcing (if applicable) the Actions	Timeline for addressing Recommendations
1.	<i>Development of a co-op/internship opportunity for graduate students in Applied Mathematics</i>	Talk with Coop Office Follow same template as the Comp Math Program	Chair & Associate Chair Grad Studies	Start MMath Coop Program in Fall 2018
2.	<i>Provide institutionalized in department training for research and job skills (preparation of CV's research and teaching statements career opportunities interview strategies and skills poster design oral and written communication.</i>	Test training module in one of the current Graduate Courses (in fact we will be incorporating Wat CV into the first 2 weeks of some of our core courses)	Chair & Associate Chair Grad Studies	Ongoing (currently being tested)
3.	<i>Invigorate the colloquium (establish a Lecture Series with the goal of inviting major speakers)</i>	Departmental Colloquium Committee to address this	Chair & Departmental Colloquium Committee	Ongoing
4	<i>Continue to prioritize the recruitment of women and underrepresented minorities</i>	Departmental Graduate Committee to prioritize this through "women in mathematics" workshops/discussion groups, and through the use of incentive scholarships to women and underrepresented minorities	Chair & Associate Chair Graduate Studies	Ongoing


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




Date of next program review: _____ **2022**
Date

Signatures of Approval:

 _____ **25 January 2018**
Chair/Director Date

AFIW Administrative Dean/Head (For AFIW programs only) _____ Date
 _____ **2018-01-25**
Faculty Dean Date

Associate Vice-President, Academic _____ Date
(For undergraduate and augmented programs)
 _____ **June 29, 2018**

Associate Provost, Graduate Studies * _____ Date
(For Graduate and augmented programs)

*Note: The Associate Provost, Graduate Studies title was changed to Associate Vice-President, Graduate Studies and Postdoctoral Affairs



Final Assessment Report

Statistics & Actuarial Science and Quantitative Finance, (MActSc, MMath and PhD in Actuarial Science, PhD in Statistics-Biostatistics, MMath and PhD in Statistics, MQF in Quantitative Finance)

August 2018

Summary of the Program Review:

In accordance with the University Institutional Quality Assurance Process (IQAP), this final assessment report provides a synthesis of the external evaluation and the internal response and assessments of the MActSc, MMath and PhD programs delivered by the Department of Statistics and Actuarial Science. A self-study (Volume I) was submitted to the Associate Provost, Graduate Studies Office on November 17, 2015. The self-study presented the program descriptions and learning outcomes, an analytical assessment of these eight programs, and program data including the data collected from a student survey along with the standard data package prepared by the Office of Institutional Analysis & Planning (IAP). Appended were the course outlines for all courses in the program and the CVs (Volume II) for each full-time faculty member in the Department.

Two arm's-length external reviewers (Volume III), (Dr. Louis-Paul Rivest, Professor of Mathematics and Statistics, Université Laval and Dr. Emiliano A. Valdez, Professor of Actuarial Science, University of Connecticut) were ranked by the Associate Provost, Graduate Studies, in addition one internal reviewer (Dr. Marc Aucoin, Assistant Professor of Chemical Engineering) was selected by the Associate Provost, Graduate Office.

They reviewed the self-study documentation and then conducted a site visit to the University on April 14-15, 2016. The visit included interviews with the Associate Provost, Graduate Studies; Dean of Mathematics; Math Associate Dean of Graduate Studies, Chairs and Directors of the programs, Graduate Officers, Faculty members, staff and meetings with a group of current graduate students.

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

Program characteristics:

The Department of Statistics and Actuarial Science is one of four departments in the Faculty of Mathematics, which also contains the School of Computer Science. It was created as the Department of Statistics in 1967 when the Faculty was formed. The name was changed in 1982 to recognize the substantial contribution of Actuarial Science to the Department and Faculty.

All of the MMath programs (Actuarial Science, Biostatistics and Statistics) in the Department have two objectives:

- To deliver an intensive advanced level study of the corresponding subject area;
- To give students a significant, if brief, introduction to research.

The Master of Quantitative Finance (MQF) focuses on the fundamental disciplines of mathematics, statistics, econometrics, computer science and finance. It provides students with the analytics tools to solve practical problems in the complex and rapidly evolving financial industry.

The Master of Actuarial Science (MActSc) is a professional program, designed to recruit highly qualified students with strong quantitative and communication skills (but not extensive actuarial science training). The aim of the program is to offer the finest professional post-graduate education in actuarial science and practice in the world and to develop both technical and business skills in the context of the modern risk management environment. The program has been accredited by the Canadian Institute of Actuaries (CIA) and the Institute of Actuaries in the United Kingdom.

The objective of all three PhD programs (Actuarial Science, Statistics and Statistics-Biostatistics) is to prepare candidates for a career in teaching and research. Graduates are expected to have acquired autonomy in conducting research and preparing scholarly publications.

Summary of strengths, challenges and weaknesses based on self-study:**Statistics MMath and PhD Programs****Strengths**

- Breadth and size
- Large offering of courses, in a reasonably wide range of applied and research topics
- Employability of graduates

- Supportive Department with a lot of activity (such as weekly seminars)
- Prominent researchers
- MMath is particularly strong due to Waterloo undergraduates entering the program
- MMath is only one year long and offers generous funding
- Very strong retention of students

Weaknesses

- PhD funding is relatively poor
- Difficulty competing with top US schools due to their reputation
- Large class sizes
- Lack of available computational support
- PhD, Master and undergraduate students in the same classes

Threats

- Competition from other Canadian schools; University of Alberta offering more funding
- Lack of diversity in graduate student population
- Size of cross-listed courses (too many undergraduate students)
- Data analytics now done by other disciplines
- Very dependent on a single staff member

Actuarial Science MMath and PhD Programs**Strengths**

- Masters and PhD students well-regarded internationally
- Faculty world leaders in Actuarial Science research
- Good student support and strong professional ties
- Option to integrate actuarial science with finance and risk management due to vast course offering of finance course
- Students able to develop strong technical skills from a diverse set of courses

Weaknesses

- Lack of domestic students and an overreliance on international students from China
- Inability of students to communicate technical ideas at both Masters and PhD levels
- Undergraduate students enrolled in graduate courses
- Inability to cover other areas such as economics, business organization, accounting

Threats

- Actuarial science could disappear as a discipline
- Competition from Asian universities
- Difficult to recruit very strong students due to competition from other universities
- Employment rates, particularly of international students
 - Some students not ready, lack of developed communication skills
 - Supply of graduates higher than demand

Masters of Quantitative Finance (MQF)**Strengths**

- Very strong computational skills of graduates
- Strong employment rates
- Established reputation of program
- Co-op opportunities for students
- Stringent admission requirements including technical and non-technical questions
- Small cohort size and reasonable tuition
- More rigorous than most similar programs

Weaknesses

- Some students lack broad knowledge of finance
- Use of thesis option (some students use it in order to avoid more difficult courses)
- Students enrolled in same courses as other graduate students within the Department
- Narrow program and do not develop case studies

Threats

- Difficult to hire within Statistics and Actuarial Science Department
- Difficult to compete for faculty talent with industry and business schools (particularly because of lower salaries)

MActSc Program**Strengths**

- Strong international reputation of program, faculty and school
- Strong students
- Unique in North America; only one of a few such programs

- Small class size and integration of quantitative, communication skills and real-world application
- Strong industry ties

Weaknesses

- No internship opportunities
- No financial support for students; best students are offered funding from competitors
- Lack of flexibility; students must take all courses and are unable to specialize

Threats

- Weak job market
- Other universities may set up similar program
- Tightening immigration requirements
- UK program offering more than Waterloo is offering
Difficult maintaining industry relationships

Summary of key findings from the external reviewers:

The external reviewers found that PhD programs in the Department provide a nice balance between foundational issues and modern applications and that the graduates are well prepared to pursue a career in academia. They also highlighted research and teaching opportunities available to students and noted that such opportunities are not typical at other institutions. The reviewers noted that faculty members in the Department and those involved with all the graduate programs are truly exceptional.

Each of the MMath programs (Actuarial Science, Biostatistics and Statistics) provide a breadth of foundation courses in each discipline as well as an introductory opportunity for students to conduct first-hand research through the completion of either a research paper or thesis. The scope of these programs is wide enough to accommodate students who either want to pursue PhD studies, or find jobs in the industry or the public sector once their degree is completed. They have also noted that the Department is best in Canada for both, training in statistics and in actuarial sciences.

Program response to external reviewer recommendations:**Recommendations**

1. *An exit survey to get students' feedbacks on the program they had just completed. For the professional programs (MQF and MActSc) this is implemented informally as alumni are*

involved in training and in mentoring the students. It might be useful in the other programs, especially the MMath programs.

Response

The program plans to implement this for all Masters programs. They believe that this information is already available for PhD graduates due to close links between students and their supervisors.

2. *A more rigorous evaluation of the students who are candidates for the PhD program could be envisaged. This could be done by conducting a phone interview with top candidates. This would help to ascertain their communication skills; it could also provide an opportunity to promote Waterloo programs to outstanding students.*

Response

PhD students are screened by the Associate Chair for graduate studies based on their written applications. Information about the PhD candidates who pass this screening is posted for all faculty members to see and review. PhD students are then only admitted on the recommendation of a supervisor. As part of this process, potential supervisors are strongly encouraged to conduct a phone interview of the candidates and the Department feels that they are already meeting this recommendation. However, the Department will consider the possibility of extending a phone interview to students applying to the MMath programs as they are already part of the MActSc and MQF admissions process.

3. *An internship in a neighboring insurance company would benefit the students in this program. This program is already highly structured and, in informal discussions, many obstacles to the implementation of this proposal were mentioned.*

Response

The Department has been considering, for a while, adding an internship to the MActSc program. This suggestion was also made by the program's advisory board consisting of industry partners. The difficulty lies in implementing the internship as the program is very demanding, with 5 courses per term and adding an internship parallel with an existing academic term is not feasible from a time commitment perspective. Adding an internship after two terms would result in some logistical difficulties as there would be a double cohort present on campus at the same time. Additionally, since the program is designed to take strong students with little or no actuarial science background, the Department feels that they require all three academic terms to learn the background and skills needed to work in the insurance industry at the level desired by the Department. Adding one at the end is a possibility but current graduates secure

employment within a few months of graduation and adding an internship at the end would lessen the usefulness of it.

4. *Teaching assistantships (TAs) are a way to fund students who are then expected to fulfill their duties diligently. TA evaluations could be improved and their results should be communicated to the TAs. Clear messages need to be sent to TAs whose work is below expectations. The Department has a TA award; the selection criteria for this award should be communicated to the graduate students. Some students believe there is lack of transparency in the selection process.*

Response

The Department assembled an ad hoc committee consisting of faculty, lecturers, a graduate student and an undergraduate student to consider this issue and the roles and expectations of TAs more generally. This committee provided detailed recommendations in a report dated August 2016. The Department implemented the suggestions in the report starting in Fall 2016. Some specific suggestions included a mandatory TA training session that focuses on how to successfully run tutorials (among other topics) and a requirement for instructors to provide information at the start of term of the expectations (including a rough estimate of timing) for each TA. The committee also produced two summary documents that were approved by the department. One has the title “TA Roles and Responsibilities” and the other has the title “Working with TAs”. At the university level there is also ongoing work on updating the TA policy. Once this policy update is available, we will ensure our current practices related to TAs meet university policy.

5. *Sessional lecturers, especially those teaching for the first time, should have a faculty mentor. The mentor could help with the content of the course material and the exams. In large courses involving TAs, the mentor could also be involved in TA supervision. Both sessional lecturers and TAs are graduate students; it might therefore be difficult for a sessional lecturer to reprimand TAs whose work is not adequate. The mentor could help with TA supervision.*

Response

The Department implemented this recommendation in the Fall 2016. Documentation on teaching issues that are normally provided to new faculty hires will from now on also be provided to new sessional instructors. In addition to this, the Faculty of Mathematics has a Teaching Fellow who has also been active in engaging sessional instructors in various learning/training activities. These activities are often supported by the Centre for Teaching Excellence.

6. *Mentoring is important to facilitate the integration of new faculty and to introduce them to the Waterloo tradition. This may be best accomplished by pairing them with an experienced faculty for a joint task force, say the teaching or a two-sections service course. Their integration might be facilitated by having them involved with academic committees managing the programs of the Department. They might also be given the opportunity to present their research results in a Departmental seminar, without the stress of a job interview.*

Response

The Department has a formal mentoring program for new faculty that they believe works well. Each new faculty member is assigned a mentor who is a more senior member of the Department, usually active in a similar research area and from a similar background (e.g. both the mentor and the mentee originate from China). Both individuals are provided with resource material that describes the mentoring process. New faculty are usually the junior partner in teaching a multiple section course in their first few terms in Waterloo. Young (pre-tenure) faculty are also assigned carefully selected service duties to help them acclimatize to the processes in the department, faculty and university. In addition, all young faculty are encouraged to give another research seminar in the regular Department seminar series or the graduate students' seminar series.

7. *How to define a good lecturer is not easy. They might be interested in pedagogical innovations and their implementation in the classroom. If this is so they should be given opportunities to foster their pedagogical skills and to implement innovations in the classroom, in agreement with the objectives of the program managing the course.*

Response

The Math faculty has been proactive in addressing the needs of the growing number of teaching faculty. Recently, a new faculty committee has been addressing the questions of lecturer titles, expectations, promotion requirements/rules, etc. This is an ongoing process. Existing lecturers are encouraged to develop their knowledge and teaching methods. Some of the lecturers have attended teaching related conferences to present ideas and have been provided funding to do so. The Math faculty also has a Teaching Fellow, selected from among the regular faculty members, whose role is to encourage innovation, celebrate excellent teaching and work one-on-one with anyone in need of improvement. Until June 30, 2016 the teaching fellow was Cynthia Struthers a faculty member from the Statistics and Actuarial Science Department and as of July 1, 2016 the new faculty Teaching Fellow is Brian Forrest from the Pure Math Department. The Teaching Fellow organizes many events throughout the year to highlight teaching and encourage a sharing of experiences and best practices. This includes, for

example, a session every fall term where some strong experienced instructors give a sample lecture and all new instructors give short mock lectures and are given feedback.

8. *We were impressed by the diversity of graduate students. We met students from at least five different countries, including China. For the time being, lack of diversification does not seem to be an issue for the department. Aiming for quality and putting in place rigorous mechanisms for the selection of graduate students, regardless of the country of origin, is the way to go.*

Response

The Department will continue to admit best students who apply to their graduate programs, but is nonetheless committed to making Waterloo a more attractive destination for students from non-traditional countries.

9. *The new Canadian Statistical Science Institute (CANSSI) offers many opportunities for International collaborations and for networking. The Department could explore ways of becoming involved with CANSSI. It is three years old and between 6 and 9 collaborative research teams have been funded by this new program. For the time being, Waterloo involvement appears to be limited.*

Response

The Department states that Waterloo has been involved with a number of CANSSI sponsored activities (though not the collaborative research teams) including hosting a number of CANSSI supported conferences and workshops recently. In addition, CANSSI is currently considering the possibility of selecting a permanent home for the institute. Waterloo with its large Statistics and Actuarial Science Department and general strength in mathematics would be a natural fit. The faculty plans to put together a proposal to make this happen.

Implementation Plan:

	Recommendations	Proposed Actions	Responsibility for Leading and Resourcing (if applicable) the Actions	Timeline for addressing Recommendations
1.	Exit survey of graduate students	Implement proposal for all MMath graduates	Carlos Mendes	Complete (started Fall 2016)
2.	Phone interviews of possible PhD students	Already done for the most part, will strongly encourage potential supervisors to do this	Associate Chair Graduate Studies	Complete
3.	Internship in MActSc programs	Not feasible at this time	n/a	n/a
4.	Improve communication of expectations to teaching assistants	Implement recommendation	Associate Chair Graduate Studies	Complete (department committee report August 2016 – suggestions implemented starting Fall 2016)
5.	Teaching mentors for new sessional instructors	Implement recommendation	Associate Chairs Actuarial Science and Undergraduate Studies	Complete (started Spring 2016)
6.	Enhanced mentoring of new faculty	Already in place	n/a	n/a

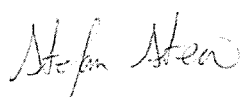
7.	Lecturer engagement	Partial in place already, faculty committee is currently looking into this issue	Diana Skrzydlo, Department Faculty Mentor and Development Coordinator	Complete. Engagement activities (including regular informative sessions) started Winter 2017
8.	Strategic graduate student recruitment	Continue to admit the best students available	Associate Chair Graduate Studies	Ongoing
9.	Improve connections with CANSSI	Explore possibility of becoming the permanent home for CANSSI	Stefan Steiner, Chair	We were not selected as the new permanent home for CANSSI. Individual faculty members are engaging with CANSSI activities on an ongoing basis.

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

Date of next program review: _____ 2022

Date

Signatures of Approval:



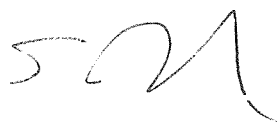
January 24, 2018

Chair/Director

Date

AFIW Administrative Dean/Head (For AFIW programs only)

Date



2018-01-25


Faculty Dean

Date

Associate Vice-President, Academic

(For undergraduate and augmented programs)

Date



August 28, 2018

Associate Provost, Graduate Studies

(For Graduate and augmented programs)

Date

University of Waterloo
SENATE UNDERGRADUATE COUNCIL
Report to Senate
15 October 2018

Senate Undergraduate Council met on 11 September 2018 and agreed to forward the following items to Senate. Council recommends that these items be included for information or approval, as noted, in the consent agenda.

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

FOR APPROVAL

ACADEMIC PLAN INACTIVATIONS
Faculty of Science

1. Science and Aviation (Geomatics Option)

Motion: That Senate approve the inactivation of the Geomatics Option, effective 1 September 2019.

Rationale: Very few students in Science and Aviation have graduated with the Geomatics Option in the past ten years, one in 2015 and no one since. A Diploma in Operations Management of Remotely Piloted Aircraft System (RPAS) is being developed and will be open to all students, once approved. This diploma will include geomatics courses. Note: Students coming into the program in 2018 will still be able to access this option because it will be available for existing students until 2022.

2. Honours Physics (Applied Physics Specialization)

Motion: That Senate approve the inactivation of Honours Physics (Applied Physics Specialization), effective 1 September 2019.

Rationale: As part of the Faculty's goal to reduce the total number of programs offered by Science, this specialization will be inactivated due to relatively low enrolment.

3. Honours Co-operative Physics (Applied Physics Specialization)

Motion: That Senate approve the inactivation of Honours Co-operative Physics (Applied Physics Specialization), effective 1 September 2019.

Rationale: As part of the Faculty's goal to reduce the total number of programs offered by Science, this specialization will be inactivated due to relatively low enrolment.

FOR INFORMATION

ACADEMIC PROGRAM REVIEW REPORT

4. Final Assessment Report – Social Development Studies (SDS)

Following discussion, Council approved the final assessment report for SDS on behalf of Senate. See Attachment #1.

5. Final Assessment Report – Statistics & Actuarial Science

Following discussion, Council approved the final assessment report for Statistics & Actuarial Science on behalf of Senate. See Attachment #2.

NEW UNDERGRADUATE AWARDS

6. Attachment #3 to this report contains a listing of newly-approved awards.

MINOR PLAN & CURRICULAR MODIFICATIONS

Council approved the following on behalf of Senate:

- minor plan changes for: science (joint honours X with science, pharmacy, honours materials and nanosciences, honours co-operative materials and nanoscience, honours science, minor in biology).
- course changes for: science (biology, chemistry, physics, communication in science).
- course inactivations for: science (chemistry).

/rmw

Mario Coniglio
Associate Vice-President, Academic



Final Assessment Report

Social Development Studies (BA)

August 2018

Summary of the Program Review

In accordance with the University Institutional Quality Assurance Process (IQAP), this final assessment report provides a synthesis of the external evaluation and the internal response and assessments of the BA program delivered by the Department of Social Development Studies (SDS). A self-study (Volume I) was submitted to the Associate Vice-President, Academic on June 30, 2016. The self-study presented the program descriptions and learning outcomes, an analytical assessment of this program, and program data including the data collected from a student survey along with the standard data package prepared by the Office of Institutional Analysis & Planning (IAP). Appended were the course outlines for all courses in the program and the CVs (Volume II) for each full-time faculty member in the Department.

Two arm's-length external reviewers (Volume III), (Dr. Lynne Phillips, Dean of Arts, Memorial University and Dr. Pamela Wakewich, Professor of Sociology, Lakehead University) were ranked and selected by the Associate Vice-President, Academic. In addition, one internal reviewer (Dr. Trevor Charles, Professor of Biology) was chosen.

They reviewed the self-study documentation and then conducted a site visit to the University on January 19-20, 2017. The visit included interviews with the Associate Vice-President, Academic; the President of Renison University College; two Faculty Associate Deans of Arts; Chair of the Program; Renison's Administrative Dean; Chairs of other programs at Renison; Faculty members, staff and students.

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

Program characteristics

Social Development Studies applies an interdisciplinary approach to address the human condition in relation to social issues in local, national, and global contexts. This innovative program offers courses in human and social development including psychology, sociology, and social work. The curriculum develops skills in critical thinking, problem solving, interpersonal relations, leadership, as well as civic and global engagement. The various plans provide an



excellent foundation for graduate studies, professional programs, and careers in human and public service.

