University of Waterloo
SENATE
Notice of Meeting

Date: Monday 21 October 2013
Time: 3:30 p.m.
Place: Needles Hall, Room 3001

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Guests: Nello Angerilli, Mario Coniglio, Donna Ellis, Paul Fieguth, Peggy Jarvie, Jennifer Kieffer, Jesse McGinnis, Katie Miesner, Cathy Newell Kelly, Diana Parry, Ellen Réthoré, Erin Sargeant Greenwood, Daniela Seskar-Hencic, Allan Starr, Dave Wallace

Secretariat: Logan Atkinson, Tracy Dietrich


*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.

OPEN SESSION

Consent Agenda
Senate heard a motion to approve or receive for information by consent items 1-5 below.

1. MINUTES OF THE 17 JUNE 2013 MEETING
Senate approved the minutes of the meeting as distributed.

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

Nominating Committee for Honorary Degrees [list of honorands for fall convocation at senators’ places]. Senate received the list for information.

Undergraduate Council
• English Language Proficiency Requirement, Faculty of Arts. Senate approved the proposed change to the English language proficiency requirement.

The remaining items in the report were received for information.

3. REPORT OF THE PRESIDENT
Recognition and Commendation. Senate received the report for information.
Tenure and Promotion of Faculty Members. Senate received the report for information.

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

5. OTHER BUSINESS
Committee/Council Appointments/Appointment Change [revised report at senators’ places].
Senate approved the following appointments/appointment change:

- Council of Ontario Universities: Dan Brown as COU Academic Colleague (replacing Sheila Ager), term to 30 June 2014 [this is a change from COU Academic Colleague Alternate, term to 30 June 2014]; Marios Ioannidis as COU Academic Colleague Alternate (replacing Dan Brown), term to 30 June 2016.

- Senate Finance Committee: Glenn Cartwright as FUAC representative (replacing Katherine Bergman), term to 30 April 2014.

- Senate Graduate & Research Council: Mina Rohanizadegan as environment graduate student representative (replacing Nino Antadze), term to 30 April 2014.

- Senate Long Range Planning Committee: Bryan Tolson as FAUW Board of Directors representative (replacing Aimée Morrison), term to 30 June 2014.

- University Committee on Student Appeals: John Mielke as applied health sciences faculty representative (replacing Stephen Smith), term 1 January 2014 to 30 April 2015; Allyson Francis as engineering undergraduate student representative (replacing Cameron Winterink) and Jenny Yao as science undergraduate student representative (replacing Amy Yang), terms to 30 April 2014.

Haslett and Porreca. Carried.

Regular Agenda

6. BUSINESS ARISING FROM THE MINUTES
There was no business arising from the minutes.

7. REPORTS FROM COUNCILS
Graduate & Research Council

- Regulations for Doctoral Theses, Graduate Studies Calendar. Senate heard a motion to approve amendments to the graduate studies calendar as to external examiners of doctoral theses and to thesis defence decisions for doctoral theses, as described in the report.

Horton and Dixon.

A question was raised about the six-year period appearing in the report, and it was advised that this was consistent with Tri-Council requirements.

With respect to the relationship between this regulation and Policy 69, Conflicts of Interest, Senate was advised that individual associate deans will implement the document in their discretion.

The motion carried.
Undergraduate Council

- **Bachelor of Applied Science, Biomedical Engineering (Co-op), Faculty of Engineering.** Senate heard a motion to approve the proposed plan.
  
  Sullivan and McBoyle. Carried.

- **Bachelor of Science, Honours Chemistry (Computational Specialization) (Regular and Co-op), Faculty of Science.** Senate heard a motion to approve the proposed plan.
  
  McMahon and McBoyle. Carried.

- **Global Engagement Specialization, Arts and Business, Faculty of Arts.** Senate heard a motion to approve the proposed inactivation of the plan.
  
  Peers and Porreca. Carried.

8. **TEACHING PRESENTATION**

Coniglio introduced Jay Dolmage, professor of English language & literature. Dolmage reported on his work on “universal design,” the work of the Universal Design Working Group and the contributions of AccessAbility, and the impact that this approach to design theory might have on the way in which teaching and learning is conducted. Dolmage distributed a summary of his comments, and answered many questions on his work.


9. **REPORT OF THE PRESIDENT**

Hamdullahpur presented a broad report covering a number of items, including steps taken since the last meeting of Senate to have the university strategic plan approved by the Board of Governors. He focused on the board’s advice to sharpen the plan to focus on the university’s strengths, things that differentiate this university from others. There were very few changes in content in response to the board’s input; rather, the changes were ones of emphasis and further explanation. Hamdullahpur outlined the top three goals that emerged through the strategic plan. Further, he explained the establishment of the steering committee, theme leaders, and teams that are being developed to see to the implementation of the plan. The implementation plan and accountability framework will be finalized over the fall. Hamdullahpur emphasized that the plan has the potential to move this university forward toward being one of the top innovation universities in the world.

Further in his report, Hamdullahpur spoke to: changes in the federal cabinet and other issues related to research funding at the federal level; provincial roundtables on several issues (differentiation, credit transfers, online learning, and graduate student allocation). The university attended the roundtable on differentiation to press its point on research intensity and research-based graduate study as a differentiator. The university also attended the roundtable on graduate student allocation.

Hamdullahpur presented figures on undergraduate and graduate enrollment, new faculty hires, and new staff hires. Further, he reported on the university’s position in the QS international rankings and the Academic Ranking of World Universities (also known as the Shanghai ranking). In the QS rankings, the university has improved 11 places to 180, and has held its position in the Shanghai results. In both ranking systems, the university ranked in the top 50 in engineering and technology. These are very good results, especially given the tremendous investment by universities around the world in seeing to a strong position in these rankings. Hamdullahpur pointed out that the university ranks seventh among Canadian universities, and is the only ranked Canadian university without a medical school.
10. Q&A PERIOD WITH THE PRESIDENT

Hamdullahpur answered a number of questions arising from his report, including: the role of students in strategic plan implementation; the position of the university and its reaction to challenges in immigration for students and faculty (including accommodation for those facing particular difficulties); the relationship among the new strategic plan, the hiring of a new provost, and the operational phase of the plan; the future of provincial funding for the sector; the connection among university identity and branding, student connection to the campus, and departmental identity.

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

McBoyle reported on the pending appointment of the associate provost human resources, the process to identify a new registrar, a possible white paper on differentiation from the provincial ministry, and the Productivity and Innovation Fund.

McBoyle advised that the difficulties experienced with implementing tuition increases in the past year should not arise for the duration of the current funding formula with the province.

12. REPORT OF THE VICE-PRESIDENT, ADVANCEMENT

Gift Acceptance Policy. Sargeant Greenwood introduced the proposed new Gift Acceptance Policy for the information of Senate. She answered questions on certain parts of the policy, and confirmed that the new policy will capture best industry practice once implemented. DeVidi pointed out that the new policy represents the culmination of work begun through the urging by Senate.

Sargeant Greenwood confirmed that this new policy is intended to work in tandem with Policy 10, Naming Opportunities.

Sargent Greenwood agreed to amend the draft policy by including the idea that designated gifts are to be used expressly for purposes for which they are given. This idea appears in the current Provostial Statement on Donation Guidelines, and ought to be brought forward to the new policy because the provostial statement is superseded.

McGillivray congratulated Sargeant Greenwood and others involved in the development of the new policy, and thanked them for their work.

13. REPORT OF THE VICE-PRESIDENT, UNIVERSITY RESEARCH

Dixon advised: a draft policy on centres and institutes is just about ready to begin the formal consultation process; the next round of funding proposals are being developed and in a preliminary sense it seems that volume will be about the same as in years past; the status of upcoming funding competitions, including the Canadian Foundation for Innovation; the success of the International Research Partnership Grants, intended to provide seed funding to support new international research projects and the collaborations that are being generated as a result.

14. OTHER BUSINESS

Bicycle Security. There was discussion about bicycle security and the possibility of making improvements in this regard.

Senate convened in confidential session.
Senate Graduate & Research Council met on 9 September 2013 and agreed to forward the following items to Senate for information. These items are recommended for inclusion in the consent agenda.

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

FOR INFORMATION

CURRICULAR MODIFICATIONS
On behalf of Senate, council reviewed and approved courses changes, new courses and amended milestone requirements for the faculties of arts (master of digital experience innovation) and mathematics (combinatorics & optimization; master of mathematics for teachers).

AMENDMENTS TO TERMS OF REFERENCE
On behalf of Senate, Council approved amendments to the terms of reference for the Animal Care Committee and the Clinical Research Ethics Committee.

NEW AND CONTINUING MEMBERSHIPS
On behalf of Senate, Council approved the membership recommendation for the Animal Care Committee, the Clinic Research Ethics Committee and the Human Research Ethics Committee.

SCHOLARSHIPS AND AWARDS
On behalf of Senate, council approved the creation of: Iris Yuzdepski Memorial Graduate Entrance Scholarship; Iris Yuzdepski Memorial Graduate Award; University of Waterloo-China Graduate Scholarship; and Rotary Peace Scholarship.

/smg         Sue Horton        George Dixon
            Associate Provost, Graduate Studies   Vice President, University Research
Senate Undergraduate Council met on 10 September 2013 and on behalf of Senate, approved changes to academic plans, new courses, course changes and course inactivations. Council agreed to forward the following items to Senate for information. Council recommends that these items be included in the consent agenda. The items recommended for inclusion in the regular agenda are contained in a separate report.

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

FOR INFORMATION

Academic Program Review Reports

- Cognitive Science Program (Option) – Please see Attachment #1
- Speech Communication Program (BA) – Please see Attachment #2

CURRICULAR MODIFICATIONS

Changes to academic plans, new courses, course changes and course inactivations were approved for the co-operative education council (professional development course) and the faculties of: applied health sciences (foundation term; kinesiology; recreation and leisure studies; school of public health and health systems); arts (foundation term); environment (foundation term); and science (foundation term; pharmacy).

Mario Coniglio
Associate Vice-President, Academic

Review Process
This is the second program review of the Cognitive Science Option. The Cognitive Science Program was last reviewed in 2005. The self-study discussed future plans concerning improved organizational and financial support, a possible new undergraduate degree, changes to the Option, marketing improvements, and increased research activities. The review report did not make specific recommendations, but commented that: (a) adding a major did not seem likely; (b) the program should be housed in Arts; (c) the enrollment numbers are small but the program does well with respect to quality; (d) questions about compensation for the Director needed to be addressed; (e) the University should encourage a sense of belonging to the program and interdisciplinary studies in general.

The two-year progress report indicated that the transfer of the program to the Faculty of Arts along with other university-wide interdisciplinary programs worked well. The Cognitive Science Program began new ways to support interdisciplinary research activities. It has worked closely with the new Centre for Theoretical Neuroscience initiating Waterloo Brain Day.

This self-study was completed by the following process. In July, 2011, the Cognitive Science Program Advisory Board met to discuss the current state of the Program and possible future directions. In April, 2012, all current students in the Program were contacted by email with questions about its strengths and weaknesses and asked for suggestions about improvements. Additional feedback came from former students contacted by email. A draft of the self-study was written by the Director in April, 2012, and then discussed by the Advisory Board at a meeting in May, 2012. A final draft of the study was submitted to the Associate Vice President Academic and Strategic Initiatives on June, 2012, with a copy sent to the Dean of Arts.

The site visit of the review team occurred on September 27, 2012; the review team’s report was received January 17, 2013; and the Director’s and Dean’s response together with an implementation plan, was submitted June 28, 2013.

Historical Overview
The Cognitive Science (COGSCI) Program at the University of Waterloo (UW) began in 1995, with the approval of the Cognitive Science Option, which is like a smaller version of an undergraduate Minor taken by students along with their regular Major. It was expanded in 2001 with the addition of a Graduate Diploma that can be taken by graduate students in conjunction with their Master or Doctoral degrees. In 2011, the University approved conversion of the Option into a Minor, to take effect in September, 2012.
At the University of Waterloo, the main Departments involved in the Program are currently Philosophy, Psychology, English Language and Literature, Computer Science, Systems Design Engineering, Electrical and Computer Engineering, and Biology. There are four main Cognitive Science programs in Ontario: Carleton University, Queen’s University, University of Toronto at Scarborough, and York University. The University of Waterloo’s program is weaker than these in that it does not offer a degree in Cognitive Science. But a case could be made that UW is stronger than all of them based on the academic quality of the participating faculty members and Departments. Outside Ontario, the main Canadian Cognitive Science Programs are at Simon Fraser University, McGill University, and the Université de Québec à Montréal. The review team acknowledged that UW’s cognitive research strength is in the top one-third of universities in Canada.

Currently the Minor in Cognitive Science has no space of its own; has almost no budget; and the program is not an administrative unit, no budget lines for faculty positions, no power to hire faculty members for the program, and so on.

**Program Objectives**
The primary goal of the Cognitive Science Program is to foster teaching and research in Cognitive Science, which is the interdisciplinary study of mind and intelligence. The aim of the Cognitive Science Option is that undergraduates who complete it will be able to recognize, distinguish, and critique the concepts and methods used by different disciplines to understand how the mind works. The main desired learning outcomes concern: cognitive concepts, cognitive methods, interdisciplinary connections, and practical applications. The new Minor has the same desired outcomes.

**Cognitive Concepts**
By the end of the Option, students will:
- grasp fundamental concepts such as mental representation and processing;
- understand computational and neural mechanisms that underlie thinking;
- demonstrate ability to assess the strengths and weaknesses of different theories of mind.

**Cognitive Methods**
By the end of the Option, students will:
- recognize and distinguish experimental methods in Psychology, Neuroscience, Linguistics, and Psychology;
- understand how computational models contribute to cognitive theorizing;
- be able to analyze and evaluate philosophical arguments concerning theories of mind.

**Interdisciplinary Connections**
By the end of the Option, students will:
- compare and contrast the cognitive concepts and methods from different disciplines;
- grasp the advantages of taking an interdisciplinary approach to the study of mind;
- be able to analyze and evaluate interdisciplinary ideas.

