University of Waterloo
SENATE
Notice of Meeting

Date: Monday 17 October 2016
Time: 3:30 p.m.
Place: Needles Hall, room 3407

	OPEN SESSION	
3:30	1. Conflict of Interest	Declaration
	Consent Agenda **Motion:** To approve or receive for information by consent items 2-5 below.	
	2. Minutes of the 19 September 2016 Meeting	Decision
	3. Reports from Committees and Councils	
	a. Graduate & Research Council	Information
	b. Undergraduate Council	Decision/Information
	4. Report of the President	
	a. Recognition and Commendation	Information
	b. Tenure and Promotion	Information
	5. Reports from the Faculties	Information
	Regular Agenda	
3:35	6. Business Arising from the Minutes	
	a. PhD enrollment	Information
	b. Completion rates of students who enter with averages of 95% or greater	Information
3:45	7. Research Presentation – Maria Strack, NSERC Canada Research Chair: Ecosystem and Climate, Associate Professor in the Department of Geography and Environmental Management	Information
	8. Reports from Committees and Councils	
4:00	a. Graduate and Research Council	Decision
4:05	b. Undergraduate Council	Decision
4:10	9. Report of the President	
	a. Strategic Plan 2013-2018 – Fall 2016 Update	Information
4:25	10. Q&A Period with the President	Information
	11. Report of the Vice-President, Academic & Provost	
4:40	a. Budget model update	Information
4:55	b. Degrees, Diplomas, and Certificates [list of graduands to be available for review online prior to the Senate meeting]	Decision
5:00	c. Policy 42 – Prevention and Response to Sexual Violence	Information
5:10	12. Report of the Vice-President, University Research	Information
5:15	13. Other Business	
	CONFIDENTIAL SESSION	
5:20	14. Conflict of Interest	Declaration
5:25	15. Minutes of the 19 September 2016 Meeting	Decision

5:30	16. Business Arising from the Minutes	
5:35	17. Other Business	

7 October 2016
JLA/kjj

Logan Atkinson
University Secretary & General Counsel

University of Waterloo
SENATE
Minutes of the Monday 19 September 2016 Meeting

Present: Jean Andrey, Katherine Bergman, Jessica Brake, Robert Bruce, Carmen Bruni, Jeffrey Bunn, Brian Cepuran, Jennifer Clapp, Andrew Clubine, Mario Coniglio, Eric Croiset, Ray Darling, David DeVidi, George Dixon, Michael Drescher, Bernard Duncker, Samir Elhedhli, Marlene Epp, Mavis Fenn, Paul Fieguth, Wendy Fletcher, Sacha Forstner, Shikha Gandhi, Mark Giesbrecht, Sally Gunz, Feridun Hamdullahpur, Dennis Huber, Mike Hudson, Marios Ioannidis, Craig Janes, Beth Jewkes, Spiro Karigiannis, Scott Kline, Alysia Kolentsis, Greta Kroeker, Robert Lemieux, Christos Lolas, Mungo Marsden, Barb Moffatt, Richard Myers, Mohammad Nasif, Daniel O'Connor, Ian Orchard, Douglas Peers, Angela Pereira, David Perrin, Neil Randall, Bruce Richter, James Rush, Erin Sargeant Greenwood, Mark Seasons, James Skidmore, Richard Staines, Gordon Stubley, Pearl Sullivan, Hamid Tizhoosh, Thomson Tran, Johanna Wandel, Stephen Watt, Dan Wolczuk, Alexander Wray

Guests: Bruce Campbell, Donna Ellis, Troy Glover, Sarah Hildebrandt, Peggy Jarvie, Jennifer Kieffer, Derek Madge, Chris Read, Julia Roberts, Allan Starr, Marilyn Thompson, Nickola Voegelin

Secretariat & Office of General Counsel: Logan Atkinson, Karen Jack, Emily Schroeder

Absent: Sandra Banks*, Hannah Beckett*, Annie Bélanger*, Catherine Booth*, Lutz-Alexander Busch*, Tara Collington*, Simon Courtenay*, Fraser Easton*, David Edwards*, Murray Gamble*, John Garcia*, Robert Gorbet*, Pallavi Hukerikar, Tom Jenkins, Karim S. Karim*, Shoufa Lin, Robin Mazumder, Michele Mosca*, Paul Murphy, Diana Parry*, David Porreca*, Tristan Potter, Christopher Pugh*, Susan Schultz Huxman*, Samantha Shortall*, Michael Stork*, Neil Thomson*, William Watson*, Ross Willard*

*regrets

Organization of Meeting: Feridun Hamdullahpur, chair of Senate, took the chair, and Logan Atkinson, secretary of Senate, acted as secretary. Atkinson advised that due notice of the meeting had been given, a quorum was present, and the meeting was properly constituted.

The chair welcomed Rick Myers, the new principal at St. Paul's University College, attending his first meeting of Senate.

OPEN SESSION

1. DECLARATIONS OF CONFLICT OF INTEREST
Senators were asked to declare any interests they may have in relation to the items on the agenda in open session. No conflicts were declared.

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

Orchard and Perrin.

2. MINUTES OF THE 20 JUNE 2016 MEETING
Senate approved the minutes of the meeting.

3. REPORTS FROM COMMITTEES AND COUNCILS
Graduate & Research Council
Senate received the report for information.

Undergraduate Council
Senate received the report for information.

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

5. REPORTS FROM THE FACULTIES AND RENISON UNIVERSITY COLLEGE
Senate received the reports for information.

6. COMMITTEE APPOINTMENTS
Senate approved appointments of the COU Academic Colleague (Marios Ioannidis, term to 30 June 2018) and to the University Committee on Student Appeals (Lindsay Daniels, graduate student representative, term to 30 April 2017).

The question was called, and the motion carried.

Regular Agenda

7. BUSINESS ARISING FROM THE MINUTES
Integration of mathematics' option in predictive analysis with arts. Coniglio advised that the option was primarily designed on the basis of the accrued importance of predictive analytics skills in the field of actuarial science. The best name for this option was thoroughly debated, and "predictive analytics" was the clear choice. The primary reason behind this choice is that most professional actuarial organizations refer to the skillset the students will acquire through the completion of this option by this generic label. To consider further, the following link may be helpful: https://www.soa.org/predictive-analytics/default/

The Department of Statistics and Actuarial Science believes this is the best label for the option as employers will be most familiar with this terminology.

Interdisciplinarity in mathematics' data science in computer science and actuarial science bachelor plans. Coniglio advised that the data science plans were created through the specialization of the existing joint statistics/computer science plan, and the statistical and computational focus of the program reflects these roots. During discussions while a requirement for one of more courses in business, economics, design, communications, etc., were considered, it was ultimately decided to concentrate on the core aspects. However, both the faculty and departments are conscious of the importance of communication skills. A combination of the newly required communications courses for all students and an emphasis on communicating technical results to lay audiences in statistics and actuarial science courses reinforces the importance of audience and message. It is expected that this issue will be re-visited by the curriculum committee once the program is up and running.

8. PRESENTATION
KELLY ANTHONY, LECTURER AND TEACHING FELLOW, SCHOOL OF PUBLIC HEALTH AND HEALTH SYSTEMS
Dr. Anthony was introduced by Coniglio. Anthony informed senators about "The Risk of Rewards and the Rewards of Risk" and her experiences as a teaching fellow in the Faculty of Applied Health Sciences. She observed that nothing diminishes interest in something like being rewarded for it, and we do a lot of this in teaching in higher education. She questioned whether the award of marks actually adversely affect the enthusiasm for learning. There is much to be learned in games research about how to motivate learning, where a very large percentage of users fail each time they participate in a game. There may be lessons to be learned from games research to enhance post-secondary teaching and learning related to rewarding failure and the enthusiasm to keep working as failures mount. Success and failure are often found by following the same path.

Slides used in the presentation may be seen here: https://uwaterloo.ca/secretariat-general-counsel/sites/ca.secretariat-general-counsel/files/uploads/files/riskrewardanthony.pdf.

9. REPORTS FROM COMMITTEES AND COUNCILS

Graduate & Research Council

Senate heard motions to the following effects:

Faculty of Applied Health Sciences, Recreation and Leisure Studies. To approve changes to the Master of Arts plan in recreation and leisure studies as presented in the report.

Dixon and Rush. Carried.

Faculty of Applied Health Sciences, Recreation and Leisure Studies. To add a research presentation milestone requirement for the doctoral plan as presented in the report.

Dixon and Rush. Carried.

Faculty of Arts, Economics. To approve the removal of the comprehensive examination in macroeconomics for the doctoral plan as presented in the report.

Dixon and Peers. Carried.

Faculty of Arts, Psychology. To approve a change to the Master of Arts in Psychology plan to add the fields "social" and "clinical" as presented in the report.

Dixon and Peers. Carried.

Faculty of Environment, Local Economic Development. To approve a degree name change from Master of Applied Environmental Studies in Local Economic Development to Master of Economic Development and Innovation, and changes to the degree plan, all as presented in the report.

Dixon and Andrey. Carried.

Faculty of Science, Biology / Nanotechnology. To withdraw the Department of Biology's involvement in the collaborative graduate program in nanotechnology, as presented in the report.

Dixon and Lemieux. Carried.

Undergraduate Council

Senate heard motions to the following effects:

Faculty of Arts, Economics. To approve a new minor plan in economic theory, as presented in the report.

Coniglio and Peers. Carried.

Faculty of Arts, History. To approve a new academic plan in honours history with departmental co-op, as presented in the report.

Coniglio and Peers.

In response to a question about the likelihood that relevant placements will be found for students in this program, Senate was advised that a feasibility study was completed to support this motion, with a principal goal to market history students as students with a wide range of skills including skills in historical research.

Carried.

Senate heard one motion to the following effects:

Faculty of Science, Chemistry. To approve changes to the honours geochemistry plan, as presented in the report.

Faculty of Science, Chemistry. To approve changes to the honours co-operative geochemistry plan, as presented in the report.

Coniglio and Lemieux. Carried.

Faculty of Arts, Independent Studies. To inactivate the three-year general and four-year honours bachelor of independent studies plans, all as presented in the report.

Coniglio and Peers.

Senate was advised that numbers in these programs have been declining, and that the Bachelor of Knowledge Integration is exciting and thriving, providing students a unique opportunity for interdisciplinary studies.

Carried.

10. REPORT OF THE PRESIDENT

Hamdullahpur informed Senators about recent activities, including most recent enrolment statistics (both undergraduate and graduate) for the fall 2016 term, with some comment on the continuing very high quality of entering students; international rankings and the university's steady position across the usual rankings; new faculty hires for 2016-2017; the fourth annual Waterloo Innovation Summit, with special recognition of the contribution of Walter Isaacson; university successes in securing $91 million in funding from the Canada First Research Excellence Fund, with special thanks to Vice-President, University Research George Dixon, and the many others, who lead development of the funding submissions; congratulations to members of faculty recently admitted to the Royal Society of Canada; the president's participation in the HeForShe presentation at the United Nations in New York on 20 September, especially with respect to the participating universities' "parity report," detailing progress in the first year of the program; updates on the Vice President Advancement search, with Joanne Shoveller as the successful candidate, and the ongoing interviews for our new Vice-President, University Research.

Slides used in the president's presentation may be seen here: https://uwaterloo.ca/secretariat-general-counsel/sites/ca.secretariat-general-counsel/files/uploads/files/presidentsenatesept_192016.pdf.

11. Q&A PERIOD WITH THE PRESIDENT

In response to questions, Hamdullahpur and Orchard offered comment on the work of the Salary Anomalies Working Group, noting that the purpose of the work was to ensure that excellence is properly rewarded, and to discover historical anomalies and inequities that ought to be corrected.

With respect to the criteria for awarding the President's Scholarships, the impact of "grade inflation" has been considered by the university several times, and the university is convinced that the grades

presented on applications for admission are fairly determined. The bar for the award of a President's Scholarship is already fairly high, and this university's share of students with exceptional grades is increasing, lessening the impact of grade inflation if in fact it exists. A presentation will soon be made to Deans' Council to consider a full review of entrance awards.

The president was asked if there might be a benefit in shifting these funds to needs-based awards instead. In response, Hamdullahpur noted that the university has in place funding support programs for those in need, and the merit-based awards are intended to be a recognition of high achievement.

With respect to a projected drop in PhD enrolments for the current year, the president noted that this decline is based on a comparison with last year's numbers. The university has spent a great deal of time discussing this, and has moved toward building better packages for incoming PhD students and making this issue a top priority. The Associate Provost, Graduate Studies will be asked to bring forward a report on this issue to the next meeting of Senate.

The president offered to report to Senate on the completion rates for undergraduate students attending the university with entrance averages of 95% or greater.

It was noted that, while there is a seven percent increase in the incoming undergraduate class, it seems clear that demographics are going in the opposite direction. The president was asked about the anticipated trends in this respect over the next decade, and what might be the related projections in terms of faculty hiring and retirements over the same period? The president responded by saying that we are pleased to see that our enrolments continue to grow despite demographic challenges, based on the quality of education available at this institution. And, we are aware that we have hit a record percentage of international students at this university. We will continue to hire new faculty members, and will bring forward a breakdown of ranks and other features of our recent faculty hires.

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

There was no report from the Vice-President, Academic & Provost.

13. REPORT OF THE VICE-PRESIDENT, UNIVERSITY RESEARCH

The Vice-President's written report was submitted to the Senate secretary, and is appended to these minutes as appendix A. In addition, he mentioned the CIHR foundation grant to Geoff Fong (the largest foundation grant that CIHR has ever given); exceptional success rates in NSERC applications, including the highest success rate in Canada over the last year; SSHRCC insight grants have a similar high success rate; current Tri-Agency financial audit to be executed over the course of the fall; continuing work on review and analysis of federal research funding models, and the participation of the Office of Research and Associate Deans, Research in that process.

It was observed by a senator that, in connection with success rates, we might be better served by comparing ourselves to peer institutions rather than to the average. Dixon agrees, but uses the data from national averages because it is readily available. Data on individual institutions is available only through membership in, say, the U15, and that data is protected.

14. OTHER BUSINESS

There was no other business.

Senate convened in confidential session.

20 September 2016

Logan Atkinson
University Secretary & General Counsel
Secretary to Senate

CONFIDENTIAL SESSION

Confidential minutes have been removed.