Summary of strengths, challenges and opportunities based on self-study

Strengths:

- Dynamic, interdisciplinary social science program
- Housed at a residential campus which offers a true sense of community
- Faculty have diverse expertise and research interests; dedicated and efficient staff members who are enthusiastic and conscientious; most sessional lecturers are professionals from the community with rich and practical experience
- Small classroom sizes while also offering extensive online course offerings that provide flexibility and accessibility to a diverse group of students
- Survey results are favourable and show strong evidence that SDS provides quality education for students who find jobs that relate to the skills and knowledge they gained in the program

Challenges:

- Lower application numbers in the past two years
- Other institutions that offer direct entry into Bachelor of Social Work (BSW) program which would negatively affect SDS enrollment, as many SDS students do a post-degree in BSW
- Educating SDS students on other career options besides social work
- No graduate program in SDS means that it is difficult to sustain strong research output

Opportunities:

- Potential to develop an interdisciplinary Master's program in SDS
- Further enhancing quality of online course offerings
- Development of co-op stream for direct entry program
- Expansion of experiential learning for apprenticeship courses to students in their 2nd and/or 3rd year
- Enhancement of student advising



Summary of key findings from the external reviewers

Interdisciplinarity is the unique strength of the program, so faculty – part-time and full-time alike – should place their energy there. It will be important to show that students graduating from Social Development Studies know that interdisciplinary study best illustrates how ‘the whole is more than the sum of its parts’ and why that’s important.

The Department has spent considerable time refining its curriculum – ensuring knowledge breadth and depth, skills and accessibility for SDS students. It has also done a good job of aligning itself with the changing curriculum expectations of the Faculty of Arts (e.g., number of required courses in a major).

The students receive training in interdisciplinary and disciplinary theory and application, which is in itself an innovative aspect of the SDS program. Students learn about the roots of three social science disciplines and then learn to see how an interdisciplinary approach to social issues produces different, additional knowledge. The Department does this within an established setting of high quality scholarship and community engagement expectations. The reviewers applaud the Department’s efforts to ensure that students learn this ‘double vision’ brand of education. It is an approach that we think should be applauded within the Faculty and the University.

Program response to external reviewer recommendations

Recommendations

1. Include part-time instructors (both professional and academic) in Departmental meetings to ensure the depth and viability of the program and its curriculum.

Response

An SDS instructor group has been created on LEARN to facilitate communication. Minutes from Department meetings are posted there so they are available to part-time instructors. Depending on the willingness and availability of the sessional instructors, representatives will be invited to participate in Departmental meetings to ensure their perspectives are included in Departmental discussions and decision-making. The program will also continue annual Departmental workshops and dinners inviting all full-time and part-time instructors.



2. Explore the creation of an Interdisciplinary Master's degree with other units in Renison and beyond.

Response

The Academic Dean at Renison shows interest and support for the development of an MA program. A group of interested SDS faculty members and the SDS chair will work with the Dean to explore the possibility further beginning in September 2018. A report will be completed by April 2019.

3. To ensure the continuation of a high quality program and improve the ratio of full-time to part-time instructors, it is recommended that the Department be granted 2-3 additional tenure-track faculty positions.

Response

The department hired one new full-time tenure-track faculty member who began July 1st, 2018. One additional hire is planned for a start date of July 1st, 2020.

4. Establish an Associate Chair position to provide support for the Chair and to raise the profile of SDS in the Faculty of Arts and the University.

Response

The President and Dean have voiced their support of this initiative. The new Chair (as of July 1st, 2018) has been asked to keep track of her duties from July to December 2018. In January 2019, discussions will begin within the department about how these duties would be divided between the Chair and an Associate Chair, and how an Associate Chair will be selected. A plan will then be submitted to the President and Dean for final approval. Final decision to be made by March, 2019. An Associate Chair could take up the position as early as July 1st, 2019.

5. To meet expanded administrative support roles in academic advising and recruitment, it is recommended that an additional .5 to 1.0 support person be hired.

Response

An additional .5 administrative support person for SDS was hired in February 2018.

6. Review SDS teaching loads and supports in light of a desire for increased research productivity and higher profile for the SDS program, as well as the apparent inequity between teaching loads in Faculty of Arts and SDS.



Response

Renison's Academic Dean will oversee faculty workload planning and will conduct a review of relative loads and responsibilities over the 2018-2019 academic year.

7. To enable the growth of research and retain research-intensive faculty members in SDS, increase the number of course remissions available to faculty to support their research programs.

Response

SDS faculty with active research programs are now eligible to apply for one course remission per academic year, requiring approval of the Dean.

8. Help faculty to identify matching fund sources – [particularly for faculty applying to highly competitive tri-councils such as CIHR and SSHRC].

Response

This work is ongoing. Faculty review their research plans annually as part of the APR process. The recent addition of a new Academic Dean is designed to strengthen this area through focused consultation and planning with faculty about their research. Renison regularly supports applications for matching grants with faculty.

9. Explore ways to improve communication and engagement with the SDS program including formalizing an SDS/Faculty of Arts liaison person to apprise the Faculty of Arts on SDS activities.

Response

The Dean will continue to examine the existing lines of communication and committee memberships with an eye to improving communication and deepening engagement with Arts, in consultation with the Chair of SDS and the Dean of Arts.

10. Incorporate SDS more directly in the development of materials and process of recruitment for the SDS program. Highlight the dynamic and innovative research in SDS as a means to recruit students with higher academic aspirations.



Response

One of the SDS administrative staff has been named as the point person for Renison's Marketing Manager to reach out to in regards to the development of materials, and is connected with Marketing and Undergraduate Recruitment on main campus. The Dean will continue to work with Marketing and Recruitment at Renison and with the recruiters on the main campus to ensure that SDS has a strong voice and involvement in the development of materials for recruitment, and in ensuring that recruiters are well able to represent SDS and its value to potential students of outstanding caliber.

Recommendations that were not selected for implementation

1. Develop clear and transparent criteria for course release eligibility.

Response

These criteria already exist.

Implementation Plan:

Social Development Studies

	Recommendations	Proposed Follow-up	Responsibility for Leading and Resourcing	Timeline for Addressing Recommendation
1.	Include part-time instructors (both professional and academic) in departmental meetings to ensure the depth and viability of the program and its curriculum	<ol style="list-style-type: none"> 1. SDS instructor group on Learn created to facilitate communication. 2. Minutes from department meetings posted on Learn site. 3. Representatives will be invited to participate in departmental meetings to ensure their perspectives are included in departmental discussions and decision-making. 4. Continue to hold annual departmental workshops and dinners inviting all full-time and part-time instructors. 	SDS Chair	Immediately and ongoing

2.	Explore the creation of an Interdisciplinary Master's degree with other units in Renison and beyond.	The Academic Dean shows interest and support for the development of an MA program. A group of interested SDS faculty members and the SDS chair will work with the Dean to explore the possibility further.	SDS Chair and Renison Academic Dean, Arts Associate Dean, Graduate Studies	Feasibility report to be completed by April 2019
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President

	Recommendations	Proposed Follow-up	Responsibility for Leading and Resourcing	Timeline for addressing Recommendation
3.	To ensure the continuation of a high quality program and improve the ratio of full-time to part-time instructors, it is recommended that the Department be granted 2-3 additional tenure-track faculty positions	The department hired one new full-time tenure-track faculty member who began July 1 st , 2018. Another search will begin in fall 2019.	President and Renison Academic Dean	One full-time tenure track position began July 1 st , 2018; second scheduled for July 1 st , 2020
4.	Establish an Associate Chair position to provide support for the Chair and to raise the profile of SDS in the Faculty of Arts and the University.	The President and Dean are supportive of this initiative. The new Chair (as of July 1 st , 2018) has been asked to keep track of her duties from July to December 2018. In January 2019, discussions will begin within the department about how these duties would be divided between the Chair and an Associate Chair, and how an Associate Chair will be selected. The plan will be sent to the Dean and President for final approval.	Renison Academic Dean	Decision to be made by March, 2019. Associate Chair could be in place by July 1 st , 2019
5.	To meet expanded administrative support roles in academic advising and recruitment, it is recommended that an additional .5 to 1.0 support person be hired.	Hiring of one .5 administrative support person for SDS	SDS Chair	Hire complete with February 2018 start date.

6.	Review SDS teaching loads and supports in light of a desire for increased research productivity and higher profile for the SDS program, as well as the apparent inequity between teaching loads in Faculty of Arts and SDS.	The Dean will oversee faculty workload planning and will conduct a review of relative loads and responsibilities.	Renison Academic Dean	Review to be completed by July 2019
7.	To enable the growth of research and retain research-intensive faculty members in SDS, increase the number of course remissions available to faculty to support their research programs.	Renison faculty with active research programs are now eligible to apply for one course remission per academic year, requiring approval of the Dean.	President and Renison Academic Dean	Ongoing; course remission policy to be reviewed in Fall 2018
8.	Help faculty to identify matching fund sources – particularly for faculty applying to highly competitive tri-councils such as CIHR and SSHRC].	Renison regularly supports grant applications which involve matching funds. The new Dean will specifically tend this piece of faculty interest as part of his annual planning with them.	Renison Academic Dean	Ongoing

Renison Academic Dean

	Recommendations	Proposed Follow-up	Responsibility for Leading and Resourcing	Timeline for addressing Recommendation
9.	Explore ways to improve communication and engagement with the SDS program including formalizing an SDS/Faculty of Arts liaison person to apprise the Faculty of Arts on SDS activities.	The Dean will examine the existing lines of communication and committee memberships with an eye to improving communication and deepening engagement with Arts, in consultation with the Chair of SDS and the Dean of Arts.	Renison Academic Dean, and Arts Associate Dean, Undergraduate Studies	Ongoing
10.	Incorporate SDS more directly in the development of materials and process of recruitment for the SDS program. Highlight the dynamic and innovative research in SDS as a means to recruit students with higher academic aspirations.	An SDS administrative staff has been named as the point person for Renison's Marketing Manager to reach out to in regards to the development of materials, and is connected with Marketing and Undergraduate Recruitment on main campus. The Dean will work with Renison Marketing and Recruitment, and with recruiters on the main campus, to ensure that SDS has a strong voice in the development of materials for recruitment.	Renison Academic Dean, SDS Chair, and Manager of Marketing and Recruitment	Ongoing. Further discussion will be undertaken during the fall 2018 term as recruitment for 2019 gets underway.

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



Date of next program review: _____ 2024
Date

Signatures of Approval:

Dennis Mangold Aug 11 / 2018
Chair/Director Date

Bob Bayfield Aug 1, 2018
AFIW Academic Dean/Head (For AFIW programs only) Date

[Signature] 27/08/18
Faculty Dean* Date

[Signature] August 16, 2018
Associate Vice-President, Academic Date
(For undergraduate and augmented programs)

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

*Note: that this AFIW program falls under the Faculty of ARTS; however, the Dean does not have fiscal control nor authority over staffing and administration of this program.



Final Assessment Report

Bachelor of Mathematics in Statistics, Statistics for Health, Actuarial Science, or Mathematical Finance (BMath)

August 2018

Summary of the Program Review:

In accordance with the University Institutional Quality Assurance Process (IQAP), this final assessment report provides a synthesis of the arm's length external evaluation and the internal response and assessments of the Statistics, Statistics in Health, Actuarial Science and Mathematical Finance Bachelor of Mathematics (BMath) programs delivered under the Department of Statistics and Actuarial Science. The Self-Study Volume I, was provided electronically via a SharePoint website, to the Associate Vice-President, Academic and Quality Assurance staff in June 2016. Self-Study Volume I included a program description, learning outcomes, and an analytical assessment of the program, as well as student surveys and the standard data package prepared by the Office of Institutional Analysis & Planning (IAP). Volume II of the Self-Study contained the CVs for full-time tenured and tenure-track positions and continuing lecturers affiliated with the program.

Two arm's-length external reviewers were selected by the Associate Vice-President, Academic: Professor and Chair, Michael Daniels (Department of Statistics and Data Sciences, University of Texas at Austin), and Professor of Actuarial Science, Emiliano A. Valdez (Department of Mathematics, University of Connecticut). Professor Colin MacLeod (Department of Psychology) served as the University's internal reviewer during the site visit.

The site visit occurred on August 9-10th, 2016 and included interviews with the Associate Vice-President, Academic; Associate Dean, Undergraduate Studies in Math; Chair of the Department of Statistics and Actuarial Science; the Associate Chair Undergraduate and the Associate Chair Actuarial Science of the Department of Statistics and Actuarial Science; various faculty members and a group of current students.

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



Program characteristics:

The Department of Statistics and Actuarial Science began as the Department of Statistics in 1967, when the Faculty of Mathematics was formed – later the name was changed to recognize the substantial contribution of Actuarial Science to the Department and Faculty. A co-op stream in Mathematics was initiated in 1964 at the behest of local insurance industry leaders, and many students in actuarial science and statistics took advantage of this option. In terms of the number of statisticians and/or actuaries, the Department is the largest in Canada, and one of the largest in North America. As of May 2014, the department had 39 tenured or tenure-track faculty members, 2 definite term professors and 9 lecturers.

The following undergraduate degrees are available in the Statistics and Actuarial Science department (all lead to an honours degree and are offered as either coop or regular):

- Bachelor of Mathematics in Statistics
- Bachelor of Mathematics in Statistics for Health
- Bachelor of Mathematics in Actuarial Science
- Bachelor of Mathematics in Mathematical Finance (joint with the Department of Pure Mathematics)

There is also the option to take a Minor in Statistics or Actuarial Science.

Summary of strengths, challenges and weaknesses based on Self-Study:

Strengths

- Graduates are well-regarded internationally
- Students develop strong technical skills from a diverse set of courses
- Faculty are world leaders in Actuarial Science
- Program has strong professional ties
- Many textbooks used in our courses and at other universities were written here
- Integration of actuarial science with finance and risk management allows students a variety of finance courses
- Over 90% of Waterloo Math graduates are either satisfied or very satisfied with the credential they earned at university (National Graduate Outcome Survey - NGOS)

Challenges

- In the future, international undergraduate students may decide to instead go to top Asian universities and in particular the best Chinese universities who are improving quickly
- How to stay as the top Actuarial Science school in North America (and the world!)
- Difficult to hire/recruit new faculty

Weaknesses

August 2018

Page 2 of 12



- Very large class sizes, e.g. including 4th year courses with over 100 students
- The actuarial science program is strong, but there are some gaps (e.g., property and casualty insurance and pensions – there is reliance on sessional instructors to teach these courses)
- Low enrolment in the Statistics for Health plan
- The programs do not have the time, space and faculty to cover/teach other areas (e.g., economics, business organization, financial management, accounting)

Summary of key findings from the external reviewers:

In summary, the reviewers found all four programs to be very impressive in delivering quality education to top caliber students and producing graduates who are in high demand. Common strengths among all programs included outstanding leadership, faculty members, administrative support, and students. The programs provide the necessary breadth of foundational courses to help students prepare for many careers in industry, as well as those intending to do advanced studies. The co-op program, which provides students gainful practical industry experience, was viewed as very impressive with strong positive endorsements from both students and employers.

Program response to external reviewer recommendations:

Recommendations

1. **Large Class Sizes:** This is a result of the increased popularity (which is a good thing) of the programs and courses. However, this inhibits the optimal learning experience in these programs as the large class sizes make it very difficult, if not impossible, for the students to do projects (and an appropriate amount of applied work), which is an essential part of these programs and helps to solidify the theoretical and methodological knowledge gained from the courses. The only solution we can see to reducing class size – particularly critical at the fourth-year level – is the hiring of additional tenure-stream faculty and lecturers. In so doing, the balance of these two will be important to keep in mind: It seemed fairly reasonable at present with 41 tenure-stream faculty and 9 lecturers.

Response:

This is a challenging problem that we are well aware of and trying to address. As suggested by the reviewers, assuming our courses remain popular, the only solution is to hire more faculty. The issue has been acknowledged by the Dean and in 2017 we had permission to hire four tenure-stream faculty and three lecturers. Of these tenure-stream faculty, three are new positions. In addition, we had permission to hire up to two more tenure-stream faculty



bridging to two agreed upon retirements in 2018. All three lecturer positions are new. While this is only a first step it is a very positive development that we hope will continue in future years. However, to accommodate our growing numbers of students and to be able to reduce class sizes to an reasonable level, additional faculty will have to be hired in the coming years.

2. Space Implications: As is common with many universities, space is limited and a valued commodity. The Department of Statistics and Actuarial Science is practically out of space. Given further expected growth, which is essential to the well-being of each program (and is currently planned), future space needs will have to be addressed urgently. These include both office space for new faculty members and suitably-sized classroom space.

Response:

Space constraints are definitely a growing concern especially with our growth plans as described in response to point #1 above and other initiatives such as our new undergraduate and Masters Data Science programs. We are close to filling our available space in the M3 building. In 2016 and 2017 we moved some student club offices, and renovated and repropsoed a couple of underutilized rooms to create new faculty/staff offices. This will cover our needs for 2018 and early 2019. In the future, there are preliminary plans for a fourth Mathematics building. Hopefully ground breaking will take place in 2019 or 2020, but the plan has not been approved by the Provost. A new building is greatly needed to accommodate expansion in the faculty in general and for our department in particular. In the shorter term, the Faculty of Mathematics is exploring the idea of renting space off campus to house some of the Faculty activities. This will hopefully free up some space for the Department of Stats and Actuarial Science, although it is unclear how much space this will free up.

3. Re-evaluate the goals and mission of the Bachelor of Mathematics in Statistics for Health. It would be good to reassess the currently under-enrolled program in Statistics for Health. The current emphasis is on healthcare systems and includes numerous business courses. A more popular emphasis might be to frame it as more of a 'biostatistics' program with standard statistics courses, specific methodological courses for health data (e.g., courses on analysis of survival and longitudinal data), a few public health courses (e.g., epidemiology), and maybe one or two 'biology' courses. This recommended change in program emphasis may help with the low enrollment and should not require the introduction of many (if any) courses. Many (if not all) of these needed courses are already in place and being offered by the department. Attention should also be given to the number of required courses, since presently that number is large.

Response:

We agree with this assessment concerning the Statistics for Health program. Despite the



popularity of some of the technical courses designed for this program there are few students actually enrolled in the program (we had only 30 students enrolled in the plan in 2016 and in 2016 only 2 students graduated from the program). Starting Fall 2018 the program has been renamed Biostatistics. The new version of the program has a better title that is a well established discipline and has a more focused set of required courses that we believe will appeal to our existing students.

4. Exit and Follow-Up Survey for Graduates: A powerful way to market programs is to 'advertise' successful student placements, whether it be attractive positions in industry or enrollment in top graduate programs. The current tracking and monitoring of graduating students appears inadequate. Implementation of a formal exit survey would be a good start. Such a survey might collect information on: student satisfaction with the program, ways in which the program might get even better, plans for after graduation (i.e., job position, graduate school enrollment), and sustainable contact information. The latter pieces of information could be kept in a database and updated going forward. This will have the dual benefits of 'advertising' the success of the graduates for these programs, which will help the continued recruitment of top students, and for development, including identification of donors for endowed fellowships, chairs, etc.

Response:

A similar suggestion was made in our recent graduate program review. As a result, we had already developed a draft exit survey for graduate students that we have now also adapt for undergraduate students. Since April 2017 we have asked all graduating students to complete an exit survey.

5. Introduce Capstone Courses for All Programs: Capstone courses would be an important and attractive addition to all three programs to partially offset the problem caused by large advanced undergraduate courses and to provide an important project-based (case study) course in a small class size setting. We do understand, however, that to undertake this initiative, additional faculty would need to be hired or a reallocation of current resources would be required given the large numbers of fourth-year students across the programs.

Response:

As mentioned in our self-study, we already planned to offer a capstone course for our best 4th year Actuarial Science students in Winter 2017. This new course is taught using a case study format and focus on practical issues and communication skills. We are keen to offer a similar capstone course for Statistics students and Mathematical Finance students. However, the main constraint here, as pointed out by the reviewers, is the lack of resources, especially when many of our other 4th year courses often have enrolments of over 100 students. We



believe enrolment in a capstone course should be limited to at most 20-25 students. We do not have a time line for offering additional capstone courses, but hope to do so if and when teaching resources allow. We are also still exploring other possible formats for a capstone course including something where students are responsible for selecting their own projects.

6. Career Paths for Lecturers: In discussion with a subset of the lecturers, it was apparent that they feel that the process for promotion from a term-to-term hire to a permanent continuing position is unclear. Further orientation and support from the administration of the department for the lecturers on this issue would help to alleviate career tension for the lecturers currently on a term-to-term basis. A model such as an initial 2-year appointment, a subsequent 3-4-year appointment, and then promotion to Continuing Lecturer would be worth exploring. Some consideration of reduced teaching when preparing new courses would also be worth discussing.

Response:

We agree that lecturers are critical to the success of our department. The identified issue of unclear career paths for lecturers is acknowledged at all levels at the University of Waterloo. At the university level, a committee has been looking at Policy 76 - Faculty Appointments, but it is unclear when they will propose a change to the policy. At the faculty level, there is a special committee tasked with recommending new faculty wide guidelines for lecturers that will hopefully clarify the role of lecturers and their possible career paths.

7. Consider Hiring Waterloo Actuarial Science PhDs: For the Actuarial Science program, hiring top faculty is challenging given the small number of strong Actuarial Science graduate programs in existence. On top of this, many of the top PhDs come from the graduate program at Waterloo. The policy of not hiring one's own graduates, which in general is a good policy, may restrict the necessary growth and maintenance of strength of the Actuarial Science program going forward.

Response:

It is challenging hiring in the area of Actuarial Science. The field is relatively small and PhD graduates have good career prospects in industry. Our current practice prohibits hiring our own PhD students in either Statistics or Actuarial Science unless they have been away for at least two years. This is consistent with university guidelines as provided by the Provost. So, we are able to hire our own graduates but only after they have been away for some time. We feel this is a good policy both for us and for our graduating students who benefit from seeing how things are done at other universities. In the past, considering our own students immediately after graduation has caused internal divisions that took a long time to heal. In addition, since this hiring practice has been in effect, we have made some excellent hires.



8. Increase Diversity in Enrolments: International students are predominantly from China. To increase diversity and to reduce the risk of that one market diminishing, it will be important to tap other markets (e.g., the Indian subcontinent). The department should explore the best options to do this. For example, there may be opportunities to leverage current university programs/partnerships to target potential students from other countries.