**Practical Applications**
By the end of the Option, students will:
• identify the practical areas in which cognitive science has applications, including education, management, robotics, and mental health;
• grasp the advantages of pursuing applications using interdisciplinary concepts and methods.

Academic Programs Offered
The Cognitive Science Program at UW includes:
• Cognitive Science Option (until August 31, 2012): four required plus three optional courses;
• Cognitive Science Minor (after September 1, 2012): four required plus four optional courses;
• Cognitive Science Graduate Diploma: four courses including COGSCI 600.

The two special courses for the Option are PHIL/PSYCH 256 and PHIL/PSYCH 447. PHIL/PSYCH 256 reflects the current state of Cognitive Science by providing a broad overview of how Psychology, Neuroscience, Linguistics, Anthropology, Artificial Intelligence, and Philosophy interact to increase understanding of mental processes. PHIL/PSYCH 447 is a much smaller seminar on a special topic each year that leads students in a state-of-the-art investigation of a cognitive topic of current interest, such as consciousness or creativity.

Students
From 1995 to 2012, 166 students had enrolled for the Cognitive Science Option, with 86 since 2005. Annually, from 2005 to 2011 inclusive, an average of 11 students had enrolled in the Option, from a high in 2005 of 16 students to a low of seven in 2007. These data are based on applications to the Director. Of the 79 students enrolled in the program, between 2005 and 2011 inclusive, 21 came from Computer Science, 17 from Software Engineering, 11 from Psychology, and 10 from Systems Design Engineering. Five of the six Faculties at UW have students enrolled in the Option.

With the exception of some of the Psychology students and the dozen or so students just mentioned, all the students in the Option have strong computational and mathematical backgrounds. This has two implications: firstly, students in the program are mostly very strong in general; and secondly, this very strength has probably played a role in the program not growing faster; it is an intimidating program for students without such a background.

Between 2005 and 2011 inclusive, 78 students graduated with the Cognitive Science Option – an annual average of 11. The largest number of graduates was 19 in 2005, and the least was six in 2010. Approximately 18% of these students graduated on their Dean’s Honours Lists. Of the 53 students enrolled in the Option, from 2005 to 2009 inclusive, 46 graduated for a completion rate of 86%.

Students of Cognitive Science viewed the strengths and weaknesses of the Option as follows:

Strengths:
• Gave a good integration with technical fields such as Computer Science and Engineering;
• Provided a good interdisciplinary view of Cognitive Science;
• Allowed students the opportunity to learn about others points of view and the different approaches people use in problem solving.
Weaknesses:

- Choice of courses was limited by Major and co-op;
- The Option could benefit from more applications of the lecture material;
- The lack of a suitable accessible machine intelligence course. All courses in the list from which students can select as possible machine intelligence courses have prerequisites indicating that they are either only available to Computer Science or Engineering students. This makes them inaccessible to students in other Departments.

Improvements suggested by students were:

- Offer courses more frequently;
- Offer another required discussion-based course to emphasize the cross disciplinary nature of the Option;
- Make the different disciplines’ subject matter more related to the Option so that the “bigger picture” can be seen;
- Foster a student community.

Faculty

The Cognitive Science has a Director who is a Professor of Philosophy, and an Advisory Board of five faculty members from five different Departments from three different Faculties. The Program has no support staff but currently is serviced by staff members in Women’s Studies and the Department of Philosophy. In addition, there is no dedicated financial support. The Faculty of Arts has generously provided support for “Waterloo Brain Day” and “Waterloo Ignorance Day”. The reviewers noted that the “programme is remarkably starved for resources.”

Of the faculty members most involved with Cognitive Science, one comes from Philosophy, one from Psychology/Systems Design Engineering, one from English Language and Literature, and the fourth from Electrical and Computer Engineering.

Collectively they have published three books; 11 edited books; 22 book chapters; 156 refereed journal articles; 183 refereed conference proceedings; over 60 conference proceeding, and many other publications/workshops-invited talks etc. In total, they are editors, associate editors, or on the editorial boards of at least 20 academic journals. They are also sought as reviewers for many different academic journals, university presses, and granting agencies. In addition they have had many honours: Canada Research Chair, University Chair (UW); Fellow of the Cognitive Science Society; Canada Council for the Arts, Molson Prize for Social Sciences and Humanities; Fellow of the Association for Psychological Science; Fellow of the Canadian Academy of Engineering; Fellow of the Engineering Institute of Canada; and Fellow of the International Association of Pattern Recognition.

Issues and Opportunities for Improvement

Cognitive Science faces a variety of issues over the next five years. The self-study made several recommendations, which the review team endorses:
Recommendation 1: that the new Cognitive Science Minor be closely monitored to determine whether it is sufficiently accessible and doable.

Recommendation 2: that the Cognitive Science Advisory Board begin to discuss a post-2014 transition to a new Director together with arrangements for teaching core Cognitive Science courses since the present Director’s term finishes in 2014.

Recommendation 3: that the Dean of Arts be requested to provide a dedicated faculty position for Cognitive Science, in either of the Philosophy or Psychology Departments, effective September 1, 2015. [This particular recommendation was especially strongly endorsed by the review team].

The following additional recommendations were made by the review team:

Recommendation 4: The review team noted that Cognitive Science gives Arts students (especially those in Psychology and Philosophy) access to the Cognitive Science area, which they could apply to a great many areas of specialization. At the same time, a Cognitive Science Minor gives Engineering and Computer Science students a unique perspective on the areas of Psychology and Philosophy. Because of these reasons, a Minor should continue to be offered.

Recommendation 5: that steps be taken immediately to begin to build a Cognitive Science community in the University.

Recommendation 6: that the teaching of PHIL/PSYCH 256 and PSYCH 447 be continued.

Recommendation 7: that UW develops a machine intelligence course for a non-technical audience.

Recommendation 8: that the problem be rectified that students with little computational background cannot do any of the courses in the fourth group of the “three of the following” section of the requirements for the Minor.

Recommendation 9: that the University establishes a task force charged with planning a proper Cognitive Science degree program.

Program Response

The Program response focused on the six questions raised by the review team, which relate to varying degrees to the recommendations listed above.

1. Strengthening the Cognitive Science Minor (Recommendations 1, 4, 5, 6, 7, 8)

The program recognizes that the Cognitive Science Minor has to be a doable, attractive option to invite enrollment by suitably qualified students.

a) Better publicizing of the Minor will be achieved by (i) annual meetings of the Director with undergraduate organizations in the departments that have provided most students to the minor and the previous option. (ii) Students taking PHIL/PSYCH 256 by Extended Learning will be directly informed of the existence of the Cognitive Science Minor.
Implementation: The Director will engage student groups as required, beginning in fall 2013. This will be ongoing.

b) In order to make it easier for students to satisfy the Minor requirements, the range of courses should be expanded to include additional courses such as the following: BIOL 377 (Systems neuroscience: from neurons to behavior); INTEG 251 (Nature of scientific knowledge); SYDE 433 (Conflict resolution). These courses are already on the books.

Implementation: The Director will submit a revision of the Minor requirements to UGAG in fall 2013.

c) Another way of making it easier for students to satisfy the requirements would be the addition of a non-technical course on machine intelligence to provide another way of satisfying the “three of” section of the requirements for the Cognitive Science Minor. The course on human and machine intelligence discussed under question 3 below would fill this role.

Implementation: In fall, 2013, the Director will discuss the feasibility of this new course with the Cognitive Science Advisory Board and relevant department chairs.

d) In order to raise the visibility of the Cognitive Science Program beyond Waterloo Brain Day and Waterloo Ignorance Day, we should arrange to have 2 Cognitive Science speakers per year, one in each of the fall and winter terms. Initially, this could be done in coordination with relevant departments and the Centre for Theoretical Neuroscience. Funds should be sought from the Dean and/or Provost.

Implementation: The Director will initiate discussion with the Dean of Arts and/or Provost in fall 2013.

2. Additional resources for the Cognitive Science program (Recommendations 3, 5)

A faculty position should be requested from the Dean of Arts and/or Provost for a specific appointment in Cognitive Science, joint with a relevant department. To attract an outstanding candidate, a Canada Research Chair would be ideal.

Implementation: The Director will initiate discussion with the Dean of Arts and/or Provost in fall 2013.

3. Introduction of a course in machine intelligence accessible to non-technical students (Recommendation 7)

A non-technical course on machine intelligence does not seem feasible because training in that field requires programming experience beyond the reach of most students in arts and sciences. However, there is a great opportunity for a new interdisciplinary course that discusses similarities and differences in intelligent processes found in people, nonhuman animals, and computers. Topics will include problem solving, learning, language, and consciousness.

Implementation: In fall 2013, the Director will discuss the feasibility of this new course with the Cognitive Science Advisory Board and relevant department chairs.
4. Connection with Knowledge Integration Program (Recommendation 5)
There are clear overlaps between Knowledge Integration’s ambitions and the interdisciplinary field of
cognitive science.

Implementation: The Directors of the two programs will meet in fall 2013 to discuss possible cooperation between the programs.

5. Creation of a task force to discuss establishment of a Cognitive Science degree program
(Recommendations 5, 9)
Eventually, we would like to see the Cognitive Science Program expanded to offer a Major in Cognitive Science in addition to the Minor. This aim is complicated by the fact that a large proportion of the students taking the Minor come from Engineering and Mathematics, whereas a Major in cognitive science would most naturally be organized in the Faculty of Arts.

Implementation: The Director will spend the next two years focusing on increasing enrollment in the Minor. Once this occurs, he will strike a task force concerned with establishing a Major.

6. Long term management of the Cognitive Science Program (Recommendation 2)
This issue will become acute when Paul Thagard ends his 20-year stint as Director at the end of 2014. A search for a new director will begin in September, 2014, initially by emailing all 40 faculty associated with the program to invite them to apply. The search committee will be the Cognitive Science Program Advisory Board. Once a new director is selected, negotiations will be required with relevant departments to ensure continued teaching of cognitive science courses, including PHIL/PSYCH 256, PHIL/PSYCH 447, COGSCI 600, and – if it has been developed – COGSCI 300.

Final Assessment Report of the Review of the Speech Communication Program (BA)

August 2013

Previous review
A review of the Department of Drama and Speech Communication Department was conducted in 2002. Reviewers’ comments touched upon three areas: the department as a whole, the Drama program, and the Speech Communication program – the latter is the subject of this Final Assessment Report. The Drama program was reviewed in 2010.

The 2002 review of the Speech Communication program recommended that: (1) Faculty members place more emphasis on theory in speech communication (SPCOM) courses; and (2) that more attention be offered to sessional instructors, focusing on their sense of connection to and security within the program. Recommendations were also made pertaining to the department, highlighting the need for greater cohesion among faculty and at curricular and administrative levels.

In response to the recommendations from the 2002 report, key SPCOM courses were revised at the 200 level and particularly the 400 level to include more theory. Regarding the sessional instructors, there is now: (1) increased clarity in hiring processes and criteria, (2) open and transparent communication within the department as a whole and within the Speech Communication program, and (3) direct communication between the chair of the department and sessional instructors. These changes all seem to have resulted in an increased sense of satisfaction among sessional instructors in the program.

The department-level recommendations made in 2002 (and in the Drama program review in 2010) led to discussion of how to increase curricular cohesion by developing an introductory course and a possible capstone course that might be required of all Drama and Speech Communication students. There has also been agreement by faculty that the department can strengthen the means by which faculty and staff members communicate to students in the Drama and Speech Communication programs the ways in which the Speech Communication and Drama programs are both distinct and overlapping. Familiarizing students with these areas of distinction and shared interests might lend to a greater sense of cohesion among Drama and Speech Communication students. Speech Communication faculty members anticipate that efforts to increase student awareness of links between Drama and Speech Communication will, in the near future, occur primarily related to extra-curricular efforts. For example, department faculty and staff will host an orientation in fall 2013 for students in all three units in the department. In regard to curricular overlap, it is most likely that faculty will begin considering...
possible areas of connection in fall 2014. This is in part due to discussions about curriculum among Drama faculty that are currently ongoing (and will likely conclude in winter 2014).

Increased cohesion among faculty members resulted from a report commissioned by the Dean of Arts in the 2010/2011 academic year in which ways to improve collaboration within the department were discussed. Faculty members were strongly in favour of both retaining distinct disciplinary priorities and pursuing significant collaborations. Administrative cohesion was improved in the department through improvements in governance as well as organizing a variety of events that encourage informal interactions among department members.

The present self-study

All faculty, definite term lecturers and staff members in the Speech Communication program contributed to the writing of the self-study. In the 2011-2012 academic year, this work was under the direction of the Acting Chair, Jill Tomasson-Goodwin. In the fall of 2012 following her return from sabbatical, Chair Jennifer Simpson completed the work. The Office of Institutional Analysis and Planning provided reports and other information. Program alumni were surveyed to gather information about post-graduation activities and employment.

The site visit by two external reviewers accompanied by a UW faculty member took place on March 18-19, 2013. The review team met with Department, Faculty and institutional administrators, and various Department faculty, lecturers and administrative personnel. Undergraduate students also met with the review team.

The reviewers’ report was received on April 16, 2013, and the Department’s and Dean’s response and implementation plan were received on July 23, 2013.

Characteristics of the program

Historical Review

The Department of Drama and Speech Communication received official departmental status in 1991. Beginning in the 1989/1990 academic year, students could enroll in a minor or an option in Speech Communication. The department began offering a three year general program and a four year general major program in 1991. Personnel resources in the Speech Communication program developed alongside programmatic advances. There are currently three units in the Department of Drama and Speech Communication—Digital Arts Communication (DAC), Drama, and Speech Communication.