APPENDIX A

Senate Report
Vice-President, University Research
September 19, 2016

- 2015/16 Total sponsored research awards $182,635,727
  - Federal Tri-Council 26%
  - Federal (excluding Tri-Council) 26%
  - Provincial 17%
  - Other 16%
  - Industry 15%
- CFREF
  - Fund invests approximately $200M per year
  - 13 initiatives funded in the most recent round
  - Waterloo successful with 'Transformative Quantum Technologies' - $76,277,000
    - David Cory
  - Waterloo also partnered with Saskatchewan 'World Water Futures: Solutions to Water Threats in an Era of Global Change' - $77,840,000
    - Philippe van Cappellen leads the Water Quality Theme of the project
    - Waterloo's share $15M
- CIHR
  - Foundation Grant – Geoff Fong receiving $11,318,248 over 7 years
    - The largest of all 120 CIHR Foundation Grants awarded
- Geoff Fong, Dave Hammond & Mary Thompson, PIs on a large NIH project grant. Led by the Medical University of South Carolina, the uW investigators are leading projects 1, 3 and the Data Management Core, respectively. A total of $6.6M USD over 5 years awarded to the Waterloo teams.
- 21 researchers receiving $2.3M in Ontario funding:
  - 11 Early Researcher Awards ($140k each)
  - 10 Ontario Research Fund – Research Infrastructure (ORF-RI)
- NSERC
  - RTI – Waterloo received 21 of 39 submitted totaling $2.62M and a 53.8% success rate
  - Discovery Grants 2016-17
    - 128 of 147 awarded for a total of $4,345,360
    - Waterloo success rate of 87.1% - national average is 66.1%
    - Success rates are substantially higher than the national average from 2011/12 through 2016/17
- SSHRC
  - Insight Grants 2016-17
    - 16 of 43 submitted were successful for a total of $2,364,682
    - 37.2% success rate; the national average was 31.1%
  - Insight Development Grants 2016-17
    - 10 out of 24 submitted were awarded for a total of $524.747
    - 41.7% success rate – the national average was 45.4%
  - Partnership Grant 2016-17
    - 1 submitted and awarded, Philip Beesley - $2,476,738
- The Tri-Agency will be conducting a financial monitoring review of Waterloo in Fall 2016
- Research Partnerships 2015-16 research highlights:
  - Zhongwei Chen - $3M of industry funding over 3 years for battery technology development (Newtech Power)
  - John Sykes - $700k for work with NWMO

- Lockheed Martin (various faculty) - $1.4M after matching
- Ten large NSERC CRD projects awarded for $200k each
- Aerospace/Defence Research Partnership meeting held in April; 104 attendees including 21 companies
- Waterloo became the first non-Alberta university to join COSIA (Canada's Oil Sands Innovation Alliance); proposals are in development

- Waterloo International
  - Funding:
    - 2014/15 - $3,139,411
    - 2015/16 - $8,212,002
- Commercialization Highlights – Fiscal 2015-16
  - AC JumpStart (FedDev – Waterloo funding partnership) = 14 uW grad student startups seed funded ($1M)
  - Wattech Power Inc. (Zhongwei Chen, Chem Eng) – Zn-Air battery (for stationary power storage, eg. Solar)
    - $1M seed financing (some directed to uW-R&D)
  - NewTech Power Inc. (Zhongwei Chen, Chem Eng) – Li-ion battery technology
    - $5M seed financing ($3M in uW – R&D contract)
  - Quspin Inc. (Rolf Horn, IQC) – Entangled photon source
    - $1M seed financing
  - KA Imaging
    - $500k seed financing ($1M Grand Challenges award – Summer 2016)
- **<u>Next Research Talks</u>**
  - Friday, September 23 @ 12:00 noon in the Quantum-Nano Centre, room 0101
  - Linda Nazar
    - "New vistas in electrochemical energy storage"

University of Waterloo
SENATE GRADUATE & RESEARCH COUNCIL
Report to Senate
17 October 2016

Senate Graduate & Research Council met on 12 September 2016, and on behalf of Senate approved new graduate awards, revisions to the terms of reference for a research ethics committee, membership recommendations for research ethics committees, and two academic program review reports (note: one is reported here, and the other augmented academic review report is found in the report Senate Undergraduate Council). Council agreed to forward the following items to Senate for information. Council recommends that these items be included in the consent agenda.

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

FOR INFORMATION

ACADEMIC PROGRAM REVIEW REPORTS

1. Final Assessment Report for systems design engineering (Attachment #1).

CHANGES TO TERMS OF REFERENCE

On behalf of Senate, council approved changes to the terms of reference for the Clinical Research Ethics Committee.

NEW AND CONTINUING MEMBERSHIPS

On behalf of Senate, council approved the membership recommendations for the Clinical Research Ethics Committee.

GRADUATE AWARDS

On behalf of Senate, council approved the Faculty of Arts Graduate Enhancement Scholarship, and the School of Pharmacy Annual Graduate Awards.

/mg Jeff Casello
Associate Provost, Graduate Studies

George Dixon
Vice President, University Research

UNIVERSITY OF WATERLOO

Final Assessment Report
Systems Design Engineering
(MASc/MEng/PhD)
June 2016

Summary of the Program Review:

In accordance with the University Institutional Quality Assurance Process (IQAP), this final assessment report provides a synthesis of the external evaluation and the internal response of the graduate programs (MEng, MASc, PhD) in Systems Design Engineering (SDE). A self-study report (Volume I) was submitted to the Associate Provost, Graduate Studies Office in April 2015. The self-study presented the program descriptions and learning outcomes, an analytical assessment of the three graduate programs, and program data including the data collected from a student survey along with the standard data package prepared by the Office of Institutional Analysis & Planning (IAP). Appended were the course outlines for all courses in the program and the CVs (Volume II) for each full-time faculty member in the Department.

Two arm's-length external reviewers, Dr. Kamran Behdinan, Professor, Department of Mechanical & Industrial Engineering, University of Toronto and Dr. Kamal Gupta, Professor, Department of Engineering Science, Simon Fraser University, were selected by the Associate Provost, Graduate Studies, from a list of arm's length reviewers provided by the department (Volume III). The Associate Provost, Graduate Studies, also selected the internal member of the review team, Dr. Brent Doberstein, Associate Professor, Department of Geography & Environmental Management.

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.

The review team examined the self-study documentation and conducted a site visit at the University of Waterloo on June 11-12, 2015. The visit included interviews with the Vice President & Provost, Associate Provost, Graduate Studies, the Dean and Associate Dean, Graduate Studies, of the Faculty of Engineering, Chair and Associate Chair, Graduate Studies, of the department, faculty members, administrative and technical staff and a group of six current graduate students and support staff. The reviewers also had an opportunity to visit three research laboratories.

Program characteristics:

The Systems Design graduate programs last were reviewed under the OCGS system in 2008 and were classified as "Good Quality". The Department of Systems Design Engineering (SDE) is unique in Canada. The goal of SDE is to integrate knowledge in mathematics, basic science, social science and engineering sciences to design optimal solutions to problems at the interface of technology, the environment and society. The department continues to focus research efforts around seven major fields: 1) Human & Biomedical Engineering, 2) Mechatronic & Physical Systems, 3) Societal & Environmental Systems, 4) Modeling, Simulation & Systems Theory, 5) Signal & Image Processing, 6) Intelligent Systems & Software and 7) Optimization & Decision Making.

The Systems Design Department offers MEng, MASc, and PhD programs and participates in the collaborative PhD and MASc programs in Nanotechnology, along with other departments in the Faculties of Engineering and Science.

MEng.

The MEng program aims to provide greater breadth of understanding of engineering principles and recent technology arising from engineering research to solve problems in industry. This objective is achieved through courses only; a thesis is not required.

MASc.

The MASc program aims to provide a deeper understanding of the theoretical principles and analytical methods necessary to permit effective cutting edge research and development. The MASc provides a foundation in advanced engineering research for those who wish to pursue a PhD. This objective is achieved mainly through courses and a thesis requirement. The MASc also prepares graduates to function as highly-skilled engineers in industry, giving them the capability to effectively use the literature, to conduct complex long term projects and to direct large engineering projects that have a significant research component.

PhD.

The PhD program aims to provide the required theoretical and experimental knowledge and research methodology to conduct cutting-edge independent and original research. This objective is achieved through courses, a comprehensive examination and a thesis requirement. The PhD prepares graduates for careers in academia, industrial and government research centres, and entrepreneurship.

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

Strengths

- Systems Design Engineering is unique in Canada, providing an engineering program that focuses on both design as well as systems analysis, 2 areas that are typically in separate programs.
- The program boasts leading edge research in emerging areas, such as Biomedical engineering, intelligent systems & signals, human factors engineering as well as societal & environmental engineering.

Challenges

- SDE is a diverse department, which is reflected in the diverse areas of research topics and they continually question what can unify their program. In the undergraduate program the unification is via design & system modelling which is not as explicit in the graduate program.

- Difficulty attracting excellent domestic students to their graduate programs, especially their own undergraduates who are highly desirable in the work force. This problem is also shared by other engineering departments at Waterloo and in Canada in general. A working group at the faculty level is addressing this issue.

- Struggled with their graduate course offerings chiefly due to the lack of teaching resources available, i.e., lack of faculty.

Weaknesses

- Many of the faculty collaborate with other departments and faculties, but few collaborate with each other. Collaboration is an opportunity to unify the program and attract more domestic graduate students. A group of 10 faculty with research in intelligent systems and human factors have moved to new space in an old Blackberry building with common research space. We anticipate that this will partially address this weakness.

Summary of key findings from the external reviewers:

The external reviewers report was positive and noted "*The general environment in the department is open, receptive, inclusive and collaborative."* It also reported that the graduate students *"value the interdisciplinarity, collaboration and freedom that the SDE philosophy facilitates and see it as allowing them to see the big picture and transcend traditional engineering boundaries".*

Faculty members are seen as supportive, personable and compassionate and 'very special' people who go beyond what is expected by graduates. In addition, the program's retention rates and times to completion are good, and overall student numbers are reasonably healthy and growing.

Reviewers identified a few challenges which included a shortage of graduate courses to serve the broad interests of graduate students and a continuing shortage of lab space.

Program response to external reviewer recommendations:

1. *A "systems level philosophy to problem solving" is implicitly found in the general environment in the department, but has not been developed and articulated at the graduate level in a formal manner.*

The program agreed that the Systems Design philosophy is not explicit at the graduate level; indeed, this has been an ongoing discussion within the department. There has, so far, been a lack of consensus on how such a philosophy might be realized at the graduate level. Under the direction of the Associate Graduate chair in direct consultation with the Departmental chair and with departmental feedback at monthly meetings different initiatives will move forward.
The proposed ideas to be discussed, moving forward, include the following:

(1) Developing a core, mandatory graduate course, such as a course in systems theory, design, and/or research methods;
(2) Requiring students without a undergraduate degree in Systems Design (or equivalent) to take some undergraduate design course before commencing their graduate studies;
(3) Introducing monthly or biweekly outreach events, which include some number of seminars having an explicit purpose (i.e., addressing design, systems thinking or research), possibly further integrated with social events (e.g., lunch, coffee).

It should be noted that these ideas have already been discussed at departmental meetings and generally the response has been favorable.

2a. *Graduate students in the course based MEng program will benefit greatly from guidance to navigate their course selections.*

The program concurred with this recommendation. The increase in the number of MEng students is a relatively recent phenomenon, and a more formal guidance process is required. We would propose to introduce guidance for MEng students by having a professor mentor

assigned to each student, meeting with them at least once a term, and/or introducing core graduate courses or seminar events, as discussed above under point 1 above.

2b*. The mechanism for graduate student body feedback and involvement in matters related to the graduate program should be more formalized.*

There has, at times, been an active GSA (Graduate Student Association) which ensured / enabled such feedback, but at other times less so.

SDE proposes to simplify graduate student feedback by appointing a chosen graduate student to solicit input from graduate students and pass it onto the Associated Graduate chair. This student would also be invited to department meetings. If the workload for the chosen graduate student is burdensome, this will be revisited and possibly addressed with a graduate student committee.

2c*. The average graduate student funding in the department seems good, however, the minimum funding levels could be improved***.**

The reviewers report suggested looking into offering funded TA-ships at the time of admission; this could certainly make an offer letter more attractive, but carries a risk of offering a TA position to a student with unknown pedagogical skills.

Systems Design pointed out that their average income for funded graduate students is $31,857, compared to the faculty of Engineering's average income of $30,295. Similarly 27.5% of SDE graduate students have external scholarship support, compared to 20.3% across the faculty of Engineering. These two statistics are evidence that Systems Design Engineering funding support is competitive relative to the rest of the faculty. The lack of funding is more of a faculty issue and will be addressed at the faculty level.

2d*. There is a general sense among the graduate students that the hours put in by the teaching assistants are significantly above the expected norms.*

The program has, and will continue, to articulate to professors the expectation of 130 hours of total work for teaching assistants. This information has been and will continue to be annotated in the TA appointment letter.

To the extent that this expectation is not met in certain courses, we would propose that the graduate student feedback representative, discussed in point 2b, should allow such cases to be communicated anonymously to the graduate chair and ensure that discrepancies are dealt with promptly.

3. *The number of annual graduate course offerings seems low relative to the wide span of areas in the department.*

The limited number of graduate courses has been a matter of concern within the Systems Design Engineering for years, and several sincere attempts have been made to try to address it.

The recent introduction of the undergraduate Biomedical Engineering program, largely housed in SDE, temporarily exacerbates this problem, since undergraduate teaching obligations are increasing more rapidly than newly hired faculty teaching tasks. However, once hiring is complete (currently 2 full time faculty have been hired for the biomedical program, 11 new hired are expected in the next 5 years) and the program is in steady state they anticipate being able to offer more graduate courses. Furthermore, given the critical mass of faculty who do research in Biomedical Engineering, there will be an opportunity to create a graduate Biomedical program, for which there has been interest among applicants. Systems Design would benefit from housing such a program.

Nevertheless, a restructuring is required of graduate course offerings and the mechanism by which people are selected to teach graduate courses. Currently graduate courses are scheduled and assigned based on faculty resources available after undergraduate course scheduling. We have offered on average 2-3 graduate courses per semester. Ideally we should offer 1 core and at least a graduate course per research area (4 dominant areas) per semester. To address the lack of faculty resources, we might have to resort to sessionals until our faculty numbers are sufficient to support this minimal steady state offering of graduate courses.

4. *Current research space is fragmented and insufficient for the needs of the department.*

Systems Design Engineering concurs with this finding. It is evident when the measures of space requirements per student etc. are accounted for, Systems Design is the furthest behind of any other department in Engineering at the University of Waterloo.

There are, however, two space projects in the planning stages, which could significantly improve the department's space limitations: 1) East Campus 4 (EC4), a former Blackberry building close to Engineering Building 5 (E5) is expected to be available in late 2015, and 2) Engineering Building 7 (E7) is a new building next to E5, anticipated to be ready sometime around 2017 / 2018.

Recommendations that were not selected for implementation:

2c*. The average graduate student funding in the department seems good, however, the minimum funding levels could be improved***.** Refer to response to 2c in section above.

University of Waterloo
SENATE UNDERGRADUATE COUNCIL
Report to Senate
17 October 2016

Senate Undergraduate Council met on 13 September 2016 and on behalf of Senate approved course submissions, minor changes to plans and regulations, and two academic program review reports. Senate Graduate & Research Council met on 12 September 2016 and approved one of the academic program review reports. Council agreed to forward the following items to Senate for approval and for information. Council recommends that these items be included in the consent agenda.

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

FOR APPROVAL

CHANGES TO FACULTY REGULATIONS

Faculty of Science
Conditional Standing

1. **Motion:** To approve changes to the faculty regulation on conditional standing as presented and effective 1 September 2017. (strikeout = deleted text; underline = new text)

   Conditional Standing
   ~~Students who marginally fail to meet the required standards of any academic plan will be placed in Conditional standing. These students must regain at least a Satisfactory standing in that program or will subsequently be withdrawn from it. Students are not able to graduate while in Conditional standing.~~

   Students with average(s) 1.5% below required program requirements may be placed in Conditional standing. Students will be removed from their program unless they regain at least a Satisfactory standing in their program within one term in which courses are taken. Students are not able to graduate while in Conditional standing.

   Rationale: The regulation definition was rewritten to address observations made at the June 2015 meeting of council, and the revised text explicitly states what grades result in a "Conditional" standing and the permissible duration of this standing.

FOR INFORMATION

CURRICULAR MODIFICATIONS
Course submissions and minor plan/regulation changes were approved for the Faculty of Science (biochemistry; biology; chemistry; co-operative program evaluation; earth sciences; environmental science; science and business), and Renison University College (social work).

ACADEMIC PROGRAM REVIEW REPORTS
1. Final Assessment Report for School of Environment, Resources and Sustainability (Attachment #1).
2. Final Assessment Report for society, technology and values (Attachment #2).

NEW UNDERGRADUATE AWARDS
Attachment #3 to this report contains a listing of newly-approved entrance scholarships/awards/bursaries, upper-year scholarships/awards/bursaries, international experience awards and athletic awards.

Mario Coniglio
/mg Associate Vice-President, Academic

UNIVERSITY OF WATERLOO

Final Assessment Report
Environment and Resource Studies (BES, MES)
Social and Ecological Sustainability (PhD)
May 2016

Summary of the Program Review:
The Environment and Resource Studies programs were last reviewed in 2008. In keeping with the Institutional Quality Assurance Process (IQAP), this final assessment report provides a synthesis of the external evaluation and the internal response of the BES, MES, PhD programs delivered by the School of Environment, Resources and Sustainability (SERS), formerly known as the Department of Environment and Resource Studies (ERS)[1].

The final version of this augmented self-study (Volume I) was submitted to the associate provost, graduate studies in February 2015. This volume presented the program descriptions and learning outcomes, an analytical assessment of the three programs, and program data prepared by the Office of Institutional Analysis and Planning (IAP) as well as the Department formerly known as Environment & Resource Studies, Scott Davis of the Co-Op Office, surveys of alumni and data from GSO. Appended were the CVs (Volume II) for each full-time faculty member in the program.