Response:

The Math faculty is acutely aware of our lack of diversity in international students and actively recruits in a number of countries around the world. Hopefully, in the future, our recruitment in other countries will be more effective. The Statistics and Actuarial Science department does not directly control admission into our programs since they are all second year entry. All our students apply to the Honours Mathematics program at the University of Waterloo. Only after they have proven their ability in first year can they enroll as a major in one of our programs. As such, we have much less control over recruitment than some other Math faculty programs. One example of how the department has contributed to our goal of increasing our international diversity is provided by our actuarial science development project in Indonesia funded primarily by Global Affairs Canada. Through this project we have done considerable mathematics and actuarial science outreach work in Indonesia. This activity has considerably increased the profile of the University of Waterloo in Indonesia and may in future contribute to an increase in the number of Waterloo students from Indonesia.



Implementation Plan:

	Recommendations	Proposed Actions	Responsibility for Leading and Resourcing (if applicable) the Actions	Timeline for addressing Recommendations
1.	Reduce class sizes, particularly in fourth year courses	In 2016 and 2017 we were able to hire 5 new tenure-track faculty and 3 new lecturers. Plans for 2018 have not yet been finalized.	Chair	Ongoing. Due to increases in student enrolments in our programs, our new Data Science program, some retirements/faculty departures and budgetary constraints we still struggle with large class sizes
2.	Address future space needs (i.e., office space for new hires and suitably sized classroom space)	New fourth Math (M4) building proposed/ Renting space off campus	Dean	Ongoing. The Math Faculty is activity fund raising to make M4 a reality. In the short term they are exploring renting space off campus.



3.	Reevaluate the goals of the Statistics for Health program	A subcommittee of faculty who teach the relevant courses has been struck to review program and required courses	Steve Drekcic, Assoc. Chair Undergraduate Studies	Done. Program changes approved in time for Fall 2018
4.	Design and implement exit survey for our graduating students	implement recommendation	Carlos Mendes, Administrative Officer SAS	Done. All graduating students since April 2017 are asked to complete an exit survey.
5.	Introduce capstone courses	Develop and offer capstone course for actuarial science students	Christiane Lemieux, Assoc. Chair Actuarial Science	Partially complete. Every Winter term since 2017 we have offered a capstone style course for our best actuarial science students. With current teaching resources we are unable to implement this recommendation for our other students at this time.
6.	Further career path orientation and support from the administration of the program for lectures	Wait for University level committee looking into	Chair ,	Ongoing. We now have an informal policy in the Mathematics faculty to



		this issue to provide guidance	Carlos Mendes, Administrative Officer SAS	provide long term (and newly hired promising) lecturers a clearer path to continuing lecturer status. This includes offering 3 year contracts and the expectation that after 2 such contracts they will be considered for continuing status. We can't adopt official policies until the University level committee finishes its work.
7.	Consider hiring Waterloo Actuarial Science PhDs (Current university policy prohibits hiring our own PhD students in either Statistics or Actuarial Science unless they have been away for at least two years)	Approach Waterloo Actuarial Science PhDs two years past graduation	Chair	Not completed. We feel this is not in our best interests.
8.	Increase diversity in enrollments (Statistics and Actuarial Science does not directly control admission into their programs since they are all second year entry. All students apply to the Honours Mathematics program at the University of Waterloo. Only after they have proven their ability	Continue outreach and recruiting activities in different parts of the world, including a new emphasis on India	Mathematics Faculty Assoc. Dean Admissions and Outreach, Troy Vasiga	Ongoing.



	in first year can they enroll as a major in one of our programs)			
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The Department Chair/Director, in consultation with the Dean of the Faculty shall be responsible for monitoring the Implementation Plan.



UNIVERSITY OF
WATERLOO

2022

Date of next program review: _____

Date

Signatures of Approval:

Chair/Director

Jan 5/18

Date

AFIW Administrative Dean/Head (For AFIW programs only)

Date

Faculty Dean

2018-01-08

Date

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

August 20, 2018

Date

Associate Provost, Graduate Studies
(For graduate and augmented programs)

Date

NEW UNDERGRADUATE SCHOLARSHIPS, AWARDS, and BURSARIES

to be added to the Undergraduate Awards Database

- submitted for September 11, 2018 meeting of Senate Undergraduate Council -

ENTRANCE AWARDS

Dr. P. S. Ahuja Award for Women in STEM

An award, valued at approximately \$1,200, will be provided annually to a full-time undergraduate female student enrolled in Year One of a program in the Faculty of Engineering, Mathematics, or Science wherein women are underrepresented. Selection will be based on academic excellence and financial need, as determined by Waterloo. To be considered, students must complete the University of Waterloo Entrance Bursary on-line application by April 15. This fund is made possible by a donation from Harpreet Ahuja in memory of her loving husband, Dr. P. S. Ahuja who believed in higher education.

Method of Financing: endowment

Gloria Baylis Entrance Award

One award, valued at \$18,250, will be provided annually to a full-time undergraduate student enrolled in Year One of any program in the Faculty of Engineering. Selection is made on the basis of academic excellence (minimum 80% admission average), demonstrated financial need, and demonstrated interest in the area of entrepreneurship as assessed through the Admission Information Form (AIF). To be considered, students must complete the University of Waterloo Entrance Bursary on-line application. Baylis Medical may also offer the scholarship recipient consideration for a work-term position. This fund is made possible by a donation from Baylis Medical Company Inc.

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

De Beers Scholarships for Women in STEM

Four scholarships, valued at \$7,000 each, will be awarded annually to outstanding female undergraduate students entering Year One of eligible programs in the Faculties of Science and Engineering wherein women are underrepresented including: Earth Sciences, Chemical Engineering, Electrical Engineering, Geological Engineering, and Mechanical Engineering. Candidates must be from Northern Ontario or the Northwest Territories. Selection will be based on academic achievement (minimum 80% admission average) and extracurricular achievements as assessed through the Admission Information Form (Engineering students only). Preference will be given to Indigenous students. An application is not required. This fund is made possible by a donation from UN Women in partnership with De Beers Group of Companies.

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

Tom McColeman Entrance Bursary

A bursary, valued at \$2,000, will be awarded annually to an undergraduate student entering Year One of the Mechanical Engineering program who has demonstrated financial need as determined by University of Waterloo. To be considered, students must complete the University of Waterloo Entrance Bursary on-line application by April 15. This fund is made possible by a donation from Tom McColeman.

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

NEW UNDERGRADUATE SCHOLARSHIPS, AWARDS, and BURSARIES

to be added to the Undergraduate Awards Database

- submitted for September 11, 2018 meeting of Senate Undergraduate Council -

UPPER-YEAR AWARDS

Babbin Family Scholarship

A scholarship, valued at \$2,000, will be awarded annually to a full-time undergraduate student enrolled in Year Two or Three of a Computer Science program or Software Engineering in the David R. Cheriton School of Computer Science. Selection will be based on scholastic excellence (minimum 80% cumulative average) and a demonstrated passion for entrepreneurship and innovation (e.g. side business projects, competitions, extra-curricular initiatives, etc.). Interested students should submit an application by October 1. This fund is made possible by a donation from alumnus Jerry Babbin (MMath '66).

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

Destination Physics Scholarship

A scholarship, valued at up to \$3,000, will be awarded annually to a full-time undergraduate student enrolled in Year Two, Three, or Four in the Department of Physics & Astronomy in the Faculty of Science, on the basis of academic excellence (minimum 80% cumulative average). This fund is made possible by donations from alumni and friends of the Department of Physics & Astronomy.

Method of Financing: endowment

DiMarco Undergraduate Scholarship in Computational Rhetoric

A scholarship, valued at \$1,500, will be awarded annually to a full-time undergraduate student enrolled in Year Two, Three, or Four of any program in the Faculty of Arts or a Computer Science program in the David R. Cheriton School of Computer Science. Selection is based on academic achievement (minimum 80% cumulative average) combined with a demonstrated interest in the area of computational rhetoric. Interested students must submit an application outlining their interest in computational rhetoric by October 15 in order to be considered. This fund is made possible by a donation from alumnus Sam Pasupalak (BCS '12), in honour of Professor Chrysanne DiMarco's excellent teaching, mentorship, and for her significant support of Sam's research.

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

Ginny Dybenko Experiential Learning Award

Awards of varying size are available to students enrolled in the Bachelor of Global Business and Digital Arts program or the Master of Digital Experience Innovation program. Students are required to participate in an extracurricular activity that will enhance their education in their program or in an experiential activity tied to a course where the cost is not covered by their tuition. Selection will be based on a written demonstration of how the activity will benefit the student's knowledge acquisition or professional development, or enrich their in-class learning. Interested students must submit a special application form to the Stratford Campus Academic Administrative Assistant. Applications will be accepted throughout the year.

Method of Financing: endowment

Kinesiology Award: A Noble Pursuit

Two awards, valued at \$1,000 each, are provided annually to full-time undergraduate students enrolled in Year Three or Four in the Department of Kinesiology who have made an impact in the healthcare field through research, volunteer activities and/or co-op experiences. Candidates must have a minimum overall average of 80%. Interested students should submit an application by November 1. This fund is made possible by a gift from Ronald N. Noble, BSc '80 to encourage students to apply their academics in the real world.

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

NEW UNDERGRADUATE SCHOLARSHIPS, AWARDS, and BURSARIES

to be added to the Undergraduate Awards Database

- submitted for September 11, 2018 meeting of Senate Undergraduate Council -

Robert J. Le Roy Memorial Scholarship

A scholarship, valued at up to \$1,200, will be awarded annually to a full-time undergraduate student enrolled in Year Three or Four in the Department of Chemistry in the Faculty of Science. Selection is based on academic excellence (minimum 80% cumulative average). This fund is made possible by a donation from family and friends of Professor Bob Le Roy to help support and sustain the next generation of scientific inquiry.

Method of Financing: endowment

Magna New Mobility Award

Two awards, valued at \$2,000 each, will be provided annually to student groups undertaking a fourth-year Capstone Design project in any program in the Faculty of Engineering. The awards will go to the projects that, in the opinion of the judges, demonstrate a potential for significant innovation in the area of electrical vehicles, connected vehicles, autonomous vehicles, automatic transmissions, or new mobility infrastructure. Electric vehicles and connected vehicles are considered priority areas. The award funds will be divided equally among the winning team members. Interested students should submit an application through the following website: <https://uwaterloo.ca/engineering/capstone-design-awards-application-form>. This fund is made possible by a donation from Magna International Inc.

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

Pasupalak Velocity CS Capstone Award

One award, valued at \$15,000, will be presented annually to a student-team with an outstanding Computer Science Capstone Team project. Selection is based on the team that is most likely to transform their project into a Start-Up and who will continue working on their project/Start-Up on a full-time basis for the foreseeable future. This fund is supported by a donation from Sam Pasupalak.

Method of Financing: one-time donation to support award for three years

Ann & Geoffrey Power Award

An award, valued at \$2,500, will be presented annually to a full-time undergraduate student enrolled in Year Two, Three, or Four of the Honours Biology program in the Department of Biology. Selection is based on academic achievement (minimum 75% cumulative average) combined with a demonstrated interest and/or extracurricular involvement in the study of vertebrates, their ecology and conservation. Interested students should submit an application by October 15. This award is made possible by a donation from Ann Power to the Canadian Federation of University Women Kitchener-Waterloo Charitable Fund (CFUW K-W Charitable Fund). Ann, a long-term member and past president of the CFUW K-W, was a founding trustee of the CFUW K-W Charitable Fund in 1985.

Method of Financing: annual donation (open-ended)

SCiAN Services Scholarship for Excellence in Biostatistics

A scholarship, valued at \$2,000, will be awarded annually to a full-time undergraduate student enrolled in Year Four of the Biostatistics program in the Department Statistics and Actuarial Science in the Faculty of Mathematics. The award will be presented to the student with the highest major average in Biostatistics (minimum 80% required). This fund is made possible by a donation from SCiAN Services Inc., to support and inspire students with a passion for Biostatistics.

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

NEW UNDERGRADUATE SCHOLARSHIPS, AWARDS, and BURSARIES

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- submitted for September 11, 2018 meeting of Senate Undergraduate Council -

Soprema Award: Tomorrow's Leaders

Several awards will be presented annually to full-time undergraduate or graduate students in the School of Architecture who enrolled in ARCH 473, ARCH 493, ARCH 673 or ARCH 693. Selection will be made on the basis of a strong technical understanding of the building envelope and great design skills as evidenced by the grades received in the final project and technical report. First place will be awarded \$1,000, second place \$750, and third place \$500. This fund is made possible by a donation from SOPREMA.

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

William Tutte Centenary Undergraduate Scholarship

A scholarship, valued at up to \$1,500, will be awarded annually to a full-time undergraduate student enrolled in Year Two, Three, or Four majoring in any program in the Department of Combinatorics and Optimization in the Faculty of Mathematics who achieves the highest cumulative average (minimum 80%). This fund is made possible by donations from those inspired by William Tutte's work. As a young man, William Tutte (1917-2002) worked as a code breaker at Bletchley Park in England during WWII. His work, in part, led to the creation of COLOSSUS, a machine used to break codes on a regular basis throughout the remainder of the war, saving countless lives. In 1962, Tutte joined the Faculty of Mathematics at the University of Waterloo. He made a major contribution to establish the identity and reputation of UWaterloo, helping to attract combinatorialists from all over the world and assisted in founding the Department of Combinatorics and Optimization.

Method of Financing: endowment

Weeks Family Perseverance Award

An award, valued at up to \$1,200, will be provided annually to a full-time undergraduate student enrolled in Year Two, Three, or Four of any program in the Faculty of Mathematics who has persevered to return to school after an unplanned absence of one or more study terms. Selection will be based on academic achievement (minimum 75% cumulative average) combined with a personal statement describing the reason for their absence and their perseverance to return to full-time studies. Interested students should submit an application by October 15. This fund is made possible by a donation from Laura Weeks (BMath '90).

Method of Financing: endowment

Frank and Juliana Wong Patient Care Rotation Awards

One \$2,000 award, and two \$1,500 awards, will be provided annually to full-time undergraduate students enrolled in Year Four of the PharmD program in the School of Pharmacy who are participating in patient care rotations. Selection will be based on academic achievement (minimum 75% cumulative average) and a two-page letter discussing the candidates goals for their patient care rotations, how they plan to immerse themselves in the community of practice, and how these funds would assist them during their rotations. Interested students should submit an application by February 15. This fund is made possible by a donation from Frank and Juliana Wong.

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

Your Neighbourhood Credit Union Award

An award, valued at up to \$1,000, will be provided annually to a full-time undergraduate student enrolled in Year Two, Three, or Four of any program in the Faculty of Arts. Selection will be based on academic excellence (minimum 75% cumulative average), as well as demonstrated community involvement in the Region of Waterloo. Interested students should submit an application by February 15. This fund is made possible by a donation from Your Neighbourhood Credit Union.

Method of Financing: endowment

NEW UNDERGRADUATE SCHOLARSHIPS, AWARDS, and BURSARIES

to be added to the Undergraduate Awards Database

- submitted for September 11, 2018 meeting of Senate Undergraduate Council -

ATHLETIC AWARDS

Club Warrior's Swimming Excellence Award

One or more awards, valued at up to \$4,000, are given to student-athletes on the varsity swimming team. These awards recognize leadership, athletic talent, and contribution to Warriors Athletics and Recreation, their team, and the University of Waterloo community. This fund is supported by Club Warriors Swimmers.

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

Tuffy Knight Football Award

One or more awards, valued at up to \$4,500, are given to members of the varsity football team. This award recognizes athletic talent and contribution to Warrior Athletics and Recreation, their team and the school. This fund is supported by Warriors Football alumni and friends in honour of Dave "Tuffy" Knight, who served as head coach of Warriors Football from 1988 – 1997, going 42-33-1 and leading the Warriors to their first Yates Cup Championship in 1997. In 2007, Tuffy was inducted into the Canadian Football Hall of Fame and the following year, he was inducted into the Waterloo Warriors Hall of Fame.

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

LB Women's Volleyball Excellence Award

One or more awards, valued at up to \$4,500, are given to members of the varsity women's volleyball team. These awards recognize leadership qualities, strong athletic talent, and contribution to Athletics and Recreation, their respective team and their community. This fund is supported by Waterloo alumna and Warriors Women's Volleyball Assistant Coach Laura Brown, known affectionately as "LB".

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

Eric Jr. Pauyo Football Excellence Award

One award valued at \$2,000, or two awards valued at \$1,000, will be given to members of the varsity football team. This award recognizes leadership, athletic talent, and contribution to Warrior Athletics and Recreation, their team, the school and their community. This fund is supported by Waterloo and Warriors football and track & field alumnus Eric Jr. Pauyo.

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

Callie Reagan Women's Hockey Award

One award valued at \$2,000, or two awards valued at \$1,000, are given to student-athletes on the varsity women's ice hockey team. This award recognizes leadership, athletic talent, and contribution to Warriors Athletics and Recreation, their team, the school and their community. This fund is supported by Shaun and Jenny Reagan, in honour of their daughter Callie.

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

Benjie and Sonia Thomas Athletic Excellence Award

One award, valued at \$1,000 or more, is given to a student-athlete enrolled in the Accounting & Financial Management program in the Faculty of Arts. Preference will be given to members of the varsity football team and to students enrolled in Year One. This award recognizes athletic talent, leadership qualities, and contribution to Warriors Athletics and Recreation, their team, the school, and their community. This fund is supported by Warriors football alumnus Benjie Thomas.

Method of Financing: endowment

NEW UNDERGRADUATE SCHOLARSHIPS, AWARDS, and BURSARIES

to be added to the Undergraduate Awards Database

- submitted for September 11, 2018 meeting of Senate Undergraduate Council -

Waterloo Warriors Women's Hockey Perseverance Award

One award valued at \$2,000 or two awards valued at \$1,000, are given to members of the varsity women's ice hockey team. This award recognizes perseverance in the face of adversity. This fund is supported by Waterloo and Warriors women's ice hockey alumnus Caitlin Brydges.

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

INTERNATIONAL EXPERIENCE AWARDS

Marga I. Weigel Engineering International Exchange Award

One award valued at \$5,000 for two academic exchange terms or two awards valued at \$2,500 for one academic exchange term each, will be provided to assist one or more undergraduate students enrolled in second, third, or fourth year of any program in the Faculty of Engineering who will be participating in an active exchange program between Waterloo and a partner institution in Germany or Austria. Candidates must have an overall academic average of at least 75%. Preference will be given to students who demonstrate financial need for the term(s) abroad. Further preference will be given to students with some proficiency in German. Interested students should submit the general International Experience Award application to the Student Awards and Financial Aid Office by July 15. This award is supported by Dr. Marga Weigel, a proud Waterloo alumna to encourage engineering students to pursue exchange opportunities in Germany or Austria.

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

University of Waterloo
SENATE
Report of the President
15 October 2018

FOR INFORMATION

Recognition and Commendation

Ten researchers from the University of Waterloo received more than \$15.6 million from the **Natural Sciences and Engineering Research Council of Canada (NSERC)** to fund two networks and eight projects that will further research efforts through academic and industry collaborations. The **Honourable Kirsty Duncan**, Minister of Science and Sport, announced the **Strategic Partnerships Grants** at Promotion in Oakville, Ontario, one of the industry partners Waterloo is currently working with to further additive manufacturing. These grants help bring together expertise from academia, Canadian-based companies, government institutions, and international entities to collaborate on innovative research with commercialization potential. With these grants, two networks have been funded to explore timely research: **Ehsan Toyserkani's** "Network for Holistic Innovation in Additive Manufacturing" (mechanical and mechatronics engineering), and **Monica Emelko's** "Network for Forested Drinking Water Source Protection Technologies" (civil and environmental engineering). Professor Toyserkani's network is quite promising as it is the first national academic additive manufacturing (AM) initiative in Canada. Professor Emelko is leading the "forWater" network in identifying new source water protection technologies for climate change adaptation.

(adapted from the *Waterloo Stories*, 10 August 2018)

The four students are winners of **Schulich Leader Scholarships**, the largest scholarships for science, technology, engineering and mathematics (STEM) programs in Canada, each between \$80,000 and \$100,000. The incoming Schulich Leaders distinguished themselves with high grades, leadership roles in their communities, and participation in entrepreneurial ventures.

Read more about the four University of Waterloo winners below:

David Gu launched a startup called LearnVR that helps beginner programmers learn about Virtual and Augmented reality. Gu also created a smartphone-based augmented reality platform to help train health professionals. He has spoken at conferences about his products and has won hackathons. He created a virtual reality software platform to improve exercise for seniors, winning a Grand Prize at the MIT Reality Virtually Hackathon. At high school, Gu started two clubs, became the first student at his school to take four Higher Level IB courses concurrently and wrote programs to help visualize molecular structures and practise second languages online — all while maintaining a 98 per cent average. He achieved the highest graduating average in his year, and received the Governor General's Academic Medal. When asked about future career prospects, Gu responded: "I am passionate about innovation and changing the world with technology. With the help of the Schulich Leader Scholarship, I can bring my entrepreneurship to next level. My goal for my future career is to solve the world's most pressing problems with technology and innovation."

As a high school student, **Atif Mahmud** explored academic opportunities that most undergraduates don't get to experience. Mahmud completed a full-time undergraduate level research assistantship, and also collaborated with members of multiple faculties on his own personal projects. He is CEO and lead developer for Flowi, a startup based in Waterloo that is an advertising solution for businesses located in dense city centres. It allows local businesses to send push notifications for deals from nearby stores if the user is connected to the free Wi-Fi network. Mahmud also developed a machine learning model to predict harmful algal blooms in fresh and saltwater ecosystems. This project, called NeurAlgae, has been recognized by the Canada-Wide Science Fair and is currently being considered for adoption in national waters through cooperation with the National Oceanic and Atmospheric Administration. When asked how he balances all of these many responsibilities, he responded "For me, balance comes down to finding enjoyment in everything you do, I try to be an optimist and focus on intrinsic

metrics for my own success. That way I can always gauge how I'm doing without focusing on what other people think. In terms of specific strategies, I have one that I live by: don't multitask. Focusing my energy into only one thing at a time has done wonders for my mental health and helped me find balance in my everyday life."