The study of Speech Communication at the University of Waterloo is distinctive in the Canadian and North American contexts. The Speech Communication program at the University of Waterloo is the only one of its kind in Canada to offer a specific university degree in Speech Communication. The Speech Communication program is in many ways more grounded in
philosophical, theoretical, and methodological approaches to communication than in a specific disciplinary trajectory, as is the case with most other Canadian and especially American institutions offering communications degree programs. The disciplinary expertise of faculty members currently resides in four primary areas: interpersonal and organizational communication; intercultural communication; public communication; and performance studies. These four areas are distinct yet overlapping, have a strong resonance with university and Faculty of Arts goals and priorities, and lend a distinctiveness to the Speech Communication program at UW in comparison with other programs in North America.

Program objectives
The central aim of the Speech Communication program is to explore the significance of making meaning. This can occur in a variety of settings, including interpersonal, organizational, and public; through a range of channels and forums (textual, visual, digital, etc.); and in relation to both micro-level and macro-level interactions (such as within the family and workplace; in regard to large structures; and in the context of social norms). Students in the program study the dynamics of communication in organizations and the workplace; the construction and significance of communicative messages; and the psychological and social aspects of the processes of making meaning.

The program pursues three primary objectives: (1) to examine agency and implication; (2) to support critical and creative competencies; and (3) to encourage a language and imagination for the public good. The above three objectives are supported by faculty members’ research and creative work and service, and clearly draw on the strengths and directions of the department as a whole. Within these three broad priorities, there are multiple teaching objectives that seek to develop in the program’s students an impressively broad range of intellectual, creative, analytical, communication and self-reflective skills.

The program has two concrete goals related to student numbers and quality: (1) achieve modest increases in the number of students enrolled over the next five to ten years; and (2) raise the visibility of communication as a discipline and of Speech Communication at the University of Waterloo with prospective students and their parents, and within the Faculty of Arts. The ongoing success of the program, as well as departmental discussions in academic year 2010/2011, and program-level dialogue in fall 2012, demonstrate that the program is well situated to achieve these goals.

Academic program offered
The Speech Communication program currently offers the following plans:

- A Four-year Honours Plan
- A Four-year Honours Arts and Business Co-op
- A Four-year Arts and Business Regular
- A Four-year Joint Honours Plan
- A Four-year General Major Plan
A Three-year General Major Plan
A Minor Plan

The Speech Communication program offers four emphases related to the study of making meaning: (1) interpersonal and organizational communication, (2) intercultural communication, (3) performance studies, and (4) public and digital communication.

Currently, course requirements in the program strongly favour the area of interpersonal and organizational communication. Requirements draw less on courses in intercultural communication, public communication, and performance studies. While students can take courses across all four areas, many of the courses in intercultural communication, public communication, and performance studies are program electives. Anticipated curricular modifications will lead to a more equitable spread of requirements across all four areas within the program as well as increased choice for program electives. There will also be a change in the curricular policy that currently requires students to take courses in two of four “areas of concentration,” a policy which unnecessarily complicates requirements and students’ progress through the degree. [Update: These curricular modifications were approved at a meeting of the Undergraduate Affairs Group in March 2013.]

From 2005/2006 to 2011/2012, enrollments in SPCOM courses at the 100, 200, 300 and 400 level were 491, 1159, 117 and 158 students, respectively. The high number of 200 level enrollments is mainly a reflection of SPCOM 223 (Public Speaking). For the past several years, the course has been a required course for students majoring in Speech Communication, as well as for students enrolled in a number of programs: Arts and Business, Accounting and Financial Management, Mathematics/Chartered Accountancy, Biotechnology/Chartered Accountancy, and Knowledge Integration. SPCOM 223 has also served as an elective for students meeting breadth requirements in Arts and other faculties. Until recently, Speech Communication has offered up to 41 sections of SPCOM 223 in any given academic year. Beginning in winter 2012, Speech Communication now offers approximately 18 sections of SPCOM 223, 14 sections of SPCOM 111 (Leadership, Communication, and Collaboration – for Accounting and Financial Management, Mathematics/Chartered Accountancy or Biotechnology/Chartered Accountancy students only), and three to four sections of ARBUS 204 (Leadership, Teams, and Communication – for 2A Arts and Business Students) annually. Faculty members and definite term lecturers in the Speech Communication program have been able to ensure that SPCOM 111, ARBUS 204, and SPCOM 223 are carefully designed and delivered, and that they remain in demand by numerous departments across the university.

Since spring 2009, 221 sections of SPCOM courses have been taught. Average class size is 22 students, and the vast majority of classes is less than 30 students. Small class sizes allow for a high level of discussion and application, and indeed students consistently note this aspect of the program in informal discussions and formal course evaluations. On the whole, instructors in Speech Communication received teaching scores from the September 2009 to January 2012 terms that are equal to or above averages in the Faculty of Arts. However, depending on the
term examined, some of the aggregated 300-level courses with scores of 3.20 to 3.56 are distinctly below the Faculty of Arts average for that level.

Student assessment in Speech Communication is conducted through multiple avenues, including formal oral and written assignments, individual and group work, course discussion, and the application of concepts to communicative interactions and practices. These forms of assessment occur in all levels of the undergraduate curriculum.

Faculty and instructors in the Speech Communication program believe that courses have a fairly strong fit with the Undergraduate Degree Level Expectations (UDLES). These UDLES are (1) depth and breadth of knowledge, (2) knowledge of methodologies, (3) application of knowledge, (4) communication skills, (5) awareness of limits of knowledge, and (6) autonomy and professional capacity. The program also satisfies the two uWaterloo degree level expectations – experiential learning and diversity. The alignment between the program’s approach to communication and the UDLEs, as well as course structure, content and delivery, are significant components of this fit.

**Students**

**Enrollment, retention and graduation data**

Students enter the Speech Communication program in their second year entry, as is typical of most Arts programs where first year students apply for a major at the end of the first year. Therefore data on number of applications from high school to this program are not available.

Over the last decade, the number of students selecting the Speech Communication as a major or minor has on the whole shown annual increases, with occasional instances of remaining constant. In no year in the last decade has enrollment significantly dropped.

From September 2005 to September 2011, 101 co-op students and 113 regular students entered the program, an average of 14 and 16 students each year, respectively. Only 8 international students are included in those numbers – 4 co-op and 4 regular. International students are from China, Hong Kong, Pakistan, Philippines, United Arab Emirates and the United States. Over this same time period, female students dominated enrollment in the program, averaging 74%.

Retention data from Year 2 to graduation is very encouraging. 94.1% of the students from the 2002/2003 to 2005/2006 co-op cohorts graduated with a degree from the same department as their registration in their 2A term. Only one of the total 17 students counted is “still seeking”. In contrast, for regular students, the graduation rate for the 2002/2003 to 2004/2005 cohorts is 100%. The 2005/2006 cohort of 16 students had three students withdraw from study. Note that it is possible for a student to be counted as “withdrawn” in one year and counted as “still seeking” in a subsequent fiscal year. This would happen if a student did not register in any of the three terms in a fiscal year, but then did return to study in the subsequent fiscal year.
Graduation data across all of the Speech Communication programs, from 2006 to 2012, indicates a total of 81 co-op degrees and 183 regular degrees were awarded, averaging 12 and 26 degrees, respectively. These figures include degrees with attached Speech Communications options or minors. The numbers of graduates from each the various Speech Communications plans (excluding joint majors, options and minors) averaged between 5 and 7 students each year, from 2006-2012. Within individual programs, numbers of graduates ranged from zero to 11 each year. Joint programs usually had two or less graduates each year. An average of 3 Speech Communication minors and options (phased out in 2012) were earned each year. Excluding minors and options, only 4.4% of the graduates from 2006 to 2012 graduated on the Dean’s Honours List (cumulative average 83.0% or higher), with percentages varying from zero (2008, 2012) to 10.3% (2007) for individual years. For convocations in 2009, 2010 and 2011, valedictorians were from the Speech Communications program. The students who met with the review team were seen as a “poised, keen, articulate and self-aware group…”

Co-operative education
Co-op enrollments in the program have generally climbed from September 2005 (n=13) to September 2011 (n=22). On the whole, the number of students participating in the co-op program in 2010 and 2011 were substantively higher than figures from 2006 – 2009, indicating continued and growing interest among Speech Communication students in the co-op program. A trend is not as obvious in the regular program.

Co-op employers are decidedly pleased with their hires. Between 2006 and 2012, 310 evaluations were completed and nearly 70% of the students were evaluated as “outstanding” or “excellent”, the two highest ratings available. A full 25% were awarded the rating of “outstanding,” which is the highest rating option. Of the remaining four evaluation categories (“very good,” “good,” “satisfactory,” and “marginal”), 23% were rated “very good” and 8% “good.” Only 1% of Speech Communication students in the Co-op program were rated “satisfactory” or “marginal”.

Similarly strong rankings of the Co-op program are reflected in students’ evaluations of their work experience. On a scale of one to ten, with ten representing the best experience, nearly 80% of a total of 310 students judged their work experience to be an eight or above. Of the remaining 20% of these 310 students, 14% ranked their experience a seven, 4% a six, and fewer than 4% a five or lower. It is noteworthy that on the whole, Speech Communication students in the Co-op program, and their employers, are consistently reporting excellent experiences and performance.

Graduates
Speech Communication graduates enter into a wide variety of professional roles, including human relations coordinator, marketer, communications specialist, community relations liaison, and technical writer. A small number of graduates go on to successfully complete graduate programs.
Speech Communication graduates note the relevance of the degree program to a variety of professional settings. Small classes and high levels of interaction with instructors in and out of the classroom, as well as the integration of group work into many Speech Communication courses, resulted in a sense of confidence and assuredness in a range of settings.

Graduates commented that their Speech Communication degree:
- contributed to skills highly relevant to professional settings and on which they rely in numerous interactions
- has challenged the way they think about the world;
- prepared them for success in the workforce (related to interviewing, public speaking, leadership roles, etc.); and
- prepared them for success in graduate programs, where they feel a sense of confidence related to assignments, group work, and communication at various levels.

Graduates also made two recommendations: (1) The program should more actively pursue students in other departments and faculties, who might choose to pursue a Speech Communication minor, and (2) the Department might offer a course that helps students understand the differences in the various communication-related fields.

Faculty
The three units in the Department — Digital Arts Communication, Drama and Speech Communication — each make distinctive disciplinary research, creative, and curricular contributions. There are also significant areas of complementarity across the department.

The current number of tenure and tenure-track faculty complement in the Speech Communication program is four, including two associate professors and two assistant professors. There are also two definite term lecturers. All instructors hold PhDs, except for one of the definite term lecturers. One of the assistant professors is leaving the program shortly and there is currently a search underway to replace her. There are no vacant faculty positions and retirements are not anticipated in the near future. The program is also supported by several sessional instructors and an administrative assistant who looks after the program’s administration, finance and communication.

Foundations of Faculty research and expertise of the department
The research and creative work of the faculty associated with the Speech Communication program is primarily concentrated in the areas of intercultural communication, interpersonal and organizational communication, performance studies, and public communication. Related areas of work include rhetoric, equity and justice, cultural studies, gender and sexuality, organizational consulting, spirituality, critical pedagogy, and pragmatism. Faculty research output (lifetime summary) includes the following: Three books authored, four books edited, 12 chapters in books, 34 papers in refereed journals and miscellaneous other reports, abstracts, book reviews, presentations and performances.
Faculty members in the Speech Communication program have been highly successful in obtaining external funding, with the total funding from external and internal grants being $692,281 since 2006, with the overwhelming majority of this funding acquired since 2009. Funding sources include SSHRC, Canadian Food Inspection Agency, CFI and various UW funding programs.

Faculty are involved in a variety of professional organizations and community service as well editorships on journals and journal article reviewing.

Faculty in the Speech Communication program teach an average of 5 courses each year, which is higher than the Faculty of Arts average of 4 courses each year.

Current issues/challenges
The Department and the Speech Communication program faces ongoing and urgent challenges. The most basic is that the Drama, Speech Communication, and DAC offices and classrooms are in three different buildings, lending to a sense of disconnection across units. In terms of the quantity of space for the program, faculty members and definite term lecturers all have private office space, and there is moderate space for Speech Communication sessionals.

Assuming even slight increases in the number of student majors and minors over the next five to ten years, and in relation to other departments in Arts, there is an imbalance between student numbers and personnel resources. While the Speech Communication program is exceptionally fortunate to draw on the commitment and expertise of highly qualified faculty members and definite term lecturers in relation to service and teaching in the department, it is also the case that faculty members with full teaching loads and the two definite term lecturers are able to cover only the most essential service areas in the program. Faculty members in the program would like to increase the number of tenure-line faculty members by two to three positions over the next five to ten years; and to convert the two definite term lecturer positions into continuing lecturer positions. If the program were to increase its number of tenure-line faculty members, new office space would be required.

Reviewers’ recommendations and program response
The program reviewers stated in their report that “what we found during our on-site visit was a program seriously under-resourced in FTEs, overstretched in terms of service teaching, and yet viewed by its own majors and faculty as a highly successful program.”. The reviewers were impressed with the “devotion, hard work and enthusiasm” of the Speech Communication faculty but recognized the unsustainability of the current situation in light of the small number of faculty involved in the program. In their view, the Speech Communication program “has an enormous potential contribution to make to the Faculty of Arts and to Waterloo University. . . [and] has the potential to increase (or stop the declining) enrollments in the
Faculty of Arts...”. It is an opportune time for the program to pursue most of the recommendations noted below.

The reviewers offered seven concrete recommendations.

1. **Change the name of the Speech Communication program.**

   **Program response:** not to change the name at this time. The name of “Speech Communication” in a disciplinary sense conveys very well the program’s intellectual priorities and scope, and clearly distinguishes the program from others in Canada, and therefore should be retained.

2. **Increase the full time faculty by two positions.**

   **Program response:** The need for new faculty in Speech Communication is closely linked to the numbers of majors in the program, as well as enrollment pressures related to core curriculum and the service courses that Speech Communication offers. Further, requests for new faculty in Speech Communication are situated within long-term complement planning in the Faculty of Arts. By the end of July 2013, the chair expects to announce the appointment of a new tenure line Assistant Professor appointment shared between Speech Communication and Stratford; as well as a three-year Definite Term Assistant Professor appointment in Speech Communication.