Two arm's-length external reviewers - Dr. John Volpe, associate professor, School of Environmental Studies, University of Victoria, and Dr. Brian Cumming, director and professor, School of Environmental Studies from Queen's University – were ranked and selected by the associate provost, graduate studies, in addition to one internal reviewer, Dr. Jonathan Kofman, from Systems Design Engineering.

Reviewers received the self-study documentation and conducted a site visit on April 20-21, 2015. Their itinerary included interviews with the vice-president, academic and provost; associate provost, graduate studies; associate vice-president, academic; dean of the faculty of environment; the associate dean, graduate studies; associate dean, undergraduate studies; SERS director; associate chair undergraduate studies; associate chair, graduate studies; faculty; a librarian; staff; and a group of students. The reviewers also toured the following facilities: SERS Biogeochemistry Lab; Soil Ecosystem Dynamics (SED Lab), Conservation and Restoration

[1] SERS members were pleased that the reviewers agreed that the unit should be called the School of Environment, Resources, and Sustainability. The Board of Governors approved the name change as of November 2015, and the change became official January 4, 2016.

Ecology (CaRE Lab), SERS Ecology teaching lab; Interdisciplinary Centre on Climate Change; the three environment buildings; and the Library.

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:

Bachelor of Environmental Studies (BES)

Since 2008, the focus of the bachelor program has been to educate students by using a transdisciplinary framework that intermixes the social, natural, and physical sciences and the arts. Faculty and students examine environmental policy and governance theories and how these translate into the areas of water, energy, and food. The more ecosystem science-based courses also focus on areas where the human-nature intersection occurs and often clashes.

Masters of Environmental Studies (MES)

SERS provides advanced education guided by the long-established concept of "sustainability". Three conceptual themes guide much of the teaching, learning, and scholarly enquiry fostered through the MES: 1) assessing the theoretical foundations and practical implications of progress toward a sustainable society, and application of this analysis as a broad context for specific work; 2) understanding socio-ecological systems as self-organizing systems exhibiting the phenomenon of surprise, especially when over-stressed by human activities; and 3) examining conventional and alternative social arrangements, including institutions and tools of governance, as means of improving human wellbeing and environmental responsibility. The Masters program now has two facets: 1) the traditional thesis-based, two-year version; and 2) the Major Research Paper (MRP) version. The former is geared more towards earlier-career students interested in scholarly careers or a scholarly approach to problem-solving. The MRP tends to be geared toward later-career students who still value scholarship, but are more interested in a career-based project, often related to their current employment or desired future employment.

Social and Ecological Sustainability (PhD)

The PhD program expands upon the MES, and is based upon the three broad conceptual themes mentioned above. The PhD program emphasizes work in three overlapping fields: 1) resource analysis and stewardship - this field focusses on the analysis of existing resource systems as well as creative and innovative ways of utilizing the earth's resources in a sustainable fashion; 2) socio-ecosystem function and renewal - this field critically examines ways to apply our knowledge of ecological systems towards renewing human relationships with the broader environment; and 3) sustainability policy and governance - this field considers

existing and new forms of governance and policy with respect to sustaining healthy and resilient human communities and biophysical systems.

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

Strengths

- Strong support from current students, alumni, and employers on the skills and learning achievements and preparation as outcomes of the programs
- Unique program at the University in terms of combining social, natural and physical sciences in a transdisciplinary and problem-centered approach to learning and skills building; that ties into post-graduation success in the job market and academia (as per the 1st point)
- Unique focus on the interrelationship of how the sciences (especially those related to ecology, policy, and governance) can be analyzed to create actions that produce measurable outcomes, especially with respect to sustainability
- Course evaluations specifically indicate high levels of satisfaction, even given high standards across ENV and the University as a whole
- Despite some challenges below, there is a strong sense of community and interaction amongst students and especially between students and professors that (again) is very strong even give this is a strength in many units across the University;

Challenges

- To expand experiential learning and skill building for undergraduate and graduate students yet minimize overload on professors
- To provide more SERS core courses, especially in first year
- To decrease the practice of scheduling tests worth a large percentage of the final grade
- To establish a consistent assignment of FTE to teach ERS 215, ERS 315, ENVS 200 and ENVS 444
- To reduce administrative loads to allow for more time for research including grant applications
- To provide more opportunities for short courses or other legally protected certifications (e.g. Ecological Land Classification)
- Establish a more stable social network to better engage alumni and leverage high profile opportunities; the current network is quite active and viable but the issue is that it depends too much on personal contacts – while extensive, this means there can be inefficiencies and threats if a professor retires or passes away and they were the main or only point of contact for many alumni

Weaknesses

- Some SERS undergraduate elective courses have too much redundancy; others take too much of a didactic approach - students suggested re-focusing, re-ordering, and incorporating more experiential learning
- Lack of common space for SERS undergraduate and graduate students

Summary of key findings from the external reviewers:

SERS' interdisciplinary and transdisciplinary research on environmental issues is clearly recognized at the national level. Students can have either a Science or Arts focus - thereby diversifying the students in the program. The flexibility of the SERS program is one of its most defining and attractive features. This diversity is positive for the program, moreover, the co-op option, strong faculty, and a unique hands-on program results in high-quality applicants.

Program response to external reviewer recommendations:
Recommendations

1. A review of the undergraduate program by SERS faculty should be undertaken to identify core courses, as well as identification of courses in areas of specialization to SERS. Advice to students regarding taking courses within these specializations should be discussed.

   Response
   This action has been completed as of the date of this report by the Director and Undergraduate Studies Committee (Dr. McCarthy, Dr. Quilley, Dr. Larson, Dr. Wolfe, a SERS major as the Undergraduate Student Representative, Patti Bester - undergraduate staff administrator). All of SERS (all voting faculty members, cross-listed adjuncts who have voting rights, staff members, undergraduate student representatives on the School Council, and graduate student representatives) vetted four iterations of the course review.

   During a day-long retreat in April 2016, there was a unanimous vote to adopt course changes, backed with a summary and action plan relevant to the cyclical seven year review.

2. Propose a name change to School of Environment, Resources and Sustainability (SERS) – as it better reflects the mandate, transdisciplinary approaches, and aspirations of the program. The SERS website should also be updated with advice and options to SERS undergraduate students with possible options of joint degrees, as well as to options of certificates.

Response

The revisions are visible on the SERS website: https://uwaterloo.ca/environment-resources-and-sustainability/ . The site was revised by the three staff members and the SERS director and associate directors. The Director reallocated staff tasks and time. This reduced basic clerical functions in favour of increased media communications via the University of Waterloo web space, Twitter, and Facebook.

The impact of these changes is expected to result in an additional 10% of undergraduate students by fall 2018; however, the numbers of graduate students will be harder to increase as they are currently at a historical high. Hence, graduate (as well as undergraduate) numbers will continue to be monitored to measure the effect over time.

The Director and Associate Directors, with the help of staff, will also monitor all changes and outcomes that might be related to the name change. It is estimated that only ~5% of University of Waterloo webpages still refer to the old ERS name. It will be harder to assign any increase in undergraduate enrolments to the name change itself; what will be monitored is whether there is a rise in these enrolments over the next three years, being cautious of ascribing correlation to causation.

3. Establish an informal academic advisors event in the first-term of the fall that would allow students to ask a variety of questions concerning degree options. Consider inviting your Departmental Student Council to organize such an event.

Response

SERS requires an increased allocation of staff and professor time so that there are more academic advisors for students (especially first year) to answer questions about options and paths. At present, the challenge is that two-thirds of the personnel allocated to academic advising also have research-related faculty appointments and associated teaching and administrative relief, and therefore little time for advising. The Director and Associate Directors will be reviewing which non-essential tasks might be reduced and/or eliminated in favour of providing more time for student advising.

4. Consider alternative options for mounting field-based courses such as collaboration with other environmental programs.

Response
The Director intends to bring a package of collaborative initiatives on experiential learning to SERS for consideration. If approved, the Director will seek approval from the Dean, Faculty Council, and Senate for an approximate launch in fall 2018. The outcome will be more offerings of certification courses in ecology against reduced resource needs on an annual basis because these will be spread over several institutions; this saves a projected $20,000 per year (most of these costs are in terms of sessionals).

5. Investigate a number of modes to provide a sense of community among the graduate students, particularly additional student space. Reviewers suggested that SERS strengthen student and faculty engagement and a unit-wide culture by building their own traditions such as weekly seminar series, creating a graduate student society, hosting special events (e.g., Iron Chef Competition at UVic).

Response
SERS feels that a broader sense of community can best be achieved by having more core courses at the undergraduate level and a firmer set of elective course choices that appeal to more of the unit at the graduate level. If students are grouped together - early and often - then a sense of community is easier to promote. Some of the initiatives indicated would have to come from the graduate students; the problem there is that many are ambitious and do research overseas once they finish year 1 – that limits opportunities. Similarly, two-thirds of the professors have major research or administrative positions that limit time spent unit-wide (though the supervisors are generally very good at ensuring cohesion and activities within their research groups).

The reviewers and students indicated that much of this issue is actually about space; for example, SERS does not have proper space for students to congregate, save for a very busy small foyer near the director's office. Moreover, there have been over a dozen separate graduate student complaints over the past three years about the amount and quality of space. At last word, there were indications that the University was about to send instructions about space for Master's students campus-wide. The SERS Director, Associate Directors, and delegates to the Faculty of Environment Space Committee will to continue to raise this pressing need with the Faculty of Environment Space Committee. SERS does not control space decisions, hence solutions are limited.

6. The faculty should seek additional lab space for equipment and storage needs for the SERS program.

Response
Similar to the student space issues mentioned above, SERS and other Faculty of Environment (ENV) personnel share labs and these small spaces are getting over-crowded (e.g. an extreme example is where one 750 ft^2 research lab serves four professors, 26 graduate students, 18 undergraduate students, one post-doctoral fellow and one professor emeritus). These additional space challenges will be added to the discussions with the Faculty of Environment Space Committee as indicated in item 5.

SERS identified many of the same issues that were highlighted by the external reviewers, in addition to the aforementioned items SERS would like to address the following:

- The messaging of SERS needs to be clearer and consistent not only in social media and the web, but it must also permeate recruitment and course content.

- The departure of a key faculty instructor created a gap in some teaching areas around community (city/town/neighbourhood) scale sustainability but is also an opportunity to explore possible alternatives for this position with the dean such as local governance/community based sustainability with a focus on teaching experiential education.

- SERS took on the delivery of ENVS 200 and is considering offering to do the same for ENVS 195, as SERS already delivers ENVS 444. There may be some room to consider how to deliver other ecologically based courses as a better package, in consultation across the Faculty of Environment and outside ENV. SERS is also a key developer of an online course in Sustainability, open to students outside of ENV.

- SERS continues to fine tune its social media use, especially when it comes to alumni relations, but also with its current and potential students. With increased competition for students - internal and external - SERS has increased work with the recruitment group on strategies to get more applications to their undergraduate and graduate programs.

Implementation Plan:

	Recommendations	Proposed Actions	Responsibility for Leading and Resourcing (if applicable) the Actions	Timeline for addressing Recommendations
1.	A review of the undergraduate program by SERS faculty should be undertaken to identify core courses, as well as identification of courses in areas of specialization to SERS. Advice to students regarding taking courses within these specializations should be discussed.	During a day-long retreat in April 2016, SERS members reviewed and discussed the undergraduate courses and courses related to specializations, etc.	The Director and Undergraduate Studies Committee (Dr. McCarthy, Dr. Quilley, Dr. Larson, Dr. Wolfe, a SERS major as the Undergraduate Student Representative, Patti Bester - undergraduate staff administrator)	This action has been completed as of the date of this report. There was a unanimous vote in April 2016 to adopt the course changes backed with a summary and action plan.
2.	Proposed name change to School of Environment, Resources and Sustainability better reflects the mandate, transdisciplinary approaches, and aspirations of SERS.	School of Environment, Resources and Sustainability (SERS), formerly known as the Department of Environment and Resource Studies (ERS)	Director and Associate Directors	The Board of Governors approved the name change as of November 2015, and the change became official January 4, 2016.
	The SERS website will be updated with advice and options to SERS undergraduate students with possible options of joint degrees, as well as to options of certificates etc.	Update SERS website.	Revised by the three SERS staff members and the SERS Director and Associate Directors.	Completed. The updated SERS website: https://uwaterloo.ca/environment-resources-and-sustainability/ .

3.	Establish an informal academic advisors event in the first-term of the fall term that would allow students to ask a variety of questions concerning degree options. This will be organized in conjunction with ERSSA (the School's undergraduate student association)	Requires an increased allocation of staff and professor time so that there are more academic advisors for students (especially 1st year) to answer questions about options and paths. Will solicit feedback from undergraduate students (key informants and a system wide survey)	Directors and Associate Directors SERS Communications team is tasked with developing the information and materials needed for this and related purposes Directors and Associate Directors	By Fall 2016 will have reviewed which non-essential tasks might be reduced or eliminated in favour of providing such advisors. By fall 2016, SERS will take action and construct and advise on 'guided pathways' as per the reviewers' recommendation. Complete feedback survey by 2018.
4.	Consider alternative options for mounting field-based courses such as collaboration with other environmental programs. There should be more collaboration with other programs outside of the University of Waterloo on experiential learning.	There is some existing collaboration external to University of Waterloo, but more can be done. Discussions have begun with Laurentian and will continue with (at least) Trent, Laurier, Queen's, and York.	Director and Associate Directors	In progress - specific collaborations are being vetted by all stakeholders. By fall 2017, director intends to bring a package of collaborative initiatives on experiential learning to SERS. If approved, the director will seek approval from the dean, Faculty Council, and Senate. If approved, fall 2018 would be the launch date.

5.	Investigate a number of modes to provide a sense of community among the graduate students, particularly additional student space	Will to continue to raise this pressing need with the Faculty of Environment Space Committee	Director, Associate Directors, and delegate to the Faculty of Environment Space Committee	In progress; sense of community was not hard to boost. Space issues continue to be discussed with the Dean; no solutions yet achieved because the Dean is trying to address the overall ENV shortage of space – and the Dean controls said space in any event
6.	The faculty should seek additional lab space for equipment and storage needs for the SERS program.	Will to continue to raise this pressing need with the Faculty of Environment Space Committee	Director, Associate Directors, and delegate to the Faculty of Environment Space Committee	In progress; general agreement reached on providing lab space for newly hired Dr. Trant but specific location of space not finalized. Other space needs not resolved because of overall critical shortage of space in ENV. ENV Dean is trying to work on solutions (the Dean nominally controls all space)
7.	The unit shall clarify and provide consistent messaging across communications platforms	Clearer and consistent messaging in social media, the web, and recruitment materials and course content	Director and SERS Communications Team	In progress, though this has mostly been achieved by the Director and SERS Communications team as of the date of this report

8.	Increase FTE to compensate for loss of 1 FTE in teaching and research capacity in a specific area (community scale sustainability)	Loss of a FTE created an opportunity to explore possible alternatives for this position with the Dean such as local governance/community based sustainability with a focus on teaching experiential education.	Director	Currently in stasis though the Dean is considering this as well as several options; as per UW procedures, the Dean decides where to allocate FTE after retirements
9.	Increase participation in ENV courses. Deliver ecologically based courses across ENV and the University in a more effective manner	Considering offering ENVS 195 (SERS already delivers ENVS 200 and ENVS 444). Consider how to deliver other ecologically based courses as a better package, in consultation across ENV and outside ENV.	Director Director	Discussions in progress but decision rests with Dean and Associate Dean UG Studies so the timeline is up to them Discussions in progress as this does not rest solely with SERS; new Associate Dean UG Studies indicates intent to create solutions by late 2018
10.	Increase recruitment of 1st year students in all SERS programs	Work with recruitment group on strategies to get more applications to SERS undergraduate and graduate programs	Director	In progress; UG team working with new Associate Dean UG Studies to have these in place by September 2017

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

UNIVERSITY OF WATERLOO

Final Assessment Report
Society, Technology and Values
(Undergraduate Option)
April 2016

Summary of the Program Review:
In accordance with the university's Institutional Quality Assurance Process (IQAP), this Final Assessment Report (FAR) provides a synthesis of the external evaluation and the internal response and assessments of the Society, Technology and Values (STV) undergraduate option. This option has been delivered since 1991 by the Department of Systems Design Engineering, and is associated with the Centre for Society, Technology and Values (CSTV)[1]. The STV option was last reviewed in 2008.