Robin Wen immigrated to Saskatchewan in 2016, and describes his initial English language abilities as "far from being proficient for regular academic purposes." He worked hard to improve those skills, and eventually became the first student to be accepted into the SAGE program in grade 12 at his school; a program focused on advanced-level topics in English and the Humanities. On top of vastly improving his English skills, Wen also displayed his mastery of the AP curriculums of his STEM courses. He achieved the highest score on his calculus, chemistry, statistics, and two physics AP exams nationally. He was the National Champion for the 2017 Fermat Contest, ran by Waterloo's own Centre for Education in Mathematics and Computing. In addition to this contest, Wen has also qualified for the Canadian Mathematical Olympiad in both 2017 and 2018. When asked what he wants to do after his undergrad, Wen said "It is my current aim to become a physics professor, but I am also open-minded about other various options. Besides physics and math, I take interest in a great variety of fields and subjects, so I would love to explore my potential during my five-year undergraduate study."

On top of maintaining an excellent average in high school, **Advait Maybhate** practised karate to improve his physical fitness, and placed 3rd in the Kitchener-Waterloo Meibukan Karate Tournament in 2016. Outside of school, Maybhate created an algorithm to identify DNA sequence motifs, which detected known motifs 10 times faster than the standard approach. This project won him a silver medal and the Statistics Society of Canada Award at the Canada-Wide Science Fair. He also participated in hackathons, and won the "Best Use of CockroachDB" award for creating SumNotes, a program that automatically summarizes lectures based on speech-to-text technology. When asked how he became passionate about computer science, Maybhate said: "In Grade 4, one of my classmates used Scratch, a block-based modular graphical programming language, to create an animated presentation. This event inspired me to play with Scratch and create my very own jetpack platformer game. Later on, in Grade 6, I registered for the University of Waterloo's online CS Circles course, which was a great introduction to Python as a programming language. Nothing is impossible in the world of computer science. You can make people fly or create evil, pink and fluffy unicorns that rule the world."
(adapted from the *Waterloo Stories*, 22 August 2018)

The Office of the Associate Vice President, Academic and the Centre for Teaching Excellence are pleased to announce the recipients of this term's **Learning Innovation and Teaching Enhancement (LITE) Seed Grants**. Since 2012, 80 LITE Seed Grants of up to \$5,000 have been awarded to instructors and staff investigating innovative approaches to enhancing teaching and fostering deep student learning at Waterloo. We are excited to announce the funding of five new projects this year:

- Changing bodies, changing minds: Utilizing speculative fiction to teach intersectional and Postcolonial theories, **Victoria Lamont** and **Meghan Riley** (English language and literature)
- Creating immersive assignments for deeper learning around diversity, multiculturalism, and social justice in leisure, **Corey Johnson** and **Luc Cousineau** (recreation and leisure Studies)
- Flexible assessment and metacognition in an entry-level statistics course, **Michael Wallace** and **Henry So** (statistics and actuarial science)
- Gamifying history: Designing and implementing a game-based learning course design framework, **Kyle Scholz** (Centre for Teaching Excellence) and **Jolanta Komornicka** (St. Jerome's University)
- Life stories of older adults: Learning aging through research and reflection, **Elena Neiterman** and **Christine Sheppard** (School of Public Health and Health Systems)

(adapted from the *Daily Bulletin*, 28 August 2018)

A blog post, written by a visually impaired person about the challenges she faced trying to use the office's new touch screen coffee maker was the inspiration behind a recent Waterloo Engineering Capstone Design project. **WatVision** took home top honours in the national leg at this year's **James Dyson Award** for its clever,

yet simple engineering principles. Developed by six mechatronics engineering students, WatVision is a system that reads out words or numbers on a device allowing visually impaired individuals to make a cup of java, select an elevator floor or perform other functions most people take for granted. WatVision includes an app as well as a ring that the user wears on a finger. By pointing a smart phone camera at a touch screen, the app reads out whatever word or number is underneath the individual's finger. One of the main advantages of the ring design is that it costs less than \$2 to produce. "We looked at creating braille readers at first, but decided that would be way too hard," says **Craig Loewen**, a WatVision member. "When [a team member] read a blog post about an individual not being able to make coffee because she couldn't use the touch screen, we all said that we could solve that problem." In March, WatVision captured a **GM Innovation Award** as well as second place in the **People's Choice Award** during TronCon, an annual mechatronics engineering event that connects alumni with current students. Team members Loewen, **Jennifer Kim**, **Joseph Lundy**, **Lior Lustgarten**, **Elizabeth Morrow** and **Jake Rampertab** graduated from Waterloo last spring and have all landed full-time jobs throughout North America. The team hopes to integrate images and colours into the next version of WatVision and for users to navigate the touch screen without wearing a ring. They will put the \$3,000 James Dyson Award prize towards maintaining server access subscriptions and computing time. WatVision and the two national runners up will move onto the next stage of the James Dyson Award where a panel of Dyson engineers will select a shortlist of international projects later this month. (adapted from the *Daily Bulletin*, 11 September 2018)

Four engineering researchers from the University of Waterloo were named fellows of the **Royal Society of Canada (RSC)** and members of the **Royal Society of Canada's College of New Scholars, Artists and Scientists**.

Waterloo's **Feridun Hamdullahpur**, **Zhou Wang**, **Carolyn Ren**, and **Alexander Wong** are joining this prestigious national organization. The RSC recognizes remarkable contributions in the arts, humanities, and sciences, as well as Canadian public life. Hamdullahpur is named a Specially Elected Fellow, a designation that recognizes individuals who have made exceptionally valuable contributions to promoting the objectives of the RSC in ways that contribute significantly to Canadian society. Hamdullahpur is named for advancing equity in higher education including as a United Nations HeForShe Impact Champion and for his leading work with co-operative education and entrepreneurial programming.

Waterloo's fellows are:

- **Feridun Hamdullahpur** (mechanical and mechatronics engineering), Specially Elected Fellow of the Royal Society of Canada: Hamdullahpur is an engineer, educator and leader with a career in research and higher education spanning more than 35 years. A professor of mechanical engineering, Hamdullahpur was named a Fellow of the Canadian Academy of Engineering in 2014 for impactful research in thermo-fluids and energy engineering. He served in various academic and administrative roles including vice-president, academic & provost at the University of Waterloo, and is currently Waterloo's president and vice-chancellor. In acknowledgement of Hamdullahpur's leadership in education and innovation, he was awarded the Queen Elizabeth II Diamond Jubilee Medal in January 2013.
- **Zhou Wang** (electrical and computer engineering), Fellow of the Royal Society of Canada: Wang is one of the world's most cited authors in visual perception-based image quality assessment, processing and compression. His innovative work created a paradigm change in the imaging field and has been used for video quality assurance throughout the global media delivery industry, directly affecting millions of viewers daily. He is a Fellow of Canadian Academy of Engineering and the Institute of Electrical and Electronics Engineers, and a recipient of NSERC Steacie Memorial Fellowship and Primetime Engineering Emmy Award. Wang was named to the RSC's College of New Scholars, Artists and Scientists in 2015.

Waterloo's members are of the College of New Scholars, Artists and Scientists:

- **Carolyn Ren** (mechanical and mechatronics engineering): Ren is internationally recognized for her seminal contributions to microfluidics and Lab-on-a-Chip research. Her physical and theoretical models, as well as her design and optimization tools, have greatly enhanced the understanding of transport phenomena and have enabled new, truly integrated Lab-on-a-Chip devices for high throughput screening applications. She is currently a Tier 2 Canada Research Chair in Droplet Microfluidics and Lab-on-a-Chip Technology and holds three patents. Already one of Canada's foremost microfluidics researchers, Ren's work promises broad and profound impacts for the global biomedical, pharmaceutical and environmental sectors.
- **Alexander Wong** (systems design engineering): Wong is a renowned scientist and engineer whose contributions to artificial intelligence, computer vision and biomedical engineering have had profound impacts on his field. His groundbreaking innovations include computational imaging systems and tissue-scanning techniques for cancer detection, coded hemodynamic imaging technology for blood flow monitoring, and important new concepts for operational artificial intelligence in areas such as explainable and scalable deep learning. He is a Tier 2 Canada Research Chair in Artificial Intelligence and Medical Imaging, is the recipient of numerous awards, and holds six patents and 26 patent applications in the area of artificial intelligence and imaging.

(adapted from the *Daily Bulletin*, 12 September 2018)

Keith Hipel, a longtime professor at Waterloo Engineering, was formally invested last week into the **Order of Canada**, one of the country's highest honours. Hipel was made an officer of the Order, a rank that recognizes national service or achievement, by Governor General Julie Payette during a ceremony at Rideau Hall in Ottawa. A systems design engineering professor who earned three degrees at Waterloo as a student, Hipel was cited for developing "innovative decision models that have been used to design environmental strategies and address pollution conflicts worldwide." His citation described Hipel as a "pre-eminent leader" in his field, and said his "interdisciplinary systems approach has been applied to such wide-ranging challenges as the management of water levels in the Great Lakes and sustainable energy development." It also noted he has held numerous leadership posts with academic and professional institutions, including president of the Academy of Science of the Royal Society of Canada. Hipel holds the title of University Professor, the highest academic honour at Waterloo, and has won both the Distinguished Teacher Award and the Award of Excellence in Graduate Supervision. (adapted from the *Daily Bulletin*, 13 September 2018)

The Internationalization Fund was established by the Provost to support innovative new projects that would infuse international, intercultural and/or global perspectives into the curriculum or co-curricular activities. The selected projects represent a mix of initiatives which address internationalization abroad, at home and within research collaborations. They include a focus on undergraduate and graduate students, issues related to both inbound international students and outbound travel by Waterloo students, and both curricular and co-curricular innovation.

The recipients are:

- **Janice Aurini** and **Kate Henne**, sociology and legal studies, "Transnational Talks: Global Methodological Approaches to Research"
- **Karla Boluk** and **Elena Neiterman**, recreation and leisure studies, "Building Bridges across Borders: Virtually Aligning Courses between Institutional Partners (Kazakhstan)"
- **Colleen McMillan** and **Kofi Campbell**, Renison University College, School of Social Work, "Enhancing Student Experience: Domestic & International Student Integration"
- **Jessica Lang**, WatPD – EDGE, "International Experiential Education Toolkit for EDGE Instructors"
- **Ellen MacEachen**, public health and health studies, "Collaborative Online Graduate-level Course 'International Perspectives on Equality in Work and Health' (Sweden)"

- **Cherisse Mike**, Dean of Math Office, “Videos Addressing Cultural Stereotypes of Minority Groups on Campus”
- **Angela Rooke**, Graduate Studies & Postdoctoral Affairs, “Workshop Series on Professionalism for Graduate Students and Postdoctoral Fellows”
- **Linda Zhang**, Information Systems & Technology, “International Student Seminars to Promote Successful and Healthy Transition to Waterloo”

These projects will be implemented during the 2018-19 academic calendar with their outcomes and results summarized in final reports that will serve as resources and templates for institutional learning and potential future project iterations. (adapted from the *Daily Bulletin*, 21 September 2018)

University of Waterloo
SENATE
Report of the Vice-President Academic & Provost
October 15, 2018

FOR INFORMATION

University Research Chairs

Waterloo has granted University Research Chair awards since 2004. Current chair holders are: **James Blight** (history), **Raouf Boutaba** (computer science), **Roy Brouwer** (economics), **Thomas Homer-Dixon** (faculty of environment), **Sue Horton** (school of public health and health systems & economics), **Fakhreddine Karray** (electrical & computer engineering), **Barbara Schmenk** (german and slavic studies), **Imre Szeman** (drama and speech communication), **Michael Tam** (chemical engineering), **Ruodo Wang** (statistics and actuarial science), **Olaf Weber** (environment, enterprise and development), **David Welch** (political science), **Michael Worswick*** (mechanical and mechatronics engineering) in 2018; **Guang Gong** (electrical and computer engineering), **Alice Kuzniar** (germanic and slavic studies), **Juewen Liu** (chemistry), **Colleen Maxwell** (pharmacy), **Marcel O’Gorman** (english language and literature), **Graham Taylor** (systems design engineering), **Zhou Wang** (electrical and computer engineering) in 2017; **Jeff Chen** (physics & astronomy), **Duane Cronin** (mechanical & mechatronics engineering), **Xianshe Feng** (chemical engineering) in 2016; **Pu Chen** (chemical engineering), **Claude Duguay** (geography & environmental management), **Lila Kari** (computer science), **Debbie Leung** (combinatorics & optimization), **John Long** (electrical and computer engineering), **Brian McNamara** (physics & astronomy), **Heidi Swanson** (biology) in 2015; **James Geelen** (combinatorics & optimization), **Achim Kempf** (applied mathematics), **Xianguo Li** (mechanical & mechatronics engineering), **Qing-Bin Lu** (physics & astronomy), **Mark Matsen** (chemical engineering), **Daniel Scott** (geography & environmental management) in 2014; **Chris Bauch** (applied mathematics), **Jason Bell** (pure mathematics), **Ravi Mazumdar** (electrical & computer engineering) in 2013; **Ian Goldberg** (computer science), **Elizabeth Irving** (optometry & vision science), **Shesha Jayaram** (electrical & computer engineering), **Lyndon Jones** (optometry & vision science), **Michele Mosca** (combinatorics & optimization) in 2012; **Fakhreddine Karray** (electrical & computer engineering), **Bill McIlroy** (kinesiology), **Sivabal Sivaloganathan** (applied mathematics), **Michael Tam** (chemical engineering), **Grace Yi** (statistics & actuarial science) in 2011.

University of Waterloo owes much of its reputation and stature to the quality of its professors and their scholarly accomplishments. University of Waterloo recognizes exceptional achievement and pre-eminence in a particular field of knowledge through the designation 'University Research Chair'.

In addition, a faculty member at the conclusion of the second term as a Tier I Canada Research Chair may also be considered for a University Research Chair.*

More information can be found on the URC website:
<https://uwaterloo.ca/provost/university-research-chairs>

James W.E. Rush
Vice-President, Academic & Provost

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

October 15, 2018

FOR INFORMATION

A. APPOINTMENTS

Adjunct Appointments

Graduate Supervision

ROBERTO, Christina, Assistant Professor, School of Public Health and Health Systems,
September 1, 2018 – August 31, 2020.

Special Appointments

Undergraduate Instruction

METHEREL, Adam, Lecturer, Department of Kinesiology, September 4, 2018 – December 31,
2018.

Postdoctoral Appointments

CARRINGTON, Andre, School of Public Health and Health Systems, August 16, 2018 – August
15, 2019.

OSTERTAG, Sonja, School of Public Health and Health Systems, September 1, 2018 – August 31,
2021.



Paul Stolee, Interim Dean
Faculty of Applied Health Sciences

UNIVERSITY OF WATERLOO
REPORT OF THE DEAN OF THE FACULTY OF ARTS TO SENATE
October 15, 2018

FOR INFORMATION

A. APPOINTMENTS

Definite Term Reappointments

DI RUZZA, Vince, Lecturer, Department of Psychology, September 1, 2018 to August 31, 2021.

IAFOLLA, Vanessa, Lecturer, Department of Sociology & Legal Studies, September 1, 2018 to August 31, 2020.

SEEDS, Pamela, Lecturer, Department of Psychology, September 1, 2018 to August 31, 2021.

Adjunct Appointments – Instruction

BONDY, Marc, Lecturer, Department of Communication Arts, September 1, 2018 to December 31, 2018.

BUIANI, Roberta, Lecturer, Department of Communication Arts, September 1, 2018 to December 31, 2018.

DEROOVER, Megan, Lecturer, Department of Communication Arts, September 1, 2018 to December 31, 2018.

DONALDSON, Andrea, Lecturer, Department of Communication Arts, September 1, 2018 to December 31, 2018.

EVERITT, Bruce, Lecturer, School of Accounting and Finance, September 1, 2018 to December 31, 2018.

FERRARO, Lauren, Lecturer, Department of Communication Arts, September 1, 2018 to December 31, 2018.

FOLLETT, Alec, Lecturer, Department of Communication Arts, September 1, 2018 to December 31, 2018.

KIEPER, Anna, Lecturer, Department of Germanic and Slavic Studies, September 1, 2018 to December 31, 2018.

LEKO, Vesna, Lecturer, Department of Germanic and Slavic Studies, September 1, 2018 to December 31, 2018.

LEWIS, Dennis, Lecturer, Department of English Language and Literature, September 1, 2018 to December 31, 2018.

MAHMOOD, Adeel, Lecturer, School of Accounting and Finance, September 1, 2018 to December 31, 2018.

MIAN, Haaris, Lecturer, School of Accounting and Finance, September 1, 2018 to December 31, 2018.

PEARSON, Janine, Lecturer, Department of Communication Arts, September 1, 2018 to December 31, 2018.

PLOWMAN, Robert, Lecturer, Department of Communication Arts, September 1, 2018 to December 31, 2018.

SIDER, Kimber, Lecturer, Department of Communication Arts, September 1, 2018 to December 31, 2018.

THOMPSON, Jeffrey, Lecturer, Stratford School of Interaction Design and Business, September 1, 2018 to December 31, 2018.

VANCE, Dan, Lecturer, School of Accounting and Finance, September 1, 2018 to December 31, 2018.

ZISMAN NEWMAN, Laine, Lecturer, Department of Communication Arts, September 1, 2018 to December 31, 2018.

ZMETANA, Katherine, Lecturer, Department of Communication Arts, September 1, 2018 to December 31, 2018.

Adjunct Appointments – Miscellaneous (research, consultations, etc.)

TREUSCH, Anna, Department of Communication Arts, September 1, 2018 to December 31, 2018.

Adjunct Appointments – Graduate Supervision

BOYD, Jennifer, Clinical Supervision, Department of Psychology, September 1, 2018 to December 31, 2018.

BREAM, Linda, Clinical Supervision, Department of Psychology, September 1, 2018 to December 31, 2018.

HOOD, Heather, Clinical Supervision, Department of Psychology, September 1, 2018 to December 31, 2018.

KING, Matthew, Clinical Supervision, Department of Psychology, September 1, 2018 to December 31, 2018.

MAINLAND, Brian, Clinical Supervision, Department of Psychology, September 1, 2018 to December 31, 2018.

SLATER, Ruth, Clinical Supervision, Department of Psychology, September 1, 2018 to December 31, 2018.

TOMPKINS, Season, Clinical Supervision, Department of Psychology, September 1, 2018 to December 31, 2018.

TOWERS, Wanda, Clinical Supervision, Department of Psychology, September 1, 2018 to December 31, 2018.

VORSTENBOSCH, Valerie, Clinical Supervision, Department of Psychology, September 1, 2018 to December 31, 2018.

Adjunct Reappointments – Instruction

ADAMS, Russell, Assistant Professor, Department of Anthropology, September 1, 2018 to December 31, 2018.

AFROS, Elena, Lecturer, Department of English Language and Literature, September 1, 2018 to December 31, 2018.

ALEKBEROV, Elshan, Lecturer, Department of Economics, September 1, 2018 to December 31, 2018.

ATOCHE, Cristina, Lecturer, Department of Spanish and Latin American Studies, September 1, 2018 to December 31, 2018.

BALAISIS, Nicholas, Lecturer, Department of Communication Arts, September 1, 2018 to December 31, 2018.

BALTRUSAITIS, Jonathan, Lecturer, Stratford School of Interaction Design and Business, Faculty of Arts, September 1, 2018 to December 31, 2018.

BARICHELLO, Steve, Lecturer, School of Accounting and Finance, September 1, 2018 to December 31, 2018.

BASHIR, Mohsin, Lecturer, School of Accounting and Finance, September 1, 2018 to December 31, 2018.

BEER, Lacey, Lecturer, Department of English Language and Literature, September 1, 2018 to December 31, 2018.

BRAZIER, Brenda, Lecturer, School of Accounting and Finance, September 1, 2018 to December 31, 2018.

BRIGGS, Catherine, Lecturer, Department of History, September 1, 2018 to December 31, 2018.

BULLOCH, Dean, Lecturer, Department of Psychology, September 1, 2018 to December 31, 2018.

CARTER, Veronica, Lecturer, Department of Fine Arts, September 1, 2018 to December 31, 2018.

COCARIA, Sasha, Lecturer, Department of Philosophy, September 1, 2018 to December 31, 2018.

CYR, Dylan, Lecturer, Department of History, September 1, 2018 to December 31, 2018.

D'AMATO, John, Lecturer, School of Accounting and Finance, September 1, 2018 to December 31, 2018.

DE ROOIJ-MOHLE, Margreet, Lecturer, Department of Germanic and Slavic Studies, September 1, 2018 to December 31, 2018.

DIGRAVIO, Katrina, Lecturer, Department of Psychology, September 1, 2018 to December 31, 2018.

FATIMA, Nafeez, Lecturer, Department of Economics, September 1, 2018 to December 31, 2018.

FERNANDEZ, Stephen, Lecturer, Department of English Language and Literature, September 1, 2018 to December 31, 2018.

FORRIN, Noah, Lecturer, Department of Psychology, September 1, 2018 to December 31, 2018.

GAMEZ, Hector, Lecturer, School of Accounting and Finance, September 1, 2018 to December 31, 2018.

GLADKOVA, Olga, Lecturer, Department of Communication Arts, September 1, 2018 to December 31, 2018.

GUERRERO, Yessenia, Lecturer, Department of Spanish and Latin American Studies, September 1, 2018 to December 31, 2018.

HANCOCK, Michael, Lecturer, Department of English Language and Literature, September 1, 2018 to December 31, 2018.

HARVIE, Jo, Lecturer, Department of Communication Arts, September 1, 2018 to December 31, 2018.

HAYDON, Nathan, Lecturer, Department of Philosophy, September 1, 2018 to December 31, 2018.

HAYES, Nicole, Lecturer, Department of Anthropology, September 1, 2018 to December 31, 2018.

HILL, Heather, Lecturer, Department of Communication Arts, September 1, 2018 to December 31, 2018.

HOSSEINI, Mohsen, Lecturer, Department of English Language and Literature, September 1, 2018 to December 31, 2018.

HUNTER, Natalie, Lecturer, Department of Fine Arts, September 1, 2018 to December 31, 2018.

