University of Waterloo
SENATE EXECUTIVE COMMITTEE
Notice of Meeting

Date: Tuesday 4 January 2022
Time: 3:30 p.m. – 4:30 p.m.
Place: Microsoft Teams Videoconference

AGENDA	Action
1. Minutes of the 1 November 2021 Meeting	Decision
2. Business Arising from the Minutes	
3. Draft 17 January 2022 Senate Agenda	Decision
4. Senate Governance Review[1]	
a. Terms of Reference	Decision
b. Initial Discussion	Discussion
5. Other Business	

17 December 2021

Karen Jack
University Secretary

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[1] Please note: additional time has been added to the meeting for this work.

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University of Waterloo
SENATE EXECUTIVE COMMITTEE
Minutes of the 1 November 2021 Meeting

Present: Michael Beauchemin, Jeff Casello, Joan Coutu, Lori Curtis, Benjamin Easton, George Freeman, Vivek Goel (chair), Karen Jack (secretary), Christiane Lemieux, Kristina Llewellyn, Graham Murphy, Oudy Noweir, Luke Potwarka, James Rush, Johanna Wandel

Guests: Diana Gonçalves, Andrea Kelman

The chair welcomed members to the meeting.

1. **MINUTES OF THE 4 OCTOBER 2021 MEETING**
   Members heard a motion to approve the minutes of the 4 October 2021 meeting.

   Murphy and Freeman. Carried unanimously.

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

3. **DRAFT 15 NOVEMBER 2021 SENATE AGENDA**
   Following a brief review of the agenda, during which it was noted that some minor corrections will be made to materials before final distribution, the committee approved it by consensus.

4. **SENATE GOVERNANCE REVIEW**
   After the president spoke to the benefits of a recent Board governance review which identified several areas of improvement, he recommended that a Senate governance review occur. Members agreed with his suggestion that this committee undertake it and make recommendations to Senate. Members understood that the Secretariat will support the activity with regard to research, benchmarking, and administrative support. In discussion: the desirability of a more strategic focus for Senate meetings; some areas for consideration (e.g., the calendar and frequency of meetings, committee and council structures and mandates, bylaw revisions, contents of agenda materials); the value of aligning with the Board cycle to ensure the bodies are mutually informed; early considerations of benchmark institutions. In response to a question about next steps, the president indicated that: he will inform Senate about the activity this month; he and the secretary will draft terms of reference for discussion at the next meeting; this committee's future meetings will be booked for one hour to accommodate the work; work in the new year should lead to recommendations for Senate in the spring with some things to be implemented next fall and others in the future.

5. **OTHER BUSINESS**
   The committee agreed with the president's suggestion that if, later this month, there is no major business for a December meeting of Senate, the secretary will advise Senate that it is cancelled. Members understood that in such a case, the 6 December meeting of this committee also is cancelled.

   There was no other business.

6 November 2021   Karen Jack
                                                      University Secretary

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To:	Senate Executive Committee
From:	Vivek Goel, President and Vice-Chancellor
Date:	10 December 2021
RE:	Senate Governance Review Committee Terms of Reference

As discussed at the November meeting of Senate Executive Committee, attached is a draft of the terms of reference for the Senate Governance Review which will be undertaken by this committee for discussion and approval at the 4 January 2022 meeting.

Senate Executive Committee
Senate Governance Review 2022

Terms of Reference

The Senate Executive Committee will undertake a review of the governance activities of the University of Waterloo Senate and its committees and councils, and will make short- and long-term recommendations to Senate for consideration and approval. To inform its work, the committee will review academic governance and best practices at peer institutions.

Mandate

The Senate Executive Committee will consider matters related to the academic governance of the University of Waterloo undertaken by Senate and its committees and councils. In particular, it will:

1. Review the practices of the Senate and its committees and councils, including without limitation: structures, terms of reference and mandates, frequency of meetings, and, will make recommendations to Senate for development and/or change where appropriate with a view to improving efficiency while maintaining transparency and accountability. The review will examine the format of meetings, including the role of virtual or hybrid meetings, as well as the use of portals or other technology to support dissemination of materials and activities such as voting.
2. Review and make recommendations regarding the content of Senate agenda materials to ensure items for discussion or decision are informed by appropriate supporting documentation.
3. Consider ways to facilitate discussion and engagement about academic issues of strategic importance at Senate, and, ways to better align Senate's annual cycle with that of the University's Board of Governors to ensure both bodies are mutually informed.
4. The committee will consult with Senators, Governors, and other interested stakeholders in the UW community.
5. Regularly update Senate about its activities, via reports from the President, and at the completion of its work, produce a report with recommendations for Senate's consideration and approval.

Term

The committee will execute its mandate beginning January 2022 with a view to completing a final report for Senate's consideration in Spring 2022. Some recommendations may be suggested for implementation in Fall 2022, and some may be proposed for further consideration and/or implementation in the future.

Meetings

The committee will add time to its regular monthly meetings to undertake the work. It may establish smaller working groups, and/or direct the secretary to investigate particular matters and suggest improvements.

University of Waterloo
SENATE
Notice of Meeting

Date: Tuesday 17 January 2022
Time: 3:30 p.m.
Place: Microsoft Teams Videoconference

	OPEN SESSION		**PAGE #**
3:30	**Consent Agenda** **Motion:** To approve or receive for information by consent items 1-4 below.		
	1. Minutes of the 15 November 2021 Meeting	Decision	9
	2. Reports from Committees and Councils a. Senate Graduate & Research Council b. Senate Undergraduate Council	Information Information	15 17
	3. Report of the President a. Recognition and Commendation	Information	43
	4. Reports from the Faculties	Information	47
	Regular Agenda		
3:35	5. Business Arising from the Minutes		
3:40	6. Reports from Committees and Councils a. Senate Graduate & Research Council b. Senate Undergraduate Council c. University Committee on Student Appeals	Decision Decision Information	49 51 57
4:00	7. Report of the President a. Update b. Strategic Plan Talent Presentation	Information Information/Discussion	
5:15	8. Report of the Vice-President, Academic & Provost	TBD	
5:25	9. Report of the Vice-President, Research & International*	Information	
5:35	10. Other Business		
	CONFIDENTIAL SESSION		
5:40	11. Minutes of the 15 November 2021 Meeting	Decision	14
5:45	12. Business Arising from the Minutes		
5:50	13. Report of the President	Information	
5:55	14. Other Business		
	*Report to follow		

KJJ/dg
17 December 2021

Karen Jack
University Secretary
Secretary to Senate

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University of Waterloo
SENATE
Minutes of the Monday 15 November 2021 Meeting

Present: John Abraham, Nasser Mohieddin Abukhdeir, Sheila Ager, Jean Andrey, Mike Ashmore, Sandra Banks, Lisa Bauer-Leahy, Michael Beauchemin, Anne Bordeleau, Carmen Bruni, Jeff Casello, Trevor Charles, Robyn Clarke, Joan Coutu, Neil Craik, Lori Curtis, Kristine Dalton, Charmaine Dean, David DeVidi, Catherine Dong, Benjamin Easton, Paul Fieguth, Wendy Fletcher, George Freeman, Martha George, Mark Giesbrecht, Moira Glerum, Vivek Goel (chair), Kelly Grindrod, David Ha, Kevin Hare, Dennis Huber, Karen Jack (secretary), Martin Karsten, Achim Kempf, Zabeen Khamisa, Jennifer Kieffer, Veronica Kitchen, Alysia Kolentsis, Christiane Lemieux, Robert Lemieux, Xianguo Li, Lili Liu, Kristina Llewellyn, Carol Ann MacGregor, Ellen MacEachen, Blake Madill, Peter Meehan, Samantha Meyer, Ian Milligan, Zoran Miskovic, Graham Murphy, Richard Myers, Cathy Newell Kelly, Oudy Noweir, Erin O'Connell, Daniel O'Connor, Troy Osborne, Nicholas Pfeifle, Luke Potwarka, William Power, Neil Randall, James Rush, Matthew Schwarze, Marcus Shantz, Karkirat Singh Dhillon, Siv Sivaloganathan, Siva Sivoththaman, Chao Tan, Bruno Tremblay, Sharon Tucker, Graeme Turner, Diana Vangelisti, Johanna Wandel, Paul Ward, Mary Wells, Stan Woo, Nancy Worth, Clarence Woudsma, En-Hui Yang, Samer Zu'Mot

Guests: Jean Becker, Bruce Campbell, Aldo Caputo, Donna Ellis, Barbara Forrest, Brian Forrest, Anne Galang, Amanda Garcia, Diana Goncalves, Sarah Hadley, Candace Harrington, Narveen Jandu, Danielle Jeanneault, Ross Johnston, Andrea Kelman, Nick Manning, Norah McRae, Bessma Momani, Fayaz Noormohamed, Ian Rowlands, Daniela Seskar-Hencic, Sean Speziale, Allan Starr, Sherri Sutherland, Sean Thomas, Catherine Thompson, Marilyn Thompson, Chris Wilson-Smith, Kathy Winter

Absent: Dominic Barton*, Cindy Forbes*, Onurcan Gokkaya, Natalie Hutchings, Beth Namachchivaya, Naima Samuel

*regrets

OPEN SESSION

CHAIR'S REMARKS
The chair welcomed two new undergraduate student senators: Nicholas Pfeifle (engineering) and Harkirat Singh Dhillon (science). He advised that a decision regarding the December meeting will be made and communicated before the end of the month. [Secretary's note: senators were advised on 22 November 2021 that the December meeting was cancelled.]

Consent Agenda

Following a reminder that a revised consent report from Senate Graduate & Research Council was distributed on 12 November, Senate heard a motion to approve or receive for information the items on the consent agenda.

Freeman and Easton.

1. **MINUTES OF THE 18 OCTOBER 2021 MEETING**
   Senate approved the minutes of the meeting.

2. **REPORTS FROM COMMITTEES AND COUNCILS**
   a. **Senate Graduate & Research Council**
   Motion: To approve the following Graduate Studies Academic Calendar changes, effective 1 January 2022.

   Senate received the remainder of the report for information.

   b. **Senate Undergraduate Council**
    i. **Academic Plan Changes**

Faculty of Engineering – Systems Design Engineering
Motion: That Senate approve the addition of technical electives lists (formerly housed on departmental website), effective 1 September 2022.

Faculty of Engineering – Biomedical Engineering
Motion: That Senate approve the addition of technical electives lists (formerly housed on departmental website), effective 1 September 2022.

Faculty of Environment – School of Planning
Motion: That Senate approve the changes to the Honours Planning average requirements, effective 1 September 2022.
Motion: That Senate approve the changes to the Honours Planning specialization average requirements, effective 1 September 2022, for the following 4 specializations:
- Decision Support and Geographic Information Systems
- Environmental Planning and Management
- Land Development Planning
- Urban Design

Faculty of Environment and Faculty of Health
Motion: That Senate approve the administration/ownership change to the minor in tourism, effective 1 September 2022.

Faculty of Health
Motion: That Senate approve the academic plan changes to the diploma in gerontology, effective 1 September 2022.

ii. **Academic Regulation Changes**

Faculty of Arts
Motion: That Senate approve the updated list of mutually exclusive plans, effective 1 September 2022.
Motion: That Senate approve the changes to the Bachelor of Arts Breadth Requirements, effective 1 September 2022.