3. **Ensure slow and controlled growth for the program.**

   **Program response:** Currently, the tenure line faculty and continuing lecturers in the Speech Communication program are highly productive in terms of teaching, research, and service. Further growth would require additional efforts in the areas of service and teaching. The current level of resources does not support such a commitment. In fact, recent curricular changes will soon result in two new courses in Speech Communication, one of which is at the introductory level and may serve to attract higher numbers of new students into the major. Any increase in student majors in the program must have explicit connections to planning in the Faculty of Arts and at the university as a whole.

4. **Related to growth of the Speech Communication program and courses outside of the department (i.e., that in other departments in the Faculty of Arts and in other faculties), centrally involve those in the Speech Communication program in this growth.**

   **Program response:** The program has the potential to increase in size, visibility, and contributions to the Faculty of Arts and to the university as a whole but such growth requires resources. Strongly linking plans for growth to wider efforts in the Faculty of Arts will result in the most beneficial outcomes for the program, department, Faculty, and university.

5. **Further integrate Dr. Shannon Hartling and Mr. Tim Paci into work of program and department.**

   **Program response:** Dr. Hartling’s and Mr. Paci’s Definite Term lecturer positions have been recently converted to Continuing Term Lecturer positions with contractual teaching load of eight courses annually, with an appointment of 80% teaching and 20% service and no allowance for research. Both could both make significant contributions in the areas of service beyond their current levels but teaching responsibilities would have to decrease to make this possible. Teaching is the current priority.
6. Within the department as a whole, continue integrating three disciplinary programs (i.e., Speech Communication, Drama, and Digital Arts Communication).

**Program response:** Speech Communication faculty will continue to consider and pursue possibilities for cross-program work within the department, related to teaching, research, and service. In fall 2013, the department will hold a department wide and program specific orientation event for students, which will bring all students in the program together. Given existing resources, faculty in the Speech Communication program will engage in further integration with faculty in the two other units when this supports: (a) the work of the department overall; (b) the efforts of the Speech Communication program as a whole; and/or (c) the research and teaching of the individual faculty member.

7. Recognize the potential the Speech Communication program holds in regard to Faculty of Arts enrollments.

**Program response:** See response to recommendation three.
## Implementation Plan

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<td>3. Ensure slow and controlled growth for program.</td>
<td>a. Curricular changes—assess impact, etc.</td>
<td>a. Program faculty</td>
<td>Additional faculty positions, esp. related to efforts that go beyond delivering existing curriculum, etc.</td>
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<td>2014 – 2017</td>
<td>4. Involve those in program in this growth.</td>
<td>Link service commitments of program faculty to efforts to increase student majors, program visibility, etc.</td>
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<td>Ongoing</td>
<td>6. Continue integration of three disciplinary units.</td>
<td>a. Curricular connections</td>
<td>Program faculty and staff</td>
<td>Efforts to integrate three disciplinary units are likely to occur related to how integration fits with faculty research and teaching profiles; dependent on uses of existing resources.</td>
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<td>2014 – 2017</td>
<td>7. Recognize potential of program related to Faculty of Arts enrollments.</td>
<td>Ongoing attention to ways in which program might support Faculty of Arts priorities, in context of long-range and strategic planning (esp. related to enrollment and visibility)</td>
<td>Program faculty, Dean</td>
<td>Existing tenure line faculty and service commitments of Continuing Lecturers do not allow for additional service work; pursuit of increased enrollment, etc., will require a) new tenure line faculty and/or b) increased service load of Continuing Lecturers</td>
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Recognition and Commendation

Jim Walker, professor of history, has been named a Fellow of the Royal Society of Canada (RSC). “The university is proud to have an internationally recognized scholar like Professor Walker among our faculty,” said Feridun Hamdullahpur, president. “His work examining the importance of human rights in society has universal applications, and therefore the potential for positive impact in Canada and around the world. We congratulate him on this deserved honour.” Professor Walker teaches and conducts research in Canadian and international human rights, race relations in Canada, immigration and African-Canadian history. In honouring Professor Walker, the RSC noted, “His scholarship and teaching on racial equality in Canada since World War II have influenced an entire generation of Canadians both within and outside the academy. His research helped launch African-Canadian history and aboriginal history as fields of historical inquiry.” He is a former Bora Laskin National Fellow in Human Rights Research and the author of several works relating to the historical development of human rights. Professor Walker is among 84 new fellows, and will be inducted in a formal ceremony on November 16 at the annual general meeting of the RSC in Banff, Alberta.

Additionally, Professor John Thompson, professor emeritus from the Faculty of Science, and associate vice-president, university research, is recognized as a Life Member. He has been a Fellow of the RSC since 1987. The honour comes after 25 years of fellowship. [9 September 2013 Daily Bulletin]

“I am thrilled and proud that Waterloo received four Banting fellowships this year, when only 70 are awarded across the country,” said Sue Horton, associate provost, graduate studies. “The four winners represent a great range of talent, from areas as diverse as membrane biophysics and Mennonite literature, from quantum gravity to energy storage.” Two of the winners of the Banting Postdoctoral Fellowships are in the Faculty of Science. The others will each conduct their research in the Faculty of Mathematics and the Faculty of Arts.

- The work of William (Drew) Bennett of the Department of Chemistry will focus on bioactive molecules, and has applications for drug delivery and personalized medicine. His fellowship is from the Natural Sciences and Engineering Research Council of Canada (NSERC). His work fits into the university’s strategic research priority areas of health and materials manufacturing and devices.

- Jaka Sunarso of the Department of Chemistry will work on new rechargeable batteries that can perform at higher-than-normal temperatures. He received his fellowship from NSERC, and his research falls under Waterloo’s priority areas of energy and the environment, and materials manufacturing and devices.

- Maité Dupuis of the Department of Applied Mathematics will work on loop quantum gravity, which falls within the theory of general relativity. The research she will conduct under her NSERC Banting fellowship will allow Dupuis to join over 30+ postdoctoral fellows at IQC, and allow her to focus on the Quantum-Nano nexus, which is arguably one the university’s top current research priority.

- Robert Zacharias of the Department of English Language & Literature is a leading international expert in the field of Mennonite literary studies. His work will situate Mennonite literature within the theoretic framework of hemispheric studies, which reads Canadian cultural production across national
borders in relation to the Americas. His fellowship is from the Social Sciences and Humanities Research Council (SSHRC); his topic fits into the theme of Society and Culture, one of the areas of focus in Waterloo's strategic research plan.

Banting fellowship awards are worth $70,000 a year, for two years. Their intent is to attract and retain top talent, and prepare recipients as leading researchers to solve the challenges of the future. This year’s recipients come to University of Waterloo from Canada, France and Indonesia.

The Vanier Canada Graduate Scholarships recognize top academic achievement and leadership skills. They support recipients as they complete doctoral degrees while conducting significant research. Scholars receive $50,000 each year, for three years. This year’s Waterloo recipients come from the arts, engineering and mathematics faculties. “Graduate students are instrumental in contributing to the high quality research taking place at Waterloo,” said Sue Horton, associate provost, graduate studies. “I am pleased to see Vanier recognize the outstanding achievements and promise of these award winners.”

- **Timothy Leshuk** is a doctoral candidate whose proposed research project involves the application of nanotechnology for water purification, and builds on the university’s established excellence in these areas. He received his Vanier scholarship from NSERC.

- **Abbas Mehrabian** is a doctoral candidate. He also received an NSERC Vanier. His research is in the area of graph theory, a branch of mathematics with fundamental links to computer science and operations research.

- **Shauna Bottos** is a doctoral candidate whose research interest lies in the areas of complex trauma and mentalizing with the particular interest in the psychological sequelae resulting from chronic childhood abuse and neglect. She is the recipient of the SSHRC Vanier.

The Honourable Greg Rickford, Minister of State (Science and Technology), announced the 165 winners of the Vanier scholarships and 70 recipients of the Banting fellowships at an event recently held in Quebec City. [24 September 2013 Daily Bulletin]
A. APPOINTMENTS

Definite-term Appointments

AZAGBA, Sunday, Assistant Professor, Faculty of Applied Health Sciences (Propel Centre for Population Health Impact), October 1, 2013 to September 30, 2015. BA, Economics, Ambrose Alli University, Nigeria, 2000; MA, Economics with distinction, University of Lagos, Nigeria, 2002; MA, Finance with distinction, University of Skovde, Sweden, 2005; PhD, Economics, Concordia University, Montreal, 2012. Dr. Azagba’s major responsibilities as a Propel scientist are with the Propel Centre related to research, evaluation and knowledge exchange activities to further Propel’s strategic plan and he will provide some teaching and supervision and collaboration with the School of Public Health and Health Systems.

CHEN, Helen, Assistant Professor, School of Public Health and Health Systems, November 1, 2013 to October 30, 2015. BSc (Hons), Engineering Mechanics, Tsinghua University, China, 1987; MSc, Engineering Mechanics, Tsinghua University, 1989; PhD, Computational Biomechanics, University of Waterloo, 1998. Dr. Chen’s major responsibilities are related to teaching both undergraduate and graduate courses and research collaborations in the area of Health Informatics.

WILLIS, Cameron, Research Assistant Professor, Faculty of Applied Health Sciences (Propel Centre for Population Health Impact), February 1, 2014 to January 31, 2016. Bachelor of Physiotherapy (first class honours), Physiotherapy, La Trobe University, Melbourne, Australia, 2002; PhD, Epidemiology and Preventive Medicine, Monash University, Melbourne, Australia, 2008. Dr. Willis’ major responsibilities as a Propel scientist are with the Propel Centre related to research, evaluation and knowledge exchange activities to further Propel’s strategic plan and he will provide some teaching and supervision and collaboration with the School of Public Health and Health Systems.

Adjunct Appointments

Undergraduate Instruction

PITT, Jack, Lecturer, School of Public Health and Health Systems, September 1, 2013 to December 31, 2013.

Graduate Supervision and Research

DONNELLE, Lorie, Associate Professor, School of Public Health and Health Systems, September 1, 2013 to August 31, 2014.

Postdoctoral Fellow to Research Appointments

AKRAM, Sakineh, Department of Kinesiology, September 1, 2013 to April 30, 2014.

FORTUNE, Darla, Department of Kinesiology, September 1, 2013 to August 31, 2014.

METHEREL, Adam, Department of Kinesiology, September 1, 2013 to August 31, 2014.
SCHRYER, Emily, Department of Recreation and Leisure Studies, September 1, 2013 to April 30, 2014.

B. ADMINISTRATIVE APPOINTMENT
TUPLING, Russell, Associate Chair, Department of Kinesiology, September 1, 2013 to August 31, 2016.

Susan J. Elliott
Dean, Applied Health Sciences
A. APPOINTMENTS

Probationary-term Appointments

MITCHELL, Timothy (BS 1987 Auburn University, PhD 2008 University of Kentucky), Assistant Professor, School of Accounting and Finance, July 1, 2013 to June 30, 2016. Dr. Mitchell joins the management accounting area of the school. His research interests include how selected attributes of performance based compensation schemes affect behaviour. He has studied the effect of these attributes on objective measures of employee performance, willingness to engage in strategy development, willingness to accept compensation risk and ability to detect information in reporting. Dr. Mitchell received the American Accounting Association Doctoral Consortium Fellow and the Max Steckler Fellowship in 2007. He has taught courses in management and financial accounting and he will contribute to the School of Accounting and Finance by strengthening research and teaching in the management accounting area.

NGUYEN, Tu (BS 2004 Foreign Trade University, MBA 2008 Boston University, PhD 2013 Drexel University), Assistant Professor, School of Accounting and Finance, September 1, 2013 to June 30, 2016. Dr. Nguyen joins the finance area of the school. Her research interests include empirical corporate finance, including mergers and acquisitions, executive compensation, and corporate governance. While conducting her research she has found that acquisitions by CEOs with experience in the target’s supply chain exhibit higher acquirer acquisitions. Dr. Nguyen has received a Graduate Assistantship from Drexel University from 2008 to 2013 and the Dean’s Scholarship from Boston University from 2007 to 2008. She has taught courses in corporate finance and she will contribute to the School of Accounting and Finance by strengthening research and teaching in the finance area.

POMEROY, Bradley (BComm 2003 Saint Mary’s University, MSc 2004 Queen’s University, PhD 2009 University of Alberta), Assistant Professor, School of Accounting and Finance, July 1, 2013 to June 30, 2016. Dr. Pomeroy joins the assurance area of the school. His research interests include the nature of professional judgment and decision making in accounting contexts. Dr. Pomeroy received the American Accounting Association Auditing Section Outstanding Dissertation Award in 2011 and in 2010 and 2011 he made the University of Illinois’s List of Teachers Ranked as Excellent by their Students. In 2006 he received the KPMG Faculty Fellowship. He joins the school from the University of Illinois at Urbana-Champaign and he will contribute to the School of Accounting and Finance by strengthening research and teaching in the assurance area.

TIAN, Jie Joyce (BA 1998 Remin University, MS 2000 University of Nevada, PhD 2006 University of Florida), Assistant Professor, School of Accounting and Finance, July 1, 2013 to June 30, 2016. Dr. Tian joins the management accounting area of the school. She conducts analytical research on several topics including executive compensation and decision making, roles of boards in monitoring and advising, managerial disclosure, subjective performance evaluation, performance target setting, auditor-manger negotiation and organizational design problems (decision delegation and supply chain). Dr. Tian received a Social Sciences and Humanities Research Council (SSHRC) grant in 2011, a J.D. Muir Research Fund from the University of Alberta in 2006 and was made an AAA/Deloitte & Touche/J. Michael Cook Doctoral Consortium Fellow in 2003. She has taught courses in managerial
accounting, financial accounting and auditing. Dr. Tian will contribute to the School of Accounting and Finance by strengthening research and teaching in the management accounting area.