The current self-study (Volumes I, II, III) was submitted to the Associate Vice-President, Academic on July 30, 2015. The self-study Volume I presented the program description and learning outcomes, an analytical assessment of this option and program data prepared by the Office of Institutional Analysis & Planning (IAP). Also submitted were CVs (Volume II) for each key faculty member/instructor involved with the provision of the STV option.

The Associate Vice-President, Academic evaluated and selected an arm's-length external reviewer from Volume III: Dr. Edward Jones-Imhotep, Department of Science and Technology at York University. A second reviewer was chosen from internally: Dr. Troy Glover, Department of Recreation and Leisure Studies, University of Waterloo.

The reviewers read the self-study documentation and then conducted a site visit to the University on December 8, 2015. The visit included interviews with the Associate Vice-President, Academic, the undergraduate Associate Dean of Engineering, the Chair of the Department of Systems Design Engineering, the Director of CSTV/option coordinator, full-time instructors and sessionals, as well as staff, teaching assistants and current STV students.

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

[1] CSTV not a "centre" in the Senate-approved sense of the word. Its focus is on teaching rather than research.

Program characteristics:
The original STV option began in 1985 as an Interdisciplinary Option for all undergraduates, and the first offering of STV 100: Society, Technology and Values: Introduction was in 1987. In the early 1990s courses in the option focused more on meeting the needs of Engineering students, partially in response to requirements of the Canadian Engineering Accreditation Board. STV courses were specifically designed or redesigned to meet the Engineering faculty's complementary studies requirement for List A - Impact of Technology on Society. As well, all STV courses meet Engineering's List C requirement for Humanities and Social Sciences.

STV is neither a department nor a program. It is a six-course undergraduate option that is offered by the Centre for Society, Technology and Values which is open to students from all faculties. STV courses promote a critical awareness of the interactions of human values, modern technology and the structure of society. Of those students who enroll in STV courses, most take only one STV course to satisfy program requirements.

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

- STV has offered courses for almost three decades and has a long and established relationship with the Faculty of Engineering
- Students in STV courses have an opportunity to hone their communication skills and learn to think about their work from outside their own discipline, ultimately improving their professional abilities and qualifications
- STV is flexible and can provide instruction on a variety of subjects relating to society and technology and values/ethics to students in a variety of programs using instructors from a diverse range of disciplines—math, engineering, philosophy, history, fine arts, English, theology, classics, computer science, biology

Challenges

- Lack of awareness on campus about the nature of STV courses - only 25% of students who have taken an STV course were aware of the option
- Low participation - only about one student per year enrolls in the undergraduate option
- Some Engineering departments have started teaching in these areas to more clearly satisfy accreditation requirements. If increasing numbers of Engineering students can meet List A requirements in their own departments, demand for STV courses may drop
- The Knowledge Integration program in the Faculty of Environment seems to be offering specializations in two areas - Design, and Science and Technology Studies, and this overlap with STV courses may make it harder to attract students to the STV option

- The name of the courses - Society, Technology and Values - might not appeal to students with their current desired outcomes, goals, and visions for careers

Weaknesses

- STV courses have evolved in an *ad hoc* manner and without a clear rationale or clear links among existing courses; there is also content overlap among courses
- Because all STV courses are on the Faculty of Engineering Complementary Studies Electives List A and List C Engineering students often take the bulk of seats in these courses
- All STV courses are offered at night in three-hour slots. This is undesirable pedagogically and unappealing to many students, but ensures that the maximum number of Engineering students can enroll, because many have little free time during the day
- STV has no female faculty and only one female staff/academic assistant, and only one permanent faculty member and one full-time contract instructor which is not enough to allow for expansion and innovation of courses

Summary of key findings from the external reviewers:

The reviewers felt that the STV option is part of a larger intellectual ecology at Waterloo in the fast-growing and dynamic area of Science and Technology Studies (STS), and that if tapped effectively, Waterloo's considerable strengths in this area could help to position it alongside the leading sci-tech universities in North America. The reviewers thought there was tremendous potential in formalizing CSTV's designation as a "centre" and expanding its presence to include a research profile on campus. As a research centre, CSTV could play a crucial role at Waterloo in establishing a formal research cluster committed to examining the social impact of technology. Furthermore, the reviewers felt that Waterloo has an impressive potential to join peer institutions in this area such as MIT, Cornell, Princeton, Rensselaer, Berkeley, Caltech, and Stanford. Hence, given this potential strength and broad appeal, the reviewers strongly encourage Waterloo to think about STV's future.

Program response to external reviewer recommendations:

Recommendations

1. **Increase visibility and strengthen identity/ improve profile:** STV faces significant difficulties with low visibility and problematic identity - two seemingly crucial factors largely responsible for low enrolment in the option. Alongside a stronger online presence, reviewers encouraged STV to work with other interested groups on campus to develop a seminar series, and co-sponsor special events and student awards and activities.

Response
STV believes they must build on their strengths first and then expand their reach - part of which will involve rebranding. It is generally agreed that the word "values" in the STV course designations is not helpful. Perhaps a better label for the option would be Technological Studies (TS) or Technological Society Studies (TSS), although neither is used commonly at other schools. STV also believes that there are fundamental questions about the relationship between technology and other elements of society that should be explored by all students of this university.

2. **Expand collaboration/ improve ties with other groups**: To position itself more centrally within the university, the reviewers strongly encouraged STV to develop formal ties with faculty in other units, particularly in the Faculty of Arts.

   Response
   STV is motivated and excited to explore further links with other science and technology endeavours on campus, aiming to solidify such links. However, STV's immediate goals are to improve course offerings and the learning outcomes for its students. STV wants to improve on what they have in place and position that model to maximize its fit and usefulness in the current University structure. To this end, they want the STV option to be acknowledged as a coherent program for "technology studies" that is open to all students. At the same time, STV courses must continue to satisfy the specific demands of "the social impact of technology" course content required by Engineering students.

3. **Expand intellectual scope/ expand scope, critical perspectives**: To bring STV offerings into closer alignment with the current state of the field, broaden its appeal, and better meet its stated pedagogical goals, the reviewers strongly recommended expanding the critical perspectives offered in STV courses (e.g., envirotech, feminist technology studies, disaster studies, continental philosophy of technology, postcolonial studies, and critical disability studies). The expansion itself could be realized through additional faculty appointments, curricular reform, or cross-listings with other units at Waterloo.

   Response
   STV states that it cannot expand its current course offerings meaningfully without some combination of more faculty members, a larger budget and various compromises.
   To increase STV course diversity while maintaining existing enrolment figures for Engineering students, STV is open to increasing class sizes for existing courses, especially the 80-student lecture courses (STV 100, 202, 205 and 210). This could free up resources to offer increased seminar-style, theory courses for advanced students.

   However, increasing class sizes will require additional resources for extra teaching assistants, at least until the new budget model is in place and a balance can be reached.

Until then, it should be possible to increase the base class sizes from 80 to 100 or 120 students or even larger, particularly for the fundamental courses: STV 100 and STV 202. Without an augmented budget, current grading methods, which emphasize written analysis and related skills, may be compromised. CSTV plans to proceed with caution. However, working to solve this problem could also increase STV's ties with other departments across campus.

Introducing new senior STV courses, as suggested by the reviewers, would also be desirable. It is not clear, however, that such courses would have much general appeal until cross-faculty interaction improves, non-Engineering student enrolment increases, or a stronger option/minor exists to draw senior students through a course progression. One possible way to extend current resources would be to offer a joint course with a faculty member from another department, or to cross-list STV courses with similar offerings in other departments. As CSTV rebuilds the curriculum and option, they will explore the possibilities recommended by the reviewers.

4. **Long-term plan/ new long-range vision:** To ensure the various activities and reforms are coordinated in the context of a set of clear goals, it is one of the reviewers strongest recommendations that STV develop a long-term plan for transformation and renewal - one that articulates its vision within Waterloo in the coming years.

   Response
   The current STV courses and option present a unique focus on technology studies, and deserve to be strengthened. However, the program believes that a cross-faculty, collaborative science and technology studies program is needed at Waterloo and that the Centre for Society, Technology and Values should play a fundamental part in the creation of a unit with strong teaching and research capabilities.

   In addition, the faculties of AHS and Environment produce students who apply technology to particular social problems and concerns. STV studies can add awareness and a depth of understanding of the impact of technology that will benefit these students in their chosen careers. It is not obvious that strengthening STV's alignment with Arts should be prioritized over stronger ties with other faculties.

5. **Investigate and report on factors in low option enrolment/ improve option enrolment: The** reviewers strongly recommended that the CSTV Director investigate the *specific* reasons for low option enrolment, particularly in light of: (a) the significant enrolment of engineers in comparable areas like Peace and Conflict Studies; and
   (b) the surprisingly low enrolment (6%) of students from Faculty of Arts. Is the low STV option enrolment due to course conflicts? lack of interest? course structure and assignments? problematic identity?

Response

CSTV believes the request to investigate low option enrolments, especially by Engineering students, was based on faulty information. Instead, information CSTV gathered from students in a survey included in the self-study indicated that low option enrolment likely starts with low awareness of the option. Few students anywhere on campus (including Arts) learn of the STV option early enough in their university careers to take advantage of it. As well, Engineering students, with their heavy core course requirements, have little flexibility to enhance their core programs. However, CSTV believes that adding online courses and expanding their list of courses that meet option requirements, including courses from relevant disciplines in various faculties and departments, will make it possible for more students to register for the option and make the option more attractive.

Is the low STV option enrolment due to course conflicts? lack of interest? course structure and assignments? problematic identity? CSTV is interested in investigating these questions, and hopes that discussions with the First-Year Engineering Office and similarly placed undergraduate advisors across campus can help obtain answers and better communicate with prospective and junior students.

***Implementation Plan:**

	Recommendations	Proposed Actions	Responsibility for Leading and Resourcing (if applicable) the Actions	Timeline for addressing Recommendations
1.	Improve profile of CSTV, STV courses & STV option	Connect with undergrad advisors, Engineering first-year office Connect with Waterloo student "marketing" (open house days, March Break etc)	Campbell, Shelley, staff REQ: marketing materials	Immediate to two years
		Relocate CSTV in Undergrad Calendar	Campbell, staff	Immediate
		Expand social-media outreach	Shelley, Campbell, staff	Immediate
2.	Increase non-Engineering enrolment	Add reserves to 1st year courses for junior and non-Engineering students, with commensurate increase in overall class size	Campbell REQ: new TA resources, from Dean of Engineering Office	Immediate
3.	Restructure option	Remove STV 400 requirement; adjust option requirements to simplify enrolment and increase attractiveness	Campbell	One year

	Recommendations	Proposed Actions	Responsibility for Leading and Resourcing (if applicable) the Actions	Timeline for addressing Recommendations
4.	Rebuild STV curriculum	Move STV 203 to 300-level Move STV 404 to 300-level	Campbell	Immediate
5.	Improve student gender-balance	"Recruit" more undergraduates from faculties with higher ratio of women; improve teaching methods to focus on socially-positive and meaningful outcomes	Campbell, Shelley	Two to five years
6.	Improve CSTV governance and administrative limitations	Reconstitute Advisory Board	Campbell	Two years
7.	**Improve profile**	Establish new name Host events with Science and Technology Studies Teaching Group (STSTG), and other related groups/programs	Campbell Campbell, Shelley, staff	Two years Two years
8.	**Improve ties with other groups**	Joint teaching/cross-listing	Campbell, Shelley	Two years
9.	**Expand scope, critical perspectives**	Joint teaching/cross-listing	Campbell, Shelley	Two years

	Recommendations	Proposed Actions	Responsibility for Leading and Resourcing (if applicable) the Actions	Timeline for addressing Recommendations
		Increase some class sizes to maximize resources at 100/200 level Introduce new courses as suggested by restructuring option and rebuilding STV curriculum	Campbell REQ: New TA resources Campbell, Shelley	Immediate Two to four years
10.	**New long-range vision**	Collaborate with STSTG, other parties, to explore an STS program and long-term research program	Campbell, Shelley	Two to seven years
11.	**Improve option enrolment**	Restructure option and improve profile (as above)	Campbell, Shelley	Two years

**Note: Recommendations 1-6 are self-identified improvements from the self-study, whereas Recommendations 7-11 (in bold) are from the external reviewers' report.*

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

NEW UNDERGRADUATE AWARDS

for addition to the current Undergraduate Calendar web site

- submitted for September 13, 2016 meeting of Senate UG Council -

ENTRANCE SCHOLARSHIPS/AWARDS/BURSARIES:

Dr. Subodh K. Barua Entrance Scholarship
A scholarship, valued at $2,000, is awarded annually to an outstanding undergraduate student entering Year One of Chemical Engineering on the basis of academic excellence. This fund is made possible by a donation from Moumita Barua in honour of her father, Subodh Kumar Barua.

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

Brilliant.org Scholarship
A scholarship, valued between $100,000 and $216,000 paid over eight academic terms, may be provided annually to a full-time undergraduate student entering Year One in the Faculty of Engineering. Candidates must have participated in the Brilliant.org skill development and mentorship program. Scholarship selection is based on academic excellence and extracurricular achievement as assessed through the Admission Information Form. Interested students must first apply for the scholarship through Brilliant.org and the final selection will be made by the University of Waterloo. This fund is made possible by a generous donation from Brigette Lau & Chamath Palihapitiya, BASc'99.

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

UPPER-YEAR SCHOLARSHIPS/AWARDS/BURSARIES:

Gaby Barsky Memorial Scholarship
A scholarship, valued at up to $1,500, is awarded annually to a full-time undergraduate student enrolled in Year Three or Four in the David R. Cheriton School of Computer Science in the Faculty of Mathematics on the basis of academic excellence (minimum 80%) and extracurricular involvement (e.g., work with children, athletic talent, or an interest in travel and cultural exchange). Interested students should submit an application by October 15. This fund is made possible by a donation from friends, family, and colleagues to honour the memory of Gaby Barsky, a Computer Science student with a remarkable generosity of spirit. Gaby will be greatly missed, but his example of how to live life to the absolute fullest will never be forgotten.

Method of Financing: endowment

Douglas K. Campbell Memorial Bursary
A bursary, valued at approximately $1,000, is awarded annually to a full-time undergraduate student enrolled in any year and any program who is in good academic standing, and who has a demonstrated financial need as determined by UW. To be considered, students must complete the UW Full-time Bursary Application. Preference will be given to candidates whose parent or parents are members of a trade union. For the purpose of this bursary, a trade union is an association of workers from any sector of the workforce in Canada that has been certified by applicable legislation to represent employees in the negotiation of the terms of their employment. This fund is made possible by a donation from the estate of Douglas K. Campbell.

Method of Financing: endowment

Faculty of Arts Undergraduate Student Experiential Learning Award
Awards of varying value, are available to undergraduate students registered in the Faculty of Arts who wish to participate in an extracurricular activity that will enhance their education in their program or an experiential activity tied to a course where the cost is not covered by their tuition. Selection will be based on academic achievement (minimum 70% cumulative average) and a demonstration of how the activity will benefit the student's knowledge acquisition or professional development, or enrich their in-class learning. An application form is required. Applications will be accepted throughout the year.

Method of Financing: non-endowed, pooled donations

Fresenius Kabi Canada Student Leadership Award
An award, valued at $2,500, is presented annually to a full-time undergraduate student enrolled in Year Four of the School of Pharmacy in the Faculty of Science. Selection is based on academic achievement (minimum 75% cumulative average), an intent to pursue a career in hospital pharmacy, and significant leadership contributions by participation in the School of Pharmacy, and provincial/national organizations. Interested students should submit an application by May 1. This fund is made possible by a donation from Fresenius Kabi Canada.

Method of Financing: annual donation (5-year pledge)

Monique Goold Scholarship in Accounting and Finance
A scholarship, valued at $2,000, is awarded annually to a full-time undergraduate student enrolled in Year Two, Three or Four in any program in the School of Accounting and Finance in the Faculties of Arts, Math or Science on the basis of academic achievement (minimum 80% cumulative average) and a demonstrated commitment to helping others achieve their academic goals by working or volunteering as a teaching assistant or a tutor. Interested students should submit an application by October 1. This fund is made possible by a donation from Kieng Iv (MAcc '11) in recognition and appreciation of an elementary school teacher who had a positive impact on his life.