Faculty of Engineering
Motion: That Senate approve the list of courses fulfilling the undergraduate communication requirement for all Engineering degree programs, effective 1 September 2022.

Faculty of Health
Motion: That Senate approve the updated co-operative education requirements and regulations, effective 1 September 2022.
Motion: That Senate approve revisions to academic standing regulations, effective 1 September 2022.
Motion: That Senate approve revisions to Health's foundation term regulations, effective 1 September 2022.

Faculty of Science
Motion: That Senate approve the revisions to the undergraduate communication requirement, effective 1 September 2022.

Senate received the remainder of the report for information.

3. **REPORT OF THE PRESIDENT**
   Recognition and Commendation. Senate received the report for information.

4. **REPORTS FROM THE FACULTIES**
   Senate received the reports for information.

5. **REPORT FROM THE COU ACADEMIC COLLEAGUE**
   Senate received the report for information.

The question was called and the motion carried unanimously.

Regular Agenda

6. **BUSINESS ARISING FROM THE MINUTES**
   The chair noted that the joint report from the councils that was tabled in October is on this meeting's agenda at item 8.b.

7. **PRESENTATION – RESEARCH ANNUAL REPORT – DR. CHARMAINE DEAN**
   Dean walked members through her slides, commenting on: research, innovation, and commercialization at Waterloo; advancing research for global impact; particular research strengths in solving real world problems; global leadership in innovation and entrepreneurship initiatives; leveraging partnerships for research impact; Indigenous initiatives and equity, diversity and inclusivity activities; impacts; future activities and opportunities. She invited senators to reach out to her directly on any matters of discussion.

8. **REPORTS FROM COMMITTEES AND COUNCILS**
   a. **Senate Graduate & Research Council – Jeff Casello**
      Senate heard a motion to approve the dissolution of Waterloo Research Institute in Insurance, Securities and Quantitative Finance (WatRISQ), as presented.

      Casello and Hare. Carried unanimously.

   b. **Joint Report from Senate Graduate & Research Council and Senate Undergraduate Council – Jeff Casello and David DeVidi**
      Senate heard a motion to approve the 2022-2023 academic calendar dates and calendar guidelines for establishing academic dates as presented.

      Newell Kelly and DeVidi.

      In response to questions, Newell Kelly advised that reasons for the selection of the proposed start date in January 2023 included aligning with Wilfrid Laurier University and many other Ontario universities, and, that in consultations, her office heard significant support from many instructors for that date.

      The question was called and the motion carried with one vote against.

   c. **Senate Undergraduate Council – David DeVidi**
      i. New academic Plans
      Senate heard a motion to approve the proposed new Diploma in Black Studies and the Diploma in Fundamentals of Anti-Racism Communication, effective 1 September 2022.

      DeVidi and Ager.

At the chair's invitation, Ager spoke to the gap in academic programing that these two important new diplomas fill, and she acknowledged the exceptional work undertaken by the implementation team of Drs. Kathy Hogarth, Vershawn Young, and Christopher Taylor in developing the suite of courses and diploma programs. The chair echoed her comments.

The question was called and the motion carried unanimously. A round of applause followed.

Senate heard a motion to approve the proposed new Politics and Business Minor, effective 1 September 2022.

DeVidi and Ager. Carried unanimously.

Senate heard a motion to approve the proposed new Diploma in Future Cities, effective 1 September 2022.

DeVidi and Andrey.

At the chair's invitation, Andrey spoke to the program's alignment with the University's Strategic Plan and the availability of the diploma to many students across the University. The chair offered congratulations on this important new diploma.

The question was called and the motion carried unanimously.

 ii. **Academic Plan Changes**
Senate heard a motion to approve changes to the mechatronics option, effective 1 September 2022.

DeVidi and Wells. Carried unanimously.

 iii. **Academic Plan Inactivations**
Senate heard a motion to approve the inactivation of the Honours Tourism Development academic plan, effective 1 September 2022.

DeVidi and Liu. Carried unanimously.

9. **REPORT OF THE PRESIDENT**
The president provided a wide-ranging report including: condolences regarding the recent passing of Wendy Mitchenson and Andrew Levitt; kudos to researchers who were recently recognized (Donna Strickland, Craig James, and Paul Stolee) and the six University of Waterloo women who were named among the top 100 most powerful women in Canada by the Women's Executive Network; an update on recent activities, including notable recent research announcements and innovation achievements, and his formal installation as president. He also spoke to the recent federal cabinet shuffle, and coming work at the Senate Executive Committee to undertake a Senate governance review.

10. **Q&A PERIOD WITH THE PRESIDENT**
There were no questions.

11. **REPORT OF THE VICE-PRESIDENT, ACADEMIC & PROVOST**
The provost offered commentary on: fall term student registration, placements, and aid; fall 2021 class sections and winter course availability; the third Strategic Mandate Agreement, including: a performance overview, performance metrics, year one and year two performance, and reporting metrics; a brief update on policies 76 and 77.

In discussion: from Curtis, agreement with Rush's comments regarding the collegial discussion at the Faculty Relations Committee regarding policies 76 and 77; confirmation from Norah McRae that the co-op employment numbers provided in the provost's presentation do not include those individuals in the Waterloo Experience Accelerate program.

12. OTHER BUSINESS
There was no other business.

Senate convened in confidential session.

22 November 2021   Karen Jack
                                                                         University Secretary

CONFIDENTIAL SESSION

The Confidential Session minutes have been removed.

The meeting was adjourned at 5:07 p.m.

22 November 2021

Karen Jack
University Secretary

University of Waterloo
SENATE GRADUATE & RESEARCH COUNCIL
Report to Senate
17 January 2022

Senate Graduate & Research Council met on 8 November 2021 and 13 December 2021 and agreed, in accordance with Senate Bylaw 2 (section 4.03), to forward the following item 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, course inactivation's, and minor program revisions for the Faculty of Arts (English, Accounting, Political Science, Peace and Conflict Studies, Sratford School Interaction Design and Business, Sociology, Psychology), Faculty of Engineering (Nanotechnology, Chemical Engineering, Civil Engineering, Electrical and Computer Engineering, Systems Design Engineering, Mechanical and Mechatronics Engineering, Management Sciences, Conrad School of Entrepreneurship and Business), Faculty of Environment (Geography and Environmental Management), and Faculty of Health (Kinesiology, School of Public Health Sciences).

ACADEMIC PROGRAM REVIEWS
On behalf of Senate council approved, as presented:
- Two-Year Progress Report: Accounting
- Final Assessment Report: French Studies
- Final Assessment Report: Earth & Environment Sciences

UNIVERSITY RESEARCH ETHICS
On behalf of Sente, council approved the following:
- Human Research Ethics Board – membership renewal (1) and new member (1)

GRADUATE AWARDS
On behalf of Senate, council approved the General Graduate Studies Fund (GGSF GRS) – (trust), Steelcon Group of Companies Graduate Scholarship – (trust), and Faculty of Mathematics Graduate Research Excellence Award – (operating), Graduate Studies Award of Excellence in French Studies – (trust), Graduate Engagement and Leadership Award in French Studies – (trust), C.J. Dick & Ruth A. Sprenger Graduate Scholarship – (endowment), Sharon Lamont Student Award – (trust), Croatian Language Learning Awards – (endowment), and the Croatian Travel Awards – (endowment).

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

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University of Waterloo
SENATE UNDERGRADUATE COUNCIL
Report to Senate
17 January 2022

Senate Undergraduate Council met on November 9, 2021 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 INFORMATION

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ACADEMIC PROGRAM REVIEWS
Final Assessment Report – Human Resources Management. Following discussion, Council approved the final assessment report on behalf of Senate. See Attachment #1.

Final Assessment Report – Spanish. Following discussion, Council approved the final assessment report on behalf of Senate. See Attachment #2.

MINOR PLAN & CURRICULAR MODIFICATIONS
Council approved the following on behalf of Senate:
- minor plan changes for the Faculty of Mathematics (combinatorics and optimization, computer science – human computer interaction specialization, computer science, computer science minor, computing minor, BA/BCS double degree, data science, computing and financial management, mathematical finance, actuarial science, statistics, biostatistics, three-year general).
- academic plan admission requirement changes for the Faculty of Mathematics (computer science).
- new courses for the Faculty of Mathematics (combinatorics & optimization).
- course changes for the Faculty of Mathematics (combinatorics & optimization, computer science, commerce, mathematics, pure mathematics, statistics).
- course inactivations for the Faculty of Environment (environment, resources and sustainability); Faculty of Health (public health sciences, kinesiology, recreation and leisure studies).

David DeVidi
/dj   Associate Vice-President, Academic

Attachment #1

Final Assessment Report
Human Resources Management
(Minor/Diploma)
October 2020

Executive Summary

External reviewers found that the Human Resources Management Minor and Diploma, delivered by the Department of Psychology, were in good standing.

> "It is the opinion of the reviewers that UW's HR Minor, housed in the department of Psychology, is an excellent program that deserves protection, nurture and investment. It is, in a word, a "gem.""

A total of eight recommendations were provided by the reviewers, regarding marketing and recruitment, staffing resources, and minor curriculum improvements. In response, the program created a plan outlining the specific actions proposed to address each recommendation as well as a timeline for implementation. The next cyclical review for this program is scheduled for 2025-2026.

Student Complement Over the Past Three Years

	Minor	Diploma
Fall 2019	245	21
Fall 2018	262	22
Fall 2017	249	25

*based on Active Students Extract pulled from Quest February 5, 2020

Background

In accordance with the University of Waterloo's Institutional Quality Assurance Process (IQAP), this final assessment report provides a synthesis of the external evaluation and the internal response of the Minor and Diploma in Human Resources Management (HRM) delivered by the Department of Psychology. A self-study (Volume I, II, III) was submitted to the Associate Vice-President, Academic on October 19, 2018. The self-study (Volume I) presented the program descriptions and learning outcomes, an analytical assessment of the programs, including the data collected from a student survey, along with the standard data package prepared by the Office of Institutional Analysis & Planning (IAP). The CVs for each faculty member with a key role in the delivery of the program(s) were included in Volume II of the self-study.

From Volume III, two arm's-length internal reviewers were selected by the Associate Vice-President, Academic: Dr. Geoff Malleck, Continuing Lecturer, Department of Economics, and Dr. Mark Weber, Professor, Conrad School of Entrepreneurship and Business.

Reviewers appraised the self-study documentation and conducted a site visit to the University on March 27, 2019. The visit included interviews with the Associate Vice-President, Academic, Dean of the Faculty of Arts, Chair of Psychology, HRM Program Director, faculty and lecturers, staff, alumni and current students.

Following the site visit, the external reviewers submitted a report on their findings, with recommendations. In response, the program responded to each recommendation and outlined a plan for implementation of the recommendations. The Dean of Arts provided endorsement and commentary on the program response and implementation plan on November 24, 2019.