**Probationary-term Appointments – Date Change**

**ESSELMENT, Anna**, Assistant Professor, Department of Political Science, **from** July 1, 2011 to June 30, 2014 **to** July 1, 2011 to June 30, 2015.

**LEPAGE, Elise**, Assistant Professor, Department of French Studies, **from** May 1, 2011 to June 30, 2014 **to** May 1, 2011 to June 30, 2015.

**MCAULEY, Tara**, Assistant Professor, Department of Psychology, **from** July 1, 2011 to June 30, 2014 **to** July 1, 2011 to June 30, 2015.

**Definite-term Appointments**

**CARSON, Linda** (BMath 1985 BA 1990 University of Waterloo, MFA 1993 University of Saskatchewan, MSc 2004 PhD 2013 University of Waterloo), Lecturer, Department of Fine Arts, September 1, 2013 to August 31, 2014. Dr. Carson brings a great variety of experience to her appointment. She is a dedicated teacher, having played a key role in the design and development of the curriculum in the Centre for Knowledge Integration in the Faculty of Environment. Prior to that she had extensive experience with the Waterloo Unlimited Program, the Shad Valley Institute and her own art school in Waterloo. Her research interests in the cognitive processes associated with art making and the viewing of art mark the intersection of artistic practice, neuroscience and psychology.

**DELAMERE, D’Arcy** (BA 1968 Dalhousie University, MBA 1976 University of Western Ontario), Lecturer, School of Accounting and Finance, July 1, 2013 to June 30, 2014. Mr. Delamere joins the accounting area of the school. He has extensive business experience at the senior executive level with Clarica Life Insurance Company, The Mutual Group and the Royal Bank of Canada. He completed the Canadian Securities Partners, Officers and Directors Program in 2006 and most recently worked at Wilfred Laurier University as a definite-term lecturer. Mr. Delamere brings extensive experience in all aspects of international business to the school’s programs and students. He will contribute to the School of Accounting and Finance by strengthening teaching in the accounting and finance areas.

**MANN, Shari** (BMath 1984 University of Waterloo), Lecturer, School of Accounting and Finance, July 1, 2013 to June 30, 2014. Ms Mann joins the financial accounting area of the school. She received her Chartered Accountant’s designation from the Canadian Institute of Chartered Accountants in 1985 and mostly recently worked at the Institute of Chartered Accountants (ICAO) and as an educational and training consultant and at the School of Accounting and Finance as an adjunct lecturer. Previously, she worked with KPMG. Ms Mann brings extensive experience in all aspects of financial accounting and assurance to the school’s programs and students. She will contribute to the School of Accounting and Finance by strengthening teaching in the accounting area.

**Adjunct Appointments**

**Instruction**

**BHAGWANANI, Ashna**, Lecturer, Department of English Language and Literature, September 1, 2013 to December 31, 2013.

**BOLT, Laura**, Lecturer, Department of Anthropology, September 1, 2013 to December 31, 2013.

**HALLER, Oliver**, Lecturer, Department of History, September 1, 2013 to December 31, 2013.
KUZMINYKH, Anastasia, Lecturer, Department of Germanic and Slavic Studies, September 1, 2013 to December 31, 2013.

ROZOTTO, David, Lecturer, Department of Spanish and Latin American Studies, January 1, 2014 to April 30, 2014.

Graduate Supervision
MCINTYRE-SMITH, Alexandra, Assistant Professor, Department of Psychology, September 1, 2013 to August 31, 2014.

MIKAIL, Samuel, Assistant Professor, Department of Psychology, September 1, 2013 to August 31, 2014.

Adjunct Reappointments
Instruction
BALAISIS, Nicholas, Lecturer, Department of English Language and Literature, September 1, 2013 to December 31, 2013.

CALDERON-CALLEJAS, Betty, Lecturer, Department of Spanish and Latin American Studies, January 1, 2014 to April 30, 2014.

CHAPUT, Louise, Lecturer, Department of French Studies, September 1, 2013 to October 4, 2013.

CHASMAR, Hugh, Lecturer, School of Accounting and Finance, September 1, 2013 to December 31, 2013.

DE ROOIJ-MOHLE, Geertruida (Margreet), Lecturer, Department of Germanic and Slavic Studies, September 1, 2013 to December 31, 2013.

DEMAN, Andres, Lecturer, Department of English Language and Literature, September 1, 2013 to December 31, 2013.

ERMISHKINA, Natalia, Department of Drama and Speech Communication, September 1, 2013 to December 31, 2013.

GEWURTZ, Michelle, Lecturer, Women’s Studies, September 1, 2013 to December 31, 2013.

HARVIE, Jo, Lecturer, Department of Drama and Speech Communication, September 1, 2013 to December 31, 2013.

HILL, Heather, Lecturer, Department of Drama and Speech Communication, September 1, 2013 to December 31, 2013.

HOCHSTEIN, Eric, Lecturer, Department of Philosophy, September 1, 2013 to December 31, 2013.

JAIMES-DOMINGUEA, Luis, Department of Spanish and Latin American Studies, January 1, 2014 to April 30, 2014.

LICHTI, Shirley, Lecturer, Faculty of Arts (Stratford Programmes), September 1, 2013 to December 31, 2013.
MOTA, Fatima, Lecturer, Department of Spanish and Latin American Studies, January 1, 2014 to April 30, 2014.

NADOLNY, Daniel, Lecturer, Department of Psychology, September 1, 2013 to December 31, 2013.

NABERT-CHUBB, Rebecca, Lecturer, Department of Political Science, January 1, 2014 to April 30, 2014.

NEEDHAM, Brent, Lecturer, Department of Political Science, January 1, 2014 to April 30, 2014.

O’HARA, Kathleen, Lecturer, Department of Drama and Speech Communication, September 1, 2013 to December 31, 2013.

PETRESCU, Maria, Lecturer, Department of French Studies, September 1, 2013 to December 31, 2013.

RAMIREZ, Helen, Lecturer, Women’s Studies, September 1, 2013 to December 31, 2013.

ROBERTS, Steve, Lecturer, School of Accounting and Finance, September 1, 2013 to December 31, 2013.

STACEY, Jeffery, Lecturer, Department of Philosophy, September 1, 2013 to December 31, 2013.

THARMALINGAM, Pirapa, Lecturer, Department of Economics, September 1, 2013 to December 31, 2013.

TRAVERS, Dan, Lecturer, Department of History, September 1, 2013 to December 31, 2013.

TUCKER, Thomas, Lecturer, Department of Economics, September 1, 2013 to December 31, 2013.

WYSE, Bruce, Lecturer, Department of English Language and Literature, September 1, 2013 to December 31, 2013.

YOSHIDA, Emiko, Lecturer, Department of Psychology, September 1, 2013 to December 31, 2013.

Miscellaneous (research, consultations, etc.)

BEHARRY, Edward, Assistant Professor, Department of Psychology, September 1, 2013 to August 31, 2014.

BEHARRY, Pamela, Assistant Professor, Department of Psychology, September 1, 2013 to August 31, 2014.

BIELING, Peter, Assistant Professor, Department of Psychology, September 1, 2013 to August 31, 2014.

DEL ROSARIO, Kerris, Assistant Professor, Department of Psychology, September 1, 2013 to August 31, 2014.

DODGSON, Philip, Assistant Professor, Department of Psychology, September 1, 2013 to August 31, 2014.
ETHIER, Nicole, Assistant Professor, Department of Psychology, September 1, 2013 to August 31, 2014.

FARVOLDEN, Peter, Assistant Professor, Department of Psychology, September 1, 2013 to August 31, 2014.

HEINTZMAN, John David, Psychiatrist, Department of Psychology, September 1, 2013 to August 31, 2014.

KERTON, Robert (Distinguished Professor Emeritus), Professor Department of Economics, July 1, 2013 to June 30, 2015.

LANE, Christopher, Assistant Professor, Department of Psychology, September 1, 2013 to August 31, 2014.

MACLEOD, Karen, Assistant Professor, Department of Psychology, September 1, 2013 to August 31, 2014.

MCGEE, Edward, Professor, Department of English Language and Literature, September 1, 2013 to December 31, 2013.

PAULITZKI, Jeffrey, Assistant Professor, Department of Psychology, September 1, 2013 to August 31, 2014.

SADLER, Pamela, Associate Professor, Department of Psychology, September 1, 2013 to August 31, 2014.

SMITH, John, Professor, Department of Germanic and Slavic Studies, July 1, 2013 to June 30, 2014.

TOMAN, Philip, Assistant Professor, Department of Psychology, September 1, 2013 to August 31, 2014.

WHEELER, Heather, Assistant Professor, Department of Psychology, September 1, 2013 to August 31, 2014.

Staff to Faculty Appointments
BREUGST, Eric, Lecturer, Faculty of Arts, September 1, 2013 to December 31, 2013.

HAYDEN, Jayne, Lecturer, Faculty of Arts, September 1, 2013 to April 30, 2014.

MEMON, Kashif, Lecturer, Department of Economics, September 1, 2013 to December 31, 2013.

SCHMIDLIN, Karin, Lecturer, Faculty of Arts (Stratford Programmes), September 1, 2013 to December 31, 2013.

Graduate Student to Part-Time Lecturer Appointments
BARR, Nathaniel, Department of Psychology, September 1, 2013 to December 31, 2013.

BARTON, Kevin, Department of Psychology, September 1, 2013 to December 31, 2013.

CHÉKÉTÉ, Godrick, Department of French Studies, September 1, 2013 to December 31, 2013.
CLAPPERTON, Robert, Department of English Language and Literature, September 1, 2013 to December 31, 2013.

DOYLE, Jennifer, Department of English Language and Literature, September 1, 2013 to December 31, 2013.

FISHER, Mary James, Women’s Studies, September 1, 2013 to December 31, 2013.

JORDAN, William, Department of Philosophy, September 1, 2013 to December 31, 2013.

LASSALLE, Amandine, Department of Psychology, September 1, 2013 to December 31, 2013.

NELSON, Andrea, Department of Psychology, September 1, 2013 to December 31, 2013.

NYHOUT, Angela, Department of Psychology, September 1, 2013 to December 31, 2013.

ROTH, Daniela, Department of Germanic and Slavic Studies, September 1, 2013 to December 31, 2013.

SCHLEIN, Friederike, Department of Germanic and Slavic Studies, September 1, 2013 to December 31, 2013.

WARD, Karen, Department of English Language and Literature, September 1, 2013 to December 31, 2013.

WEIMER-STUCKMANN, Gerlinde, Department of Germanic and Slavic Studies, September 1, 2013 to December 31, 2013.

B. ADMINISTRATIVE APPOINTMENTS

CARSON, Linda, Director, Independent Studies, September 1, 2013 to August 31, 2014.

KIRTON, Doug, Associate Chair, Graduate Studies, Department of Fine Arts, July 1, 2013 to December 31, 2013.

ADMINISTRATIVE APPOINTMENT – DATE CHANGE

BLATHERWICK, David, Associate Chair, Graduate Studies, Department of Fine Arts, from July 1, 2012 to December 31, 2014 to July 1, 2012 to June 30, 2013 and January 1, 2014 to December 31, 2014.

ADMINISTRATIVE REAPPOINTMENTS

DANISCH, Robert, Associate Chair, Undergraduate Studies (Speech Communication), Department of Drama and Speech Communication, September 1, 2013 to August 31, 2014.

DEVIDI, David, Chair, Department of Philosophy, July 1, 2013 to June 30, 2016.

HARDIMAN, Craig, Associate Chair, Graduate Studies, Department of Classical Studies, September 1, 2013 to August 31, 2014.

ROBERTS-SMITH, Jennifer, Associate Chair, Undergraduate Studies (Drama), Department of Drama and Speech Communication, September 1, 2013 to December 31, 2013.
VESTER, Christina, Associate Chair, Undergraduate Studies, Department of Classical Studies, September 1, 2013 to August 31, 2014.

C. RETIREMENT
ZANNA, Mark, University Professor, Department of Psychology, effective May 1, 2014.

D. SABBATICALS
For Approval by the Board of Governors
CARRINGTON, Peter, Professor, Department of Sociology and Legal Studies, July 1, 2014 to December 31, 2014, 85% of salary.
ELIASMITH, Chris, Professor, Department of Philosophy, May 1, 2014 to October 31, 2014, full salary.
KAMINSKAIA, Svetlana, Assistant Professor, Department of French Studies, January 1, 2014 to June 30, 2014, full salary.
KOEHLER, Derek, Professor, Department of Psychology, January 1, 2014 to December 31, 2014, 85% salary.
O’NEILL, Daniela, Professor, Department of Psychology, January 1, 2014 to June 30, 2014, 85% salary.
WELCH, David, Professor, Department of Political Science, January 1, 2014 to June 30, 2014, full salary.

Douglas M. Peers
Dean, Arts
University of Waterloo
REPORT OF THE DEAN OF ENGINEERING TO SENATE
October 21, 2013

FOR INFORMATION

A. APPOINTMENTS

Probationary-term Appointment

DIETL, Werner, Assistant Professor, Department of Electrical & Computer Engineering, October 1, 2013 – June 30, 2017. PhD Swiss Federal Institute of Technology, ETH Zurich, Switzerland 2009; Diplom-Ingenieur Applied Computer Science & Business Salzburg University, Austria 2003; MSc Bowling Green State University, OH, USA 2000. Dr. Dietl’s main area of research is trusted components for software verification.

Definite-term Appointments

KASHEF, Rasha, Lecturer, Department of Management Sciences, September 1, 2013 – August 31, 2014. PhD University of Waterloo 2008; MSc Arab Academy for Science and Technology 2004; BSc Alexandria University 2001. Dr. Kashef has background in electrical and software engineering. She has been an instructor in the math faculty as well as the department. Dr. Kashef is quite capable of teaching a variety of operation research and information systems courses. She has taught a graduate course in simulation for the department successfully.