Method of Financing: annual donation (5-year pledge)

Thomas Howe Memorial Scholarship
A scholarship, valued at up to $1,000, is awarded annually to full-time undergraduate student enrolled in fourth-year of Environmental Engineering. Selection will be based academic excellence (minimum 80% cumulative average) and extracurricular involvement. This fund is made possible by a donation from Teresa Howe in memory of her late husband, Thomas Howe, who received his BASc from Waterloo in 1974.

Method of Financing: endowment

Jha Family Scholarship for Excellence in Finance
A scholarship, valued at $2,500, will be awarded annually to a full-time undergraduate student in Year Three or Four in any program in the School of Accounting and Finance. The successful candidate will have demonstrated academic excellence (minimum 85% cumulative average), as well as an average of 85% in the following Finance courses as it relates to their program: Accounting & Financial Management: AFM121, AFM273, and AFM274; Science/Biotechnology – CPA: AFM273 and AFM274; Computing & Financial Management: AFM121, AFM272, and AFM372; Mathematics/CPA: AFM272 and AFM372. Preference will be given to students who show an interest in pursuing a career in finance through work experiences and/or related activities, such as finance competitions or the SAF Student-run Investment Fund. Interested students should submit an application by October, 1. This fund is made possible by a donation from Professor Ranjini Jha, School of Accounting and Finance.

Method of Financing: annual donation (5-year pledge)

La Roche-Posay Dermatology Contest Award
An award, valued at $3,000, will be presented annually to a full-time undergraduate student enrolled in Year Three of the School of Pharmacy in the Faculty of Science on the basis of a compelling presentation or instructional tool for use by healthcare professionals on the role of non-prescription products in the management and/or treatment of patients with skin conditions. Each fall term, the School of Pharmacy will coordinate a dermatology contest to supplement material covered in PHARM 472 - Community Pharmacy. This award is funded by La Roche-Posay, who is actively supporting research in the clinical, biological and pharmacological fields of dermatology.

Method of Financing: annual donation (3-year pledge)

ATHLETIC AWARDS:

Coach Dagg Football Excellence Award
One award, valued at up to $4,500, is given to a member of the varsity football team, with preference to a student athlete who is enrolled in any program in the Faculty of Engineering. This award recognizes athletic talent and contribution to Warrior Athletics, the team, and school. This fund is supported by University of Waterloo alumnus Daniel Donovan.

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

Enterprise Rent-A-Car Athletic Excellence Awards
Three awards, valued at $3,000 each, are given to student athletes who are members of any women's varsity team. These awards recognize athletic talent and contribution to Warrior Athletics, their team, and the school. This fund is supported by Enterprise Holdings.

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

Koen Houston Athletic Excellence Award
One award, valued at $2,000, is given to a member of any varsity team, with preference given to a current or former volunteer with the Team-Up program. This award recognizes athletic talent and contribution to Warrior Athletics, their team and the school. This fund is supported by Frances Houston and Ren Walt to celebrate their son Koen's love and passion for sport.

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

Brian Irvine Football Award
One award, valued at $2,000, is provided to a member of the varsity football team. This award recognizes athletic talent and contribution to Warrior Athletics, their team and the school. This fund was established by University of Waterloo alumnus Ian MacNaughton.

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

Tom Kieswetter Athletic Excellence Award
One or more awards, valued at $1,000 or more, will be given to members of the varsity men's basketball team. This award recognizes athletic talent, contribution to Warrior Athletics and their team, and strong leadership skills. This fund is supported by friends and family of Tom Kieswetter, to honour his tenure as the Warrior Men's Basketball head Coach from 1992 – 2012.

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

Brent McFarlane Track and Field Excellence Award
An award, valued at $4,000, or two awards valued at $2,000, will be given to one or two members of the varsity track and field team. This award recognizes athletic talent, contribution to Warrior Athletics and their team, and strong leadership skills. This fund is made possible by a donation from Robert Newman to honour and recognize his friend Brent McFarlane.

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

RBC Athletic and Community Excellence Awards
Four awards, valued at $4,000 each, are given to student athletes who are members of any men's or women's varsity team. This award recognizes a strong commitment to community service, volunteerism, and leadership within the University and broader community. This fund is supported by RBC.

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

Savich Men's Basketball Athletic Excellence Award
One award, valued at $4,500, is given to a member of the varsity men's basketball team. This award recognizes athletic talent, contribution to Warrior Athletics and their team, and strong leadership skills. This fund is supported by University of Waterloo alumnus and Warrior Hall of Famer, Peter Savich.

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

John Shoniker Football Awards
Two awards, valued at $4,500, are given to members of the varsity football team. These awards recognize athletic talent and contribution to Warrior Athletics, their team and the school. This fund is supported by University of Waterloo alumnus John Shoniker.

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

Dr. Douglas Snyder Alumni Athletic Excellence Award
One award, valued at $2,000, is given to an exceptional student-athlete in a health-related program, who best displays the values and mission of the interuniversity athletics program, and who has a demonstrated interest in pursuing a career in the health sciences. Eligible candidates must be enrolled in full-time studies, with a minimum academic average of 70%. Preference will be given to members of the varsity football, varsity men's ice hockey or varsity women's ice hockey teams, with further preference given to someone who has demonstrated good character and leadership skills through involvement in faith-based extracurricular or volunteer activities. An application is required by November 1st. This fund is supported by University of Waterloo alumnus Dr. Doug Snyder.

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

Warrior Women's Alumni Golf Excellence Awards
One or more awards, valued at up to $4,500, will be given to members of the varsity women's golf team, with preference given to first-year student athletes. If there are no qualified first-year student athletes, the award/s may be given to upper-year student athletes. These awards recognize athletic talent, contribution to Warrior Athletics and their team, and strong leadership skills.

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

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FOR INFORMATION

Recognition and Commendation

Salient Energy, a company developing new high-tech batteries that will enable the shift towards renewable energy, was among the top winners at the Velocity Fund Finals, held in July. Founded by **Ryan Brown**, **Dr. Linda Nazar**, **Dr. Dipan Kundu** and **Dr. Brian Adams**, Salient Energy is working to commercialize battery technology that will help address fluctuations in power supply and demand that have been a hurdle in advancing renewable energy. In addition to winning a $25,000 prize, Salient Energy also won the top hardware prize of $10,000. Winning the Velocity Fund Finals will allow Salient to move from its current model to build an application scale prototype and secure partners for their pilot project. The following three companies were also grand-prize winners of $25,000 and will receive free workspace at the Velocity Garage: **CubeXLab Technologies** provides automated vision inspection solutions that are affordable, flexible and easy- to-use for part and component manufacturers in automotive, fastener, plastic injection and pharmaceutical industries. **Knote** offers a natural language processing platform to help companies leverage the power of artificial intelligence in documents and big data processing. **UpGrain** uses low frequency electro-magnetic field stimulation of seeds to increase overall yield of various crops by 20 percent. The winners of the Velocity $5K are: **Gymnatik** provides one day passes to gyms around the world. **MycoCup** is a sustainable take-out cup made of agricultural waste and mycelium, the roots of fungi. **The Playful Pixel** hosts large group entertainment events that combine the best of theatre, board games, and video games. (*Daily Bulletin*, 25 July 2016)

CANEU (which stands for **CAN**adian **E**uropean **U**nion) is a unique co-operative education experience that partners two North American universities with two European universities. European students travel to Waterloo or Victoria, BC to study, while Canadian students travel to Germany or Austria on work terms. **Lisa ter Woort**, one of four founders of CANEU Co-op and account manager, international, at Co-operative Education and Career Action (CECA), says this is the story of four universities coming together to make a unique co-op program. Having played a key part in building CANEU co-op from the ground up, ter Woort has helped establish a renowned program. The British Columbia Council for International Education award celebrates distinguished education leaders from across Canada and abroad. “I’m totally excited how CANEU co-op was in itself a great opportunity to work with people at very different levels and different institutions, and to see how it did grow opportunities for our students,” said ter Woort. (*Daily Bulletin*, 27 July 2016)

The International Council on Monuments and Sites Canada has selected School of Planning master’s student **Ashley Rudkevitch** as one of two winners of their 2016 juried award. The 2008 Cultural Heritage Grant Fund awards one or several grants to young Canadians who wish to travel to pursue advanced studies, carry out specialized research or take part in advanced training in the field of immovable cultural heritage. Rudkevitch will use the prize to support her master’s thesis research on the subjective perspectives of locals and tourists toward cultural heritage in the northern community of Yellowknife, Northwest Territories, Canada. (*School of Planning News*, 1 August 2016)

Several St. Paul’s GreenHouse students received Social Impact Fund grants at the most recent Social Impact Showcase, held at St. Paul’s University College. All of the recipients were GreenHouse Fellows, winners of Big Ideas Challenge for Social Good whose GreenHouse accommodations were funded by the Libro Prosperity Fund. Congratulations to the following Social Impact Fund recipients: **Zied Etleb:** $2,500. Developing an adjustable smart mattress that automatically redistributes pressure to prevent bedsores and provides data to health care providers. **Sharita Henry:** $2,500. Integrating support systems for youth living with Autism Spectrum exceptionalities. **Nikhil Jagga:** $2,000. Designing a simple low-tech solution to help create positive habits by developing self-awareness. **Tina Chan:** $2,000. Developing and selling a mental health first aid kit for stress management on campuses and workplaces. **Richard Yim**: $2,000. Building an autonomous machine to defuse landmines safely in Cambodia. **Nia Rajamohan:** $2,000. Organizing South East Asian classical performing art

workshops and performances for therapeutic purposes. **Joanna Hausen:** $1,000. Creating healthy, natural, and ethically sourced skin care products with repurposed waste materials. (*Daily Bulletin*, 16 August 2016)

Recently, two University of Waterloo computer science professors from the David R. Cheriton School of Computer Science, **J. P. Pretti** and **Troy Vasiga**, accompanied their team of Canadian high school students to the annual International Olympiad in Informatics. Held in Kazan, Russia, from August 12 - 19th, the Olympiad saw all four members of the Waterloo-backed team earn medals. The high school students were selected for the team based on their exceptional performances in the Canadian Computing Competition earlier this year. The team of Canadian high school students continuing on is led by coaches with deep expertise in the field, and this year Professors Pretti and Vasiga led Canada's four-person squad. Team member Timothy Li earned a gold medal and a 7th place finish out of the more than 300 competitors hailing from more than 80 different countries. Kevin Sun followed close behind, earning a silver medal finish. Jeffrey Xiao and Farbod Yadegarian each won bronze medals at the competition. Three of the four competitors - **Timothy Li**, **Jeffrey Xiao** and **Farbod Yadegarian** will be beginning their undergraduate studies at Waterloo this fall in the Faculty of Mathematics. (*Daily Bulletin*, 23 August 2016)

Three professors are among the new fellows of the Royal Society of Canada (RSC). The fellowship of the RSC consists of individuals who have made outstanding contributions in the arts, the humanities, science, and Canadian public life. They have been peer-selected as among the best in their field. The University of Waterloo's newest RSC fellows are as follows: **Jennifer Clapp**, School of Environment, Resources and Sustainability, Faculty of Environment. Jennifer Clapp's research focuses on the global governance of problems that arise at the intersection of the global economy, the environment, and food security. In particular, her research has centred on questions of how international economic policies can better foster food security and environmental sustainability goals on a global scale. Professor Clapp holds a Canada Research Chair in Global Food Security and Sustainability. **Colin MacLeod**, Department of Psychology, Faculty of Arts. Colin MacLeod's research has emphasized the broad domain of human cognition, with particular interest in learning and memory. Initially, Professor MacLeod's work was in the area of verbal learning and memory, with emphasis on long-term memory structure and process, and especially in intentional forgetting. In recent years, his memory research has focused on the roles of consciousness, context, and inhibition in memory. **Tamer Özsu**, Cheriton School of Computer Science, Faculty of Mathematics. Tamer Özsu is a world leader and pioneer in distributed data management — a field he helped shape and on which he wrote a widely referenced textbook. His research focuses on the efficient management of increasing volumes of Resource Description Framework (RDF) data distributed across the web. (*Waterloo News*, 7 September 2016)

More than $76,000 in research funding has been awarded as part of the latest round of the Gender Equity Research Grant competition. The winners are: **Andrea Collins**, Environment and Resource Studies, "Understandings of Gender in Global Food Governance: Examining the FAO Committee for World Food Security," $9,175. **Lukasz Golab,** Management Sciences, "Assessing Gender Equity in Co-operative Education: A Data-Driven Approach," $10,000. **Jennifer Liu**, Anthropology, "Understanding Women Who Drop Out of STEM Majors: A Qualitative Assessment," $10,000. **Christine Logel**, Social Development Studies, "Evaluating and Disseminating Randomized Controlled Trails of Social Pschyological Interventions Supporting Women in STEM Programs," $9,936. **Ellen MacEachen**, School of Public Health and Health Systems, "Health Condition Disclosure Among Pre-Tenure Women: what isn't reported and why?" $9,996. **Christopher Perlman**, "A Gender Based Analysis of Mental Health Needs and Supports among University Students," $10,000. **Jennifer Whitson**, Sociology and Legal Studies, "Evaluating the University of Waterloo's student-lead First Person Scholar and GI Janes: Institutional best practices for "doing feminism in the male-dominated field of game study," $10,000. **Christine Wiedman**, School of Accounting and Finance, "Gender Parity in Academe," $7,314. The Gender Equity Research Grants support research that investigates and addresses gender equity with preference given to projects that advance Waterloo's three IMPACT 10x10x10 commitments or of demonstrated relevance to Waterloo. (*Daily Bulletin*, 8 September 2016)

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FOR INFORMATION

Tenure and Promotion of Faculty Members
The 2015/16 tenure and promotion cycle carried out under Policy 77 has resulted in the following individuals being awarded tenure and/or promoted, effective 1 July 2016.

Awarded University Professor:
Linda Nazar

Awarded Tenure and Promoted to Associate Professor:
Dipanjan **Basu**, Civil & Environmental Engineering
Emma **Betz**, Germanic and Slavic Studies
David **Blatherwick**, Fine Arts
Avery **Broderick**, Physics and Astronomy
Stanko **Dimitrov**, Management Sciences
Lukasz **Golab**, Management Sciences
Robert **Gracie**, Civil & Environmental Engineering
Mark **Hancock**, Management Sciences
Eric **Katz**, Combinatorics and Optimization
Nasser **Lashgarian Azad**, Systems Design Engineering
Bruce **MacVicar**, Civil & Environmental Engineering
Markus **Moos**, School of Planning
Rodolfo **Pellizzoni**, Electrical & Computer Engineering
Blake **Phillips**, School of Accounting and Finance
Kathryn **Plaisance**, Knowledge Integration
Luis **Ricardez-Sandoval**, Chemical Engineering
Matthew **Scott**, Applied Mathematics
Stephen **Smith**, Electrical & Computer Engineering
Lin **Tan**, Electrical & Computer Engineering
Katherine **White**, Psychology
Chengguo **Weng**, Statistics & Actuarial Science
Alexander **Wong**, Systems Design Engineering
Bernard **Wong**, David R. Cheriton School of Computer Science

Awarded Tenure:
Scott **Leatherdale**, School of Public Health & Health Systems
Adrian **Gerlich**, Mechanical & Mechatronics Engineering

Awarded Tenure (continued):
Steven **Young**, School of Environment, Enterprise and Development
Xiaosong **Wang**, Chemistry

Promoted to Professor:
Michael **Balogh**, Physics and Astronomy
Slim **Boumaiza**, Electrical & Computer Engineering
Daniel **Brown**, David R. Cheriton School of Computer Science
Oussama **Damen**, Electrical & Computer Engineering
Shahrzad **Esmaeili**, Mechanical & Mechatronics Engineering
Ana **Ferrer**, Economics
Ori **Friedman**, Psychology
Jonathan **Fugelsang**, Psychology
Ian **Goldberg**, David R. Cheriton School of Computer Science
Jan **Kycia**, Physics and Astronomy
David **Landriault**, Statistics & Actuarial Science
Patricia **Marino**, Philosophy
William **Melek**, Mechanical & Mechatronics Engineering
Bessma **Momani**, Political Science
Kirsten **Müller**, Biology
Josh **Neufeld**, Biology
Marcel **O'Gorman**, English Language and Literature
Dawn **Parker**, School of Planning
Diana **Parry**, Recreation & Leisure Studies
Jennifer **Simpson**, Drama and Speech Communication
Daniel **Smilek**, Psychology
Paul **Stolee**, School of Public Health and Health Systems
Chaitanya **Swamy**, Combinatorics and Optimization
Olaf **Weber**, School of Environment, Enterprise and Development
Jeffrey **West**, Civil & Environmental Engineering

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FOR INFORMATION

A. APPOINTMENTS

Adjunct appointments
Graduate Supervision and Research
DUNCAN, Alison, Professor, Department of Kinesiology, July 1, 2016 – June 30, 2017.