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

Human Resources Management (Minor): The HRM Minor is available to University of Waterloo students enrolled in degree studies in the Faculty of Arts, and other Faculties with some restrictions. The HRM Minor requires successful completion of a minimum of eight courses with a cumulative average of at least 70%. The HRM Minor includes courses required by the Human Resources Professionals Association (HRPA) towards the Certified Human Resources Leader (CHRL) /Certified Human Resources Professional (CHRP) designations.

Human Resources Management (Diploma): The HRM Diploma is designed for individuals who are currently working in Human Resources who wish to expand and update their current skills, or those who desire to gain entry into this exciting field. The HRM Diploma requires successful completion of a minimum of eight courses with a cumulative average of at least 70% and can be completed on a full- or part-time basis. The HRM Diploma includes courses required by the Human Resources Professionals Association (HRPA) towards the Certified Human Resources Leader or Professional (CHRL/P) designations.

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

Strengths
- Quality of HRM Lecturers: Lecturers have a wide range of relevant experience in industry, and can engage students with real life examples of how the curriculum translates in the working world. These lecturers also act as mentors and coaches to HRM students regarding career development.

- Quality of Courses: Course content is updated regularly to reflect the core objectives of HR including required changes that address new legislation, changes in employment standards, and human rights considerations. Several of the HRM courses highlight current issues in the HR industry, and include practical, applied assignments.
- Professional Designation: The HRM program offers students (Minor and Diploma) the opportunity to complete all academic requirements (all 9 courses) to then write the national exam for certification as a Certified Human Resources Professional or Certified Human Resources Leader through the Human Resources Professionals Association (HRPA).
- Student Satisfaction: Approximately, 90% of alumni who responded to our survey felt that the HRM curriculum prepared them for work in the HR field. 100% of alumni felt that HRM courses prepared them for the CHRP/L exams.
- HRM Student Club: the HRM Society at UW is run by and for students and offers students diverse opportunities: resume writing workshops, guest speakers, panels with HRM Lecturers, networking events, and social events. The HRM club has built a sense of community which connects students with the same interests and career aspirations.

Challenges
- HRM 200: Although the addition of an online course option helped, the program is unable to keep up with the student enrolment demand in HRM 200. Still, close to 100 students per term are not able to get into the course. HRM 200 classes are also very large (400 students in the in-class section and 325 in the online section); therefore, we only have a few options in delivery design. Adding a smaller enrollment HRM 200 class that is tailored to students planning to take the HRM Minor/Diploma would help to address this challenge.
- Director's Role: Currently, the HR Director's contract states that 20% of time is to be spent on service, the remaining 80% on teaching. However, far more than 20% of time is currently allocated to service (e.g., creating connections in the community, linking students up with internships, etc.). There is a need to reassess the current time commitment as (20%) is not sufficient.
- Internal competition: There is some overlap with other minor programs in terms of course content (e.g., the Management Studies Minor). This may confuse students as to which program is the best match for their goals and career aspirations. Student enrollment from other programs has also declined as a result of curriculum changes in other departments.
- External competition: The HRM Minor program also faces competition from other institutions offering various HRM programs. To attract high quality students, we need to be marketing this program in the same fashion as is done by other Universities and Colleges.
- Lecture format: Many of the HRM courses are 3-hour lectures once a week. This is considered too long by some students, particularly since classes start at 6:30pm. On the

other hand, this evening 3-hour scheduling does accommodate contract Lecturers who are employed elsewhere. The schedule also benefits Diploma students who may be working full time during office hours.

Weaknesses

- Course scheduling: Some courses are only offered twice a year (PSYCH 238, PSYCH 340, PSYCH 339, and HRM 301.) and the program is unable to provide students with a defined schedule more than one term in advance. This could dissuade potential Diploma students from applying to our program because of the firm commitment that they receive from other institutions where they can complete the program in one year.
- HRM Management Committee: The committee was dissolved several years ago. Although the current HRM Director and the Chair of Psychology work closely together, it would be beneficial to re-establish the committee, and to expand the roles and responsibilities of the HR committee as the HR program grows.
- Compensation/commitment: The reviewers' report of the HRM Program dated February 28, 2012 recommended that Lecturers be given three year contracts with a per course compensation of $12,000. Lecturers currently receive $10,000 per course with a four-month contract (i.e., term by term). In the past, offers have been declined as a result of the compensation level for the work required and the commitment needed.   The major concern is our ability to attract and retain high quality lecturers.

Summary of Key Findings from the External Reviewers

"It is the opinion of the reviewers that UW's HR Minor, housed in the department of Psychology, is an excellent program that deserves protection, nurture and investment. It is, in a word, a "gem." The program in its current form is intelligently designed, particularly for students with an interest in CHRP designations. Indeed, its novel capacity to meet the professional designation requirements is a noteworthy accomplishment and strength. […] Students and alumni offer very favorable assessments of their courses and their experience. […] As reviewers we see opportunities in program promotion, program expansion, and addressing issues of faculty and administrative stability."

Program Response to External Reviewers' Recommendations

1. Staffing: Throughout the report, we have highlighted some staffing challenges that, in our view, should be addressed. We are highly sensitive to the financial realities of UW and the Faculty of Arts at this time. Therefore, in making recommendations here, we are deliberate in avoiding "pie in the sky, optimal" solutions. What we propose feels prudent, responsible, and eminently do-able.

1.1 Hire an additional full-time lecturer. In our estimation, this is the single most important recommendation we are making. Well-selected, a new lecturer can help to address stability, the risk associated with the current "single point of failure" problem, and free up a little more of Vince's time to devote to service in the interest of program development and prominence in the professional community. We would actually suggest hiring two such additional people would be appropriate and advisable, but we consider one to be necessary. Candidates considered for this role should be people who, themselves, have significant leadership capacity, both to support Mr. Di Ruzza and to act as a backup.

1.2 Multi-term sessional contracts. In order to provide stability and give the Director the capacity to attract great sessional lecturers, the Faculty should find a way to permit the Director to make multi-term offers to sessional lecturers. This has no cost, but the meaningful benefit of potentially freeing up some of the Director's precious time.

Response

The reviewers recommend two major changes to the staffing of the HRM program (see Recommendations 1.1, 1.2).

First, they suggest that the program hire an additional full-time lecturer. The program agrees in full with this recommendation, as they recognize that the demands placed on the current Director are extraordinary. Of all the recommendations, this should be the program's top priority. An additional dedicated lecturer will provide the person-power to both sustain and enhance the program in accord with several of the other reviewer recommendations (e.g., Recommendations 3, 4, 7). The program is well aware of the current financial realities of UW and the Faculty of Arts. The Chair of Psychology and the Dean of Arts discussed this and while both agreed it would certainly enhance the program, it was judged to be unaffordable at this time.

Second, the reviewers recommend multi-term sessional contracts. *It should be clearly noted that this was a key recommendation made by last set of program reviewers in 2011 yet this never came to fruition.* As such, the program feels that this is an issue that must be resolved. As is apparent in the self-study and the report of the reviewers, the HRM program is reliant upon a large number of professionals in the region who generously teach courses as sessional instructors. These instructors are highly committed to the program and most teach regularly. The current model of securing many recurring single-term contracts is not efficient for program administration, nor is it efficient for the instructors themselves. Thus, there is desire to provide multi-term contracts to most, if not all, of the established Instructors. The program is in support of this but have will pend until January 2021 until there is a better understanding of budget and course delivery methods.   Pending until January 2021 will also allow the

program to investigate student enrollment numbers and appropriately review course offerings each term.

2. Accounting Course: We had triangulating feedback from students, alumni, and faculty, that the current required accounting course is problematic. Frequent comments suggest it is appropriate for those who have taken accounting in high school; however, it can be demoralizingly inappropriately matched to the capacities and preparation of a new HR minor student without that experience. (We note, it is our understanding that high school accounting is not, in fact, a required pre-requisite for AFM 123.) Further evidence suggests that students deliberately avoid taking the course early in their minor, because the likely grade may force them out of the program. This is clearly a concern that needs to be addressed. We do not pretend to know the best way to do so, but possible solutions might include a dedicated section of AFM 123 targeted at this audience or the development of a different course more appropriately targeted at this audience. This latter solution raises another valuable question, which is whether AFM 123 is in fact "the right course" for the program. Again, we are not equipped to offer a recommendation in that respect. We encourage new collaborative efforts with the content experts in SAF, and the involvement of SAF's leadership in that process as appropriate.

Response
The reviewers note "triangulated" feedback that the current AFM 123 course is problematic for students in the HRM program for many reasons. The program agrees and proposes to partner with Finance and Accounting to seek a reasonable alternative to this course. Should a partnership with Accounting and Finance not be reached to address concerns by HRM students regarding AFM 123, proposal to build HRM finance and accounting course will be completed for September 2020 Implementation. Preliminary discussions were postponed and will be held in January 2021 once evaluations of the on-line course delivery has been received.

3. Expansion of the target audience / streaming: As noted, the program is very well designed and delivered for its current target audience – students who may wish to pursue formal HR accreditation with a professional body. It is our reflection that there may be many students who have passing-to-deep interest in HR-relevant material who are less interested in the accreditation than current students. In fact, one of the alumni we met fit this description. Our reflection, for the consideration of the program leadership, is that it may be worthwhile to add additional HR-relevant courses to the acceptable list that do not, necessarily, meet CHRL requirements. For example, there may be students in Peace and Conflict Studies who have two or three courses related to conflict management that could very legitimately be counted towards a minor in HR who, if they knew they could count two courses towards an HR minor, might consider doing the minor when they might not otherwise have done so. This could broaden the number of students who explore the possibility, and enrich the offering for

students who are less narrowly focused around the "profession" of HR. This requires no new courses and no new resources financial or otherwise.

Response

The reviewers noted that the HRM program is so well received that it should consider expanding the scope to encourage students across campus with a "passing-to-deep interest" in HR-relevant materials to pursue this minor even if they do not wish to seek formal professional accreditation. A non-professional accreditation stream would entail a more flexible set of courses (vs. the strict requirements for professional certification eligibility). The program planned to discuss this option in the Fall of 2019, but conversations were put on hold until January 2021.

In February 2020, the program was approached by Finance and Accounting to review a certificate program in HRM for Accounting and Finance students. The program is in support of this however is unable to move forward as per University requirements for certificate programs.

4. Continuity of HR Club: It was noted that the strength of the HR Club was variable from term to term, and that when strong, it was a significant positive contributor to the student experience and the program's reputation in a number of ways. We simply note that the staffing recommendations made here may create capacity to better support the strength of this important club.

    Response

    The reviewers recommend that increased staffing of the HRM program would allow for greater continuity in the size and success of the HRM Club. The Department has very active undergraduate and graduate student groups, and is committed to providing a comparable experience for students in the HRM program.

6. HR Software: As noted earlier, students and alumni unanimously agreed that exposure to HR platforms (e.g., WorkDay, PeopleSoft, Cognos) would be advantageous to students, and significantly enhance their capacity to compete for jobs in the marketplace. We recommend that the program investigate ways to make this possible. Strategies could include incorporation into existing courses, the development of a new course, or collaboration with colleagues elsewhere on campus. In this last respect, we note that the Conrad School is in the process of developing a "technology platforms" course to be made available to students across campus. It is early in that development process, and engagement may allow some specialization of content that would facilitate HR students.