PIRNIA, Mehrdad, Lecturer, Department of Management Sciences, September 1, 2013 – August 31, 2014. PhD candidate University of Waterloo 2013; MASc University of Waterloo 2009; Diploma in Operations Management, BCIT, BC 2007; BEng Avicenna University, Iran 2002. Mr. Pirnia’s area of research is in energy modeling and he is completing his PhD from ECE. He has taught Engineering Economics for the department in the last four years and will be teaching several sections of the course this year.

Definite-term Reappointment


Visiting Appointments

APARECIDA DE OLIVEIRA, Cibele, Scholar, Department of Chemical Engineering, January 1, 2014 – March 31, 2015.

BILICI, Ibrahim, Assistant Professor, Department of Chemical Engineering, August 12, 2013 – January 5, 2014.


ILIC, Katarina, Scholar, Department of Chemical Engineering, September 1, 2013 – December 31, 2013.

JAHEED, Zeinab, Scholar, Department of Chemical Engineering, August 1, 2013 – May 31, 2014.

JIAO, Xin, Scholar, Department of Electrical & Computer Engineering, September 1, 2013 – August 31, 2014.

MAROUFMASHAT, Azadeh, Researcher, Department of Systems Design Engineering, November 1, 2013 – April 30, 2014.

PATEL, Poonam, Scholar, Department of Chemical Engineering, September 1, 2013 – December 31, 2013.

SHEN, Zhikang, Scholar, Department of Mechanical & Mechatronics Engineering, September 1, 2013 – August 31, 2014.


SONG, Ziqi, Scholar, Department of Systems Design Engineering, September 1, 2014 – August 31, 2016.

SUN, Meng, Scholar, Department of Mechanical & Mechatronics Engineering, November 1, 2103 – September 30, 2015.

TOMESCU, Sebastian, Scholar, Department of Mechanical & Mechatronics Engineering, September 1, 2013 – December 31, 2014.

ZOU, Ray, Scholar, Department of Chemical Engineering, August 1, 2013 – November 30, 2013.

Visiting Reappointment
BETANCOURT, Alberto, Scholar, Department of Chemical Engineering, August 1, 2013 – August 31, 2013.

Adjunct Appointments
Instruction
BALESHTA, James, Lecturer, Department of Mechanical & Mechatronics Engineering, September 1, 2013 – December 31, 2013.

HARRIS-BRANDTS, Suzanne, Assistant Professor, School of Architecture, September 1, 2013 – December 31, 2013.

HULLS, Carol, Lecturer, Department of Mechanical & Mechatronics Engineering, September 1, 2013 – December 31, 2013.
JAKAB, Timea, Assistant Professor, School of Architecture, September 1, 2013 – December 31, 2013.

KOLLER, Heinrich, Lecturer, School of Architecture, September 1, 2013 – December 31, 2013.

LIM TUNG, Fiona, Assistant Professor, School of Architecture, September 1, 2013 – December 31, 2013.

MANNING, Thomas, Lecturer, Department of Management Sciences, September 1, 2013 – December 31, 2013.


NUMMELIN, Maureen, Lecturer, Department of Management Sciences, September 1, 2013 – December 31, 2013.

QAZI ZADE, Azad, Lecturer, Department of Mechanical & Mechatronics Engineering, September 1, 2013 – December 31, 2013.

RAYMOND, Darrell, Associate Professor, Department of Management Sciences, September 1, 2013 – August 31, 2016.

ROMERO, Clara, Assistant Professor, School of Architecture, September 1, 2013 – December 31, 2013.

SORLI, Scott, Assistant Professor, School of Architecture, September 1, 2013 – December 31, 2013.

YOUNIS, Rizwan, Lecturer, Department of Civil & Environmental Engineering, September 1, 2013 – December 31, 2013.

Graduate Supervision and Research

FADER, Christina, Associate Professor, Department of Management Sciences, September 1, 2013 – August 31, 2016.

OZALTIN, Osman, Assistant Professor, Department of Management Sciences, September 1, 2013 – August 31, 2016.

SPARKES, Douglas, Assistant Professor, Department of Management Sciences, September 1, 2013 – August 31, 2016.

Adjunct Reappointments

Instruction

BLAKE, Clifford, Lecturer, Department of Management Sciences, September 1, 2013 – December 31, 2013.

DAL CASTEL, Charles, Lecturer, Department of Chemical Engineering, September 1, 2013 – December 31, 2013.
FOERSTER, Allan, Lecturer, Dean of Engineering Office, Conrad Business, Entrepreneurship and Technology Centre, September 1, 2013 – August 31, 2014.

SAAD, John, Lecturer, Department of Electrical & Computer Engineering, September 1, 2013 – December 31, 2013.

SCHNURR, Daryl, Associate Professor, Engineering Undergraduate Office, May 1, 2013 – April 30, 2014.

Graduate Supervision and Research
ZHAO, Xuan (Jen), Associate Professor, Department of Management Sciences, September 1, 2013 – August 31, 2016.

Graduate Student to Part-time Lecturer Appointments
ALI, Usman, Department of Mechanical & Mechatronics Engineering, September 1, 2013 – December 31, 2013.


SHUM, Alex, Department of Mechanical & Mechatronics Engineering, September 1, 2013 – December 31, 2013.

SOLTANI-KOOPA, Meisam, Department of Management Sciences, September 1, 2013 – December 31, 2013.

VLASEA, Miheala, Department of Mechanical & Mechatronics Engineering, September 1, 2013 – December 31, 2013.

B. ADMINISTRATIVE APPOINTMENT
MACGREGOR, Carolyn, Associate Chair, Undergraduate Studies, Department of Systems Design Engineering, September 1, 2013 – August 31, 2016.

ADMINISTRATIVE REAPPOINTMENTS
BARBY, James, Senior Associate Chair, Department of Electrical & Computer Engineering, September 1, 2013 – August 31, 2016.

MCMINN, John, Associate Director, Graduate Studies and Research, School of Architecture, March 1, 2013 – April 30, 2014.

C. RESIGNATIONS
CHEN, Feng, Visiting Researcher, Department of Electrical & Computer Engineering, August 16, 2013.

OZALTIN, Osman, Probationary-term Assistant Professor, Department of Management Sciences, September 1, 2013.
TIAN, Baolin, Visiting Researcher, Department of Electrical & Computer Engineering, August 16, 2013.

D. DEATH
SOUDKI, Khaled, Professor, Department of Civil & Environmental Engineering, September 17, 2013.

E. SABBATICALS
For Approval by the Board of Governors
EMELKO, Monica, Associate Professor, Department of Civil & Environmental Engineering, July 1, 2014 – December 31, 2014, 100% salary.

INAL, Kaan, Associate Professor, Department of Mechanical & Mechatronics Engineering, January 1, 2014 – June 30, 2014, 100% salary.

Pearl Sullivan
Dean, Engineering
FOR INFORMATION

A. APPOINTMENTS

Definite-term Appointment

McLAUGHLIN, David, Strategic Advisor on Sustainability, Faculty of Environment, October 1, 2013 to September 30, 2015.

Adjunct Appointments

Instruction

CHRISTOU, Aristotle, Planner-in-Residence, School of Planning, September 1, 2013 to April 30, 2014.

FERGUSON, Philip, Lecturer, School of Planning, January 1, 2014 to April 30, 2014.

JOAKIM, Erin, Lecturer, Department of Geography and Environmental Management, September 1, 2013 to December 31, 2013.

KNAFELC, Paul, Lecturer, School of Environment, Enterprise and Development, September 1, 2013 to December 31, 2013.

McKENZIE, Ian, Associate Professor, Department of Geography and Environmental Management, September 1, 2013 to December 31, 2013.

SEIRLIS, Julia, Assistant Professor, School of Environment, Enterprise and Development, September 1, 2013 to August 31, 2014.

WOOF, William, Lecturer, School of Environment, Enterprise and Development, September 1, 2013 to December 31, 2013.

Graduate Supervision

BODIN, Xavier, Assistant Professor, Department of Geography and Environmental Management, August 1, 2013 to July 31, 2016.

Research

KUMAGAI, Yoichi, Assistant Professor, Department of Environment and Resource Studies, September 1, 2013 to August 31, 2017.

Graduate Student to Part-time Lecturer Appointment

ABERNETHY, Paivi, Department of Environment and Resource Studies, September 1, 2013 to December 31, 2013.

Postdoctoral Fellow to Part-time Lecturer Appointment

KIRCHHOFF, Denis, Department of Environment and Resource Studies, September 1, 2013 to December 31, 2013.

B. ADMINISTRATIVE APPOINTMENT

CASELLO, Jeffrey, Associate Dean, Undergraduate Studies and Educational Liaison, Faculty of Environment, January 1, 2014 to June 30, 2016.
C. SABBATICAL – DATE CHANGE
For Approval by the Board of Governors

LEDREW, Ellsworth, Professor, Department of Geography and Environmental Management,
changed from July 1, 2013 to June 30, 2014, 100% salary, to July 1, 2013 to December 31, 2013 and
July 1, 2014 to December 31, 2014, 100% salary.

André Roy
Dean, Environment
A. APPOINTMENTS

Definite-term Appointment
PETRICK, Mark (BSc 1998 MSc 2000, Lakehead University), Lecturer, David R. Cheriton School of Computer Science, January 1, 2014 – December 31, 2015. Mr. Petrick will teach five courses per year and participate in service duties as assigned by the director of the school.

Definite-term Reappointments
PAPOULIA, Katerina, Research Associate Professor, Dept. of Applied Mathematics, September 1, 2013 – August 31, 2016.


Visiting Appointments


Adjunct Appointments

Instruction

Research
BROWN, Stephen, Professor, Department of Statistics and Actuarial Science, September 1, 2013 – August 31, 2016.

MERCER, Robert, Professor, David R. Cheriton School of Computer Science, July 1, 2013 – June 30, 2015.

Adjunct Reappointments

Instruction


MARSHMAN, Beverly, Associate Professor, Office of the Dean, September 1, 2013 – December 31, 2013.

PATRICK, Mark, Lecturer, David R. Cheriton School of Computer Science, September 1, 2013 – December 31, 2013.


Cross Appointment
LUKASZ, Golab, Assistant Professor, Management Sciences to the David R. Cheriton School of Computer Science, October 1, 2013 – September 30, 2015.

Graduate Student to Part-time Lecturer Appointments


Graduate Student to Part-time Lecturer Reappointments


Postdoctoral Fellow to Part-time Lecturer Appointments


LEBRETON, Romain, David R. Cheriton School of Computer Science, October 1, 2013 – August 31, 2014.
B. SABBATICALS
For Approval by the Board of Governors

BERRY, Daniel, Professor, David R. Cheriton School of Computer Science, January 1, 2014 – December 2014, 96.1% salary.

MOOSA, Rahim, Associate Professor, Dept. of Pure Mathematics, January 1, 2014 – December 31, 2014, 85% salary.

NAYAK, Ashwin, Professor, Dept. of Combinatorics and Optimization, January 1, 2014 – June 30, 2014, 85% salary. This is an early sabbatical.

PARK, Doug, Professor, Dept. of Pure Mathematics, January 1, 2014 – June 30, 2014, 85% salary. This is an early sabbatical.


SWAMY, Chaitanya, Associate Professor, Dept. of Combinatorics and Optimization, January 1, 2014 – June 30, 2014, 85% salary. This is an early sabbatical.

WAGNER, David, Professor, Dept. of Combinatorics and Optimization, January 1, 2014 – December 31, 2014, 100% salary.

Ian P. Goulden
Dean, Mathematics
FOR INFORMATION

A. APPOINTMENTS

Probationary-term Appointment

CHOI, Kyung Soo, Assistant Professor, Department of Physics and Astronomy and the Institute for Quantum Computing, January 1, 2014 to June 30, 2016. [BS, Stony Brook University (SUNY) (2006); PhD, California Institute of Technology (2011).] Dr. Choi’s research deals with coherent control of entanglement with atomic ensembles, multipartite quantum networks and entanglement in quantum many-body systems and quantum optics with cold atoms near nanophotonic structures. Future research will deal with strongly interacting Rydberg atoms and photons in low dimensions. This appointment will significantly raise the reputation of both the department and the Institute for Quantum Computing.

Definite-term Reappointment

DEAKIN, Laura, Lecturer, Department of Chemistry, May 1, 2014 to April 30, 2017.

Adjunct Appointments

Graduate Supervision

LIN, John, Professor, Department of Earth and Environmental Sciences, July 1, 2013 to June 30, 2016.

Research

SMITH, Kendrick, Assistant Professor, Department of Physics and Astronomy, September 1, 2013 to August 31, 2018.

Undergraduate Instruction, Research and Other

HADFIELD, Chris, Professor, Faculties of Applied Health Sciences, Environment and Science, September 1, 2013 to August 31, 2016.

Other

MAYFIELD, Colin, Professor, Department of Biology, October 1, 2013 to September 30, 2016.

Adjunct Reappointments

Graduate Supervision and Research

BERLINSKY, A. John, Professor, Department of Physics and Astronomy, August 1, 2013 to July 31, 2018.

COOKE, Steven J., Associate Professor, Department of Biology, November 1, 2013 to October 31, 2016.

WEI, Li, Associate Professor, Department of Physics and Astronomy, September 1, 2013 to August 31, 2016.

Graduate Supervision, Graduate Instruction and Research

JIANG, Runqing, Associate Professor, Department of Physics and Astronomy, October 1, 2013 to September 30, 2016.
**Research and Other**

**HOWELL, E. Todd.** Associate Professor, Department of Biology, November 1, 2013 to October 31, 2016.

**Cross Appointment**

**MIELKE, John.** Assistant Professor, School of Public Health and Health Systems to the School of Pharmacy, August 1, 2013 to August 31, 2016.

**Cross Reappointments**

**CASCANTE, Giovanni.** Professor, Department of Civil and Environmental Engineering to the Department of Earth and Environmental Sciences, August 1, 2013 to July 31, 2015.

**JONES, Lyndon.** Professor, School of Optometry and Vision Science to the Department of Physics and Astronomy, January 1, 2013 to December 31, 2016.