HUTCHISON, Jesse, Lecturer, Department of English Language and Literature, September 1, 2018 to December 31, 2018.

JAMIES-DOMINGUEZ, Luis, Lecturer, Department of Spanish and Latin American Studies, September 1, 2018 to December 31, 2018.

KARIMZADA, Muhebullah, Lecturer, Department of Economics, September 1, 2018 to December 31, 2018.

KERNOHAN, Sarah, Lecturer, Department of Fine Arts, September 1, 2018 to December 31, 2018.

KHOLDI, Amir-Shahram, Lecturer, Department of History, September 1, 2018 to December 31, 2018.

KLANN, Julia, Lecturer, School of Accounting and Finance, September 1, 2018 to December 31, 2018.

KUMASE, Wokia-azi, Lecturer, Department of Economics, September 1, 2018 to December 31, 2018.

LAIKEN, Stan, Lecturer, School of Accounting and Finance, September 1, 2018 to December 31, 2018.

LAM, Ibis, Lecturer, Department of Spanish and Latin American Studies, September 1, 2018 to December 31, 2018.

LESIUK, Michael, Lecturer, Department of English Language and Literature, September 1, 2018 to December 31, 2018.

LIAQAT, Zara, Lecturer, Department of Economics, September 1, 2018 to December 31, 2018.

LIN, David, Lecturer, School of Accounting and Finance, September 1, 2018 to December 31, 2018.

MANJI, Noorin, Lecturer, Department of Sociology and Legal Studies, September 1, 2018 to December 31, 2018.

MANNING, Thomas, Lecturer, School of Accounting and Finance, September 1, 2018 to December 31, 2018.

MCDERMOTT, Neil, Lecturer, Department of Psychology, September 1, 2018 to December 31, 2018.

MC GEE, Ted, Lecturer, Department of English Language and Literature, September 1, 2018 to December 31, 2018.

MCGOWAN, Rosemary, Lecturer, Department of Political Science, September 1, 2018 to December 31, 2018.

MEINYKEVYCH, Viktoriya, Lecturer, Department of Germanic and Slavic Studies, September 1, 2018 to December 31, 2018.

MILLOY, John, Lecturer, Department of Political Science, July 1, 2018 to December 31, 2018.

MORRIELLO, Marisa, Lecturer, School of Accounting and Finance, September 1, 2018 to December 31, 2018.

MORTON, Janet, Lecturer, Department of Fine Arts, September 1, 2018 to December 31, 2018.

MOTA, Fatima, Lecturer, Department of Spanish and Latin American Studies, September 1, 2018 to December 31, 2018.

MURRAY, Neil, Lecturer, Department of Psychology, September 1, 2018 to December 31, 2018.

NABERT-CHUBB, Rebecca, Lecturer, Department of Political Science, September 1, 2018 to December 31, 2018.

NICKERSON-WHITE, Sara Jane, Lecturer, Department of Sociology and Legal Studies, September 1, 2018 to December 31, 2018.

NUNEZ, Camelia, Lecturer, Department of Economics, September 1, 2018 to December 31, 2018.

OZKARDAS, Ahmet, Lecturer, Department of Economics, September 1, 2018 to December 31, 2018.

PACEY, Dean, Lecturer, School of Accounting and Finance, September 1, 2018 to December 31, 2018.

PECKHAM, William, Lecturer, Department of Psychology, September 1, 2018 to December 31, 2018.

PEROS, Rosemary, Lecturer, Department of Economics, September 1, 2018 to December 31, 2018.

PHILLIPS, Marjory, Lecturer, Department of Psychology, September 1, 2018 to December 31, 2018.

POWELL, Quinn, Lecturer, Department of English Language and Literature, September 1, 2018 to December 31, 2018.

RAHMAN, Fiona, Lecturer, Department of Economics, September 1, 2018 to December 31, 2018.

RAJSIC, Predrag, Lecturer, Department of Economics, September 1, 2018 to December 31, 2018.

REDDOCK, Jennifer, Lecturer, Department of Communication Arts, September 1, 2018 to December 31, 2018.

RUFFUDEEN, Zamal, Lecturer, School of Accounting and Finance, September 1, 2018 to December 31, 2018.

SABZIAN, Saeed, Lecturer, Department of English Language and Literature, September 1, 2018 to December 31, 2018.

SARKANY, Laszlo, Lecturer, Department of Political Science, September 1, 2018 to December 31, 2018.

SCHWARTZ, Shira, Lecturer, Department of Communication Arts, September 1, 2018 to December 31, 2018.

SHAKESPEARE, David, Lecturer, Department of English Language and Literature, September 1, 2018 to December 31, 2018.

SLETHAUG, Gordon, Professor, Department of English Language and Literature, September 1, 2018 to December 31, 2018.

SMEATON, Joan, Lecturer, Department of French Studies, September 1, 2018 to December 31, 2018.

SNYDER, Carrie, Lecturer, Department of English Language and Literature, September 1, 2018 to December 31, 2018.

STACEY, Jeffery, Lecturer, Department of Communication Arts, September 1, 2018 to December 31, 2018.

STETTNER, Shannon, Lecturer, Department of Philosophy, September 1, 2018 to December 31, 2018.

TIMBERG, Robert, Lecturer, School of Accounting and Finance, September 1, 2018 to December 31, 2018.

WANG, Sining, Lecturer, Department of Economics, September 1, 2018 to December 31, 2018.

WEHR, Paul, Lecturer, Department of Psychology, September 1, 2018 to December 31, 2018.

WHITE, Matthew, Lecturer, Department of Communication Arts, September 1, 2018 to December 31, 2018.

WHYTE, Sarah, Lecturer, Department of English Language and Literature, September 1, 2018 to December 31, 2018.

WIENS, Brianna, Lecturer, Department of Communication Arts, September 1, 2018 to December 31, 2018.

WOOD, Peter, Lecturer, School of Accounting and Finance, September 1, 2018 to December 31, 2018.

WOODFORD, Benjamin, Lecturer, Department of English Language and Literature, September 1, 2018 to December 31, 2018.

Adjunct Reappointments – Graduate Supervision

BEHARRY, Edward, Assistant Professor, Department of Psychology, September 1, 2018 to August 31, 2019.

BEHARRY, Pamela, Assistant Professor, Department of Psychology, September 1, 2018 to August 31, 2019.

BIELING, Peter, Assistant Professor, Department of Psychology, September 1, 2018 to August 31, 2019.

COUPLAND, Richard, Clinical Supervision, Department of Psychology, September 1, 2018 to August 31, 2019.

COVIN, Roger, Clinical Supervision, Department of Psychology, September 1, 2018 to August 31, 2019.

DODGSON, Philip, Assistant Professor, Department of Psychology, September 1, 2018 to August 31, 2019.

DUBOIS, Stephanie, Clinical Supervision, Department of Psychology, September 1, 2018 to August 31, 2019.

EITHER, Nicole, Assistant Professor, Department of Psychology, September 1, 2018 to August 31, 2019.

GIFFORD, Shannon, Assistant Professor, Department of Psychology, September 1, 2018 to August 31, 2019.

LANE, Christopher, Assistant Professor, Department of Psychology, September 1, 2018 to August 31, 2019.

LEMARQUAND, David, Clinical Supervision, Department of Psychology, September 1, 2018 to August 31, 2019.

McHUGH, Anne, Clinical Supervision, Department of Psychology, September 1, 2018 to August 31, 2019.

MCINTYRE-SMITH, Alexandra, Clinical Supervision, Department of Psychology, September 1, 2018 to August 31, 2019.

MIKAIL, Samuel, Assistant Professor, Department of Psychology, September 1, 2018 to August 31, 2019.

ORR, Elizabeth, Clinical Supervision, Department of Psychology, September 1, 2018 to August 31, 2019.

REIMER, SUSANNA, Clinical Supervision, Department of Psychology, September 1, 2018 to August 31, 2019.

SPERE, Katherine, Assistant Professor, Department of Psychology, September 1, 2018 to August 31, 2019.

TOMAN, Philip, Clinical Supervision, Department of Psychology, September 1, 2018 to August 31, 2019.

TORRANCE-PERKS, Julie, Clinical Supervision, Department of Psychology, September 1, 2018 to August 31, 2019.

Graduate Students Appointed as Part-Time Lecturers

ABDELSHAFY, Nourane, Department of French Studies, September 1, 2018 to December 31, 2018.

ANDERSON, Rebecca, Department of English Language and Literature, September 1, 2018 to December 31, 2018.

BATIOT, Maxime, Department of French Studies, September 1, 2018 to December 31, 2018.

BERIAULT, Phillipe, Department of Philosophy, September 1, 2018 to December 31, 2018.

CARPENTER, Justin, Department of English Language and Literature, September 1, 2018 to December 31, 2018.

COOK, Katie, Department of Sociology and Legal Studies, September 1, 2018 to December 31, 2018.

DESHANE, Evelyn, Department of English language and Literature, September 1, 2018 to December 31, 2018.

DUSOWOTH, Sushma, Department of French Studies, September 1, 2018 to December 31, 2018.

FORD, Katherine, Department of Sociology and Legal Studies, September 1, 2018 to December 31, 2018.

GERBER, Kyle, Department of English Language and Literature, September 1, 2018 to December 31, 2018.

GIBSON, Ian, Department of English Language and Literature, September 1, 2018 to December 31, 2018.

HAIDER, Amna, Department of English Language and Literature, September 1, 2018 to December 31, 2018.

HOBIN, Nicholas, Department of English Language and Literature, September 1, 2018 to December 31, 2018.

JORDAN, William, Department of Philosophy, September 1, 2018 to December 31, 2018.

KAMPHERN, Monique, Department of English Language and Literature, September 1, 2018 to December 31, 2018.

KIM, Katherine, Department of Psychology, September 1, 2018 to December 31, 2018.

KOEPCKE, Jana, Department of Germanic and Slavic Studies, September 1, 2018 to December 31, 2018.

KOUTSOGIANNOPOULOS, Alexandra, Department of French Studies, September 1, 2018 to December 31, 2018.

LALONDE, Patrick, Department of Sociology and Legal Studies, September 1, 2018 to December 31, 2018.

LEE, Christopher, Department of Psychology, September 1, 2018 to December 31, 2018.

LOK, Christopher, Department of Psychology, September 1, 2018 to December 31, 2018.

MASCELLA, Allison, Department of Economics, September 1, 2018 to December 31, 2018.

MCCHESNEY, Dylan, Department of Philosophy, September 1, 2018 to December 31, 2018.

MEADE, Melissa, Department of Psychology, September 1, 2018 to December 31, 2018.

MEHRABIAN, Houman, Department of English Language and Literature, September 1, 2018 to December 31, 2018.

MILETIC, Philip, Department of English Language and Literature, September 1, 2018 to December 31, 2018.

MOORE, Andrew, Department of History, September 1, 2018 to December 31, 2018.

MORTON, Robert, Department of English Language and Literature, September 1, 2018 to December 31, 2018.

NEUPANE, Dhruba, Department of English Language and Literature, September 1, 2018 to December 31, 2018.

OFILL, Patricia, Department of English Language and Literature, September 1, 2018 to December 31, 2018.

RAMSOOMAIR, Nailah, Department of French Studies, September 1, 2018 to December 31, 2018.

RILEY, Meghan, Department of English Language and Literature, September 1, 2018 to December 31, 2018.

SILK, Matt, Department of Philosophy, September 1, 2018 to December 31, 2018.

VERSTRAETE, Hailey, Department of French Studies, September 1, 2018 to December 31, 2018.

WOJCIECHOWSKI, Christine, Department of Sociology and Legal Studies, September 1, 2018 to December 31, 2018.

ZHU, Mona, Department of Psychology, September 1, 2018 to December 31, 2018.

Staff Appointments to Faculty

CAMPBELL, Greg, Lecturer, Department of Communication Arts, September 1, 2018 to December 31, 2018.

HAYDEN, Jayne, Lecturer, Faculty of Arts, September 1, 2018 to December 31, 2018.

HOLMES, Trevor, Lecturer, Department of Philosophy, September 1, 2018 to December 31, 2018.

RAINVILLE, Janelle, Lecturer, Department of Communication Arts, September 1, 2018 to December 31, 2018.

SCHOLZ, Kyle, Lecturer, Department of Germanic and Slavic Studies, September 1, 2018 to December 31, 2018.

B. SABBATICAL LEAVES

For approval by the Board of Governors:

SMYTH, Heather, Associate Professor, Department of English Language & Literature, January 1 to June 30, 2019, six months at 85% salary.



Douglas M. Peers
Dean, Faculty of Arts

UNIVERSITY OF WATERLOO
REPORT OF THE DEAN OF ENGINEERING TO SENATE

October 15, 2018

For Information:

A. APPOINTMENTS

Probationary Term

HRYNYK, Trevor, Assistant Professor, Department of Civil & Environmental Engineering, March 1, 2019 – June 30, 2022. PhD University of Toronto 2013; MS University of Missouri-Rolla 2007; BASc University of Waterloo 2005. Dr. Hrynyk received his Ph.D. in Civil Engineering from the University of Toronto in 2013 and was hired as an Assistant Professor at the University of Texas in Austin in 2014, where he has continued his academic career until now. His research is in the area of practical analytical modelling and laboratory testing to improve the design, assessment, and management of reinforced concrete structures.

KIM, Eugene, Assistant Professor, Department of Civil & Environmental Engineering, October 1, 2018 – June 30, 2022. PhD University of Illinois at Urbana-Champaign 2018; MS University of Illinois at Urbana-Champaign 2012; BASc University of Waterloo 2011. Dr. Kim received his Ph.D. from the University of Illinois in 2018. The title of his Ph.D. thesis was: “Multi-Hazard Performance of Deteriorated and FRP Retrofitted Bridges Supported on Timber Pile Substructure”. Specifically, his stated long-term research goal is to “to combine the power of advanced numerical methods and innovative structural materials to develop comprehensive multi-hazard risk assessment tools and design smart damage mitigation systems”.

LACROIX, Daniel, Assistant Professor, Department of Civil & Environmental Engineering, September 1, 2018 – June 30, 2021. PhD University of Ottawa 2013; MASc University of Ottawa 2011; BASc University of Ottawa 2007. Dr. Lacroix received his Ph.D. from the University of Ottawa in 2017. The title of his Ph.D. thesis was: “Investigating the behaviour of glulam beam and column elements subjected to simulated blast loading”. Since completing his Ph.D., he has been a post-doctoral fellow at the University of Carleton. Specifically, his stated long-term research goal is to develop a “well-funded research program aimed at mitigating hazards associated with timber and timber-hybrid structures subjected to extreme loading”.

New Definite Term – full-time

ABDEL WAHAB, Wael, Research Assistant Professor, Department of Electrical & Computer Engineering, September 1, 2018 – August 31, 2020. PhD University of Waterloo 2011; MS Cairo University Cairo, Egypt 2004. Dr. Wahab will be contributing to Dr. Safavi-Naeini’s NSERC/CCOM Industrial Research Chair in Intelligent Antenna and Radio Systems for Next Generation Millimeter-Wave Mobile Communications, and he will be a member of the Centre for Intelligent Antenna and Radio Systems (CIARS).

ZURELL, Cory, Lecturer, Department of Civil & Environmental Engineering, January 1, 2019 – December 31, 2021. PhD University of Ottawa 2004; BASc University of Waterloo 1997. Cory Zurell received his B.A.Sc. in Civil Engineering from the University of Waterloo in 1997. From 1997 to 2000, he worked as an engineering designer at Blackwell in Toronto. He received his PhD in Civil Engineering from the University of Ottawa in 2004. He opened the Blackwell Waterloo Office in 2008 and is now the Principal and Director. Dr. Zurell has collaborated with many architects on a wide variety of building types. For more than ten years, Dr. Zurell has taught sessional undergraduate courses in the Department of Civil and Environmental Engineering and the School of Architecture.

Definite Term Reappointment – full-time

SANGARY, Nagula, Research Associate Professor, Department of Electrical & Computer Engineering, August 1, 2018 – September 15, 2018.

Visiting Appointments

CHEN, Digi, Scholar, Department of Electrical & Computer Engineering, September 1, 2018 – November 30, 2018.

CON, Celal, Scientist, Department of Electrical & Computer Engineering, September 1, 2018 – August 31, 2019.

GERAKOPULOS, Ryan, Researcher, Department of Electrical & Computer Engineering, June 21, 2018 – June 20, 2019.

HAITAO, Liu, Researcher, Department of Chemical Engineering, October 10, 2018 – April 9, 2019.

IBRAHIM, Haytham, Researcher, Department of Electrical & Computer Engineering, May 1, 2018 – August 31, 2018.

IHEANACHO, Bright Chijioke, Scientist, Department of Electrical & Computer Engineering, August 1, 2018 – August 31, 2019.

LI, Yun Zhe, Researcher, Department of Electrical & Computer Engineering, September 3, 2018– August 31, 2019.

MOHD ISA, Farah, Researcher, Department of Electrical & Computer Engineering, October 15, 2018 – October 14, 2019.

PENG, Binbin, Researcher, Department of Mechanical & Mechatronics Engineering, September 26, 2018 – September 25, 2019.

REZENDEBARBOSA TURBIANI, Franciele, Associate Professor, Department of Chemical Engineering, December 2, 2018 – December 1, 2020.

WANG, Weida, Researcher, Department of Mechanical & Mechatronics Engineering, September 1, 2018 – August 31, 2019.

XIANDONG, Jiang, Scholar, Department of Civil & Environmental Engineering, March 20, 2019 – March 19, 2020.

ZHU, Yueying, Researcher, Department of Mechanical & Mechatronics Engineering, October 31, 2018 – October 30, 2019.

Visiting Reappointments

ANGAMMANA, Chitral, Researcher, Department of Electrical & Computer Engineering, June 21, 2018 – June 20, 2019.

NEAULT, Daniel, Scientist, Department of Electrical & Computer Engineering, October 1, 2018 – July 31, 2021.

Special Appointments

Undergraduate Instruction

AHMED, Mahmoud, Lecturer, Department of Electrical & Computer Engineering, September 1, 2018 – December 31, 2018.

AKHTAR, Adeel, Lecturer, Department of Mechanical & Mechatronics Engineering, September 1, 2018 – December 31, 2018.

BALESHTA, James, Lecturer, Department of Mechanical & Mechatronics Engineering, September 1, 2018 – December 31, 2018.

BECK RUBIN, Eric, Lecturer, School of Architecture, September 2, 2018 – December 31, 2018.

BREG, Justin, Lecturer, School of Architecture, September 1, 2018 – December 31, 2018.

CALERO, Ivan, Lecturer, Department of Electrical & Computer Engineering, September 1, 2018 – December 31, 2018

FOHRING, Michael, Lecturer, School of Architecture, September 1, 2018 – December 31, 2018.

GOLAFSHANI, Ali, Lecturer, Department of Mechanical & Mechatronics Engineering, September 1, 2018 – December 31, 2018.

GRIN, Aaron, Lecturer, School of Architecture, September 1, 2018 – December 31, 2018.

HOOD, Kevin, Lecturer, Conrad Business Entrepreneurship and Technology Centre, September 1, 2018 – December 31, 2018.

KOVALCIK, Katherine, Lecturer, School of Architecture, September 1, 2018 – December 31, 2018.

LIAO, Lihua (Melody), Lecturer, Department of Mechanical & Mechatronics Engineering, September 1, 2018 – December 31, 2018.

MCCARTHY, Philip, Lecturer, Mechanical & Mechatronics Engineering, September 1, 2018 – December 31, 2018.

NATARAJAN, Saravanan, Lecturer, Department of Management Sciences, September 1, 2018 – December 31, 2018.

PARKIN, James Cameron, Lecturer, School of Architecture, September 1, 2018 – December 1, 2018.

PEARSON, Christine, Lecturer, School of Architecture, September 1, 2018 – December 31, 2018.

SCHREINER, Kristin, Lecturer, School of Architecture, September 1, 2018 – December 31, 2018.

SIMMS, Genevieve, Lecturer, School of Architecture, September 1, 2018 – December 31, 2018.

TYRRELL, Jonathan, Lecturer, School of Architecture, September 1, 2018 – December 31, 2018.

WOODWORTH, William, Lecturer, School of Architecture, September 1, 2018 – December 31, 2018.

YEKRANGIAN, Delnaz, Lecturer, School of Architecture, September 1, 2018 – December 31, 2018.

Special Appointments

Graduate Instruction

HEHNER, Eric, Lecturer, Department of Electrical & Computer Engineering, September 1, 2018 – December 31, 2018.

MARTIN, Tim, Lecturer, Conrad Business Entrepreneurship & Technology Centre, September 1, 2018 – December 31, 2018.

RAYMOND, Christopher, Lecturer, Department of Civil & Environmental Engineering, September 1, 2018 – December 31, 2018.

ROGHANIZAD, Mohammad, Lecturer, Department of Management Sciences, September 1, 2018 – December 31, 2018.

RUFFUDEEN, Zamal, Lecturer, Conrad Business, Entrepreneurship & Technology Centre, September 1, 2018 – December 31, 2018.

SHARIFI, Alireza, Lecturer, Department of Electrical & Computer Engineering, September 1, 2018 – December 31, 2018.

VAN NIEJENHUIS, Colin, Lecturer, Department of Civil & Environmental Engineering, September 1, 2018 – December 31, 2018.

WANG, Chaoran, Lecturer, Conrad Business, Entrepreneurship & Technology Centre, September 1, 2018 – December 31, 2018.

Special Reappointments

Undergraduate Instruction

ATKINS, Andrea, Lecturer, School of Architecture, September 1, 2018 – December 31, 2018.

BISSETT, Tara, Lecturer, School of Architecture, September 1, 2018 – December 31, 2018.

LIM TUNG, Fiona, Lecturer, School of Architecture, September 1, 2018 – December 31, 2018.

WRIGHT, Derek, Lecturer, Department of Electrical & Computer Engineering, September 1, 2018 – December 31, 2018.

Special Reappointments

Graduate Instruction

DOWLING, Paul, Lecturer, School of Architecture, September 1, 2018 – December 31, 2018.