    Response

The reviewers recommend developing a course that would introduce students to common HR platforms. The program's response to this suggestion will be subsumed under the discussions of Recommendations 2 (Accounting Course) and 3 (Expansion of Target Audience), as it could play a role in the redesign of the Accounting course and/or be included a part of a broader, more flexible non-accreditation stream curriculum. Once consideration is developed for the target audience under Section 5 of this report, the next step would be to review courses and course development. Currently, 8 courses are required for the minor and the program offers all 9 courses students require if they wish to pursue the CHRP/L designation.

7. Edge and Co-op: The Director noted the importance of enhancing the work integrated learning opportunities for HR minor students. He identified a desire for more attention from co-op, and a sense of hopefulness about the role that the new Edge program might play in addressing those needs. We simply recommend that the Director continue to pursue these strategies, and that his Department Chair and Dean offer what support they can to his efforts. We acknowledge that the active engagement of a Chair and/or Dean can sometimes be necessary to advance an agenda in a complicated landscape.

   Response
   The program is strongly committed to providing work integrated learning opportunities for HRM students. Given the number of students, though, this is an enormous task. The program requires dedicated support from the Edge and/or Co-op office to identify HR-specific placements in the community. This job is simply too much for the Director to take on in addition to his other responsibilities. The program is happy to discuss collaborative strategies with Edge/Co-op, especially if granted permission to hire a full-time lecturer to support the HRM program.

8. Marketing: Put simply, not enough people on this campus know about this fabulous program. Further, prospective students of the university may also be less aware than they should be. We encourage the program, the department, the faculty, and Marketing and Undergraduate Recruitment to invest effort and resources in addressing the "awareness deficit" that we perceive. (This might also be worth considering for all / most minors, especially where they are "profession relevant".)

   Response
   In the words of the reviewers "…not enough people on this campus know about this fabulous program." The program is proud to hear this sentiment and agrees! The program met with Arts Marketing staff in Fall 2019 to discuss strategies for raising student awareness of the program as part of initial recruitment efforts (i.e., presentations to high schools) and to

existing students who could complement their major with an HR minor. The program continues to market this program whatever possible, realizing that there are limitations to the marketing of this program given it is only a minor and not a major.

Recommendations Not Selected for Implementation

5. If new financial resources are required: If it is determined that some of the recommendations here, or other future directions of value, require additional financial resources, we have a suggestion for how to raise them. Specifically, program leadership could investigate slightly fewer offerings of some classes with slightly larger class sizes. When students were asked whether classes of 40-45 would still be sufficiently intimate to achieve objectives (vs. 30'ish currently), their response was "generally yes". They did, however, note that this was truer for some classes than others.

Response

The reviewers were highly sensitive to the financial realities currently faced at UW. As such, they noted that by increasing the enrollment caps on some HRM courses, the program could, in essence, generate funds to support the need for more staffing. The enrollment cap for all HRM 300 level courses has been set at 80 students. We will continue to monitor our enrollment caps carefully and always provide overrides to HRM students who require a specific 300 level HRM course. No HRM student will be denied enrollment if the cap of 80 is reached.

Dean's Response

The Faculty of Arts is currently facing financial challenges, and there is a hiring freeze in effect. Departments are being encouraged to review their curriculum in order to identify ways to make course offerings more flexible and degree programs more accessible. Growing course offerings rather than shrinking them is not very viable at the moment, and all Departments should be thinking about strategic use of their existing resources. It may mean doing things differently as we move forward; we need to pay close attention to student interests and design curriculum that is meaningful to them. The extremely positive reviewers' report on the HRM Minor suggests that this program is indeed meaningful to our students, and I applaud the idea of expanding the program's audience.

With respect to the staffing concerns raised by the reviewers and the Department, I note the following:

1. The reviewers recommend, and the Department agrees, that an additional "full-time lecturer" be hired. I take this to mean a continuing lecturer, rather than a definite-term lecturer. Hiring processes at UW do not allow for the immediate hire of a continuing lecturer; individuals must generally serve in a couple of definite-term positions before they can be converted to a continuing lecturer. Unfortunately, as mentioned above, the Faculty is currently in a hiring freeze and I cannot add an incremental position to the HRM program. Nevertheless, I will be keeping this request in mind as I move forward with complement planning.

2. Another recommendation is to issue "multi-term sessional contracts". I take this to mean hiring definite-term lecturers to cover a suite of courses over the period of a year or two, rather than issuing single-course contracts. Definite-term lecturers do represent an additional cost to the Faculty (sessional labour is less costly on a course per course basis). If the recommendation is instead that a sessional instructor who is engaged to teach a course in September should at the same time be issued a contract to teach in January, there is no reason why that could not be done.

24 November 2019

Implementation Plan

	Recommendations	Proposed Actions	Responsibility for Leading and Resourcing (if applicable) the Actions	Timeline for addressing Recommendations
1.	*Staffing.* *1. Hire an additional full-time lecturer.* In our estimation, this is the single most important recommendation we are making. *2. Multi-term sessional contracts.* In order to provide stability and give the Director the capacity to attract great sessional lecturers, the Faculty should find a way to permit the Director to make multi-term offers to sessional lecturers.	September 30, 2019 - Conduct meeting to determine role and responsibilities of proposed new position plus budget options and financial implications. September 30, 2019 - Determine if multi term contracts can be provided to several Lecturers. To consider for full time Lecturer: - Courses - Relationship with I/O - Other responsibilities	Heather Henderson Vince Di Ruzza Janice da Silva Janice da Silva Vince Di Ruzza	December 2019 - If approval provided, implementation plan will be put in place for 2020 hire. December 2019 - If approved, January 2020 contracts will be multi term. May 2020 - Full time lecturer cannot be supported at this time. Sessional contracts will be reviewed again in Jan 2021. Goal was to implement September 2020 but will be postponed until campus re-opens and demand for courses is established.
2.	*Accounting Course.* We had triangulating feedback from students, alumni, and faculty, that the current required accounting course is problematic. We do not pretend to know the best way to do so, but possible solutions might include a dedicated section of AFM 123 targeted at this audience or the development of a different course more appropriately targeted at this audience. This latter solution raises another valuable question, which is whether AFM 123 is in fact "the right course" for the program. Again, we are not equipped to offer a recommendation in that respect. We encourage new collaborative efforts with the content	October 2019 - Will conduct meeting with partners in Finance and Accounting to discuss course, and current problems. - Will determine if partnership/changes will be considered.	Vince Di Ruzza	April 2020 Should partnership with Accounting and Finance faculty not be reached to address concerns by HRM students regarding AFM 123, proposal to build HRM finance and accounting course will be completed for September 2020 Implementation. Jan 2021 Talks will resume with AFM.

	experts in SAF, and the involvement of SAF's leadership in that process as appropriate.			
3.	*Expansion of the target audience / streaming.* As noted, the program is very well designed and delivered for its current target audience – students who may wish to pursue formal HR accreditation with a professional body. Our reflection, for the consideration of the program leadership, is that it may be worthwhile to add additional HR-relevant courses to the acceptable list that do not, necessarily, meet CHRL requirements.	November 2019 - Meeting to be held to discuss implementation of HRM program separate from CHRP designation.	Vince DiRuzza Heather Henderson Richard Eibach HR Program/Student advisor	March 2020 If decision in November is to move forward with minor that is not geared towards CHRP designation core design of courses will be completed. Jan 2021 – committee will be established to review next steps and process.
4.	*Continuity of HR Club.* It was noted that the strength of the HR Club was variable from term to term, and that when strong, it was a significant positive contributor to the student experience and the program's reputation in a number of ways. We simply note that the staffing recommendations made here may create capacity to better support the strength of this important club.	September 30, 2019 - Once new term begins, meeting will be planned for October with HR Society executive.	Vince Di Ruzza Plus HR Program/Student Advisor	Ongoing support and guidance will be provided to the HR Society. Full support will be provided by all HRM Lecturers. Winter 2020 – meeting held with newly established Club executive. All plans for end of March cancelled. Plans to re-establish once campus opens up.
6.	*HR Software.* As noted earlier, students and alumni unanimously agreed that exposure to HR platforms (e.g., WorkDay, PeopleSoft, Cognos) would be advantageous to students, and significantly enhance their capacity to compete for jobs in the marketplace. We recommend that the program investigate ways to make this possible.	Ongoing Fall term 2019 Will be considered once we determine action plans for item 2, 3. Special note: students pursuing CHRP qualifications require 9 courses. The minor requires 8 therefore all courses for these students are pre-determined. If we move forward with item 3 we could change the design of course content for students interested only in an HRM minor and not to pursue CHRP.	Vince Di Ruzza Changes to Minor Committee (Proposed): Vince Di Ruzza Richard Eibach Tammy Neil HR Program Co-ordinator/Student Advisor	January 2021

7.	*Edge and Co-op*. The Director noted the importance of enhancing the work integrated learning opportunities for HR minor students. He identified a desire for more attention from co-op, and a sense of hopefulness about the role that the new Edge program might play in addressing those needs. We simply recommend that the Director continue to pursue these strategies, and that his Department Chair and Dean offer what support they can to his efforts. We acknowledge that the active engagement of a Chair and/or Dean can sometimes be necessary to advance an agenda in a complicated landscape.	Ongoing - Meeting to be planned with Edge. - Meeting to be planned with Co-op. Purpose: Partnership building. Implementation of strategies to support the challenges faced by HRM minor students.	Vince Di Ruzza Program Co-ordinator To be determined.	Jan 2021 - Discussion will commence
8.	*Marketing*. Put simply, not enough people on this campus know about this fabulous program. Further, prospective students of the university may also be less aware than they should be. We encourage the program, the department, the faculty, and Marketing and Undergraduate Recruitment to invest effort and resources in addressing the "awareness deficit" that we perceive.	Ongoing - September 2019 – hold meeting with Arts Marketing staff.	Vince Di Ruzza	Ongoing

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

Date of next program review _____ **2025-2026**

                                                                    Date

Signatures of Approval

Heather Henderson   09/08/2021
_____   _____
Chair/Director   Date

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

Sheila Ager   24/06/2021
_____   _____
Faculty Dean   Date
Note: AFIW programs fall under the Faculty of ARTS; however, the Dean does not have fiscal control nor authority over staffing and administration of the program.

Dann De Vidi   March 26, 2020
_____   _____
Associate Vice-President, Academic   Date
(For undergraduate and augmented programs)

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

Attachment #2

Final Assessment Report

Spanish (BA, Minor), Latin American Literatures and Cultures (Minor), Spanish/English Translation (Minor, Diploma)
December 2020

Executive Summary

External reviewers found that the programs (BA, Minors, Diploma) delivered by the Department of Spanish and Latin American Studies (SLAS) were in good standing.

> "These programs are currently in good standing (especially the BA and the Minor in Spanish) but only due to the hard work of its few members."

A total of four recommendations were provided by the reviewers, regarding resource needs, and program marketing and recruitment. In response, the program created a plan outlining the specific actions proposed to address each recommendation as well as a timeline for implementation. The next cyclical review for this program is scheduled for 2026-2027.