**LAMB, Kevin.** Professor, Department of Applied Mathematics to the Department of Earth and Environmental Sciences, August 1, 2013 to July 31, 2015.

**POULIN, Francis.** Assistant Professor, Department of Applied Mathematics to the Department of Earth and Environmental Sciences, August 1, 2013 to July 31, 2015.

**Graduate Student to Part-time Lecturer Appointments**

**LEKIN, Kristina.** Lecturer, Department of Chemistry, September 1, 2013 to December 31, 2013.

**PHAM, Phuc Hoang (John).** Lecturer, Department of Biology, September 1, 2013 to December 31, 2013.

**Graduate Student to Part-time Lecturer Reappointment**

**DELANEY, Keith.** Lecturer, Department of Earth and Environmental Sciences, September 1, 2013 to December 31, 2013.

**Postdoctoral Fellow/Research Associate to Part-time Lecturer Reappointments**

**VARIKOOTY, Jalaiah.** Lecturer, School of Optometry and Vision Science, September 9, 2013 to December 31, 2013.

**VENKITESWARAN, Jason.** Lecturer, Department of Earth and Environmental Sciences, September 1, 2013 to December 31, 2013.

**B. ADMINISTRATIVE APPOINTMENTS**

**CHRISTIAN, Lisa.** Interim Associate Director, Clinical Programs, School of Optometry and Vision Science, September 1, 2013 to December 31, 2013.

**CHRISTIAN, Lisa.** joint with **JONES, Deborah.** Interim Clinic Director, School of Optometry and Vision Science, September 1, 2013 to December 31, 2013.

**HUDSON, Michael.** Associate Dean, Computing, Faculty of Science, September 1, 2013 to August 31, 2016.

**JONES, Deborah.** Interim Associate Director, Academics and Research, School of Optometry and Vision Science, July 1, 2013 to June 30, 2014.
C. RESIGNATION
LIN, John, Associate Professor, Department of Earth and Environmental Sciences, effective July 1, 2013.

D. SABBATICALS
For Approval by the Board of Governors
JOSEPH, Jamie, Associate Professor, School of Pharmacy, May 1, 2014 to October 31, 2014, 100% salary.

SMITH, Ralph, Professor, Department of Biology, September 1, 2014 to February 28, 2015, 100% salary.

SPAFFORD, David, Associate Professor, Department of Biology, May 1, 2014 to April 30, 2015, 100% salary.

T.B. McMahon
Dean, Science
The Senate Executive Committee met on 7 October 2013 and agreed to forward the following item to Senate for first reading.

**FOR FIRST READING**

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**Senate Bylaw 5: A bylaw relating to the selection of members of Senate**

The amended Senate Bylaw 5 is recommended to Senate for first reading* [see Attachment 1]. The recommended change is proposed by the Federation of Students; it is in keeping with the Federation of Students election procedures. [Text in **bold and underlined** is the recommended wording.]

The Secretariat will undertake a thorough review of Senate bylaws, including bylaw 5, beginning in January 2014.

*The passage of a new bylaw or amendment(s) to an existing bylaw is accomplished in two readings of the document by Senate. At the first reading, such discussion of the document as is deemed appropriate by Senate shall take place. At the second reading, further discussion may take place and the vote on the document shall be taken. The two readings shall take place at different, but not necessarily consecutive, meetings of the Senate.* [Senate Bylaw 7: A bylaw relating to the procedure for creating new bylaws or amending existing bylaws of Senate]

Feridun Hamdullahpur
President
A bylaw relating to the selection of members of the Senate

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

**CHIEF RETURNING OFFICER**

The Secretary of the University or designate shall act as Chief Returning Officer for the purpose of conducting the election of members of Senate. As Chief Returning Officer, the Secretary of the University or designate has overall responsibility for the general conduct of such elections and by-elections, which shall be by secret ballot. Without restricting the generality of the foregoing, the Chief Returning Officer shall:

- inform the University community in January each year of the names of those members of Senate whose terms of office expire on April 30 of that year and whether such members are eligible for a further term of service.
- establish the timing of Senate elections and by-elections, subject to the provisions described in sections 2 and 4 below.
- call for nominations and verify the eligibility of nominees and nominators.
- distribute ballots and balloting information to eligible voters, allowing at least three weeks for completion and return, if ballots are distributed by mail. Make ballot information and candidates’ statements/resumes for undergraduate students available to the Federation of Students Election Committee.
- arrange for the ballots to be counted and results to be tabulated; announce the results to the University community; this includes resolving ties, as necessary, which shall be done in the presence of candidates who received the same number of votes, or their representatives.

**ELECTIONS**

The election of faculty and student members to Senate shall be completed by the regular March meeting of Senate each year. Undergraduate student elections shall be held in conjunction with the annual elections conducted by the Federation of Students in February. Faculty and graduate student elections are conducted by the University Secretariat.

Providing at least three weeks for Faculty constituencies, two weeks for graduate students and seven business days for undergraduate students to respond, the Chief Returning Officer shall call for nominations from those faculty and student constituencies that have members whose terms are expiring by placing a suitable notice in the UW Gazette and/or a student newspaper designated from time to time by the President of the Federation of Students, with copies to relevant constituency presidents, and to have them made available through the World Wide Web or other appropriate computer media. Nomination forms shall be made available in the Secretariat and, in the case of undergraduate student elections, in the Federation of Students office. Nominations shall be submitted in writing to the Chief Returning Officer. Each nomination shall be signed by at least five members of the constituency from which the member is to be elected and shall include a signed statement from the nominee agreeing to serve if elected. For faculty and graduate students, the required number of members is five; for undergraduate students elected from a single faculty, the required number is twenty-five; for undergraduate students elected at large, the required number is one hundred.
Undergraduate student nominees, or their representatives, shall attend an all candidates’ mandatory meeting held by the Federation of Students. The Chief Returning Officer, or designate, shall also be present.

The Chief Returning Officer shall publish the candidates’ statements/resumes in the UW Gazette and/or an undergraduate student newspaper designated from time to time by the President of the Federation of Students, and to have them made available through the World Wide Web or other appropriate computer media.

CAMPAIGNING/VOTER ELIGIBILITY

Public campaigning shall not take place before the close of nominations. A brief statement (100 words maximum) and/or a personal resume not exceeding one single-spaced typewritten page in length from each candidate wishing to provide one shall be made available by the Chief Returning Officer with the distribution of ballots to the electorate and to the Federation of Students.

The Federation of Students election rules regulating campaigning for undergraduate student elections (conduct, violations, penalties, etc.), except for spending limits shall be followed. The Federation Election Committee decisions may be appealed to the Secretary of the University, who shall act as Chief Returning Officer, whose decision is final.

The campaign spending limit for undergraduate students shall be: up to $100 for constituency seats and $200 for at-large, to be paid by the candidate.

In a Faculty constituency, all faculty members who hold a regular faculty appointment in that constituency are eligible to vote. In a graduate student constituency, all full-time and part-time graduate students registered in a degree program in that constituency are eligible to vote. In an undergraduate student constituency, all full-time students registered in a degree program in that constituency are eligible to vote; this includes students whose academic programs require a prolonged absence from campus such as a co-op workterm or an approved study term abroad. Ballots will be mailed to all full-time members of constituencies; ballots will be mailed to any part-time graduate student who requests one or may be picked up at the Secretariat”.

BY-ELECTIONS

The Secretary of the University shall declare a Senate seat vacant and so inform Senate:

- upon receipt of a written resignation from a member of Senate.
- when a member of Senate ceases to be eligible to represent the constituency that elected the member, for example when a faculty member ceases to hold a regular faculty appointment, or when a student graduates or otherwise ceases to be registered in the constituency that elected the student[1].

Subject to the provision noted below, the Chief Returning Officer shall call by-elections to fill vacancies as soon as feasible and shall place a suitable notice in the UW Gazette, and/or a student newspaper designated from time to time by the President of the Federation of Students, with copies to the appropriate constituency presidents, and to have them made available through the World Wide Web or other appropriate computer media at least four weeks in advance of the date established for a by-election. Nominations shall remain open for at least one week and shall be submitted in writing to the Chief Returning Officer; each nomination must be signed by at least five members of the constituency from which the member is to be elected, and must include a signed statement from the nominee agreeing to serve if elected.

- When a seat becomes vacant within three months of the end of the term for that seat, it shall remain vacant for the balance of the term.
- When a seat becomes vacant because of the failure of a constituency to nominate any candidate to contest an election or by-election, that seat shall remain vacant until the next annual election, unless
petition requesting a by-election signed by five members of the constituency concerned is received by the Chief Returning Officer.

- No by-election shall be called or held in any constituency between July 1 and September 15. In addition, no by-election shall be held in any undergraduate constituency between April 1 and September 15.

ALUMNI REPRESENTATION

Each year the National Alumni Council shall recommend the names of individual(s) for appointment to Senate. The Secretary of the University shall be informed of such recommendations as they are made and shall so inform Senate.

Approved by Senate June 15, 1972.
Revised by Senate June 16, 1975.
Revised by Senate in two readings September - October 1975.
Revised by Senate in two readings November -December 1982.
Revised by Senate in two readings January - February 1983.
Revised by Senate in two readings December 1984 - January 1985.
Revised by Senate in two readings October - November 1990.
Revised by Senate in two readings November - December 1991.
Revised by Senate September 1995.
Revised by Senate in one reading September 1999.

[1] See the UW Act, section 25, for instances when graduating students may be exempt.
Senate Graduate & Research Council met on 9 September 2013 and agreed to forward the following items to Senate for approval. These items are recommended for inclusion in the regular agenda.

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

FOR APPROVAL

PROGRAM CHANGES

Master of Accounting

1. **Motion**: To approve amendments to the admission requirements and degree requirements for the master of accounting program offered by the School of Accounting and Finance in the Faculty of Arts, as described in attachment 1.

**Rationale**: The Canadian accounting profession is in the process of a major transformation with three professional organizations recently agreeing to merge to form a unified accounting body. This process will also bring about the merging of competency maps to attain the new professional designation. Master of accounting graduates in 2015 must graduate with the competencies dictated by this new map. To ensure that students enter the program with the breadth and depth of competencies needed for success at the graduate level, amendments are required to properly align the courses required for program admission decisions. Owing to content differences between cohorts in undergraduate accounting programs, it is anticipated that further changes will be brought for graduates in 2016 and beyond.

George Dixon      Sue Horton
Vice-President, University Research  Associate Provost, Graduate Studies
Proposed Changes to Masters of Accounting (MAcc) Admission and Degree Requirements

Proposed Change to the MAcc Admission Requirements for the Class of 2015

The Canadian accounting profession is in the midst of a major transformation, with the Chartered Accountants (CAs), Certified Management Accountants (CMAs), and Certified General Accountants (CGAs) recently agreeing to merge to form a unified accounting body of Chartered Professional Accountants (CPAs). Each of the existing bodies has its own competency map, which defines the knowledge and skills a student must have to obtain the related designation. Along with the unification of the designations comes the merging of their competency maps into one CPA map. Beginning with the Class of 2015, MAcc students must graduate with the competencies dictated by this new map.

Historically, over 90% of MAcc students pursue a CA designation, with the balance pursuing a CMA, so the current MAcc program and admission requirements are designed to meet the needs of these two designations. The new CPA competency map includes a broader set of competencies than the old CA and CMA maps, along with expectations for deeper levels of knowledge in many areas. To ensure that all MAcc students in the Class of 2015 enter the program with the breadth and depth of competencies needed for success in the program and on the new CPA Common Final Exam (CFE), we propose changes to the basket of courses that will be used to make MAcc admission decisions for this class. Note that we anticipate further changes for the Classes of 2016 and beyond because these classes will be completing a different undergraduate program than the Class of 2015. We are moving forward with these changes now because students in this cohort will enter the 3B term in the Spring of 2013, so we would like to have changes approved as soon as possible.

As additional background, there are three main requirements for admission to the MAcc program:

1. An AFM, BMath-CA, or Biotech-CA degree from UW.
2. A minimum overall GPA of 75% in the last two years of the undergraduate program.
3. A minimum average of 75% in a specified list of courses (the “special admission average”).

Below are the details of the proposed changes to the list of courses used to set the MAcc “special admission average.” Following this are some additional proposed changes to clean up outdated calendar information:
Proposed Changes to Masters of Accounting (MAcc) Admission and Degree Requirements

For the MAcc Class of 2015, we propose changing the list of AFM courses used to calculate the MAcc "special admission average" from the list in the second column below to the list in the third column. As with prior MAcc classes, students must obtain an average of at least 75% in these courses in order to be considered for admission to the MAcc program.

<table>
<thead>
<tr>
<th>Term</th>
<th>Current List of Courses for 2013 &amp; 2014-MAcc Entry</th>
<th>Proposed List of Courses for 2015 MAcc Entry</th>
</tr>
</thead>
<tbody>
<tr>
<td>3B</td>
<td>• AFM 451 or AFM 452</td>
<td>• AFM 331&lt;sup&gt;1&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>• AFM 481</td>
<td>• AFM 341 or CS 330&lt;sup&gt;2&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>• AFM 491</td>
<td>• AFM 361&lt;sup&gt;1&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• AFM 431 or PHIL 215&lt;sup&gt;3&lt;/sup&gt;</td>
</tr>
<tr>
<td>4A</td>
<td></td>
<td>• AFM 451&lt;sup&gt;4&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• AFM 481&lt;sup&gt;4&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• AFM 491&lt;sup&gt;5&lt;/sup&gt;</td>
</tr>
<tr>
<td>4B</td>
<td>• AFM 401 &amp; AFM 461 (PA)</td>
<td>• AFM 401</td>
</tr>
<tr>
<td></td>
<td>OR</td>
<td>• AFM 461</td>
</tr>
<tr>
<td></td>
<td>• AFM 482 &amp; MSCI 432 (MA)</td>
<td>• AFM 481</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• AFM 471 or AFM 476&lt;sup&gt;6&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• AFM 411 (Pilot)</td>
</tr>
</tbody>
</table>

**Note 1:** Biotech-CA students take AFM 331 and AFM 361 in 2B, which for this cohort was in Spring 2012, prior to the MAcc admission changes being announced.