MANNELL, Roger, Distinguished Professor Emeritus, Department of Recreation and Leisure Studies, July 1, 2016 – June 30, 2018.

Adjunct reappointment
Graduate Supervision and Research
DUIZER, Lisa, Assistant Professor, Department of Kinesiology, July 1, 2016 – June 30, 2019.

Special appointments
BURNS, Robert, Lecturer, Department of Kinesiology, September 8, 2016 – December 31, 2016.

FERGUSON, Glenn, Lecturer, School of Public Health and Health Systems, January 1, 2017 – April 30, 2017.

FLANAGAN, Ashley, Lecturer, Department of Recreation and Leisure Studies, September 1, 2016 – December 31, 2016.

HENHAWK, Daniel, Lecturer, Department of Recreation and Leisure Studies, September 1, 2016 – December 31, 2016.

SMITH, Alison, Lecturer, Department of Recreation and Leisure Studies, January 1, 2017 – April 30, 2017.

Post-doctoral fellow to research appointment
RATELLE, Mylene, School of Public Health and Health Systems, September 1, 2016 – August 31, 2017.

SANYAL, Chiranjeev, School of Public Health and Health Systems, September 12, 2016 – September 11, 2017.

B. RESIGNATION

ARAI, Susan, Associate Professor**,** Department of Recreation and Leisure Studies, August 31, 2016.

James W.E. Rush, Dean
Faculty of Applied Health Sciences

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FOR INFORMATION

A. APPOINTMENTS

Probationary Term Appointments

CHIANG, Howard (BA 2005 BS 2005 University of Southern California, MA 2006 Columbia University, MA 2008 PhD 2014 Princeton University), Assistant Professor, Department of History, August 22, 2016 to June 30, 2019. Howard Chiang is an expert in modern Chinese and global history with an emphasis on the history of science and medicine and gender and sexuality. His current research proposes new paradigms for Sinophone studies beyond the nation state, questions the privileged position of Western biomedicine in the promotion of global health and well-being, and contests the hegemonic preferences of traditional disciplines by mapping the biopolitics of gender and sexuality onto the geopolitics of world systems.

Probationary Term Appointments - Change in Dates

DRAKE, Anna, Assistant Professor, Department of Political Science, *from* January 1, 2015 to June 30, 2018 *to* January 1, 2015 to June 30, 2019.

Probationary Term Reappointments

CARTER, Angela (PhD 2011 Cornell University), Assistant Professor, Department of Political Science, July 1, 2016 to June 30, 2019.

DUSAILLANT-FERNANDES, Valérie (PhD 2010 University of Toronto), Assistant Professor, Department of French Studies, July 1, 2016 to June 30, 2019.

FIOLLEAU, Krista (PhD 2012 University of Alberta), Assistant Professor, School of Accounting & Finance, July 1, 2016 to June 30, 2019.

KELETA-MAE, Naila (PhD 2012 York University), Assistant Professor, Department of Drama & Speech Communication, July 1, 2016 to June 30, 2019.

MITCHELL, Tim (PhD 2008 University of Kentucky), Assistant Professor, School of Accounting & Finance, July 1, 2016 to June 30, 2019.

RISKO, Evan (PhD 2008 University of Waterloo), Assistant Professor, Department of Psychology, July 1, 2016 to June 30, 2019).

TIAN, Joyce (PhD 2006 University of Florida), Assistant Professor, School of Accounting & Finance, July 1, 2016 to June 30, 2019.

THOMPSON, Jessica (MFA 2011 State University of New York), Assistant Professor, Department of Fine Arts, July 1, 2016 to June 30, 2019.

TINGLEY, Jane (MFA 2006 Concordia University), Assistant Professor, Department of Fine Arts, July 1, 2016 to June 30, 2019.

POMEROY, Bradley (PhD 2009 University of Alberta), Assistant Professor, School of Accounting & Finance, July 1, 2016 to June 30, 2019.

VOORHEES, Gerald (PhD 2008 University of Iowa), Assistant Professor, Department of Drama & Speech Communication, July 1, 2016 to June 30, 2019.

Continuing Lecturer Appointment

VERA-QUINN, Regina (BA 1994 University of Waterloo, BEd 1994 Brock University, MA 2014 Universidad de Salamanca), Department of Spanish & Latin American Studies, May 1, 2016.

Definite Term Appointments

FORRESTER, Clive (BA 2002 PhD 2011 University of the West Indies), Lecturer, Department of English Language & Literature, August 1, 2016 to July 31, 2019. Formerly a program coordinator for Latin American and Caribbean Studies at York University, Clive Forrester has special expertise in linguistics, Caribbean languages, and legal discourse. At Waterloo, he will teach linguistics, as well as academic writing and communications courses in support of the Math Initiative.

IAFOLLA, Vanessa (BA 2002 MA 2004 PhD 2015 University of Toronto), Lecturer, Department of Sociology & Legal Studies, September 1, 2016 to August 31, 2018. Vanessa Iafolla earned her PhD from the Centre of Criminology and Sociolegal Studies at the University of Toronto and recently completed a Postdoctoral Fellowship in the Department of Sociology at the University of Alberta. Dr. Iafolla is a legal studies specialist with considerable teaching experience in the area. Her primary area of research is financial crime and counter-terrorism financial policies. Dr. Iafolla will support the department's *Crime, Law, and Security* thematic area and the interdisciplinary Legal Studies program and she will be an important resource for both undergraduate and graduate students working in this area.

IV, Kieng (MAcc 2011 University of Waterloo), Lecturer, School of Accounting & Finance, September 1, 2016 to June 30, 2017. Kieng Iv holds several professional designations including CPA. He has experience developing data analytics applications for a professional accounting firm for both audit and advisory services. He is currently leading the data analytics initiative at Brookfield Asset Management. He has taught at the School as an adjunct developing new courses in data analytics and contributing to curriculum development. He recently advised a team of SAF students that won the "Most Value to Hire Heroes" award at the prestigious Teradata University Network analytics competition.

LAU, Brian (MA 1998 Hong Kong Polytechnic University, Masters of Information in Knowledge Media Design 2016 University of Toronto), Lecturer, Department of Fine Arts, August 1, 2016 to July 31, 2019. Brian Lau's undergraduate degree is in Visual Arts (Studio) and Economics from the University of Toronto. He is a Fellow of the Royal Society of the Arts (UK), a Certified Graphic Designer of Society of Graphic Designers of Canada, and a professional member of the International Designers Association (EU) and the Hong Kong Designers Association. While he has previous university-level teaching experience in England and Hong Kong, his primary activity for the past twenty years has been managing his own design firm, which specializes in brand design and development for small- to medium-size organizations. Professor Lau will specifically teach graphic design theory and practice in Fine Arts and Global Business and Digital Arts, a discipline that we have not been able to offer until now, and one that is increasingly vital in the interdisciplinary environment of both programs.

POLANCO, Geraldina (BA 2004 University of British Columbia, MA 2006 Concordia University, PhD 2014 UBC), Assistant Professor, Department of Sociology & Legal Studies, September 1, 2016 to August 31, 2018. Geraldina Polanco is a Migration Studies specialist. She comes to UW from a tenure-track Assistant Professor position in the Department of Sociology at California State University, Northridge. Prior to that, Dr. Polanco was a SSHRC Postdoctoral Fellow at the Centre for Research on Latin America and the Caribbean, at York University. She has published her work in top-tier venues and has considerable teaching experience. Dr. Polanco will support the department's *Migration, Borders, and Transnationalism* thematic area and will serve as an important resource for both undergraduate and graduate students working in this area.

Definite Term Reappointments
ECCLESTONE, Andrew (MBA 1988 York University), Lecturer, School of Accounting & Finance, July 1, 2016 to June 30, 2017.

HAYES, Frank (MBA 1983 University of Alberta), Lecturer, School of Accounting & Finance, July 1, 2016 to June 30, 2017.

Visiting Reappointment
BENKO, Aleksandra Srsa, Visiting Lecturer, Department of Germanic and Slavic Studies, September 1, 2016 to April 30, 2017.

Cross Appointment
PLAISANCE, Kathryn, Associate Professor, **from** Centre for Knowledge Integration **to** Department of Philosophy, July 1, 2016 to June 30, 2020.

Adjunct Appointments – Instruction
D'AMATO, John, Lecturer, School of Accounting and Finance, September 1, 2016 to December 31, 2016.

DE LUNA VILLALÓN, Maria, Lecturer, Department of Spanish and Latin American Studies, September 1, 2016 to December 31, 2016.

MCDONALD, Robin, Lecturer, Department of Fine Arts, September 1, 2016 to December 31, 2016.

ORR, Elizabeth, Lecturer, Department of Psychology, September 1, 2016 to December 31, 2016.

Adjunct Appointments – Miscellaneous (research, consultations, etc.)
KELLY, Khim, Associate Professor, School of Accounting and Finance, October 1, 2016 to December 31, 2018.

PARÉ, François, Professor, (Professor Emeritus), Department of French Studies, January 1, 2017 to December 31, 2021.

Adjunct Appointments – Graduate Supervision
DUWYN, Michelle, Clinic Supervisor, Department of Psychology, October 1, 2016 to August 31, 2017.

ETHIER, Nicole, Clinic Supervisor, Department of Psychology, November 1, 2016 to August 31, 2017.

GUYITT, Brendan, Clinic Supervisor, Department of Psychology, October 1, 2016 to August 31, 2017.

Adjunct Reappointments – Instruction
ARNASON, Mark, Lecturer, School of Accounting and Finance, September 1, 2016 to December 31, 2016.

BALAISIS, Nicholas, Lecturer, Department of Drama and Speech Communication, September 1, 2016 to December 31, 2016.

BASHIR, Mohsin, Lecturer, School of Accounting and Finance, September 1, 2016 to December 31, 2016.

BERGSTROM, Anders, Lecturer, Department of Drama and Speech Communication, September 1, 2016 to December 31, 2016.

BESSETTE, Chantale, Lecturer, Department of French Studies, September 1, 2016 to December 31, 2016.

BRIGGS, Catherine, Lecturer, Department of History, September 1, 2016 to December 31, 2016.

CAMPBELL, Greg, Lecturer, Department of Drama and Speech Communication, September 1, 2016 to December 31, 2016.

CARTER, Veronica, Lecturer, Department of Fine Arts, September 1, 2016 to December 31, 2016.

CYR, Dylan, Lecturer, Department of History, September 1, 2016 to December 31, 2016.

D'AUGOSTINO, Elizabeth, Lecturer, Department of Fine Arts, September 1, 2016 to December 31, 2016.

DEMAN, Andrew, Lecturer, Department of English Language and Literature, September 1, 2016 to December 31, 2016.

DEVEAU, Danielle, Lecturer, Department of English Language and Literature, September 1, 2016 to December 31, 2016.

DIGNAN, Paul, Lecturer, Department of Fine Arts, September 1, 2016 to December 31, 2016.

ENNIS, Richard, Lecturer, Department of Psychology, September 1, 2016 to December 31, 2016.

FERNANDEZ, Stephen, Lecturer, Department of English Language and Literature, September 1, 2016 to December 31, 2016.

FEUER, Menachem (Matthew), Lecturer, Department of Religious Studies, September 1, 2016 to December 31, 2016.

FLERAS, Augie, Professor, Department of Sociology and Legal Studies, September 1, 2016 to December 31, 2016.

GLADKOVA, Olga, Lecturer, Department of Drama and Speech Communication, September 1, 2016 to December 31, 2016.

HANCOCK, Michael, Lecturer, Department of English Language and Literature, September 1, 2016 to December 31, 2016.

HARVIE, Jo, Lecturer, Department of Drama and Speech Communication, September 1, 2016 to December 31, 2016.

HAYES, Nicole, Lecturer, Department of Anthropology, September 1, 2016 to December 31, 2016.

HILL, Heather, Lecturer, Department of Drama and Speech Communication, September 1, 2016 to December 31, 2016.

HOLUKOFF, Kurt, Lecturer, Department of Philosophy, September 1, 2016 to December 31, 2016.

HUTCHISON, Jesse, Lecturer, Department of English Language and Literature, September 1, 2016 to December 31, 2016.

KNOX, Rochelle, Lecturer, Department of Drama and Speech Communication, September 1, 2016 to December 31, 2016.

LABADIE, Colin, Lecturer, Department of Drama and Speech Communication, September 1, 2016 to December 31, 2016.

LAZAR, Karen, Lecturer, Department of Drama and Speech Communication, September 1, 2016 to December 31, 2016.

LIAQAT, Zara, Lecturer, Department of Economics, September 1, 2016 to December 31, 2016.

MALONE, Toby, Lecturer, Department of Drama and Speech Communication, September 1, 2016 to December 31, 2016.

MCCARTHY, Megan, Lecturer, Department of Psychology, September 1, 2016 to December 31, 2016.

MCGEE, C. Edward, Lecturer, Department of English Language and Literature, September 1, 2016 to December 31, 2016.

MEINYKEVYCH, Viktoriya, Lecturer, Department of Germanic and Slavic, September 1, 2016 to December 31, 2016.

MOTA, Fatima, Lecturer, Department of Spanish and Latin American Studies, September 1, 2016 to December 31, 2016.

NANCEKIVELL, Shaylene, Lecturer, Department of Psychology, September 1, 2016 to December 31, 2016.

RAHMAN, Fiona, Lecturer, Department of Economics, September 1, 2016 to December 31, 2016.

RAY, Nicholas, Lecturer, Department of Philosophy, September 1, 2016 to December 31, 2016.

RICHARDS, Edward, Lecturer, Department of Philosophy, September 1, 2016 to December 31, 2016.

SCHWEITZER, David, Assistant Professor, Department of History, September 1, 2016 to December 31, 2016.

SHAKESPEARE, Robert, Lecturer, Department of English Language and Literature, September 1, 2016 to December 31, 2016.

SLETHAUG, Gordon, Professor, Department of English Language and Literature, September 1, 2016 to December 31, 2016.

SNYDER, Carrie, Lecturer, Department of English Language and Literature, September 1, 2016 to December 31, 2016.

STACEY, Jeffery, Lecturer, Department of Drama and Speech Communication, September 1, 2016 to December 31, 2016.

STEVENSON, Michael, Lecturer, Department of Political Science, September 1, 2016 to December 31, 2016.

TEN BRUGGENCATE, Rachel, Department of Anthropology, September 1, 2016 December 31, 2016.

WHITE, Matthew, Lecturer, Department of Drama and Speech Communication, September 1, 2016 to December 31, 2016.

WIENS, Brianna, Lecturer, Department of Drama and Speech Communication, September 1, 2016 to December 31, 2016.

WOLF, Kelly, Lecturer, Department of Drama and Speech Communication, September 1, 2016 to December 31, 2016.

WYSE, Bruce, Lecturer, Department of English Language and Literature, September 1, 2016 to December 31, 2016.

ZIMMERMAN, Elijah, Lecturer, Department of Drama and Speech Communication, September 1, 2016 to December 31, 2016.

Adjunct Reappointments – Graduate Supervision
STEVENS, Elizabeth, Assistant Professor, Department of Psychology, September 1, 2016 to August 31, 2017.

WATSON, Christopher, Clinical Supervisor, Department of Psychology, September 1, 2016 to August 31, 2017.

WHEELER, Heather, Assistant Professor, Department of Psychology, September 1, 2016 to August 31, 2017.

Graduate Students Appointed as Part-Time Lecturers
ABDULLA, Rosanne, Department of French Studies, September 1, 2016 to December 31, 2016.

ATÉGOMO YMELÉ, Martial, Department of French Studies, September 1, 2016 to December 31, 2016.

BREY, Elizabeth, Department of English Language and Literature, September 1, 2016 to December 31, 2016.

CLEMENT, Ryan, Department of English Language and Literature, September 1, 2016 to December 31, 2016.