Total Number of Students Registered in All Undergraduate Year Levels

	3-Year General	4-Year General	Honours	Honours Co-op
Fall 2020	0	0	8	0
Fall 2019	0	0	8	0
Fall 2018	0	0	10	0

*Enrolment based on Active Students Extract retrieved from Quest Dec 17, 2020

Number of Students Graduating with a Minor/Diploma

	Spanish Minor	Latin American Literatures and Cultures Minor	Spanish/English Translation Minor	Spanish/English Translation Diploma
2018	5	0	0	0
2017	4	0	0	0
2016	6	0	0	0

*data provided by Institutional Analysis and Planning as part of the Self-Study

Background

In accordance with the University of Waterloo's Institutional Quality Assurance Process (IQAP), this final assessment report provides a synthesis of the external evaluation and the internal response of the BA, Minors and Diploma delivered by the Department of Spanish and Latin American Studies. A Self-Study (Volume I, II, III) was submitted to the Associate Vice-President, Academic on August 30, 2019. The Self-Study (Volume I) presented the program descriptions and learning outcomes, an analytical assessment of the programs, including the data collected from a student survey, along with the standard data package prepared by the Office of Institutional Analysis & Planning (IAP). The CVs for each faculty member with a key role in the delivery of the program(s) were included in Volume II of the Self-Study.

From Volume III, two arm's-length external reviewers were selected by the Associate Vice-President, Academic: Dr. Sophie Lavoie, Associate Professor of Culture and Media Studies, University of New Brunswick, and Dr. Enriqueta Zafra, Associate Professor of Language, Literatures and Cultures, Ryerson University.

Reviewers appraised the Self-Study documentation and conducted a site visit to the University on November 14-15, 2019. An internal reviewer from the University of Waterloo, Dr. Susan Elliott, Professor of Geography and Environmental Management, was selected to accompany the external reviewers. The visit included interviews with the Associate Vice-President, Academic; Acting Dean of the Faculty of Arts; Chair of the Department, as well as faculty members, staff and current undergraduate students. The Review Team also had an opportunity to meet with representatives from the library.

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

This Final Assessment Report is based on information extracted, in many cases verbatim, from the Self-Study, the External Reviewers' Report, Program Response and Dean's Response.

Program Characteristics

Spanish: In addition to providing a fluent knowledge of the Spanish language, the Spanish program offers a multiplicity of practical applications ranging from business to broadcasting and from social work to diplomatic service. At the same time, it provides a deep knowledge of and appreciation for Hispanic literatures and cultures. Spanish is offered in the following credentials:

- Minor (4.0 units/8 courses in Spanish)
- 3-Year General (15.0 units/30 courses, including 6.0 units/12 courses in Spanish)
- 4-Year General (20.0 units/40 courses, including 8.0 units/16 courses in Spanish)
- 4-Year Honours program (20.0 units/40 courses, including 8.0 units/16 courses in Spanish)

This report also technically covers these since-inactivated credentials:

The *Minor in Latin American Literatures and Cultures* (4.0 units/8 courses) aimed to examine the literatures and cultures of Latin America from pre-Columbian times to the present. Students study the major trends in literary and cultural criticism, while developing strong research skills at the same time. The Minor was inactivated effective September 1, 2019 due to low enrolment.

The *Minor in Spanish/English Translation* (4.0 units/8 courses) provided an opportunity for students enrolled in any degree program to examine a variety of linguistic and stylistic issues directly relevant to understanding culture, civilization, business, and industry. Students were be introduced to current issues of translation (business, technical, literary) and technological resources used today in translation, while acquiring important research skills. The Minor was inactivated effective September 1, 2019 due to low enrolment.

The *Diploma in Spanish/English Translation* (4.0 units/8 courses) provided an opportunity for non- and post-degree students to examine a variety of linguistic and stylistic issues directly relevant to understanding culture, civilization, business, and industry. Students will be introduced to current issues of translation (business, technical, literary) and technological resources used today in translation, while acquiring important research skills. The Diploma was inactivated effective September 1, 2019 due to low enrolment.

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

Strengths
- Dedicated and caring instructors who are invested in their students' success.
- Smaller class sizes in advanced classes allow students a more personalized educational experience.
- Cultural Identities Minor and interdepartmental collaboration with Germanic and Slavic Studies (GSS).
- Strong sense of community among students and faculty.
- A unique opportunity to study the art of translation.

Challenges
- Attracting more majors and improving enrollment, especially in upper-year courses. One avenue that may be pursued is to foster a stronger relationship with high school teachers in terms of outreach and professional development. This would be mutually beneficial as they would get professional training and the program would attract better prepared students coming into university and more awareness of the programs at the high school level.
- Converting minors into majors.

- Fostering a "learning narrative" between courses so that students can more easily make connections during their learning experiences in Spanish classes.
- Having an office manager who is at the "front line" only 4 hours a day.

Weaknesses
- A very small faculty complement constrains the number of initiatives that can be undertaken at any one time in the Department.
- Large size of first-year courses.
- Lack of resources to offer courses in Spring and Summer to accommodate the needs of co-op students who would like to pursue studies in Spanish.

Summary of Key Findings from the External Reviewers

The reviewers felt that these programs are currently in good standing (especially the BA and the Minor in Spanish) but only due to the hard work of its few members. They felt that this is not sustainable in the long run and the programs' good standing requires the urgent hiring of a tenure-track position to maintain programs' requirements. When asked to establish a top priority for the program to address, the reviewers felt that this was a tough question as many of the programs' perceived issues are interrelated. However, reviewers judged that the renewal of the definite-term position with the possibility of conversion into a tenure-track position once the hiring freeze is over should be the top priority. This would show the Administration's willingness to support SLAS, for all the reasons provided in this report, and provide some hope for SLAS faculty members, all the while consolidating the department.

Program Response to External Reviewers' Recommendations

1. SLAS urgently needs a tenure-track position to fulfil program requirements and solve an unsustainable situation in the department. Perhaps the Faculty of Arts could consider a renewal of the definite-term position with the possibility of conversion into a tenure-track position once the hiring freeze is over.

   Program Response

   The request for a tenure-track position has been denied at this time due to the hiring freeze in place. SLAS feels fortunate, however, to have had their Definite Term appointment extended for another three years. The new appointment begins August 2020. This extension provides SLAS with some breathing room, and the instructor will be able to continue teaching seven courses per year. Nevertheless, SLAS struggles to divide service duties amongst three tenure stream members, while also participating in faculty initiatives (such as Arts First). Moreover, their ability to plan and implement significant changes to their curriculum will also be impacted, but they remain hopeful that the Faculty will be in a stronger financial situation in three years, and that the position they lost to a retirement in 2017 will be reinstated.

Dean's Response

The Department is correct in noting that the hiring freeze, in addition to the financial situation of the Faculty, places serious constraints on our current ability to hire tenure-line faculty. We are engaged in ongoing complement planning for the Faculty as a whole, as well as a strategic planning process. We will gain a clearer picture of needs and opportunities over the coming year.

2. Hire a full-time Administrative Assistant who is at the front lines of the department.

Program Response

SLAS do not see this happening. The Department has always only had a 0.5 position in the Administrative Manager Role. For many years they shared a person with Classical Studies, so although they only had an assistant for half of the work week, she was in the office 40 hours a week, and she split her time between the two departments. When Classical Studies was awarded a 1.0 position in the role, the shared assistant took the spot and SLAS continued with the 0.5. There has been a good deal of turnover in recent years, as people take on the position and then move on to full time work elsewhere in the University. SLAS has lost 4 people since 2009.

The argument has been made on many occasions to change the position to a full-time role, particularly in light of how much additional work has been downloaded to people holding the spot but has been unsuccessful. SLAS conducted a search to cover a secondment that has been extended and hired a replacement who began on December 1, 2020.

Faculty members and teaching staff have learned to work around this situation and have become accustomed to handling various responsibilities independently but running a department with a part time administrative assistant has presented several challenges. An example of this can be as simple as having to re-arrange a workday schedule to allow for their Admin. Manager to attend a meeting or workshop that requires SLAS representation, or as complicated as having no one in the office.

Dean's Response

Our current structures in the Faculty of Arts present some operational challenges, of which the situation with the SLAS admin manager is an example. With the strategic planning process currently underway in the Faculty, we should be able to identify such challenges and address the structural issues contributing to them.

3. Solve the Conversation Class Director issue.

Program Response

SLAS will continue to make their case for this important position. They hope to be able to offer a sessional rate of pay to the individual in charge of teaching, assessing and offering support to approximately 200 SPAN 101/SPAN 102 students per week. SLAS will not be able to attract someone with the necessary level of maturity and expertise if they continue to offer them merely 16.00 an hour (the rate of pay currently given to undergraduate students).

Dean's Response

The 2020/21 budget year has been a particularly challenging one, with the 15% holdback. If the University's financial situation moving forward is more secure, it may be that we will be able to revisit this request.

4. Market programs in creative ways to attract students.

Program Response

The Department has an active presence on Twitter, Instagram and Facebook, and will continue to be active on these platforms. Moreover, SLAS is in regular contact with local teachers at the secondary school level and have organized events for them to come to campus with students so as to showcase their programs and campus. SLAS has also contacted several of their alumni and have been working with Creative Services to create a video highlighting what Alumni have been doing since graduating with a degree from the Department. SLAS plans to share these video segments with their secondary school contacts, as well as online and on various platforms.

Finally, in light of their remote reality, they have held departmental Town Hall meetings to give students currently enrolled in our courses and plans the opportunity to get their questions answered in real time with staff and faculty. These have been well attended and offer the students the chance to connect with SLAS outside of a "remote" classroom setting.

Although the Review Team did not specifically recommend that SLAS make substantive changes to their various academic plans, they have begun to do just that.   They understand that the Faculty is looking for all departments to streamline their plans with a view to making them more flexible for students. SLAS is in the process of cleaning up their section of the calendar, removing intensive specializations and changing the lens through which their courses are offered. After a great deal of discussion, SLAS has decided to move away from a program focused on Literary Studies and will shift their focus to Cultural Studies. This change will be reflected in the language of instruction in their upper level courses. While they will continue to offer all levels of language courses, their senior content courses will be offered in English and will hopefully open the pathway for students across the Faculty of Arts to engage

in their offerings. Once these changes are approved it is their hope that SLAS courses can be "cross-listed" or "held with" other departments and that students can then opt to combine Spanish and Latin American Studies more easily with other majors.

When teaching Hispanic cultural production, SLAS emphasizes the shared complex and oppressive heritage of the colonial experience and traces the historical evolution of the sociocultural forms created by colonial power. They frame much of the study of cultural production around a postcolonial critique of these power structures and examine the creation of alternative epistemologies to highlight the creativity of cultures faced with oppression.

After a lengthy application process the Department of Spanish and Latin American Studies was thrilled to learn that it had been selected once again to participate in the PRAGDA Film Festival in 2020-2021. SLAS intends to re-apply for the rights to participate in the festival on a yearly basis. The festival will be tied to all course offerings and will create a narrative across their curriculum.