Special Reappointments

Graduate Instruction & Undergraduate Instruction

MATHER, David, Lecturer, Department of Mechanical & Mechatronics Engineering, September 1, 2018 – December 31, 2018.

Adjunct Appointments

Graduate Supervision & Research

TJONG, Jimi, Associate Professor, Department of Mechanical & Mechatronics Engineering, September 1, 2018 – August 31, 2021.

Adjunct Appointments

Research

BICKEL, Grant, Assistant Professor, Department of Civil & Environmental Engineering, July 1, 2018 – June 30, 2020.

Adjunct Reappointments

Research & Graduate Supervision

RAAHEMIFAR, Kaamran, Professor, Department of Chemical Engineering, January 1, 2019 – August 31, 2020.

SCHARCHANSKI, Jacob, Professor, Department of Systems Design Engineering, October 1, 2018 – September 30, 2021.

B. ADMINISTRATIVE APPOINTMENTS

SAFAYENI, Frank, Associate Chair for Graduate Studies, Department of Management Sciences, September 1, 2018 – December 31, 2018.

WASILEWSKI, Zbigniew, Associate Chair, Research, Department of Electrical & Computer Engineering, September 1, 2018 – August 31, 2020.

YOON, Young Ki, Director, Nano Undergraduate Program, Department of Electrical & Computer Engineering, September 1, 2018 – August 31, 2020.

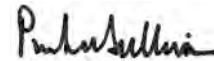
ADMINISTRATIVE REAPPOINTMENTS

HURWITZ, Marc, Associate Director, Undergraduate Studies, Conrad Business, Entrepreneurship and Technology Centre, August 1, 2018 – July 31, 2019.

ROSE, David, Associate Director, MBET Program, Conrad Business, Entrepreneurship and Technology Centre, August 1, 2018 – July 31, 2019.

C. *RESIGNATIONS*

GRACIOLI, Giovanni, Visiting Scientist, Department of Electrical & Computer Engineering, October 1, 2018.

A handwritten signature in black ink, appearing to read "Pearl Sullivan".

Pearl Sullivan
Dean, Faculty of Engineering

University of Waterloo
REPORT OF THE DEAN OF ENVIRONMENT TO SENATE
October 15, 2018

FOR INFORMATION

A. APPOINTMENTS

Adjunct Appointments

Graduate Supervision

THEVATHASAN, Naresh, Associate Professor, School of Environment, Resources and Sustainability, August 1, 2018 to January 31, 2021.

THORN, Greg, Professor, School of Environment, Resources and Sustainability, October 1, 2018 to December 31, 2019.

WITTENBRINCK, Joerg, Graduate Committee Member, Department of Knowledge Integration, September 1, 2018 to December 31, 2019.

Graduate Supervision and Research

JOHNSON, Laura, Professor [Emerita], School of Planning, July 1, 2018 to June 30, 2021.

Special Appointments

Instruction

ADLER, Nancy, Lecturer, School of Planning, September 1, 2018 to December 31, 2018.

ANDERSON, Dana, Lecturer, School of Planning, January 1, 2019 to April 30, 2019.

BRAUNSTEIN-SCUDERI, Martina, Studio Facilitator/Professional Support, School of Planning, September 1, 2018 to December 31, 2018.

CERVENAN, Amy, Lecturer, School of Planning, September 1, 2018 to December 31, 2018.

PARMAR, Jayanti, Lecturer, Department of Geography and Environmental Management, September 1, 2018 to December 31, 2018.

STEWART, Douglas, Lecturer, School of Environment, Resources and Development, September 1, 2018 to December 31, 2018.

TRUONG, Evan, Studio Facilitator/Professional Support, School of Planning, September 1, 2018 to December 31, 2018.

Cross Appointment

BURCH, Sarah, Associate Professor, Department of Geography and Environmental Management to the School of Environment, Enterprise and Development, October 1, 2018 to September 30, 2021.

FRAYNE, Bruce, Associate Professor, School of Environment, Enterprise and Development to the Department of Geography and Environmental Management, July 1, 2018 to June 30, 2021.

SWATUK, Larry, Professor, School of Environment, Enterprise and Development to the School of Planning, July 1, 2018 to June 30, 2021.

Graduate Student Appointed as Part-Time Lecturer

DAVY, Barbara Jane, School of Environment, Resources and Sustainability, September 1, 2018 to December 31, 2018.

KANGMENNAANG, Joseph, Department of Geography and Environmental Management, September 1, 2018 to December 31, 2018.

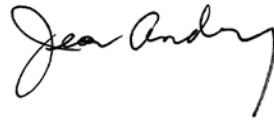
B. ADMINISTRATIVE APPOINTMENTS

VINODRAI, Tara, Associate Director of Graduate Studies [Professional Programs], School of Environment, Enterprise and Development, September 1, 2018 to August 31, 2021.

YOUNG, Steven, Associate Director of Graduate Studies [Research Programs], School of Environment, Enterprise and Development, September 1, 2018 to August 31, 2021.

C. RETIREMENT

JOHNSON, Laura, Professor, School of Planning, July 1, 2018.

A handwritten signature in black ink, reading "Jean Andrey". The signature is fluid and cursive, with the first name "Jean" and last name "Andrey" clearly distinguishable.

Jean Andrey
Dean

University of Waterloo
REPORT OF THE DEAN OF MATHEMATICS TO SENATE
OCTOBER 15, 2018

FOR INFORMATION

A. APPOINTMENTS

Visiting Appointments

RAFIEE SEVYERI, Leili (Western University), Researcher, David R. Cheriton School of Computer Science, September 1, 2018 – August 31, 2020.

Graduate Students appointed as Part-time Lecturers

DWIVEDI, Shubham, Dept. of Pure Mathematics, September 1, 2018 – December 31, 2018.

Graduate Students reappointed as Part-time Lecturers

WONG, Tsun Yu Jeff, Dept. of Statistics and Actuarial Science, September 1, 2018 – December 31, 2018.

Postdoctoral Fellows appointed as Part-time Lecturers

LIU, Peng, Dept. of Statistics and Actuarial Science, October 1, 2018 – September 30, 2019.

SEPEHRI, Maryam, David R. Cheriton School of Computer Science, September 1, 2018 – August 31, 2019.

SALAHUDDIN, Mohammad, David R. Cheriton School of Computer Science, October 1, 2018 – September 30, 2019.

Postdoctoral Fellow reappointed as part-time Lecturers

KARIMI, Mehdi, Dept. of Combinatorics & Optimization, September 1, 2018 – August 31, 2019.

B. ADMINISTRATIVE REAPPOINTMENTS

SPRONK, Nico, Associate Chair, Graduate Studies, Dept. of Pure Mathematics, July 1, 2018 – June 30, 2019.

C. SABBATICALS (for approval by the Board of Governors)

CORMACK, Gordon, Professor. Dept. of Statistics and Actuarial Science, January 1, 2019 – June 30, 2019, with 85%. This is an early sabbatical.



Stephen M. Watt
Dean

UNIVERSITY OF WATERLOO
REPORT OF THE DEAN OF SCIENCE TO SENATE
October 15, 2018

For information:

A. APPOINTMENTS

Probationary Term

LEONENKO, Yuri, Associate Professor, joint with Department of Earth and Environmental Sciences (50%) and Department of Geography (25%), July 1, 2019 to June 30, 2022. [M.Sc., Novosibirsk State University (1985); Ph.D., Russian Academy of Science (1991).]

New Definite Term

NIKOLIC-JARIC, Marija, Lecturer, joint with Department of Physics and Astronomy (51%) and Faculty of Mathematics (49%), September 1, 2018 to August 31, 2019. [B.Sc., University of Belgrade (1990); Ph.D., Simon Fraser University (2008).] Marija Nikolic-Jaric is an experienced teacher of Physics and Mathematics at both the high school and University level. She has a Ph.D. in theoretical physics and over 14 years of experience in research and innovation in both academic and business settings. By developing innovative, engaging online resources aimed at the high school physics curriculum, Marija will provide the Department with the resources we need to engage high school students (for both recruitment and outreach) and provide our own undergraduates with top quality resources to help them be successful in their first year physics courses and beyond. This is the first step in the Department's long term plan to put the infrastructure in place to help our students be successful and increase retention.

Adjunct Appointments

Graduate Supervision and Research

SRINIVASAN, Sruthi, Associate Professor, School of Optometry and Vision Science, September 1, 2018 to August 31, 2021.

Adjunct Reappointments

Graduate Supervision

COTT, Peter A., Assistant Professor, Department of Biology, September 1, 2018 to August 31, 2021.

Graduate Supervision and Research

KUBIZNAK, David, Associate Professor, Department of Physics and Astronomy, November 1, 2018 to August 31, 2024.

LEHNER, Luis R., Professor, Department of Physics and Astronomy, September 1, 2018 to August 31, 2023.

MORRIS, Carol, Associate Professor, School of Optometry and Vision Science, September 1, 2018 to August 31, 2021.

SHEARDOWN, Heather, Professor, School of Optometry and Vision Science, September 1, 2018 to August 31, 2021.

SMITH, Kendrick, Assistant Professor, Department of Physics and Astronomy, September 1, 2018 to August 31, 2023.

Cross Appointment

LAYTON, Anita, Professor, Department of Applied Mathematics, cross appointed to School of Pharmacy, September 1, 2018 to August 31, 2021.

Cross Reappointments

LAMB, Kevin, Professor, Department of Applied Mathematics, cross appointed to Department of Earth and Environmental Sciences, September 1, 2018 to August 31, 2020.

Special Appointment

Postdoctoral Fellow Appointed as Part-time Lecturer

KELLEY, Sam, Lecturer, Department of Earth and Environmental Sciences, September 1, 2018 to December 31, 2018.

RUSSO, Paola, Lecturer, Department of Chemistry, September 1, 2018 to December 31, 2018.

Research Associate Appointed as Part-time Lecturer

LEE, Brenda, Lecturer, Department of Physics and Astronomy, September 1, 2018 to December 31, 2018.

Special Reappointment

Undergraduate Instruction

BARNES, Derek, Lecturer, School of Optometry and Vision Sciences, September 1, 2018 to December 31, 2018.

DYMOCK, Ken, Lecturer, Department of Earth and Environmental Sciences, September 1, 2018 to December 31, 2018.

HRYCYSHYN, Matthew, Lecturer, Department of Biology, September 1, 2018 to December 31, 2018.

Staff Reappointed as Part-time Lecturer

DINH, Tan, Lecturer, Faculty of Science, September 1, 2018 to December 31, 2018.

Postdoctoral Fellow Reappointed as Part-time Lecturer

LYNCH, Michael, Lecturer, Department of Biology, September 1, 2018 to December 31, 2018.

Research Associate Reappointed as Part-time Lecturer

VARIKOOTY, Jalaiah, Lecturer, School of Optometry and Vision Science, September 1, 2018 to December 31, 2018.

B. ADMINISTRATIVE APPOINTMENT

EDGINTON, Andrea, Associate Director, Research and Graduate Studies, School of Pharmacy, September 1, 2018 to August 31, 2021.

MEIERING, Elizabeth, Director, Guelph-Waterloo Centre for Chemistry (GWC)², January 1, 2019 to December 31, 2021.

ADMINISTRATIVE REAPPOINTMENT

JONES, Debbie, Associate Director, Academics, School of Optometry and Vision Science, September 1, 2018 to September 30, 2018.

THOMPSON, Ben, Associate Director, Research, School of Optometry and Vision Science, September 1, 2018 to September 30, 2018.

C. RESIGNATION

SUBBARAMAN, Lakshman, Research Associate Professor, School of Optometry and Vision Science, effective September 1, 2018.

FOR APPROVAL BY THE BOARD OF GOVERNORS**D. SABBATICAL**

BLOWES, David, Professor, Department of Earth and Environmental Sciences, January 1, 2019 to June 30, 2019, 100% salary arrangements.

MURPHY, Graham, Associate Professor, Department of Chemistry, Split Sabbatical, January 1, 2019 to June 30, 2019 and January 1, 2020 to June 30, 2020, 94.7% salary arrangements.

PAWLISZYN, Janusz, Professor, Department of Chemistry, September 1, 2019 to August 31, 2020, 100% salary arrangements.

PTACEK, Carol, Professor, Department of Earth and Environmental Sciences, Early Sabbatical, January 1, 2019 to June 30, 2019, 85% salary arrangements.



R.P. Lemieux
Dean

RPL:lw

Online Learning Update

October 15, 2018

Aldo Caputo, Director

Centre for Extended Learning



Today

- **Strategic Plan update**
- **Impact of online learning**



Outstanding academic programming

Action on Academic Programming will enhance the learning experience, reshape the traditional classroom and expand the reach of Waterloo's programs.



Objective: Expand Waterloo's footprint in the online-learning market and provide leading-edge, technology-enabled learning opportunities

Measuring Progress

Online programs and courses	Online learning enrolment	Student satisfaction with online learning	What we did
+42% since 13/14	+17% in 3 yrs	high	<ul style="list-style-type: none">• \$1 m in ext. funds• support 250+ instructors/yr

Data

- **we lead U15 universities in courses & programs**
- 569 offerings (403 undergrad, 166 grad) of over 375 available courses
- 26 fully online programs (12 undergrad, 14 grad)
- **45,579 enrolments** (39,738 undergrad, 5841 grad)

(2017-18)

Institutional Impact of Online Learning

Assessing the Impact of Online Learning: A Model and Case Study

Centre for Extended Learning, University of Waterloo

Report to eCampusOntario

September 5, 2018



- \$100,000 from eCampusOntario
- year-long study, completed September
- <https://uwaterloo.ca/extended-learning/about/research>

Students

- **25%** take at least 1 online course per term
- cite **flexibility, access, & mental health benefits**
- high satisfaction/repeat rates
- **20% higher degree completion rates** for those who “mix”
- many students in online programs would not be at UW otherwise

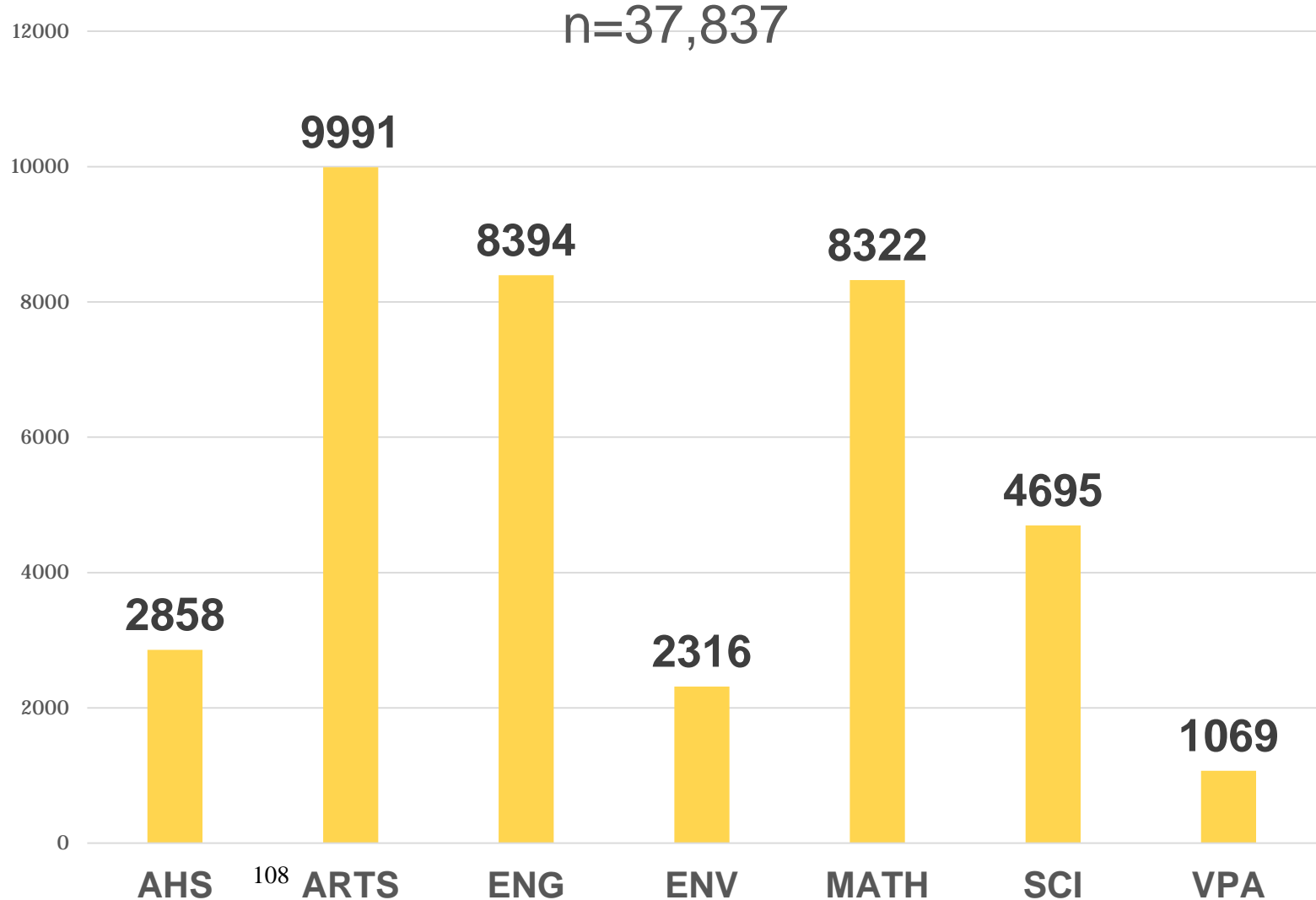
Instructors

- **40-50 course authors** develop courses with us yearly
- **+250** reoffer courses yearly with our assistance
- working with CEL increases pedagogical *and* tech knowledge
 - **+52% very to extremely helpful** (95% positive overall)
- **over 60%** transfer knowledge *and/or* materials to other courses

Institutional impact

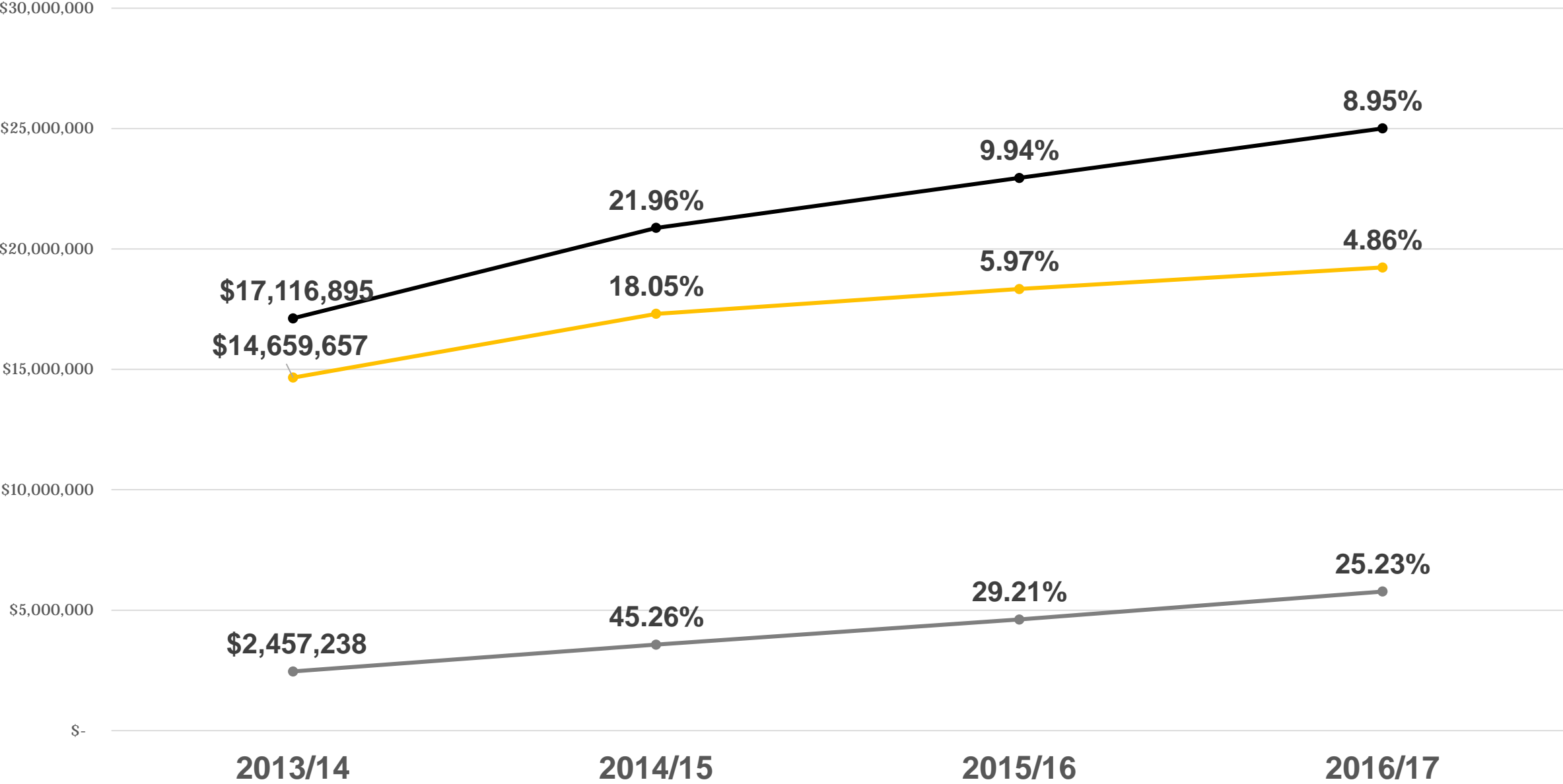
- scheduling
- course availability
- access to students
- space equivalent
 - \$16m to construct
 - \$600k to maintain/yr

2016-17 undergrad online enrolment by students' Faculty



Online tuition growth

\$25 million



On the Horizon

- new strategic plan
- CEL external review 2019
- efficiency in development and maintenance
- new programs
- new pedagogical & tech innovation
- open enrolment
- “lifelong learning will be key” (Dominic Barton)



University of Waterloo
SENATE GRADUATE & RESEARCH COUNCIL
Report to Senate
15 October 2018

Senate Graduate & Research Council met on 10 September 2018 and agreed to forward the following item to Senate for approval as part of the regular agenda.