CRONIN, Department of English Language and Literature, September 1, 2016 to December 31, 2016.

DEFRAEYE, Julien, Department of French Studies, September 1, 2016 to December 31, 2016.

DIAS, Vanessa, Department of French Studies, September 1, 2016 to December 31, 2016.

DOYLE, Jennifer, Department of Drama and Speech Communication, September 1, 2016 to December 31, 2016.

DUCLOS, François, Department of French Studies, September 1, 2016 to December 31, 2016.

EHRENTRAUT, Judy, Department of English Language and Literature, September 1, 2016 to December 31, 2016.

EVEN, Coleen, Department of French Studies, September 1, 2016 to December 31, 2016.

FAST, William, Department of English Language and Literature, September 1, 2016 to December 31, 2016.

GALLAGHER, Sara, Department of English Language and Literature, September 1, 2016 to December 31, 2016.

GASTER, Matthew, Department of English Language and Literature, September 1, 2016 to December 31, 2016.

GERBER, Kyle, Department of English Language and Literature, September 1, 2016 to December 31, 2016.

GIBBONS, Sarah, Department of English Language and Literature, September 1, 2016 to December 31, 2016.

HENRY, Josh, Department of English Language and Literature, September 1, 2016 to December 31, 2016.

HENSTRIDGE, Christine, Department of French Studies, September 1, 2016 to December 31, 2016.

JORDAN, William, Department of Philosophy, September 1, 2016 to December 31, 2016.

KOLAHJOOEI ALVAR, Farzad, Department of English Language and Literature, September 1, 2016 to December 31, 2016.

LALONDE, Patrick, Department of Sociology and Legal Studies, September 1, 2016 to December 31, 2016.

LAWRENCE, Christopher, Department of English Language and Literature, September 1, 2016 to December 31, 2016.

MACDONALD, Ian, Department of Philosophy, September 1, 2016 to December 31, 2016.

MANJI, Noorin, Department of Sociology and Legal Studies, September 1, 2016 to December 31, 2016.

MEHRABIAN, Houman, Department of English Language and Literature, September 1, 2016 to December 31, 2016.

MILETIC, Philip, Department of English Language and Literature, September 1, 2016 to December 31, 2016.

NEUPANE, Dhruba, Department of English Language and Literature, September 1, 2016 to December 31, 2016.

OFILI, Patricia, Department of English Language and Literature, September 1, 2016 to December 31, 2016.

ROWLAND, Samuel, Department of English Language and Literature, September 1, 2016 to December 31, 2016.

RUNSTEDLER, Emily, Department of French Studies, September 1, 2016 to December 31, 2016.

SCHLEIN, Friederike, Department of Germanic and Slavic Studies, September 1, 2016 to December 31, 2016.

SHAY, Virginia, Department of English Language and Literature, September 1, 2016 to December 31, 2016.

THIESSEN, David, Department of English Language and Literature, September 1, 2016 to December 31, 2016.

TORBICA, Masa, Department of English Language and Literature, September 1, 2016 to December 31, 2016.

TRAN, Alexander, Department of Psychology, September 1, 2016 to December 31, 2016.

VAN DE KEMP, Jessica-Leigh, Department of English Language and Literature, September 1, 2016 to December 31, 2016.

WEATHERHEAD, Drew, Department of Psychology, September 1, 2016 to December 31, 2016.

WOODFORD, Benjamin, Department of English Language and Literature, September 1, 2016 to December 31, 2016.

YESAYA, David, Department of French Studies, September 1, 2016 to December 31, 2016.

Staff Appointments to Faculty
DI GRAVIO, Katrina, Lecturer, Department of Psychology, September 1, 2016 to December 31, 2016.

GLOVER, Adam, Lecturer, Department of Fine Arts, September 1, 2016 to December 31, 2016.

B. ADMINISTRATIVE APPOINTMENTS

Administrative Reappointment
DIAMOND, James, Associate Chair, Undergraduate Studies, Department of Religious Studies, September 1, 2016 to August 31, 2017.

C. SABBATICAL LEAVES

For approval by the Board of Governors:
BERGSIEKER, Hilary, Assistant Professor, Department of Psychology, January 1, 2017 to June 30, 2017, six months at full salary.

BRUCE, Gary, Professor, Department of History, January 1, 2017 to June 30, 2017, six months at full salary.

GOODWIN, David, Associate Professor, Department of Drama & Speech Communication, January 1, 2017 to December 31, 2017, twelve months at full salary.

MCARTHUR, Murray, Associate Professor, Department of English Language & Literature, January 1, 2017 to June 30, 2017, six months at full salary.

Douglas M. Peers
Dean, Faculty of Arts

UNIVERSITY OF WATERLOO
REPORT OF THE DEAN OF ENGINEERING TO SENATE
October 17, 2016

For Information:

A. APPOINTMENTS

Probationary Term

CORREA, David, Assistant Professor, School of Architecture, December 1, 2016 – June 30, 2020. PhD candidate University of Stuttgart, Germany; Masters of Architecture University of Calgary 2012; Bachelor of Architectural Science Ryerson University 2008. David Correa is completing his doctoral research in the Institute of Computational Design (ICD) at the University of Stuttgart, working in computational design, digital fabrication, and materials' science. He will bring to the School his knowledge in rapid prototyping, additive manufacturing, robotic and parametric design, as well as his investment in material tectonics, material science and integrated constructive practices. All this being coupled with his strong design background; Correa will no doubt constitute a strong addition to the School.

BOGER, Jennifer, Assistant Professor and Schlegel Chair, Department of Systems Design Engineering, September 1, 2016 – June 30, 2019. PhD University of Ulster, Jordanstown, United Kingdom 2014; MASc University of Toronto 2004; BSc University of Guelph 2002. Dr. Jennifer Boger has been hired as Schlegel Research Chair in Technology for Independent Living with a focus on aging. Dr. Boger's appointment brings research expertise which is highly relevant and complementary to the new Biomedical Engineering program. Because Dr. Boger's appointment is partially in Systems Design and partially in the Research Institute for Aging, her appointment will build bridges between these two units, catalyzing the development of further research ties and opportunities. Her research focus is the development of zero-effort technologies – technologies that blend into people's environments and operate with little or no effort, as perceived by the people using them.

Visiting Appointments

KHATAMI, Seyedamin, Scholar, Department of Systems Design Engineering, October 15, 2016 – January 31, 2017.

LI, Denian, Scholar, Department of Chemical Engineering, August 15, 2016 – July 30, 2017.

LUO, Hua, Scholar, Department of Systems Design Engineering, October 1, 2016 – March 31, 2018.

SEIFI, Abbas, Associate Professor, Department of Systems Design Engineering, July 1, 2016 – October 31, 2016.

STEUER, Andrea, Scholar, Department of Civil & Environmental Engineering, October 3, 2016 – March 10, 2017.

SUN, Xiaohui, Researcher, Department of Civil & Environmental Engineering, September 19, 2016 – April 30, 2017.

YANG, Qi, Scholar, Department of Electrical & Computer Engineering, October 1, 2016 – September 30, 2017.

YE, Qian, Scholar, Department of Chemical Engineering, September 1, 2016 – August 31, 2017.

ZHENG, Huayan, Associate Professor, Department of Mechanical & Mechatronics Engineering November 15, 2016 – November 14, 2017.

Visiting Reappointments

MOHAMMED, Seid Jebril, Scholar, Department of Mechanical & Mechatronics Engineering, August 25, 2016 – January 25, 2017.

Special Appointments

Undergraduate Instruction

AHMADI, Lena, Lecturer, Department of Chemical Engineering, September 1, 2016 – December 31, 2016.

BALESHTA, James, Lecturer, Department of Mechanical & Mechatronics Engineering, September 1, 2016 – December 31, 2106.

BIZMARK, Navid, Lecturer, Department of Chemical Engineering, September 1, 2016 – December 31, 2016.

FAZELI, Amir, Lecturer, Department of Mechanical & Mechatronics Engineering, September 1, 2016 – December 31, 2016.

GAURAV, Aashish, Lecturer, Department of Chemical Engineering, September 1, 2016 – December 31, 2016.

HADWIN, Paul, Lecturer, Department of Mechanical & Mechatronics Engineering, September 1, 2016 – December 31, 2016.

HASHEMI, Ehsan, Lecturer, Department of Mechanical & Mechatronics Engineering, September 1, 2016 – December 31, 2016.

IOANNIDIS, Marios, Lecturer, Department of Chemical Engineering, September 1, 2016 – December 31, 2016.

LIAO, Lihua (Melody), Lecturer, Department of Mechanical & Mechatronics Engineering, September 1, 2016 – December 31, 2016.

MEUNIER, Sarah, Lecturer, Department of Chemical Engineering, September 1, 2016 – December 31, 2016.

POURMOHAMMADALI, Homeyra, Lecturer, Department of Mechanical & Mechatronics Engineering, September 1, 2016 – December 31, 2016.

SOKOLENKO, Stanislav, Lecturer, Department of Chemical Engineering, September 1, 2015 – December 31, 2016.

TEERTSTRA, Peter, Lecturer, Department of Mechanical & Mechatronics Engineering, September 1, 2016 – December 31, 2016.

WASEF, Albert, Lecturer, Department of Electrical & Computer Engineering, September 1, 2016 – December 31, 2016.

ZARRIN, Hadis, Lecturer, Department of Chemical Engineering, September 1, 2016 – December 31, 2016.

Special Appointments
Graduate Instruction
SALAMA, Magdy, Lecturer, Department of Electrical & Computer Engineering, May 1, 2016 – August 31, 2016.

Special Reappointments
Undergraduate Instruction
CHEN, Wei-Ting (Scott), Lecturer, Department of Electrical & Computer Engineering, September 1, 2016 – December 31, 2016.

NGUYEN, Tam, Lecturer, Department of Mechanical & Mechatronics Engineering, September 1, 2016 – December 31, 2016.

PAL, Rajinder, Lecturer, Department of Chemical Engineering, September 1, 2016 – December 1, 2016.

Special Reappointments
Graduate Instruction
HIASSAT, Abdelhalim, Lecturer, Department of Management Sciences, September 1, 2016 – December 31, 2016.

Adjunct Appointments
Graduate Supervision
EMAMIAN, Ali, Professor, Department of Mechanical & Mechatronics Engineering, August 15, 2016 – August 14, 2018.

Adjunct Appointments
Graduate Instruction, Supervision & Research
HILAL, Alla, Assistant Professor, Department of Electrical & Computer Engineering May 1, 2016 – April 30, 2018.

Adjunct Appointments
Research & Graduate Supervision
SCOTT, Stacey, Associate Professor, Department of Systems Design Engineering, September 1, 2016 – August 31, 2019.

Cross Appointments
DUHAMEL, Jean, Professor, Department of Chemistry, Faculty of Science to Department of Chemical Engineering, October 1, 2015 – September 30, 2019.

WILLETT, Thomas, Assistant Professor, Department of Systems Design Engineering to Department of Mechanical & Mechatronics Engineering, September 1, 2016 – August 31, 2019.

Cross Reappointments

AZIZ, Hany, Professor, Department of Electrical & Computer Engineering to Department of Chemical Engineering, May 1, 2016 – April 30, 2019.

B. ADMINISTRATIVE APPOINTMENTS

HURWITZ, Marc, Associate Director, Undergraduate Studies, Conrad Business, Entrepreneurship & Technology Center, Dean of Engineering Office, September 1, 2016 – July 31, 2017.

ADMINISTRATIVE REAPPOINTMENTS

ROSE, David, Associate Director, Graduate Programs, Conrad Business, Entrepreneurship & Technology Center, Dean of Engineering Office, September 1, 2016 – July 31, 2017.

THISTLE, John, Coordinator MEng Program, Department of Electrical & Computer Engineering, September 1, 2016 – August 31, 2017.

C. RESIGNATIONS

BERMAN, Ila, Professor, School of Architecture, August 30, 2016.

EL KHAFIF, Mona, Professor, School of Architecture, August 31, 2016.

SCOTT, Stacey, Associate Professor, Department of Systems Design Engineering, September 30, 2016.

WANG, Junhong, Visiting Scholar, Department of Electrical & Computer Engineering, August 18, 2016.

FOR APPROVAL BY THE BOARD OF GOVERNORS

D. SABBITICAL

MAC VICAR, Bruce, Associate Professor, Department of Civil & Environmental Engineering, January 1, 2017 – June 30, 2017, six months at 85% salary.

TOLSON, Bryan, Associate Professor, Department of Civil & Environmental Engineering, March 1, 2017 – August 31, 2017, six months at 85% salary.

Pearl Sullivan
Dean, Faculty of Engineering

University of Waterloo
REPORT OF THE DEAN OF ENVIRONMENT TO SENATE
October 17, 2016

FOR INFORMATION

A. APPOINTMENTS

Probationary Term Appointments

COCKAYNE, Daniel, Assistant Professor, Department of Geography and Environmental Management, September 21, 2016 to June 30, 2020: PhD, University of Kentucky, 2016; MA, University of London, 2012; BA (Hons), University of Manchester, 2010. Daniel Cockayne is a very promising early career scholar. He is a classically trained economic geographer with roots in cultural geography. His work aims to locate a cultural understanding of economic processes, to think through how work practices and ethics, emotions, gender identification, sexuality and other cultural phenomena are produced alongside markets, labour politics, structures of finance and the capitalist mode of production. He promises to be an exciting addition to the Department.

Special Appointments

Instruction

JERNIGAN, Ed, Professor Emeritus, Department of Knowledge Integration, January 1, 2017 to April 30, 2017.

JOAKIM, Erin, Lecturer, Faculty of Environment, January 1, 2017 to April 20, 2017.

JOHANNSON, Lynn, Lecturer, School of Environment, Enterprise and Development, September 1, 2016 to December 31, 2016.

LEHMAN, Robert, Lecturer, School of Planning, September 1, 2016 to December 31, 2016.

MacDONALD, Patricia, Lecturer, School of Environment, Enterprise and Development, January 1, 2017 to April 30, 2017.

QUICK, Matthew, Lecturer, School of Planning, January 1, 2017 to April 30, 2017.

Cross Appointments

FEDY, Brad, Assistant Professor, School of Environment, Resources and Sustainability to the Department of Geography and Environmental Management, September 1, 2016 to August 31, 2021.

GIBSON, Robert, Professor, School of Environment, Resources and Sustainability to the School of Planning, July 1, 2016 to June 30, 2019.

Graduate Students Appointed as Part-Time Lecturers

ZHANG, Shanqi (Ashley), School of Planning, January 1, 2017 to April 30, 2017.

B. SABBATICAL LEAVE

For Approval by the Board of Governors

CLARKE, Amelia, Associate Professor, School of Environment, Enterprise and Development, January 1, 2017 to June 30, 2017, at 85% salary.

Jean Andrey,
Dean

University of Waterloo
REPORT OF THE DEAN OF MATHEMATICS TO SENATE
October 17, 2016

FOR INFORMATION

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

Probationary-Term Appointments

Change in dates

NAGAPPAN, Meiyappan, Assistant Professor, David R. Cheriton School of Computer Science (*Ref.* Senate, September 2016):
From: August 1, 2016 – June 30, 2019
To: September 1, 2016 – June 30, 2020

YARD, Jon, Associate Professor, Dept. of Combinatorics and Optimization (*Ref.* Senate, September 2016):
From: September 1, 2016 – June 30, 2019
To: September 5, 2016 – June 30, 2019

Probationary-Term Reappointments

LAW, Edith, Assistant Professor, David R. Cheriton School of Computer Science, first probationary appointment extended one year in accordance with Policy 76 due to maternity leave, new end date June 30, 2018.

Definite Term – Appointment

Change in date

AVERY, Jeff, Lecturer, David R. Cheriton School of Computer Science (*Ref.* Senate, September 2015):
From: January 1, 2016 – December 31, 2017
To: January 1, 2016 – June 30, 2019

Definite Term - Reappointments

PAPOULIA, Katerina, Research Associate Professor, Dept. of Applied Mathematics, September 1, 2016 – August 31, 2019.

Change in date

KATSURAGAWA, Keiko, Assistant Professor, David R. Cheriton School of Computer Science, (*Ref.* Senate, December 2015):
From: November 1, 2015 – October 31, 2016
To: May 1, 2016 – April 30, 2019

Visiting Appointments

ELGUN, Elcim, Scholar, Dept. of Pure Mathematics, September 1, 2016 – December 31, 2016.