SLAS also collaborated with the Kitchener-Waterloo Public Library and showed movies in their space where members of the K-W community came to enjoy the films and the follow-up discussion that was moderated by one of their faculty members. With the help of technology, the bi-weekly screenings have continued throughout the COVID crisis and attendance at the virtual screenings has been very consistent and strong. SLAS is hopeful that their collaboration with PRAGDA will continue and that the new course in Film Studies can be supported by this ongoing collaboration.

In addition to the film festival and the shift to offering courses in English and through a cultural studies lens, SLAS is a co-founder of the Cultural Identities Minor. A collaboration with the Department of Germanic and Slavic Studies, the Cultural Identities Minor is an interdisciplinary program that brings together colleagues from multiple departments eliminating the necessity for additional resources. This Minor focuses on the complex role culture plays in the formation, negotiation, and interpretation of individual and group identities. It rests on the research and teaching strengths in the two hosting departments, which integrate different approaches to cultural analysis and have developed a particular emphasis on transcultural perspectives. It also adds complementary perspectives from other departments and programs in Arts.

Our sense of our own identity and place in the world relies on our understanding of shared values and practices, which includes beliefs, customs and activities, languages, and discourses. Aspects of cultural identity also guide our perceptions of other cultures and our interactions with other people. To navigate these challenges effectively we need to develop

not only an understanding of how cultural identity helps us derive a sense of who we are and what our place in the world is, but also a respectful appreciation of how different cultural backgrounds provide others with a different, and irreducible, sense of who they are and their place in the world. SLAS is proud of their involvement in the CI Minor and are working with colleagues on how best to help it grow. In the interim SLAS has cross-listed several of their newer/updated courses with the CI program so that students can benefit from content offered in their department while pursuing the Minor in CI.

Dean's Response

I am pleased to see the Department's forward-looking and innovative plans for its curriculum. I did not see a reference to the new(ish) interdisciplinary Cultural Identities plan in the Department's response, but that too represents a genuine effort by the Department to establish curriculum attractive to students.

Implementation Plan

	Recommendations	Proposed Actions	Responsibility for Leading and Resourcing (if applicable) the Actions	Timeline for addressing Recommendations
1.	SLAS urgently needs a tenure-track position to fulfil program requirements and solve an unsustainable situation in the department. Perhaps the Faculty of Arts could consider a renewal of the definite-term position with the possibility of conversion into a tenure-track position once the hiring freeze is over.	The current Definite Term Appointment, which ends July 31, 2020, has been extended for another 3 years. Dean: As stated above, resource constraints mean that no action on a tenure-line position is being contemplated at this time.	Dean of Arts Office	We will have our current Definite Term Lecturer until August 2023. At that time we will request a tenure track appointment. As we have said elsewhere, this position would not be an incremental gain, but a recovery of the position we lost to retirement.
2.	Hire a full-time Administrative Assistant who is at the front lines of the department.	Likely not to happen. Dean: Under the current structures, it is not feasible to hire a full-time Administrative Manager for SLAS. However, with some structural changes, we may be able to alleviate the current problem.	Dean of Arts Office	Please see my comments made elsewhere on the history of the Administrative Manager Role in Spanish and Latin American Studies.
3.	Solve the Conversation Class Director issue.	We will continue to make the case for this important position.	Dean of Arts Office	Ongoing.
4.	Market programs in creative ways to attract students.	We are already active on social media and we are collaborating with the Kitchener Public Library (with the PRAGDA film festival)	Department Members and Student Society	Ongoing.

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

		1. Continue to make connections across the Faculty to include more courses that align with Cultural Identities	1. Members of Spanish and Latin American Studies with our partners in Germanic and Slavic Studies	1. It will likely take 2-3 years to get the BA in Cultural Identities on the books
		2. Look to adapt existing SPAN courses or create new ones in our Department that offer a cultural studies perspective	2. Dean of Arts Office	2. Our Department's own curriculum updating is ongoing
		3. Continue our work to develop the BA in Cultural Identity	3. Members of Spanish and Latin American Studies	3. Ongoing

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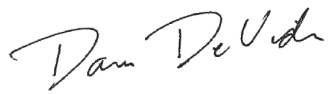
Date of next program review

	2026-2027
	Date

Signatures of Approval

	March 10, 2021
Chair/Director	Date

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

	June 10, 2021
Faculty Dean	Date

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

	March 11, 2021
Associate Vice-President, Academic	Date
(For undergraduate and augmented programs)	

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

**University of Waterloo
SENATE
Report of the President
17 January 2022**

FOR INFORMATION
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Recognition and Commendation

Honours relating to Advancing Research for Global Impact

A major annual publication has recognized nine University of Waterloo faculty members as being among the most cited in the word. A list published by the global analytics firm Clarivate identifies researchers who demonstrated "significant influence in their chosen field or fields through the publication of multiple highly cited papers during the last decade." Their names are drawn from the publications that rank in the top one per cent by citations for field and publication year in the company's global citation index.

- **Zhongwei Chen** (CRC) – Faculty of Engineering – Chemical Engineering
- **Geoffrey T. Fong** – Faculty of Arts – Psychology
- **Bernard R. Glick** – Faculty of Science – Biology
- **David Hammond** – Faculty of Health – School of Public Health Sciences
- **Sharon I. Kirkpatrick** – Faculty of Health – School of Public Health Sciences
- **Linda F. Nazar** – Faculty of Science – Chemistry
- **Will Percival** – Faculty of Science – Physics and Astronomy
- **Daniel Scott** – Faculty of Environment – Geography
- **Xuemin (Sherman) Shen** – Faculty of Engineering – Electrical and Computer Engineering

(Adapted from the [Daily Bulletin, 18 November 2021](#))

Steacie Fellowship winner pushes the potential of ultrasound. **Alfred Yu** is focused on two distinct lines of research as he works to develop the next generation of ultrasound technology – one involving diagnosis and the other involving therapy. To help reach his ambitious goal, Yu was announced by the Natural Sciences and Engineering Research Council of Canada as one of six nation-wide winners of 2021 E.W.R. Steacie Memorial Fellowships for highly promising researchers.
(Adapted from the [Daily Bulletin, 19 November 2021](#))

Jonathan Li, professor of geospatial data science and remote sensing at the Department of Geography and Environmental Management and cross-appointed at the Department of Systems Design Engineering was selected as the 2021 winner of the Geomatica Award granted by the Canadian Institute of Geomatics (CIG). The Geomatica Award is presented by CIG to someone who has contributed to the advancement of geomatics in Canada in an exceptional manner. Li's extensive research and contributions in urban remote sensing and geospatial data science, especially in intelligent extraction of geometric and semantic information from earth observation images and LiDAR point clouds using artificial intelligence algorithms have significantly impacted the geomatics industry in Canada.
(Adapted from the [Daily Bulletin, 26 November 2021](#))

Cheriton School of Computer Science Professor **Ihab Ilyas** has been named a Fellow of the Institute of Electrical and Electronics Engineers for his contributions to data integration, data cleaning and rank-

aware query processing. IEEE Fellowships are a prestigious professional recognition and an important career achievement. A Fellow is the highest grade of IEEE membership and it is conferred to those with an outstanding record of accomplishments. Each year, the total number of IEEE members recognized as Fellows does not exceed one-tenth of one per cent of the Institute's total voting membership.
(Adapted from the [Daily Bulletin, 1 December 2021](#))

Honours relating to Developing Talent for a Complex Future

Shihabur R. Chowdhury has received the 2021 Alumni Gold Medal for outstanding academic performance in a doctoral program. Conferred by Waterloo's Office of Alumni Affairs, the award has honoured top graduating students at convocation since 1970. Shihab is a senior data engineer at Apple. He completed his PhD at the Cheriton School of Computer Science. His PhD research spanned several areas of systems and networking, focusing specifically on network function virtualization, network virtualization, software-defined networking, and cloud computing.
(Adapted from the *[Daily Bulletin](#)*, [22 October 2021](#))

Kathryn Plaisance, an associate professor in the Department of Knowledge Integration has received a 2020-2021 Ontario Confederation of University Faculty Associations (OCUFA) Teaching Award for her outstanding contributions to the quality of higher education at Ontario's universities. Professor Plaisance was one of seven OCUFA teaching award winners named this year.
(Adapted from the *[Daily Bulletin](#)*, [28 October 2021](#))

A company founded at the University of Waterloo's flagship incubator Velocity has performed the first autonomous robotic intramuscular injection, paving the way to improved patient care in an industry faced with labour shortages. **Cobionix**, an autonomous robotics company located in Kitchener-Waterloo, performed the injection—without needles—using their Cobi platform. "Cobi is a versatile robotics platform that can be rapidly deployed to complete tasks with 100 per cent autonomy," said Tim Lasswell, co-founder and CEO of Cobionix. "We outfitted Cobi to use a needle-free injection technology and to demonstrate that patients could receive intramuscular injections, such as vaccines, without needles and no involvement from a healthcare professional."
(Adapted from the *[Daily Bulletin](#)*, [3 November 2021](#))

The Centre for Extended Learning (CEL) has been helping Waterloo instructors design, develop and deliver online courses since 1997. CEL recently announced the winners of the latest Excellence in Online Teaching and Design Awards for those who have gone above and beyond to provide excellent learning opportunities for their students. Intermediate Spoken French (FR 250), created by **Kanstantsin Tsedryk** and **Nicolas Hebbinckuys**, has been awarded the 2020 Excellence in Online Course Design Award. **Fiona Dunbar** is the recipient of Waterloo's 2020 Excellence in Online Instructor Award for Math 128 - Calculus 2 for the Sciences. She was nominated by her students for "putting in an incredible amount of effort in making sure her students are able to learn, participate and … enjoy her course."
(Adapted from the *[Daily Bulletin](#)*, [10 November 2021](#))

The University of Waterloo's **School of Optometry and Vision Science** is amongst the top optometry schools in the world, according to one of the field's top scientific journals. The rankings were published

in *Clinical and Experimental Optometry*, naming Waterloo 5th overall, out of 245 optometry schools in the world. The listing also leaves Waterloo's School of Optometry and Vision Science as #1 in Canada, and #3 of optometry schools in North America.
(Adapted from the [Daily Bulletin, 22 November 2021](#))

Congratulations to **Professor Richard Epp** for being awarded the 2021 Canadian Association of Physicists (CAP) Medal for Excellence in Teaching Undergraduate Physics, and to **Professor Roger Melko** for being awarded the 2021 CAP/Division of Condensed Matter and Materials Physics Brockhouse Medal for outstanding contributions to research in condensed matter physics in Canada.
(Adapted from the [Daily Bulletin, 14 December 2021](#))

Honours relating to Strengthening Sustainable and Diverse Communities

Two Waterloo professors attended a COP26 activity on November 11 at an event dedicated to the preservation of peatlands, an important influencer of climate change. As part of the 26th UN Climate Change Conference of the Parties (COP26), the United Nations Environment Programme's (UNEP) Global Peatlands Initiative (GPI) created a "Peatlands Pavilion" as a hub to exchange knowledge and experience on peatlands policy, practice, research and innovation. World-wide, peatlands store a vast amount of greenhouse gases (GHG) which can be released through land disturbances such as fire or drainage. **Maria Strack**, professor and Canada Research Chair, Department of Geography & Environmental Management and **Fereidoun Rezenezhad**, research associate professor, Department of Earth and Environmental Sciences, participated in the Peatlands Pavilion virtual side event co-hosted by the United Nations Environment Programme's (UNEP) Global Peatlands Initiative (GPI), the University of Waterloo's Interdisciplinary Centre on Climate Change (IC3) and the Water Institute, entitled "*Canada's Peatlands as a Nature-based Solution to Climate Change*".
(Adapted from the [*Daily Bulletin*, 1 November 2021](#))