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

FOR APPROVAL

PROGRAM CHANGE

Faculty of Arts

- 1. Motion:** To approve renaming the MA in Sociology and MA in Sociology (Co-op) to MA in Social and Legal Studies and MA in Social and Legal Studies (Co-op), effective Winter 2019, as presented in the Attachment.

Rationale: The Department of Sociology and Legal Studies created the one-year coursework MA as a less research-focused alternative to the Thesis and Major Research Paper MAs in Sociology. It has proved a good option for students not planning on careers as researchers, but has failed to attract the numbers of students we had hoped. Moreover, because of the requirement of 8 courses and no research project, coursework MA students have been practically unable to specialize in one of the four thematic areas advertised. This name change will help to differentiate it from the thesis and MRP streams in Sociology and the removal of the thematic areas will more accurately describe the program as offered. There are no changes to the existing admission/degree requirements for the coursework option other than the name change.

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

Charmaine Dean
Vice President, University Research

ARTS GRADUATE STUDIES


June 12, 2018

TO: Members, Senate Graduate and Research Council

FROM: Rita Cherkewski, Administrative Coordinator, Arts Graduate Studies & Research

RE: Graduate Affairs Group Reports April 19, 2018

The attached Arts Graduate Affairs Group reports were approved by the Arts Faculty Council meeting on June 4th, 2018 and are now being submitted for approval by the Senate Graduate and Research Council on September 10th, 2018.



Rita Cherkewski

Attach.

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.

Faculty: Arts

Program: Master of Arts (MA) in Sociology

Program contact name(s): Martin Cooke

Form completed by:

Description of proposed changes:

*This is one of two program revisions that will together rename our existing **coursework MA in Sociology** to **MA in Social and Legal Studies**.*

Is this a [major modification](#) to the program? Yes

Rationale for change(s):

The Department of Sociology and Legal Studies created the one-year coursework MA as an less research-focused alternative to our Thesis and Major Research Paper MAs in Sociology. It has proved a good option for students not planning on careers as researchers, but has failed to attract the numbers of students we had hoped. Moreover, because of the requirement of 8 courses and no research project, coursework MA students have been practically unable to specialize in one of the four thematic areas we advertise. This name change will help to differentiate it from the thesis and MRP streams in Sociology and the removal of the thematic areas will more accurately describe the program as offered.

There are no changes to the existing admission/degree requirements for the coursework option other than the name change.

Proposed effective date: Term: Winter 2019

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

<https://uwaterloo.ca/graduate-studies-academic-calendar/arts/departmentsociology-and-legal-studies/master-arts-ma-sociology>

Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
MASTER OF ARTS (MA) IN SOCIOLOGY Fields (areas of research) <ul style="list-style-type: none"> • Crime, Law, and Security • Knowledge, Education, and Digital Culture • Migration, Borders, and Transnationalism 	MASTER OF ARTS (MA) IN SOCIOLOGY Fields (areas of research) <ul style="list-style-type: none"> • Crime, Law, and Security • Knowledge, Education, and Digital Culture • Migration, Borders, and Transnationalism

Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
<ul style="list-style-type: none"> • Social Inequality and Public Policy <p>Program information</p> <ul style="list-style-type: none"> • Admit term(s) <ul style="list-style-type: none"> ○ Fall ○ Winter ○ Spring • Delivery mode <ul style="list-style-type: none"> ○ On-campus • Program type <ul style="list-style-type: none"> ○ Master's ○ Research • Registration option(s) <ul style="list-style-type: none"> ○ Full-time ○ Part-time • Study option(s) <ul style="list-style-type: none"> ○ Thesis ○ Master's Research Paper ○ Coursework <p>Admission requirements</p> <ul style="list-style-type: none"> • Minimum requirements <ul style="list-style-type: none"> ○ Normally an Honours Bachelor's degree or its equivalent in Sociology with at least a 78% overall standing. ○ A statement of academic interest (approximately a page, outlining areas of interest and reasons for choosing to study at the University of Waterloo). ○ Results from the General Section of the Graduate Record Examination (GRE) (optional). • Application materials <ul style="list-style-type: none"> ○ Curriculum vitae ○ Supplementary information form ○ Transcript(s) <ul style="list-style-type: none"> ▪ From all other post-secondary institutions. ○ Writing sample • References <ul style="list-style-type: none"> ○ Number of references: 3 ○ Type of references: academic • English language proficiency (ELP) (if 	<ul style="list-style-type: none"> • Social Inequality and Public Policy <p>Program information</p> <ul style="list-style-type: none"> • Admit term(s) <ul style="list-style-type: none"> ○ Fall ○ Winter ○ Spring • Delivery mode <ul style="list-style-type: none"> ○ On-campus • Program type <ul style="list-style-type: none"> ○ Master's ○ Research • Registration option(s) <ul style="list-style-type: none"> ○ Full-time ○ Part-time • Study option(s) <ul style="list-style-type: none"> ○ Thesis ○ Master's Research Paper <p>Admission requirements</p> <ul style="list-style-type: none"> • Minimum requirements <ul style="list-style-type: none"> ○ Normally an Honours Bachelor's degree or its equivalent in Sociology with at least a 78% overall standing. ○ A statement of academic interest (approximately a page, outlining areas of interest and reasons for choosing to study at the University of Waterloo). ○ Results from the General Section of the Graduate Record Examination (GRE) (optional). • Application materials <ul style="list-style-type: none"> ○ Curriculum vitae ○ Supplementary information form ○ Transcript(s) <ul style="list-style-type: none"> ▪ From all other post-secondary institutions. ○ Writing sample • References <ul style="list-style-type: none"> ○ Number of references: 3 ○ Type of references: academic • English language proficiency (ELP) (if applicable)

Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
<p>applicable)</p> <p>Degree requirements</p> <p>Students are admitted to a Master's study option (Thesis, Master's Research Paper, or Coursework). Thereafter, the approval of the Associate Chair, Graduate Affairs, is necessary in order to change an option. In the case of the Thesis or Master's Research Paper options, the Departmental Advisor will also assist the student in the identification of a potential supervisor. Students should keep in mind that it is strongly advised that they complete three courses in their first term.</p> <p>Note: Coursework beyond these minima may be required at the discretion of the Associate Chair, Graduate Affairs. If additional coursework is required, the student will be notified in writing at the time of entry into the program. Additional coursework may be required by those who in the estimation of the Associate Chair, Graduate Affairs, do not possess the equivalent of an Honours Bachelor's degree in sociology from the University of Waterloo.</p> <p>Thesis option:</p> <ul style="list-style-type: none"> • <u>Graduate Academic Integrity Module (Graduate AIM)</u> • Courses <ul style="list-style-type: none"> ○ Students must complete the following courses: <ul style="list-style-type: none"> ▪ Theory: 1 of SOC 700 Sociological Theory or SOC 708 Contemporary Debates in Sociological Theory ▪ Methods: SOC 712 Elements of Social Research ▪ Statistics: SOC 710 Intermediate Social Statistics ▪ At least 1 other graduate course with a minimum 0.50 unit weight. These courses must also require a substantial piece of research (project or essay). ▪ Students may take a maximum of 1 reading course from University of Waterloo Sociology and Legal Studies 	<p>Degree requirements</p> <p>Students are admitted to a Master's study option (Thesis <u>or</u> Master's Research Paper). Thereafter, the approval of the Associate Chair, Graduate Affairs, is necessary in order to change an option. In the case of the Thesis or Master's Research Paper options, the Departmental Advisor will also assist the student in the identification of a potential supervisor. Students should keep in mind that it is strongly advised that they complete three courses in their first term.</p> <p>Note: Coursework beyond these minima may be required at the discretion of the Associate Chair, Graduate Affairs. If additional coursework is required, the student will be notified in writing at the time of entry into the program. Additional coursework may be required by those who in the estimation of the Associate Chair, Graduate Affairs, do not possess the equivalent of an Honours Bachelor's degree in sociology from the University of Waterloo.</p> <p>Thesis option:</p> <ul style="list-style-type: none"> • <u>Graduate Academic Integrity Module (Graduate AIM)</u> • Courses <ul style="list-style-type: none"> ○ Students must complete the following courses: <ul style="list-style-type: none"> ▪ Theory: 1 of SOC 700 Sociological Theory or SOC 708 Contemporary Debates in Sociological Theory ▪ Methods: SOC 712 Elements of Social Research ▪ Statistics: SOC 710 Intermediate Social Statistics ▪ At least 1 other graduate course with a minimum 0.50 unit weight. These courses must also require a substantial piece of research (project or essay). ▪ Students may take a maximum of 1 reading course from University of Waterloo Sociology and Legal Studies Faculty or adjuncts. ○ In order to complete a course

Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
<p>Faculty or adjuncts.</p> <ul style="list-style-type: none"> ○ In order to complete a course satisfactorily, students must complete all course requirements as specified by the instructor and receive a minimum grade of 75%. <ul style="list-style-type: none"> • Link(s) to courses <ul style="list-style-type: none"> ○ Sociology (SOC) courses ○ Graduate course search • Academic Integrity Workshop • Master's Thesis <ul style="list-style-type: none"> ○ Students must write and orally defend a thesis proposal and a thesis. ○ A thesis proposal, approved by a supervisor and two readers, must be completed by the end of the second term (typically the end of April). The thesis should be completed and defended by the end of the sixth term. ○ A Master's thesis is considered to involve an amount of work equivalent to 4 one-term courses (2.00 units, approximately 100 to 150 pages in length). <p>Master's Research Paper option:</p> <ul style="list-style-type: none"> • Graduate Academic Integrity Module (Graduate AIM) • Courses <ul style="list-style-type: none"> ○ Students must complete the following courses: <ul style="list-style-type: none"> ▪ Theory: 1 of SOC 700 Sociological Theory or SOC 708 Contemporary Debates in Sociological Theory ▪ Methods: SOC 712 Elements of Social Research ▪ Statistics: SOC 710 Intermediate Social Statistics ▪ At least 3 other graduate courses with a minimum 0.50 unit weight each. These courses must also require a substantial piece of research (project or essay). ▪ Students may take a maximum of 1 reading course from University of Waterloo 	<p>satisfactorily, students must complete all course requirements as specified by the instructor and receive a minimum grade of 75%.</p> <ul style="list-style-type: none"> • Link(s) to courses <ul style="list-style-type: none"> ○ Sociology (SOC) courses ○ Graduate course search • Academic Integrity Workshop • Master's Thesis <ul style="list-style-type: none"> ○ Students must write and orally defend a thesis proposal and a thesis. ○ A thesis proposal, approved by a supervisor and two readers, must be completed by the end of the second term (typically the end of April). The thesis should be completed and defended by the end of the sixth term. ○ A Master's thesis is considered to involve an amount of work equivalent to 4 one-term courses (2.00 units, approximately 100 to 150 pages in length). <p>Master's Research Paper option:</p> <ul style="list-style-type: none"> • Graduate Academic Integrity Module (Graduate AIM) • Courses <ul style="list-style-type: none"> ○ Students must complete the following courses: <ul style="list-style-type: none"> ▪ Theory: 1 of SOC 700 Sociological Theory or SOC 708 Contemporary Debates in Sociological Theory ▪ Methods: SOC 712 Elements of Social Research ▪ Statistics: SOC 710 Intermediate Social Statistics ▪ At least 3 other graduate courses with a minimum 0.50 unit weight each. These courses must also require a substantial piece of research (project or essay). ▪ Students may take a maximum of 1 reading course from University of Waterloo Sociology and Legal Studies Faculty or adjuncts.

Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
<p>Sociology and Legal Studies Faculty or adjuncts.</p> <ul style="list-style-type: none"> ○ In order to complete a course satisfactorily, students must complete all course requirements as specified by the instructor and receive a minimum grade of 75%. <ul style="list-style-type: none"> • Link(s) to courses <ul style="list-style-type: none"> ○ Sociology (SOC) courses ○ Graduate course search • Academic Integrity Workshop • Master's Research Paper <ul style="list-style-type: none"> ○ Students must prepare a research paper proposal and write and orally defend a research paper. ○ A research paper proposal must be completed and approved by a supervisor and one reader/examiner by the middle of the third term (typically the end of June). The research paper must be defended by the end of the fourth term (typically, the end of December). ○ A research paper is considered to involve an amount of work equivalent to 2 one-term courses (1.00 unit, approximately 50 to 70 pages in length). As a guideline, the focus of a Master's Research Paper (MRP) can be on the research question, theory and methodology, and possibly some exploratory research on the state of the research but it is up to the supervisor, reader/examiner and student to set the direction for the MRP. <p>Coursework option:</p> <ul style="list-style-type: none"> • Graduate Academic Integrity Module (Graduate AIM) • Courses <ul style="list-style-type: none"> ○ Students must complete the following courses: <ul style="list-style-type: none"> * Theory: 1 of SOC 700 Sociological Theory or SOC 708 Contemporary Debates in Sociological Theory * Methods: SOC 712 Elements of Social Research 	<ul style="list-style-type: none"> ○ In order to complete a course satisfactorily, students must complete all course requirements as specified by the instructor and receive a minimum grade of 75%. <ul style="list-style-type: none"> • Link(s) to courses <ul style="list-style-type: none"> ○ Sociology (SOC) courses ○ Graduate course search • Academic Integrity Workshop • Master's Research Paper <ul style="list-style-type: none"> ○ Students must prepare a research paper proposal and write and orally defend a research paper. ○ A research paper proposal must be completed and approved by a supervisor and one reader/examiner by the middle of the third term (typically the end of June). The research paper must be defended by the end of the fourth term (typically, the end of December). ○ A research paper is considered to involve an amount of work equivalent to 2 one-term courses (1.00 unit, approximately 50 to 70 pages in length). As a guideline, the focus of a Master's Research Paper (MRP) can be on the research question, theory and methodology, and possibly some exploratory research on the state of the research but it is up to the supervisor, reader/examiner and student to set the direction for the MRP.

Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
<ul style="list-style-type: none"> • Statistics: SOC 710 Intermediate Social Statistics • At least 5 other graduate courses with a minimum 0.50 unit weight each. These courses must also require a substantial piece of research (project or essay). • Students may take a maximum of 1 reading course from University of Waterloo Sociology and Legal Studies Faculty or adjuncts. ○ In order to complete a course satisfactorily, students must complete all course requirements as specified by the instructor and receive a minimum grade of 75%. ○ The Coursework option only requires that all 8 courses are completed by the end of the third term (typically at the end of August). • Link(s) to courses <ul style="list-style-type: none"> ○ Sociology (SOC) courses ○ Graduate course search • Academic Integrity Workshop 	

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

There will be no impact. The admission and degree requirements are unchanged.

Students registered in the program at the time of the change will have the option to “transfer” to the new program name.

Departmental approval date (mm/dd/yy): 04/13/18

Reviewed by GSPA (for GSPA use only) ☒ date (mm/dd/yy): 04/17/2018

Faculty approval date (mm/dd/yy): 04/19/2018

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

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

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

Faculty: Arts

Program: Master of Arts (MA) in Sociology

Program contact name(s): Martin Cooke

Form completed by:

Description of proposed changes:

This is one of two program revisions that will together rename our existing coursework MA in Sociology to MA in Social and Legal Studies.

Is this a [major modification](#) to the program? Yes

Rationale for change(s):

The Department of Sociology and Legal Studies created the one-year coursework MA as an less research-focused alternative to our Thesis and Major Research Paper MAs in Sociology. It has proved a good option for students not planning on careers as researchers, but has failed to attract the numbers of students we had hoped. Moreover, because of the requirement of 8 courses and no research project, coursework MA students have been practically unable to specialize in one of the four thematic areas we advertise. This name change will help to differentiate it from the thesis and MRP streams in Sociology and the removal of the thematic areas will more accurately describe the program as offered.

There are no changes to the existing admission/degree requirements for the coursework option other than the name change.

Proposed effective date: Term: Winter 2019

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

<https://uwaterloo.ca/graduate-studies-academic-calendar/arts/departmentsociology-and-legal-studies/master-arts-ma-sociology>

Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
<p>MASTER OF ARTS (MA) IN SOCIOLOGY</p> <p>Fields (areas of research)</p> <ul style="list-style-type: none"> • Grime, Law, and Security • Knowledge, Education, and Digital Culture • Migration, Borders, and Transnationalism 	<p>MASTER OF ARTS (MA) IN <u>SOCIAL AND LEGAL STUDIES</u></p> <p>Program information</p> <ul style="list-style-type: none"> • Admit term(s) <ul style="list-style-type: none"> ○ Fall

Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
<ul style="list-style-type: none"> • Social Inequality and Public Policy <p>Program information</p> <ul style="list-style-type: none"> • Admit term(s) <ul style="list-style-type: none"> ○ Fall ○ Winter ○ Spring • Delivery mode <ul style="list-style-type: none"> ○ On-campus • Program type <ul style="list-style-type: none"> ○ Master's ○ Research • Registration option(s) <ul style="list-style-type: none"> ○ Full-time ○ Part-time • Study option(s) <ul style="list-style-type: none"> ○ Thesis ○ Master's Research Paper ○ Coursework <p>Admission requirements</p> <ul style="list-style-type: none"> • Minimum requirements <ul style="list-style-type: none"> ○ Normally an Honours Bachelor's degree or its equivalent in Sociology with at least a 78% overall standing. ○ A statement of academic interest (approximately a page, outlining areas of interest and reasons for choosing to study at the University of Waterloo). ○ Results from the General Section of the Graduate Record Examination (GRE) (optional). • Application materials <ul style="list-style-type: none"> ○ Curriculum vitae ○ Supplementary information form ○ Transcript(s) <ul style="list-style-type: none"> ▪ From all other post-secondary institutions. ○ Writing sample • References <ul style="list-style-type: none"> ○ Number of references: 3 ○ Type of references: academic • English language proficiency (ELP) (if applicable) 	<ul style="list-style-type: none"> ○ Winter ○ Spring <ul style="list-style-type: none"> • Delivery mode <ul style="list-style-type: none"> ○ On-campus • Program type <ul style="list-style-type: none"> ○ Master's ○ Research • Registration option(s) <ul style="list-style-type: none"> ○ Full-time ○ Part-time • Study option(s) <ul style="list-style-type: none"> ○ Coursework <p>Admission requirements</p> <ul style="list-style-type: none"> • Minimum requirements <ul style="list-style-type: none"> ○ Normally an Honours Bachelor's degree or its equivalent in Sociology with at least a 78% overall standing. ○ A statement of academic interest (approximately a page, outlining areas of interest and reasons for choosing to study at the University of Waterloo). ○ Results from the General Section of the Graduate Record Examination (GRE) (optional). • Application materials <ul style="list-style-type: none"> ○ Curriculum vitae ○ Supplementary information form ○ Transcript(s) <ul style="list-style-type: none"> ▪ From all other post-secondary institutions. ○ Writing sample • References <ul style="list-style-type: none"> ○ Number of references: 3 ○ Type of references: academic • English language proficiency (ELP) (if applicable) <p>Degree requirements</p> <p>Note: Coursework beyond these minima may be required at the discretion of the Associate Chair, Graduate Affairs. If additional coursework is required, the student will be notified in writing at the time of entry into the</p>

Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
<p>applicable)</p> <p>Degree requirements</p> <p>Students are admitted to a Master's study option (Thesis, Master's Research Paper, or Coursework). Thereafter, the approval of the Associate Chair, Graduate Affairs, is necessary in order to change an option. In the case of the Thesis or Master's Research Paper options, the Departmental Advisor will also assist the student in the identification of a potential supervisor. Students should keep in mind that it is strongly advised that they complete three courses in their first term.</p> <p>Note: Coursework beyond these minima may be required at the discretion of the Associate Chair, Graduate Affairs. If additional coursework is required, the student will be notified in writing at the time of entry into the program. Additional coursework may be required by those who in the estimation of the Associate Chair, Graduate Affairs, do not possess the equivalent of an Honours Bachelor's degree in sociology from the University of Waterloo.</p> <p>Thesis option:</p> <ul style="list-style-type: none"> • <u>Graduate Academic Integrity Module (Graduate AIM)</u> • Courses <ul style="list-style-type: none"> ○ Students must complete the following courses: <ul style="list-style-type: none"> ▪ Theory: 1 of SOC 700 Sociological Theory or SOC 708 Contemporary Debates in Sociological Theory ▪ Methods: SOC 712 Elements of Social Research ▪ Statistics: SOC 710 Intermediate Social Statistics ▪ At least 1 other graduate course with a minimum 0.50 unit weight. These courses must also require a substantial piece of research (project or essay). ▪ Students may take a maximum of 1 reading course from University of Waterloo Sociology and Legal Studies 	<p>program. Additional coursework may be required by those who in the estimation of the Associate Chair, Graduate Affairs, do not possess the equivalent of an Honours Bachelor's degree in sociology from the University of Waterloo.</p> <p>Coursework option:</p> <ul style="list-style-type: none"> • <u>Graduate Academic Integrity Module (Graduate AIM)</u> • Courses <ul style="list-style-type: none"> ○ Students must complete the following courses: <ul style="list-style-type: none"> ▪ Theory: 1 of SOC 700 Sociological Theory or SOC 708 Contemporary Debates in Sociological Theory ▪ Methods: SOC 712 Elements of Social Research ▪ Statistics: SOC 710 Intermediate Social Statistics ▪ At least 5 other graduate courses with a minimum 0.50 unit weight each. These courses must also require a substantial piece of research (project or essay). ▪ Students may take a maximum of 1 reading course from University of Waterloo Sociology and Legal Studies Faculty or adjuncts. ○ In order to complete a course satisfactorily, students must complete all course requirements as specified by the instructor and receive a minimum grade of 75%. ○ The Coursework option only requires that all 8 courses are completed by the end of the third term (typically at the end of August). • Link(s) to courses <ul style="list-style-type: none"> ○ <u>Sociology (SOC) courses</u> ○ <u>Graduate course search</u> • Academic Integrity Workshop

Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
<p>Faculty or adjuncts.</p> <ul style="list-style-type: none"> ○ In order to complete a course satisfactorily, students must complete all course requirements as specified by the instructor and receive a minimum grade of 75%. <p>● Link(s) to courses</p> <ul style="list-style-type: none"> ○ Sociology (SOC) courses ○ Graduate course search <p>● Academic Integrity Workshop</p> <p>● Master's Thesis</p> <ul style="list-style-type: none"> ○ Students must write and orally defend a thesis proposal and a thesis. ○ A thesis proposal, approved by a supervisor and two readers, must be completed by the end of the second term (typically the end of April). The thesis should be completed and defended by the end of the sixth term. ○ A Master's thesis is considered to involve an amount of work equivalent to 4 one-term courses (2.00 units, approximately 100 to 150 pages in length). <p>Master's Research Paper option:</p> <ul style="list-style-type: none"> ● Graduate Academic Integrity Module (Graduate AIM) <p>● Courses</p> <ul style="list-style-type: none"> ○ Students must complete the following courses: <ul style="list-style-type: none"> ▪ Theory: 1 of SOC 700 Sociological Theory or SOC 708 Contemporary Debates in Sociological Theory ▪ Methods: SOC 712 Elements of Social Research ▪ Statistics: SOC 710 Intermediate Social Statistics ▪ At least 3 other graduate courses with a minimum 0.50 unit weight each. These courses must also require a substantial piece of research (project or essay). ▪ Students may take a maximum of 1 reading course from University of Waterloo 	

Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
<p style="text-align: center;">Sociology and Legal Studies Faculty or adjuncts:</p> <ul style="list-style-type: none"> ○ In order to complete a course satisfactorily, students must complete all course requirements as specified by the instructor and receive a minimum grade of 75%. <ul style="list-style-type: none"> ● Link(s) to courses <ul style="list-style-type: none"> ○ Sociology (SOC) courses ○ Graduate course search ● Academic Integrity Workshop ● Master's Research Paper <ul style="list-style-type: none"> ○ Students must prepare a research paper proposal and write and orally defend a research paper. ○ A research paper proposal must be completed and approved by a supervisor and one reader/examiner by the middle of the third term (typically the end of June). The research paper must be defended by the end of the fourth term (typically, the end of December). ○ A research paper is considered to involve an amount of work equivalent to 2 one-term courses (1.00 unit, approximately 50 to 70 pages in length). As a guideline, the focus of a Master's Research Paper (MRP) can be on the research question, theory and methodology, and possibly some exploratory research on the state of the research but it is up to the supervisor, reader/examiner and student to set the direction for the MRP. <p>Coursework option:</p> <ul style="list-style-type: none"> ● Graduate Academic Integrity Module (Graduate AIM) ● Courses <ul style="list-style-type: none"> ○ Students must complete the following courses: <ul style="list-style-type: none"> ▪ Theory: 1 of SOC 700 Sociological Theory or SOC 708 Contemporary Debates in Sociological Theory ▪ Methods: SOC 712 Elements of Social Research 	

Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
<ul style="list-style-type: none"> ▪ Statistics: SOC 710 Intermediate Social Statistics ▪ At least 5 other graduate courses with a minimum 0.50 unit weight each. These courses must also require a substantial piece of research (project or essay). ▪ Students may take a maximum of 1 reading course from University of Waterloo Sociology and Legal Studies Faculty or adjuncts. <ul style="list-style-type: none"> ○ In order to complete a course satisfactorily, students must complete all course requirements as specified by the instructor and receive a minimum grade of 75%. ○ The Coursework option only requires that all 8 courses are completed by the end of the third term (typically at the end of August). <ul style="list-style-type: none"> • Link(s) to courses <ul style="list-style-type: none"> ○ Sociology (SOC) courses ○ Graduate course search • Academic Integrity Workshop 	

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

There will be no impact. The admission and degree requirements are unchanged.

Students registered in the program at the time of the change will have the option to “transfer: to the new program name.

Departmental approval date (mm/dd/yy): 04/13/18

Reviewed by GSPA (for GSPA use only) ☒ **date** (mm/dd/yy): 04/17/2018

Faculty approval date (mm/dd/yy): 04/19/2018

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

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

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

Faculty: Arts

Program: Master of Arts (MA) in Sociology - Co-operative Program

Program contact name(s): Martin Cooke

Form completed by:

Description of proposed changes:

*This is one of two program revisions that will together rename our existing **coursework MA in Sociology** to **MA in Social and Legal Studies**.*

Is this a [major modification](#) to the program? Yes

Rationale for change(s):

The Department of Sociology and Legal Studies created the one-year coursework MA as a less research-focused alternative to our Thesis and Major Research Paper MAs in Sociology. It has proved a good option for students not planning on careers as researchers, but has failed to attract the numbers of students we had hoped. Moreover, because of the requirement of 8 courses and no research project, coursework MA students have been practically unable to specialize in one of the four thematic areas we advertise. This name change will help to differentiate it from the thesis and MRP streams in Sociology and the removal of the thematic areas will more accurately describe the program as offered.

There are no changes to the existing admission/degree requirements for the coursework option other than the name change.

Proposed effective date: Term: Winter 2019

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

<https://uwaterloo.ca/graduate-studies-academic-calendar/arts/departmentsociology-and-legal-studies/master-arts-ma-sociology-co-operative-program-direct-entry>

Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
MASTER OF ARTS (MA) IN SOCIOLOGY - CO-OPERATIVE PROGRAM Fields (areas of research) <ul style="list-style-type: none"> • Crime, Law, and Security • Knowledge, Education, and Digital Culture 	MASTER OF ARTS (MA) IN SOCIOLOGY - CO-OPERATIVE PROGRAM Fields (areas of research) <ul style="list-style-type: none"> • Crime, Law, and Security • Knowledge, Education, and Digital Culture

Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
<ul style="list-style-type: none"> • Migration, Borders, and Transnationalism • Social Inequality and Public Policy <p>Program information</p> <ul style="list-style-type: none"> • Admit term(s) <ul style="list-style-type: none"> ◦ Fall ◦ Winter ◦ Spring • Delivery mode <ul style="list-style-type: none"> ◦ On-campus • Program type <ul style="list-style-type: none"> ◦ Co-operative ◦ Master's ◦ Research • Registration option(s) <ul style="list-style-type: none"> ◦ Full-time ◦ Part-time • Study option(s) <ul style="list-style-type: none"> ◦ Thesis ◦ Master's Research Paper ◦ Coursework <p>Admission requirements</p> <ul style="list-style-type: none"> • Minimum requirements <ul style="list-style-type: none"> ◦ Normally an Honours Bachelor's degree or its equivalent in Sociology with at least a 78% overall standing. ◦ A statement of academic interest (approximately a page, outlining areas of interest and reasons for choosing to study at the University of Waterloo). ◦ Results from the General Section of the Graduate Record Examination (GRE) (optional). • Application materials <ul style="list-style-type: none"> ◦ Curriculum vitae ◦ Supplementary information form ◦ Transcript(s) <ul style="list-style-type: none"> ▪ From all other post-secondary institutions. ◦ Writing sample • References <ul style="list-style-type: none"> ◦ Number of references: 3 ◦ Type of references: academic 	<ul style="list-style-type: none"> • Migration, Borders, and Transnationalism • Social Inequality and Public Policy <p>Program information</p> <ul style="list-style-type: none"> • Admit term(s) <ul style="list-style-type: none"> ◦ Fall ◦ Winter ◦ Spring • Delivery mode <ul style="list-style-type: none"> ◦ On-campus • Program type <ul style="list-style-type: none"> ◦ Co-operative ◦ Master's ◦ Research • Registration option(s) <ul style="list-style-type: none"> ◦ Full-time ◦ Part-time • Study option(s) <ul style="list-style-type: none"> ◦ Thesis ◦ Master's Research Paper <p>Admission requirements</p> <ul style="list-style-type: none"> • Minimum requirements <ul style="list-style-type: none"> ◦ Normally an Honours Bachelor's degree or its equivalent in Sociology with at least a 78% overall standing. ◦ A statement of academic interest (approximately a page, outlining areas of interest and reasons for choosing to study at the University of Waterloo). ◦ Results from the General Section of the Graduate Record Examination (GRE) (optional). • Application materials <ul style="list-style-type: none"> ◦ Curriculum vitae ◦ Supplementary information form ◦ Transcript(s) <ul style="list-style-type: none"> ▪ From all other post-secondary institutions. ◦ Writing sample • References <ul style="list-style-type: none"> ◦ Number of references: 3 ◦ Type of references: academic

Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
<ul style="list-style-type: none"> • English language proficiency (ELP) (if applicable) <p>Degree requirements</p> <p>Students are admitted to a Master's study option (Thesis, Master's Research Paper, or Coursework). Thereafter, the approval of the Associate Chair, Graduate Affairs, is necessary in order to change an option. In the case of the Thesis or Master's Research Paper options, the Departmental Advisor will also assist the student in the identification of a potential supervisor. Students should keep in mind that it is strongly advised that they complete three courses in their first term.</p> <p>Note: Coursework beyond these minima may be required at the discretion of the Associate Chair, Graduate Affairs. If additional coursework is required, the student will be notified in writing at the time of entry into the program. Additional coursework may be required by those who in the estimation of the Associate Chair, Graduate Affairs, do not possess the equivalent of an Honours Bachelor's degree in sociology from the University of Waterloo.</p> <p>Thesis option:</p> <ul style="list-style-type: none"> • Graduate Academic Integrity Module (Graduate AIM) • Courses <ul style="list-style-type: none"> ○ Students must complete the following courses: <ul style="list-style-type: none"> ▪ Theory: 1 of SOC 700 Sociological Theory or SOC 708 Contemporary Debates in Sociological Theory ▪ Methods: SOC 712 Elements of Social Research ▪ Statistics: SOC 710 Intermediate Social Statistics ▪ At least 1 other graduate course with a minimum 0.50 unit weight. These courses must also require a substantial piece of research (project or essay). ▪ Students may take a maximum of 1 reading course from University of Waterloo 	<ul style="list-style-type: none"> • English language proficiency (ELP) (if applicable) <p>Degree requirements</p> <p>Students are admitted to a Master's study option (Thesis <u>or</u> Master's Research Paper). Thereafter, the approval of the Associate Chair, Graduate Affairs, is necessary in order to change an option. In the case of the Thesis or Master's Research Paper options, the Departmental Advisor will also assist the student in the identification of a potential supervisor. Students should keep in mind that it is strongly advised that they complete three courses in their first term.</p> <p>Note: Coursework beyond these minima may be required at the discretion of the Associate Chair, Graduate Affairs. If additional coursework is required, the student will be notified in writing at the time of entry into the program. Additional coursework may be required by those who in the estimation of the Associate Chair, Graduate Affairs, do not possess the equivalent of an Honours Bachelor's degree in sociology from the University of Waterloo.</p> <p>Thesis option:</p> <ul style="list-style-type: none"> • Graduate Academic Integrity Module (Graduate AIM) • Courses <ul style="list-style-type: none"> ○ Students must complete the following courses: <ul style="list-style-type: none"> ▪ Theory: 1 of SOC 700 Sociological Theory or SOC 708 Contemporary Debates in Sociological Theory ▪ Methods: SOC 712 Elements of Social Research ▪ Statistics: SOC 710 Intermediate Social Statistics ▪ At least 1 other graduate course with a minimum 0.50 unit weight. These courses must also require a substantial piece of research (project or essay). ▪ Students may take a maximum of 1 reading course from University of Waterloo

Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
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How will students currently registered in the program be impacted by these changes?

There will be no impact. The admission and degree requirements are unchanged.

Students registered in the program at the time of the change will have the option to “transfer” to the new program name.

Departmental approval date (mm/dd/yy): 04/13/18

Reviewed by GSPA (for GSPA use only) ☒ date (mm/dd/yy): 04/17/2018

Faculty approval date (mm/dd/yy): 04/19/2018

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

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

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

Faculty: Arts

Program: Master of Arts (MA) in Sociology - Co-operative Program

Program contact name(s): Martin Cooke

Form completed by:

Description of proposed changes:

*This is one of two program revisions that will together rename our existing **coursework MA in Sociology** to **MA in Social and Legal Studies**.*

Is this a [major modification](#) to the program? Yes

Rationale for change(s):

The Department of Sociology and Legal Studies created the one-year coursework MA as an less research-focused alternative to our Thesis and Major Research Paper MAs in Sociology. It has proved a good option for students not planning on careers as researchers, but has failed to attract the numbers of students we had hoped. Moreover, because of the requirement of 8 courses and no research project, coursework MA students have been practically unable to specialize in one of the four thematic areas we advertise. This name change will help to differentiate it from the thesis and MRP streams in Sociology and the removal of the thematic areas will more accurately describe the program as offered.

There are no changes to the existing admission/degree requirements for the coursework option other than the name change.

Proposed effective date: Term: Winter 2019

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

<https://uwaterloo.ca/graduate-studies-academic-calendar/arts/departmentsociology-and-legal-studies/master-arts-ma-sociology-co-operative-program-direct-entry>

Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
MASTER OF ARTS (MA) IN SOCIOLOGY Fields (areas of research) <ul style="list-style-type: none"> • Grime, Law, and Security • Knowledge, Education, and Digital Culture • Migration, Borders, and Transnationalism 	MASTER OF ARTS (MA) IN <u>SOCIAL AND LEGAL STUDIES</u> Program information <ul style="list-style-type: none"> • Admit term(s) <ul style="list-style-type: none"> ○ Fall

Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
<ul style="list-style-type: none"> • Social Inequality and Public Policy <p>Program information</p> <ul style="list-style-type: none"> • Admit term(s) <ul style="list-style-type: none"> ○ Fall ○ Winter ○ Spring • Delivery mode <ul style="list-style-type: none"> ○ On-campus • Program type <ul style="list-style-type: none"> ○ Master's ○ Research • Registration option(s) <ul style="list-style-type: none"> ○ Full-time ○ Part-time • Study option(s) <ul style="list-style-type: none"> ○ Thesis ○ Master's Research Paper ○ Coursework <p>Admission requirements</p> <ul style="list-style-type: none"> • Minimum requirements <ul style="list-style-type: none"> ○ Normally an Honours Bachelor's degree or its equivalent in Sociology with at least a 78% overall standing. ○ A statement of academic interest (approximately a page, outlining areas of interest and reasons for choosing to study at the University of Waterloo). ○ Results from the General Section of the Graduate Record Examination (GRE) (optional). • Application materials <ul style="list-style-type: none"> ○ Curriculum vitae ○ Supplementary information form ○ Transcript(s) <ul style="list-style-type: none"> ▪ From all other post-secondary institutions. ○ Writing sample • References <ul style="list-style-type: none"> ○ Number of references: 3 ○ Type of references: academic • English language proficiency (ELP) (if applicable) 	<ul style="list-style-type: none"> ○ Winter ○ Spring <ul style="list-style-type: none"> • Delivery mode <ul style="list-style-type: none"> ○ On-campus • Program type <ul style="list-style-type: none"> ○ Master's ○ Research • Registration option(s) <ul style="list-style-type: none"> ○ Full-time ○ Part-time • Study option(s) <ul style="list-style-type: none"> ○ Coursework <p>Admission requirements</p> <ul style="list-style-type: none"> • Minimum requirements <ul style="list-style-type: none"> ○ Normally an Honours Bachelor's degree or its equivalent in Sociology with at least a 78% overall standing. ○ A statement of academic interest (approximately a page, outlining areas of interest and reasons for choosing to study at the University of Waterloo). ○ Results from the General Section of the Graduate Record Examination (GRE) (optional). • Application materials <ul style="list-style-type: none"> ○ Curriculum vitae ○ Supplementary information form ○ Transcript(s) <ul style="list-style-type: none"> ▪ From all other post-secondary institutions. ○ Writing sample • References <ul style="list-style-type: none"> ○ Number of references: 3 ○ Type of references: academic • English language proficiency (ELP) (if applicable) <p>Degree requirements</p> <p>Note: Coursework beyond these minima may be required at the discretion of the Associate Chair, Graduate Affairs. If additional coursework is required, the student will be notified in writing at the time of entry into the</p>

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Departmental approval date (mm/dd/yy): 04/13/18

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FALL BREAK PILOT 2016-2018

Update and next steps



UNIVERSITY OF
WATERLOO



FALL BREAK

“...a pause for students in an academic term, to reflect upon and catch up on their term's work to date and, as necessary, prepare for any upcoming assignments and assessments.”

Goal: to contribute to **student success**, along with:

- a welcoming Orientation
- intentional programming and communication to maximize benefits of the fall break
- coordinated exam period (mid-term, final)

ESTABLISHED FRAMEWORK:

FALL BREAK AND WINTER READING WEEK

- no classes, examinations, tests, or lectures held
- no scheduled meetings (including co-op interviews) or assignments for students
- no deadlines for student submissions
- campus remains open during the break/reading week
- student services hold regular office hours
- clinical rotations, PhD comprehensive exams, graduate thesis defences, etc. may continue during this time.
- certain activities like experiential learning opportunities (e.g., field trips) are still to be explored

WHERE ARE WE NOW?

- At the end of a 3-year pilot of a 2-day Fall Break (Tuesday and Wednesday *after* Thanksgiving Monday - classes started on Thursday following Labour Day Monday)
- Evaluation of the 3rd year of the Fall Break is underway.

YEAR 3 EVALUATION OF THE PILOT

To facilitate conditions of a 'good' pause in the term, we need to:

- establish indicators of what a 'good' looks like based on evaluation from years 1 and 2
- determine if we are facilitating these conditions effectively
- identify improvements to promote student success before, during₄ and after the pause

WHERE ARE WE HEADED?

- Consultation with the campus community points to a **4-day Fall Reading Week** following TG Monday.
- There is no consensus within some key groups, however.

STAKEHOLDER CONSULTATION (2016-2018)

Via surveys, focus groups, interviews, online webforms and email correspondence

More than 8500 students

Over 500 faculty

Federation of Students

Graduate Students' Association

Faculty Association

Staff Association

Orientation Advisors

UG Student Relations Committee

Graduate Student Relations Committee

Ugrad OPs & Grad OPs committees

Co-operative Education

Registrar's Office/GSPA

Campus Wellness / Student Success

Food Services

Residences (including AFIW)

Leadership Forum

CUPE Local 793

Custodial and Ground Services

CURRENT FALL BREAK IS PROBLEMATICAL

- Partial week impacts courses that run weekly or biweekly (e.g., labs in Engineering and Science)
- Confusion related to re-assignment of teaching days (Thursday is Tuesday, Friday is Wednesday)
- Misalignment with our most significant institutional collaborator (WLU fall break is 4 days vs. our current 2 days)
- Duration may be too short to be effective

KEY MESSAGES

- All other Ontario universities have a Fall Break (80% have 4 or 5 day breaks)
- Literature is inconclusive on impact of a Fall Break on student well being / mental health.
- Most stakeholders consulted prefer a week-long pause in the fall term with recognition that there is still work to be done to create the conditions that will support a positive experience for all students.

FRAMING GUIDELINES / PRINCIPLES

- 60 teaching days/term / 12 occurrences each of Mon. to Fri.
- 2 orientation days in September prior to classes beginning
- 2 study days between end of lectures and start of exams*
- 13 days for Fall exams
- 1 “snow day” at the end of exam period
- Max. 1 Sunday exam day on the 1st Sunday of exam period*
- Consistency to start of Fall term*
- Using UW holiday schedule published (2018-23)

* *whenever possible*

COMPROMISES / CHALLENGES RELATED TO A WEEK-LONG FALL READING WEEK

Labour Day Monday can fall anywhere from Sept. 1 – 7; therefore, scheduling *challenges* will vary according to year, and *compromises* required will also vary.

COMPROMISES / CHALLENGES RELATED TO A WEEK-LONG FALL PAUSE (continued)

For every 7 year cycle:

- 2 years could have only one study day before final exams and a Sunday exam
- 3 out of 7 years could have one Sunday exam
- Classes start on Wednesday after Labour Day, except 1 year (when Labour Day is Sept. 7) when classes could start on Tuesday after Labour Day OR start on Wednesday every year and include a 2nd Sunday for exams in that year (Sept. 7 Labour Day).

UNIVERSITY OF WATERLOO



<https://uwaterloo.ca/associate-vice-president-academic/fall-break-project>

RESOURCES

Reports to Vice-President & Fall Break Working Group

“Fall Break Year Two Interim Report – Stakeholder Feedback
(May 2018: Refer to Associate Vice-President Academic Website)

“Proposed Fall Break – Stakeholder Consultation”
(Feb. 2015: Refer to Senate agenda, April 14, 2015)

Report to Vice-President and Provost

“Consideration of a Fall Break at the University of Waterloo”
(Sept. 2014: Refer to Senate agenda, October 14, 2014)

Undergraduate and Graduate Academic Calendars

‘Study Days’

**University of Waterloo
SENATE
Report of the President
15 October 2018**

FOR INFORMATION

Strategic Plan 2013-2018

We are proud to present this fifth and final summative report that outlines the progress and outcomes of the University of Waterloo 2013-2018 Strategic Plan. The two reports provided are:

- **Executive Summary of the 2013-2018 Strategic Plan:** This document summarizes important outcomes from our work on the eight theme areas.
- **Faculty Updates:** The final Faculty update supplement presents key initiatives and outcomes achieved between 2013-2018.

These reports summarize important outcomes from our work on the eight theme areas of our current strategic plan, and summative data and information to consider as we develop our 2020 strategic plan.

Additional detail is also available in the 2013-2018 Strategic Plan Detailed report, and the Strategic Plan in Action website.

We have made substantial progress but there is yet more to accomplish.

These reports along with recently produced issue papers are providing the foundation for our consultations on the 2020-2025 strategic plan. Waterloo will continue to be proud of our progress, unsatisfied with the status quo, and striving towards the next horizon.

Feridun Hamdullahpur
President and Vice-Chancellor