HMAITY, Ali (Politecnico di Milano), Scholar, David R. Cheriton School of Computer Science, August 20, 2016 – December 31, 2016.

MENIN, Olavo Henrique (Federal Institute of Education, Science and Technology of San Paulo), Researcher, Dept. of Applied Mathematics, August 1, 2016 – July 31, 2017.

SCARDIGLI, Fabio (Politecnico di Milano), Researcher, Dept. of Applied Mathematics, October 1, 2016 – January 31, 2017.

WANG, Xin (University of Electronic Science and Technology of China), Scholar, Dept. of Applied Mathematics, September 1, 2016 – August 31, 2018.

WU, Peng (University of Jinan), Scholar, David R. Cheriton School of Computer Science, January 1, 2017 – June 30, 2017.

YE, Xinghang, Research Associate, Dept. of Combinatorics and Optimization, October 1, 2016 – September 30, 2017.

Change in Dates
DUPUIS, Maite, Research Associate, Dept. of Applied Mathematics (*Ref.* Senate, April, 2016):
From: February 1, 2016 – January 31, 2018
To: February 1, 2016 – January 31, 2019

Adjunct Appointments
Instructor
GLEESON, Rob, Lecturer, Office of the Dean, September 1, 2016 – August 31, 2017.

WEBSTER, Ashley, Lecturer, Office of the Dean, September 1, 2016 – August 31, 2017.

Research
BAEZA-YATES, Ricardo (Universitat Pompeu Fabra), Professor, David R. Cheriton School of Computer Science, July 1, 2016 – June 30, 2018.

Adjunct Reappointments
Instructor
ALIAKBARI, Shahla, Lecturer, Office of the Dean, September 1, 2016 – December 31, 2016.

ASHBURNER, Michelle, Lecturer, Office of the Dean, September 1, 2016 – December 31, 2016.

KOU, Tian, Lecturer, David R. Cheriton School of Computer Science, September 1, 2016 – December 31, 2016.

RADOCCHIA, Joseph, Lecturer, Office of the Dean, September 1, 2016 – December 31, 2016.

RADOCCHIA, Joseph, Lecturer, Office of the Dean, January 1, 2017 – April 30, 2017.

Research
BOYLE, Phelim (Wilfrid Laurier University), Professor, Dept. of Statistics and Actuarial Science, January 1, 2017 – December 31, 2019.

CHIPMAN, Hugh (Acadia University), Professor, Dept. of Statistics and Actuarial Science, October 1, 2016 – September 30, 2019.

CHIU, Grace (The Australian National University), Associate Professor, Dept. of Statistics and Actuarial Science, October 1, 2016 – September 30, 2019.

TERRY, Michael, Associate Professor, David R. Cheriton School of Computer Science, May 1, 2016 – June 30, 2018.

Cross Appointments

DOXEY, Andrew (Assistant Professor, Dept. of Biology), in the David R. Cheriton School of Computer Science, August 1, 2016 – June 30, 2018.

Cross Reappointments

HEUNIS, Andrew (Professor, Electrical & Computer Engineering), in the Dept. of Statistics and Actuarial Science, March 1, 2016 – February 28, 2019.

JAO, David (Associate Professor, Dept. of Combinatorics and Optimization), in the David R. Cheriton School of Computer Science, August 1, 2016 – June 30, 2018.

LEUNG, Debbie (Professor, Dept. of Combinatorics and Optimization), in the David R. Cheriton School of Computer Science, July 1, 2016 – June 30, 2018.

SAUNDERS, David (Associate Professor, Dept. of Statistics and Actuarial Science), in the David R. Cheriton School of Computer Science, September 1, 2015 – June 30, 2017.

Graduate Students appointed as Part-time Lecturers

GIULIANI, Andrew, Dept. of Applied Mathematics, September 1, 2016 – December 31, 2016.

Graduate Students reappointed as Part-time Lecturers

DOR ON, Adam, Dept. of Pure Mathematics, September 1, 2016 – December 31, 2016.

GHASWALA, Dept. of Pure Mathematics, September 1, 2016 – December 31, 2016.

PAYNE, Ian, Dept. of Pure Mathematics, September 1, 2016 – December 31, 2016.

PHARAON, Joe, Dept. of Applied Mathematics, September 1, 2016 – December 31, 2016.

Postdoctoral Fellows appointed as Part-time Lecturers

AYOUBI, Sara, David R. Cheriton School of Computer Science, September 1, 2016 – August 31, 2018.

HORVATH, Tamas, Dept. of Applied Mathematics, September 1, 2016 – August 31, 2017.

IRVINE, Veronika, David R. Cheriton School of Computer Science, October 17, 2016 – October 16, 2017.

RAHKOOY, Hamid, David R. Cheriton School of Computer Science, September 1, 2016 – August 31, 2017.

SMITH, Timothy, David R. Cheriton School of Computer Science, September 1, 2016 – August 31, 2017.

B. ADMINISTRATIVE REAPPOINTMENTS

SALEM, Kenneth, Director, Infrastructure, David R. Cheriton School of Computer Science, July 1, 2016 – June 30, 2017.

C. RESIGNATIONS

GAO, Jane, Research Assistant Professor, Dept. of Combinatorics and Optimization, effective July 31, 2016.

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

GIRELLI, Florian, Assistant Professor, Dept. of Applied Mathematics, January 1, 2017 – June 30, 2017, with 100% salary. This is a special early sabbatical.

Change in date

STEWART, Cameron (Professor, Dept. of Pure Mathematics) (*Ref.* Senate, September, 2015):

From**:** July 1, 2016 – June 30, 2018, with 100% salary

To: July 1, 2016 – June 30, 2017, with 100% salary and July 1, 2018 – June 30, 2019, with 100% salary.

E. SPECIAL LEAVE

CHANG, Dong Eui, Associate Professor, Dept. of Applied Mathematics, January 1, 2017 – December 31, 2017. This is an unpaid leave.

Stephen M. Watt
Dean

UNIVERSITY OF WATERLOO
REPORT OF THE DEAN OF SCIENCE TO SENATE
October 17, 2016

For information:

A. ***APPOINTMENTS***

Adjunct Appointments
Graduate Supervision

COOMBER, Brenda, Professor, School of Pharmacy, September 1, 2016 to August 31, 2019.

Other

ELLIS, Julian, Lecturer, School of Pharmacy, September 1, 2016 to August 31, 2017.

Graduate Supervision and Research

LUK, Debbie, Assistant Professor, School of Optometry and Vision Science, August 1, 2016 to July 31, 2019.

Graduate Instruction and Graduate Supervision

SPAGNUOLO, Paul, Associate Professor, School of Pharmacy, September 1, 2016 to August 31, 2019.

Adjunct Reappointments
Undergraduate Instruction

BOWLES-JORDAN, Janie, Clinical Assistant Professor, School of Pharmacy, September 1, 2016 to August 31, 2017.

BROWN, Douglas, Clinical Assistant Professor, School of Pharmacy, September 1, 2016 to August 31, 2017.

BYNKOSKI, Kaitlin, Clinical Assistant Professor, School of Pharmacy, September 1, 2016 to August 31, 2017.

DELUCO, Carla, Clinical Assistant Professor, School of Pharmacy, September 1, 2016 to August 31, 2017.

de VILLIERS, Peet, Clinical Assistant Professor, School of Pharmacy, September 1, 2016 to August 31, 2017.

EDWARDS, Donnie, Clinical Assistant Professor, School of Pharmacy, September 1, 2016 to August 31, 2017.

FOLEY, Heather, Clinical Assistant Professor, School of Pharmacy, September 1, 2016 to August 31, 2017.

HEINTZMAN, Angela, Clinical Assistant Professor, School of Pharmacy, September 1, 2016 to August 31, 2017.

KNOPPERT, David, Clinical Assistant Professor, School of Pharmacy, September 1, 2016 to August 31, 2017.

MANSON, Kenneth, Clinical Assistant Professor, School of Pharmacy, September 1, 2016 to August 31, 2017.

PATODIA, Rosemarie, Clinical Assistant Professor, School of Pharmacy, September 1, 2016 to August 31, 2017.

ROBERT-KAPPEL, Noella, Clinical Assistant Professor, School of Pharmacy, September 1, 2016 to August 31, 2017.

SADIKIAN, Stephan, Clinical Assistant Professor, School of Pharmacy, September 1, 2016 to August 31, 2017.

WENTZELL, Jason, Clinical Assistant Professor, School of Pharmacy, September 1, 2016 to August 31, 2017

Graduate Supervision and Research

SMOKOROWSKI, Karen E., Assistant Professor, Department of Biology, October 1, 2016 to September 30, 2019.

Graduate Instruction and Graduate Supervision

GOMIS, Susantha, Professor, School of Pharmacy, September 1, 2016 to August 31, 2019.

Undergraduate Instruction/Graduate Instruction/Research

DOLOVICH, Lisa, Associate Professor, School of Pharmacy, August 1, 2016 to July 31, 2019.

Cross Reappointments

LEGGE, Raymond L., Professor, Department of Chemical Engineering, cross appointed to Department of Biology, November 1, 2016 to October 31, 2019.

Special Appointment
Undergraduate Instruction

BEATTIE, Laura, Lecturer, School of Pharmacy, September 1, 2016 to December 31, 2016.

McARTHUR, Robyn, Lecturer, School of Pharmacy, September 1, 2016 to December 31, 2016.

Special Reappointment

Undergraduate Instruction

FLATT, Heide, Lecturer, Department of Chemistry, September 1, 2016 to December 31, 2016.

KIRBY, Gordan M., Lecturer, School of Optometry and Vision Science, September 1, 2016 to December 31, 2016.

PFISTERER, Steve, Lecturer, Department of Physics and Astronomy, September 1, 2016 to December 31, 2016.

ROBERTS, Ken, Lecturer, School of Pharmacy, September 1, 2016 to December 31, 2016.

Staff Reappointed as Part-time Lecturer

DINH, Tan, Lecturer, Faculty of Science, September 1, 2016 to December 31, 2016.

Postdoctoral Fellow Reappointed as Part-time Lecturer

DELANEY, Keith, Lecturer, Department of Earth and Environmental Sciences, September 1, 2016 to December 31, 2016.

B. ***RETIREMENT***

PEEMOELLER, Hartwig, Professor, Department of Physics and Astronomy, effective September 1, 2016.

FOR APPROVAL BY THE BOARD OF GOVERNORS

C. ***SABBATICAL***

LUTKENHAUS, Norbert, Professor, Department of Physics and Astronomy, January 1, 2017 to December 31, 2017, 97.5% salary arrangements.

R.P. Lemieux
Dean

RPL:lw

University of Waterloo
SENATE GRADUATE & RESEARCH COUNCIL
Report to Senate
17 October 2016

Senate Graduate & Research Council met on 12 September 2016, and considered proposals for a change to an academic plan and a change to the constitution of a Senate-approved centre. Council agreed to forward the following items to Senate for approval. Council recommends this item be included in the regular agenda.

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

FOR APPROVAL

CHANGES TO ACADEMIC PLANS

Faculty of Applied Health Sciences
Recreation and Leisure Studies

1. **Motion:** To approve changes to the curricular requirements for the doctoral plan in recreation and leisure studies as described and effective 1 September 2017.
   (~~strikethrough~~ = deleted text; underline = new text)

   …

   Courses
   - Doctoral students are required to take a minimum of 9 graduate courses (0.50 unit weight) beyond the Honours Bachelor of Arts (BA) level.
     These must include:
     - ~~At least 1 course in each of the three areas of research (Administration and Management Services, Leisure Behaviour and Cultural Resources, and Recreation and Leisure Resources).~~
     - ~~REC 792 Advanced Research Methods.~~
     - ~~The doctoral seminar REC 700 (The Interplay of Behaviour, Resources, and Policy in Leisure Studies).~~
     - REC 600 Interactive Seminar in Recreation and Leisure Studies
     - REC 700 The Interplay of Behaviour, Resources, and Policy in Leisure Studies
     - REC 701 Recreation and Leisure Studies Research Seminar

     And one of the following:
     - REC 772 Qualitative Research Data Analysis and Interpretation
     - REC 773 Designing Advanced Qualitative Inquiry
     - Or an equivalent
   - Students entering the PhD program following completion of the MA degree in the Department of Recreation and Leisure Studies at the University of Waterloo, or its equivalent, will usually have already completed ~~6~~ 5 of the 9 required courses, and therefore will need a minimum of 4 additional (0.50 unit weight) graduate courses. If students have not previously taken REC 600; REC 700; REC 701; one of REC 772 or REC 773, or their equivalents, these courses would take precedence over elective courses. Elective courses can be taken either within or outside the Department, and can be at either the 600 or 700 level. In addition to their course work, doctoral students must complete the AHS academic Integrity Milestone and the Research Presentation Milestone.

   …

   Rationale: After a thorough review of the department's graduate curriculum, revisions to the doctoral program were deemed necessary to improve student training. In particular, the previously identified areas of study were perceived to be outdated and a poor reflection of our current departmental interests; and REC 792 was thought to be more effective if offered as a required course with a relatively set curriculum.

CHANGE TO CONSTITUTION OF SENATE-APPROVED CENTRE

Survey Research Centre

2. **Motion:** That Senate approve amendments to the constitution of the Survey Research Centre as described. (underline = new text; ~~strikethrough~~ = deleted text)

…

Organizational structure

The Centre may have up to two Directors who hold University of Waterloo ~~are~~ faculty ~~members with regular~~ appointments. The Director(s) are appointed for a determinate term, normally three or four years, renewable. A Director oversees the management and activities of the Centre, and ~~chairs meetings of the boards, and~~ is responsible for seeing that the academic objectives and constitutional requirements for the Centre are being met.

To share in the Director's responsibilities, an Associate Director may be appointed. The Associate Director is a faculty member, an adjunct faculty member or a staff member. The position is limited to a three or four year term, renewable.

The Centre also has several staff members. The staffing structure may be revised by the Director and the Board, in accordance with University policy, as circumstances require. The appendix outlines the current staffing structure of the Centre.

…

The Board

The Board of the Survey Research Centre includes (ex officio) the Vice-President, University Research or a delegate; the Dean of the Faculty of Mathematics or a delegate; the Chairs of Statistics and Actuarial Science, Sociology and Legal Studies and the Director's department; and the Director(s) ~~and Associate Director~~ of the Survey Research Centre. The Board includes in addition three regular members of the Survey Research Centre from different Faculties, and two students nominated by the Director(s), one of which may be a current employee of the Survey Research Centre. It is desirable to have the Faculties of Applied Health Sciences and Environment represented on the Board. The Board is chaired by the Dean of the Faculty of Mathematics, who may appoint a delegate to chair a meeting. The Senior Manager of the Survey Research Centre serves as Secretary to the Board. The Board meets at least annually to review the management, the activities, the financial statement and the budget of the Survey Research Centre.

…

Rationale: These changes will ensure that the constitution of the centre adheres to the requirements of Policy 44, specifically that (1) a director have a University of Waterloo faculty appointment, (2) a majority of voting members of the board have regular faculty appointments, and (3) that the responsible dean or delegate serve as chair of the board.

/mg Jeff Casello
Associate Provost, Graduate Studies

George Dixon
Vice President, University Research

University of Waterloo
SENATE UNDERGRADUATE COUNCIL
Report to Senate
17 October 2016

Senate Undergraduate Council met on 13 September 2016, and considered a proposal for a new academic regulation. Council agreed to forward the following item to Senate for approval. Council recommends this item be included in the regular agenda.

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

FOR APPROVAL

NEW ACADEMIC REGULATION

Office of the Registrar
DRNC Grade

1. **Motion:** To approve "DRNC" as a new grade designation on the official transcript for undergraduate plans.

   Rationale: DRNC stands for "Degree Requirement, Not in Average, Not in Fail Count". It is in Quest and it has been in use by the Faculty of Engineering since 2005 and has been included in the engineering section of the calendar in several places since 2009. It also used as a grade designation for work-term report courses. No record was readily found of this being passed at Senate and it is currently not included on the legend that is on the back of the transcript. In addition to updating the legend, the transcript legend webpage (https://uwaterloo.ca/registrar/transcripts/transcript-legend) will be updated as well. This grade designation is only used at the undergraduate level.

Mario Coniglio
Associate Vice-President, Academic

/mg