Co-directors **Dr. Corey Johnson** and **Dr. Diana Parry** from the Department of Recreation and Leisure Studies have founded the Collaboratory on Digital Equity Research (CODER), which aims to mobilize research in the digital humanities and social sciences to inform public culture, policy, practice, and everyday social relations to create a more equitable and just society. Other team members include Dr. Stefanie Duguay, Assistant Professor in the Department of Communication Studies at Concordia University, and Ph.D. students **Eric Filice**, **Jasmine Nijjar**, **Luc Cousineau**, and **Harrison Oakes** of the University of Waterloo. CODER has recently conducted several projects related to geo-social networking applications, otherwise known as dating apps, such as Tinder, Grindr, and Bumble. Among other things, they have looked at the networking application's cultural impacts and influence on gender identities, sexual practices, public and private spaces and users' quality of life.
(Adapted from the [*Daily Bulletin*, 11 November 2021](#))

The University of Waterloo has earned a "Silver" rating through the **Sustainability Tracking, Assessment**, and Rating System (STARS), a third-party sustainability reporting framework specifically for post-secondary institutions. Hosted by the Association for the Advancement of Sustainability in Higher Education, STARS is a transparent and democratically developed platform for campuses from around the world to report on the many ways that sustainability is imbedded into campus planning, practice, and performance. Institutions respond to 63 different credits which span efforts to imbed sustainability in academics, operations, engagement, and coordination and planning. Over 670

institutions have submitted more than 1000 reports through STARS, enabling ongoing benchmarking and development of best practices as a sector.
(Adapted from the Daily Bulletin, 19 November 2021)

Warriors quarterback **Tre Ford** has been named the recipient of the 2021 Hec Crighton trophy for the most outstanding player in U SPORTS. He becomes the first player in the history of the Warriors football program to claim the storied award. The recognition caps a dominant career: since becoming the full-time starter in 2018, Ford leads the nation in passing yards and passing touchdowns, while sitting second in rushing yards.
(Adapted from the Daily Bulletin, 3 December 2021)

The Waterloo Centre for German Studies is pleased to announce the winner of its prize for the best first book published in 2020. *Mobilizing Black Germany: Afro-German Women and the Making of a Transnational Movement*, by **Tiffany N. Florvil** and published by University of Illinois Press, was selected from a shortlist of six excellent academic monographs. The prize includes a cash award of CAD $3,000. In selecting *Mobilizing Black Germany* as the winner, jurors called it an "immensely important book" that breaks new ground in German social history. Florvil traces the modern history of Black German women, their struggle against discrimination, their important role in the transnational Black women's movement, and their significance for the development of German feminism in the last forty years. This book will become indispensable to German studies scholars while also providing more general audiences with an accessible introduction to a less familiar chapter of German history.
(Adapted from the Daily Bulletin, 15 December 2021)

University of Waterloo
REPORT TO SENATE FROM THE FACULTIES
17 January 2022

FOR INFORMATION

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The Faculty Reports for Senators' information regarding the variety of appointments, reappointments, special appointments, leaves, and other matters of interest about individuals in the Faculties are available at the Senate agenda page[1].

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[1] https://uwaterloo.ca/secretariat/sites/ca.secretariat/files/uploads/files/reports_from_fac_jan_2022.pdf

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University of Waterloo
SENATE GRADUATE & RESEARCH COUNCIL
Report to Senate
17 January 2022

</div>

Senate Graduate & Research Council met on 13 December 2021 and agreed, in accordance with Senate Bylaw 2 (section 4.03), 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

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PROGRAM CHANGES
Faculty of Arts

1. **Motion:** To approve the addition of a regular online/virtual classroom in the part-time stream of the Master of Taxation (MTax) program, effective 1 May 2022, as presented.

   Rationale: The School of Accounting and Finance is committed to expanding the Master of Taxation program to reach into new avenues, including the expansion of the part-time stream. Specifically, the addition of the virtual classroom is an important avenue that builds on the program's strengths and expands its reach into a much broader professional community and significantly increase enrolment opportunities.

2. **Motion:** To approve making the Graduate Studies Internship milestone optional, rather than required, for the MASc in Industrial and Organizational Psychology, effective 1 May 2022, as presented.

   Rationale: The department of Psychology is petitioning to change a requirement that students complete an internship as part of their MASc degree to be optional. There are several reasons for this change, including: (a) that students in their second year do not necessarily have the knowledge, skills, and abilities (KSA) necessary to fully benefit from an internship and it is believed that students and internship employers will benefit from having students complete internships in their 1st or 2nd year of PhD training (i.e., 3rd or 4th year overall), (b) the I-O division is moving away from encouraging terminal MASc degrees, and instead is pivoting toward using the MASc as a "degree along the way" to a PhD. thus, students will have the opportunity to complete the internship in their 3rd or 4th year when their KSAs are more developed, and (c) students sometimes have trouble finding internships, which has been exacerbated by covid19, within the tight time parameters set by the current MASc degree (i.e., the entire degree requires 2 years, meaning there is only 1 viable term to seek an internship [summer of 2nd year]).

NEW PROGRAM
Faculty of Environment

1. **Motion:** To approve the addition of a Ph.D. in Sustainability Management - Water program, effective 1 May 2022, as presented.

   Rationale: The School of Environment, Enterprise and Development (SEED) is joining the Collaborative Water Program to add a PhD in Sustainability Management - Water program. Water resources sustainability is a key dimension of the Sustainability Management (SUSM) program in SEED and is consistent with the Faculty of Environment and Waterloo strategic plans. SEED has consistently been receiving students who are specifically interested in water and water related topics as their doctoral research—several of whom have already shown their interest in the Collaborative

Water Program. A total of seven SEED faculty members are affiliated to the Water Institute based on their research experience and expertise, and see value in adding a PhD in SUSM - Water program. Further, SEED is already a member of the Collaborative Water Program and has offered a MES in SUSM – Water program since the beginning and adding our PhD to the Water program may be considered a logical extension.

/mh kw Jeff Casello

Charmaine Dean

Associate Vice-President, Graduate Studies and
Postdoctoral Affairs

Vice President, Research & International

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University of Waterloo
SENATE UNDERGRADUATE COUNCIL
Report to Senate
17 January 2022

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Senate Undergraduate Council met on November 9, 2021 and agreed to forward the following items to Senate for approval in the regular agenda.

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

FOR APPROVAL

ACADEMIC PLAN CHANGES

Faculty of Mathematics
Computational Mathematics

1. **Motion:** That Senate approve the following changes to the honours computational mathematics and the computational mathematics minor academic plan, effective 1 September 2022.

Rationale and Background: These interdisciplinary programs are composed of foundational and specialized computational mathematics courses that are offered by the Faculty of Mathematics as a whole, including courses from all four departments (Applied Mathematics, Combinatorics & Optimization, Pure Mathematics, Statistics and Actuarial Sciences) and the School of Computer Science. A review of the programs has identified the need to update some of the course options and make some refinements to the structure of the programs (without changes to the total number of required courses). The changes fall under 4 categories, labelled A to D below.

A) The following changes are being made to Computational Mathematics academic plans (honours, minor):
   - [A1] Add to list of "additional" approved courses a number of courses that are either new and a good fit, or that increase the interdisciplinary breadth of the programs: AMATH 343, AMATH 383, AMATH 391, AMATH 455, AMATH 477, CO 463, CO 466, CO 471, CS 479
   - [A2] Put a restriction on the "additional courses list" to require that courses be taken from at least two different subject codes and a note that AMATH 382/BIOL 382 is considered an AMATH subject for the purpose of this rule.
   - [A3] Update language of a note regarding the fact that a certain number of courses are restricted to Computer Science students.
   - [A4] Import a number of rules from the honours plan to the minor for consistency, including: Add CS 431 as alternative to CS 451, and add CO 255 as alternative to CO 250.
B) The following changes are made to the Computational Mathematics (honours) plan:
   - [B1] To ensure depth, require that at least two of the "four additional courses" are taken at the 400 level
   - [B2] to increase the breadth for students, split the current heterogeneous list of "four out of six core courses" (ranging between years two and four) into two more focused lists out of which students are required to take two courses with different subject codes:
     - a first list of "two out of four (second-year, foundational) courses" (CO 250 or CO 255; CS 245 or PMATH 330; CS 246; and additional courses specified in [B3]).
     - a second list of "two out of five (upper-year) core courses" (AMATH 342; CS 475; STAT 340 or STAT 341; and additional courses specified in [B3]).
   By contrast, in the current setup students could take three CS courses. With the new core course list, students will be required to take at least two upper-year CM core courses that have full focus on CM

topics, whereas the previous core list contained several second-year courses that are more of a preparatory nature without full focus on core CM material.

- [B3] Add
  - to first list of foundational courses: AMATH 250 or 251 or 350 (all considered equivalent)
  - to second list of core courses: CO 367 or CO 353; PMATH 370
  - to list of additional courses: the possibility to take courses from the core list.
- [B4] Allow students who take CO 255 (Advanced Level Introduction to Optimization) to take CO 466 or CO 450 as a core course instead of CO 367 or CO 353. This is in line with the setup of the CO major and the prerequisites of these courses, where strong students who take the advanced CO 255 instead of CO 250 may directly enter CO 466 or CO 450 without having to first take CO 367 or CO 353.
- [B5] To prevent confusion and simplify advising, add specific lists of Science and Engineering subject codes departments that are eligible for the course concentration component, specifically:
  - For science: BIOL, CHEM, EARTH, MNS, PHYS
  - For engineering: AE, BME, CHE, CIVE, ECE, GEOE, ENVE, ME, MTE, MSCI, NE, or SYDE.

C) The following changes are made to the Computational Mathematics Minor:

- [C1] Remove a restriction that at most three courses may also be used to satisfy an explicit choice list course requirement of the student's major. Without that restriction, and with the additional breadth requirement of part A2, most students are required to take, among their 7 required CM minor courses, at least 3 courses that cannot be counted as courses for their major, in addition to needing to choose several other courses in their major area specifically in the area of Computational Mathematics (among a broad choice of non-CM courses in their major). This is an appropriate balance.
- [C2] There are two exceptions to C1 that must be addressed explicitly:
  - For Data Science majors, at most five courses can have (or be cross-listed with courses having) a CS or STAT subject code.
  - For Computer Science majors, at most four courses can have (or be cross-listed with courses having) a CS subject code.

  Current rules are too generous to Data Science students (who can claim the CM minor by taking as little as one elective, CS 371, that cannot be used towards their explicit major course requirement), and too restrictive for Computer Science majors compared to other programs of the Faculty (for example, Statistics majors pursuing a CM minor need, in the new rules proposed here, to take at least 3 non-STAT courses in CM in addition to explicitly choosing 4 STAT courses that are part of the CM minor).
- [C3] Add Software Engineering (SE) accepted alternatives and indicate they are restricted to SE students only:
  - SE 212 for CS 245 or PMATH 330
  - CS 247 for CS 246

D) A number of editorial changes are made to the Computational Mathematics (honours) plan to simplify the presentation, prevent student and advisor confusion, and simplify further updates.

- [D1] Add a note concerning course replacements that have enrolment restricted to Computer Science students. For those students:
  - CS 241 may be substituted for CS 230
  - CS 240 may be substituted for CS 234

  The previous calendar text suggested to students to take one course from each pair.
- [D2] Remove information about prerequisites for certain courses as the information is better maintained in the course descriptions.

Plan requirements (Honours Computational Mathematics):
Students in this plan must fulfil all the requirements in Table 1 and Table 2. This must include at least 26 math courses and the following specific requirements:

One of
       MATH 237 Calculus 3 for Honours Mathematics
       MATH 247 Calculus 3 (Advanced Level)
One of
       MATH 239 Introduction to Combinatorics
       MATH 249 Introduction to Combinatorics (Advanced Level)
All of
       AMATH 242/CS 371 Introduction to Computational Mathematics
~~One of~~
       CS 230 Introduction to Computers and Computer Systems
       CS 234 Data Types and Structures
       Note: Computational Mathematics majors currently or previously enrolled as Computer
       Science students may substitute: [A1]
         • CS 241 for CS 230
         • CS 240 for CS 234

Two of the following foundational courses, with different subject codes (AMATH, CO, CS, PMATH)   [B2]

       AMATH 250 Introduction to Differential Equations or AMATH 251 Introduction to
       Differential Equations (Advanced Level) or AMATH 350 Differential Equations for
       Business and Economics   [B3]

       CO 250 Introduction to Optimization or CO 255 Introduction to Optimization
       (Advanced Level)

       CS 245 Logic and Computation or PMATH 330 Introduction to Mathematical Logic
       CS 246 Object-Oriented Software Development

Two courses from the following list of core courses   [B2]

       AMATH 342 Computational Methods for Differential Equations

       CO 367 Nonlinear Optimization or CO 353 Computational Discrete Optimization
       [B3]

       CS 475 Computational Linear Algebra

       PMATH 370 Chaos and Fractals   [B3]

       STAT 340 Stochastic Simulation Methods or STAT 341 Computational Statistics and
       Data Analysis

Four additional courses that may include any of the courses on the core course list above
[B3], or may be chosen from the following list, using at least two different subject codes
(from AMATH, CO, CS, PMATH, and STAT) [A2], and at least two of which must be 400-
level courses [B1]

AMATH 343 Discrete Models in Applied Mathematics [A1]
AMATH 382/BIOL 382 Computational Modelling of Cellular Systems (see note 4) [A2]
AMATH 383 Introduction to Mathematical Biology [A1]
AMATH 391 From Fourier to Wavelets [A1]
AMATH 442 Computational Methods for Partial Differential Equations
AMATH 455 Control Theory [A1]
AMATH 477 Stochastic Processes for Applied Mathematics [A1]
CO 351 Network Flow Theory
CO 370 Deterministic OR Models
CO 372 Portfolio Optimization Models
CO 452 Integer Programming
CO 454 Scheduling
CO 456 Introduction to Game Theory
CO 450 Combinatorial Optimization
CO 463 Convex Optimization and Analysis [A1]
CO 466 Continuous Optimization [A1]
CO 471 Semidefinite Optimization [A1]
CO 485 The Mathematics of Public-Key Cryptography
CO 487 Applied Cryptography
CS 341 Algorithms
CS 431 Data-Intensive Distributed Analytics or CS 451 Data-Intensive Distributed Computing
CS 466 Algorithm Design and Analysis
CS 476 Numerical Computation for Financial Modeling
CS 479 Neural Networks [A1]
CS 480 Introduction to Machine Learning
CS 482 Computational Techniques in Biological Sequence Analysis
CS 485 Statistical and Computational Foundations of Machine Learning
CS 487 Introduction to Symbolic Computation

STAT 440 Computational Inference
STAT 441 Statistical Learning - Classification
STAT 442 Data Visualization
STAT 444 Statistical Learning - Function Estimation

Three (1.5 units) non-math courses, at least one of which must be at the 200-, 300-, or 400-level, from exactly one of the following ~~departments~~ Science, Engineering or Economics subject codes: AE, BIOL, BME, CHE, CHEM, CIVE, EARTH, ECE, ECON, ENVE, GEOE, ME, MNS, MSCI, MTE, NE, PHYS, SYDE (other course concentrations may be eligible subject to approval by a Computational Mathematics advisor):
~~Economics~~
~~any one Science department~~
~~any one Engineering department~~ [B5]

Notes

1. ~~CS 240 requires CS 245 and CS 246 as prerequisites, CS 241 requires CS 246 as a prerequisite. CS 240 and CS 241 have restricted access for non-Computer Science majors.~~
2. ~~CS 245 and CS 246 require CS 136 as a prerequisite.~~ [D2]
1. CS 341, CS 451, CS 466, CS 480, and CS 485 ~~have restricted access for non-Computer Science majors.~~ are restricted to Computer Science students only. [A3]
2. Students who take CO 255 may take CO 466 or CO 450 as a core course instead of CO 367 or CO 353. [B4]
3. Engineering courses may not be open to Mathematics students or may not easily fit schedules.
4. In the "Four Additional courses" list, BIOL 382 counts as an AMATH course for the purpose of the "at least two different subject codes" rule. [A2]

Plan requirements (Computational Mathematics Minor):

One of

   AMATH 242/CS 371 Introduction to Computational Mathematics
   CS 370 Numerical Computation

Three of

   AMATH 342 Computational Methods for Differential Equations

   CO 250 Introduction to Optimization or CO 255 Introduction to Optimization
   (Advanced Level)   [A4]
   CS 245 Logic and Computation or PMATH 330 Introduction to Mathematical Logic
   or SE 212 Logic and Computation   [C3]
   CS 246 Object-Oriented Software Development or CS 247 Software Engineering
   Principles   [C3]
   CS 475 Computational Linear Algebra
   STAT 340 Stochastic Simulation Methods or STAT 341 Computational Statistics and
   Data Analysis

Three additional courses from the following list, using at least two different subject codes
(from AMATH, CO, CS, PMATH, or STAT)   [B2]

   AMATH 343 Discrete Models in Applied Mathematics   [A1]
   AMATH 382/BIOL 382 Computational Modelling of Cellular Systems (see note 5)
   [A2]
   AMATH 383 Introduction to Mathematical Biology
   AMATH 391 From Fourier to Wavelets   [A1]
   AMATH 442 Computational Methods for Partial Differential Equations
   AMATH 455 Control Theory   [A1]
   AMATH 477 Stochastic Processes for Applied Mathematics   [A1]
   CO 351 Network Flow Theory
   CO 353 Computational Discrete Optimization
   CO 367 Nonlinear Optimization
   CO 370 Deterministic OR Models
   CO 372 Portfolio Optimization Models
   CO 450 Combinatorial Optimization
   CO 452 Integer Programming
   CO 454 Scheduling
   CO 456 Introduction to Game Theory
   CO 463 Convex Optimization and Analysis   [A1]
   CO 466 Continuous Optimization   [A1]
   CO 471 Semidefinite Optimization   [A1]
   CO 485 The Mathematics of Public-Key Cryptography
   CO 487 Applied Cryptography
   CS 341 Algorithms
   CS 431 Data-Intensive Distributed Analytics or CS 451 Data-Intensive Distributed
   Computing   [A4]
   CS 466 Algorithm Design and Analysis
   CS 476 Numerical Computation for Financial Modeling
   CS 479 Neural Networks   [A1]
   CS 480 Introduction to Machine Learning

CS 482 Computational Techniques in Biological Sequence Analysis
CS 485 Statistical and Computational Foundations of Machine Learning
CS 487 Introduction to Symbolic Computation
PMATH 370 Chaos and Fractals
STAT 440 Computational Inference
STAT 441 Statistical Learning - Classification
STAT 442 Data Visualization
STAT 444 Statistical Learning - Function Estimation

Notes

1. CS 341, CS 451, CS 466, CS 480, and CS 485 ~~have restricted access for Computer Science majors~~ are restricted to Computer Science students only.   [A3]
2. CS 247 and SE 212 are restricted to Software Engineering students only   [C3]
3. ~~At most three courses may also be used to satisfy an explicit choice list course requirement of the student's major.~~   [C1]
3. For Data Science majors, a maximum of five CS or STAT courses (or their cross-listing) can be used to fulfil the requirements of the Minor.   [C2]
4. For Computer Science majors, ~~at most three~~ a maximum of four CS (or their cross-listing) can be used to fulfil the requirements of the Minor. ~~courses can have (or be cross-listed with courses having) a CS subject code.~~   [C2]
5. In the "Three additional courses from" list, BIOL 382 counts as an AMATH course for the purpose of the "at least two different subject codes."   [A2]

/dj   David DeVidi
                                            Associate Vice-President, Academic

University of Waterloo
UNIVERSITY COMMITTEE ON STUDENT APPEALS (UCSA)
REPORT TO SENATE
17 January 2022

FOR INFORMATION

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In accordance with Policy 72 – Student Discipline, the UCSA is to provide an annual report to Senate on the number of student discipline cases heard at the University and Faculty levels, their nature and such recommendations as it sees fit to make with respect to matters under its jurisdiction. Provided in this report is the required information for 1 September 2020 to 31 August 2021, as well as the required information for the two years prior.

The numbers reported in the chart below include findings of guilt for graduate and undergraduate students at the University and Faculty levels.

In an attempt to preserve confidentiality, cases are not reported by Faculty, unit or program. Annual summaries (with identifying student and Faculty names removed) of discipline cases, grievances and appeals are posted to the Secretariat's website: https://uwaterloo.ca/secretariat/committees-and-councils/university-committee-student-appeals.

DISCIPLINE OFFENCE	2017-2018	2018-2019	2019-2020	2020-2021
ACADEMIC				
Academic or admission fraud	14	14	0	0
Altering of falsifying a relevant document	13	26	0	4
Cheating	324	544	1340	2394
Contravention of statute	0	0	0	0
Impersonation	38	25	57	14
Misrepresentation	125	92	25	226
Obtaining confidential academic materials	0	0	4	16
Plagiarism	1477	1625	1922	2198
Theft of intellectual property	53	26	98	405
Unauthorized aids or assistance	56	93	604	1482
Unauthorized co-operation or collaboration	821	1464	1366	3647
Unauthorized resubmission of work	75	49	12	19
Violation of examination regulations	40	27	159	153
Other	12	12	1	83
NON-ACADEMIC				
Contravention of a statute	0	0	0	0
Disruptive, dangerous, aggressive or threatening behaviour	31	21	14	7
Infringing unreasonably on the work of others	9	0	1	0
Mischief	0	1	0	0
Misuse of University resources	1	21	2	0
Theft	0	0	0	0
Unauthorized use of equipment	4	0	0	0
Unethical behaviour	61	5	0	14
Other	10	37	10	83

29 November 2021   David DeVidi
_/ns_   Chair