**Note 2:** Biotech and Math students in this cohort take CS 330 instead of AFM 341. Some Math students took CS330 in their 3A term, prior to these MAcc admission changes being announced.

**Note 3:** Biotech students take PHIL 215 in their 4A term, which is the same term as some students in their AFM 4A term.

**Note 4:** Biotech students take these courses in their 3B term, which is the same term as some students in their AFM 4A term.

**Note 5:** Biotech students take this in the 4B term.

**Note 6:** Math students take AFM 476 instead of AFM 471 (old program)

**Rationale for the change**

- The current list includes only five fourth-year courses, providing a limited indication of students' performance in key courses during the last half of their undergraduate program. Expanding the list to include four 3B courses and three more 4B courses expands the competencies in the list to include strategy, IT, ethics, and finance.

- AFM 411 (Connections Across Competencies for Accounting Professionals) is not part of the curriculum for this last cohort of students coming through the old AFM program, but this cohort will be the first to write the new CFE in 2015, which places a stronger emphasis on integration than the old UFE. To provide this cohort with exposure to integration prior to the MAcc, a pilot version of the new AFM 411 will be offered and required for admission to the program. This course is already in the undergraduate calendar, but has a number of prerequisites that will have to be waived in order for students in the "old" undergraduate accounting programs to enrol in it.

- Because CMA Ontario has now announced it will join CPA Canada, we anticipate that all 2015 MAcc students will pursue a CPA designation, so a single list of courses is now appropriate. If the CMA path continues to exist for 2015, then a separate motion will be brought forward, likely in Fall 2013.

- 3A courses have been excluded because students will have completed this term by the time the MAcc admission changes have been announced. The small number of Biotech/CA students who completed AFM 331 and AFM 361 in the Spring 2012 term, prior to these changes being announced, will receive special consideration in respect of these courses should they negatively impact the MAcc admission score. Similarly, Math students who have taken CS330 prior to their 3B term in Spring 2013 will be granted special consideration for this course.
Proposed Changes to Masters of Accounting (MAcc) Admission and Degree Requirements

Undergrad Course Titles for 2015 MAcc Applicants

- AFM 331 (Business Strategy)
- AFM 341 (Accounting Information Systems)
- AFM 361 (Taxation 1)
- AFM 391 (Intermediate Financial Accounting 2)
- AFM 401 (Accounting Theory)
- AFM 411 (Connections Across Competencies for Accounting Professionals)
- AFM 431 (Professional Ethics for Financial Managers)
- AFM 451 (Audit Strategy)
- AFM 452 (Comprehensive/Operational Auditing)
- AFM 461 (Taxation 2)
- AFM 471 (Cases and Applications in Corporate Finance)
- AFM 476 (Advanced Corporate Finance)
- AFM 481 (Cost Management Systems)
- AFM 482 (Performance Measurement and Organization Control)
- AFM 491 (Advanced Financial Accounting)
- CS530 (Management Information Systems)
- MSCI 432 (Production and Service Operations Management)
Proposed Changes to Masters of Accounting (MAcc) Admission and Degree Requirements

In terms of the official wording in the Graduate Studies Calendar, we propose changing the admission requirement from this:

2. Completion of one of the following two sets of AFM courses with at least a 75% average:
   (a) Either:
   - AFM 401 (Accounting Theory),
   - AFM 451 (Audit Strategy),
   - AFM 461 (Taxation),
   - AFM 481 (Cost Management Systems), and
   - AFM 491 (Advanced Financial Accounting)
   (b) Or:
   - AFM 451 (Audit Strategy) or AFM 452 (Comprehensive/Operational Auditing) when available,
   - AFM 481 (Cost Management Systems),
   - AFM 482 (Performance Measurement and Organization Control),
   - AFM 491 (Advanced Financial Accounting), and
   - MSCI 432 (Production and Service Operations Management)

To this:

2. Completion of the following set of courses with at least a 75% average:
   - AFM 331 (Business Strategy)
   - AFM 341 (Accounting Information Systems) or CS 330 (Management Information Systems)
   - AFM 361 (Taxation 1)
   - AFM 401 (Accounting Theory),
   - AFM 411 (Connections Across Competencies for Accounting Professionals)
   - AFM 431 (Professional Ethics for Financial Managers) or PHIL 215
   - AFM 451 (Audit Strategy),
   - AFM 461 (Taxation 2),
   - AFM 471 (Cases and Applications in Corporate Finance) or AFM 476 (Advanced Corporate Finance),
   - AFM 481 (Cost Management Systems),
   - AFM 482 (Performance Measurement and Organization Control), and
   - AFM 491 (Advanced Financial Accounting)
Proposed Changes to Masters of Accounting (MAcc) Admission and Degree Requirements

Proposed Deletions from MAcc Admissions Criteria in the Graduate Studies Calendar

Delete this exception to the overall MAcc admission average requirement:

For those MAcc applicants who entered the University of Waterloo Undergraduate program before 2006, and who do not satisfy the minimum 75% overall average in the last two years of study, but who have a four year overall average of at least 75%, they shall be deemed to have at least a 75% overall average in the last two years.

Rationale
- This is an out-dated Calendar item that no longer applies to any potential MAcc applicants, the oldest of whom (MAcc Class of 2014) began their undergraduate programs in 2009.

Delete this exception made for the MAcc Class of 2010:

Note: For applicants to 2010 MAcc, admission may also be granted at the discretion of the Director in place of this requirement where circumstances warrant.

Rationale
- Note that “this requirement” refers to the existing minimum 75% “special admission average” discussed above.
- This is an out-dated Calendar item that no longer applies to any potential MAcc applicants. It was inserted into the Calendar to accommodate any 2010 applicants who were negatively affected by changes made to the five-course list during their fourth year in the undergraduate program.

Delete this requirement regarding proof of English proficiency:

Students whose first language is not English may be required to provide proof of competency in English. For those taking the Test of English as a Foreign Language (TOEFL), a score of at least 600 (250 on the computerized version), with a score of 5 in the Test of Written English (TWE) and 50 on the Test of Spoken English (TSE) are required. (See Academic Regulations - English Language Proficiency Certification for other acceptable tests of English).

Rationale
- The GSO’s general English Language Proficiency (ELP) admission requirement is as follows: "Applicants who have not completed three or more years of post-secondary work at a Canadian institution or a university at which English was the primary language of instruction, or have not completed a graduate degree at a university where English is the primary language of instruction, or have not been employed for a similar period of time in a position in which English was the primary language of business will be required to provide certification of English language proficiency through one of the accepted examinations listed below." http://gradcalendar.uwaterloo.ca/page/GSO-ELP
- Because all MAcc applicants must have completed one of three UW undergraduate programs, they will have satisfied the GSO’s ELP requirement, so no additional proof of English competency is required for any of these applicants.
**Proposed Changes to Masters of Accounting (MAcc) Admission and Degree Requirements**

**Proposed Change to MAcc Degree Requirements**

<table>
<thead>
<tr>
<th>Delete the following degree requirement:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applicants who have been admitted without completing an organizational behaviour course or an ethics course will be required to successfully complete that course before graduating from the program.</td>
</tr>
</tbody>
</table>

**Rationale**

- This is an out-dated Calendar item that no longer applies to any potential MAcc applicants, all of whom must complete an organizational behavior course and an ethics course in order to graduate from their prerequisite UW undergraduate accounting programs.
Senate Undergraduate Council met on 10 September 2013 and agreed to forward the following items to Senate for approval. Council recommends that these items be included in the regular agenda. Items recommended for inclusion in the consent agenda are contained within a separate report.

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

FOR APPROVAL

CHANGES TO ACADEMIC PLANS [effective 1 September 2014]

Faculty of Applied Health Sciences
Bachelor of Science, Kinesiology (Ergonomics Specialization) (Regular and Co-op)

1. Motion: To revise the Kinesiology Ergonomics Option, as follows:
   (Note: new text = bold; deleted text = strikethrough.)

Ergonomics Option Specialization

Injuries occur in the workplace every day. While this is a sad commentary on the quality of worker safety it presents outstanding challenges to ergonomists/kinesiologists. The Department of Kinesiology of the University of Waterloo presents the only undergraduate Ergonomics Option Specialization in Canada. The Ergonomics Option Specialization is a unique opportunity to prepare those interested in making a contribution to the well-being of others. Kinesiologists are concerned with the assessment and prescription of solutions to problems in the workplace that involve issues such as human-machine interaction, matching skill level with job demands, employee wellness, circadian rhythm, workplace boredom, fatigue, and design of equipment in the interests of maximizing productivity and minimizing the risk of injury.

The co-operative system of study rewards students with deeper insight into solving workplace problems. The Department of Kinesiology has been the leader in producing graduates who secure high paying jobs due to their co-op job experience and comprehensive course work. The course requirements have been selected to provide students with a thorough background in the biophysical and behavioural sciences of human motion and related measurement and problem-solving skills. Admission and graduation requirements are listed below.

1. Normally, co-op kinesiology students will apply at the end of Year One 2A for admittance for the fall or spring term of Year Two (Early admission could have applicants submit after Winter of Year One). Application materials will be available from the ergonomics coordinator advisor during the winter term. Approximately ten students per year will be selected, dependent upon the number of co-op jobs available.
2. Normally at least three of the last four work terms, including work term reports, must be ergonomics related.
3. Students must complete 22 20.0 units. A non-credit tutorial, KIN 10, is required each term.
4. The cumulative averages required are the same as for honours kinesiology. Refer to Faculty of Applied Health Sciences, Standings.

Option Specialization Courses (22 20.0 units)

1. Required Life Sciences courses (5.0 units):
   KIN 100, 100L (.25), 101 (.25), 105, 121, 205, 217, 221, 346, BIOL 130, 273
2. Required Social and Behavioural Sciences courses (3.0 2.5 units):
   KIN 155, 250, 354, 356, PSYCH 101, SOC 101
3. Required Physical and Technical Sciences courses (4.0 units):
   KIN 222, 330, MATH 124 or 127, PHYS 111, 112, CHEM 120, STV 202, one of HLTH 333 or
   STAT 316

4. Required Ergonomics courses (7 units):
   KIN 104, 320, 340, 420, 427 or 428, 431, 432, 470E, 472, 494, SYDE 348, 543, MSCI 211 or
   PSYCH 338, MSCI 261

5. Restricted elective courses (2.5 units):

4. Free elective courses: 4.0 units
   1.0 unit from: KIN 341, 402, 403, 407, 416, 425, 427 or 428
   1.5 units from departments other than Kinesiology:
   ARTS 303, BUS 111 (WLU), ECON 101, 102, ENGL 210E or 210F, HLTH 340, 350, HRM 200,
   301, PSYCH 207, SYDE 542, MSCI 311, STV 302

6. Free elective courses: 0.5 unit

* KIN 431, 432, 470E, 472 must be on ergonomics topics approved in advance by an ergonomics
  specialization advisor.

** Additionally, students should note that taking the following courses - as free electives - would be
beneficial if they ultimately want to proceed to professional certification with the Canadian College
for the Certification of Professional Ergonomists: KIN 356, KIN 403, HLTH 340, HLTH 350,
SYDE 542, HRM 200, STV 202, STV 302

Course Sequence

Year Two

<table>
<thead>
<tr>
<th>2A (Fall)</th>
<th>2B (Spring)</th>
</tr>
</thead>
<tbody>
<tr>
<td>KIN 105</td>
<td>KIN 205</td>
</tr>
<tr>
<td>KIN 121</td>
<td>KIN 221</td>
</tr>
<tr>
<td>KIN 217</td>
<td>KIN 222</td>
</tr>
<tr>
<td>KIN 320</td>
<td>PHYS 112</td>
</tr>
<tr>
<td></td>
<td>STV 202</td>
</tr>
</tbody>
</table>

Two Electives

Year Three

<table>
<thead>
<tr>
<th>3A (Winter)</th>
</tr>
</thead>
<tbody>
<tr>
<td>KIN 250</td>
</tr>
<tr>
<td>KIN 330</td>
</tr>
<tr>
<td>KIN 356</td>
</tr>
<tr>
<td>KIN 420</td>
</tr>
<tr>
<td>STAT 316 or Restricted Elective</td>
</tr>
<tr>
<td>SYDE 348</td>
</tr>
</tbody>
</table>

One Elective

<table>
<thead>
<tr>
<th>3B (Fall)</th>
</tr>
</thead>
<tbody>
<tr>
<td>KIN 340</td>
</tr>
<tr>
<td>KIN 346</td>
</tr>
<tr>
<td>KIN 354</td>
</tr>
<tr>
<td>SYDE 543</td>
</tr>
</tbody>
</table>
MSCI 211 or PSYCH 338
Restricted Elective or HLTH 442
One Elective

Year Four

4A (Fall)
KIN 431 Ergo
KIN 470E
MSCI 264 211
Two Restricted Electives
One Elective
Two Electives

4B (Winter)
KIN 427 or
KIN 428
KIN 432 Ergo
KIN 472 Ergo
KIN 494
Two Restricted Electives
Two Electives

Rationale: The new Ergonomics Specialization sequence is now more flexible and offers more free elective space which students may want to use to meet certification requirements.

Faculty of Science
Doctor of Pharmacy, Pharmacy (Co-op)

2. Motion: To revise the Doctor of Pharmacy academic plan, as follows:
   (Note: new text = bold; deleted text = strikethrough.)

Introduction to the School of Pharmacy
The School of Pharmacy at the University of Waterloo offers a second-entry four-year professional program leading to an entry-to-practice Doctor of Pharmacy (PharmD) degree. The School also provides graduate academic opportunities culminating in a Master of Science degree, with plans to offer a Doctor of Philosophy degree for students interested in obtaining a Master of Science degree or a Doctor of Philosophy (PhD) in Pharmacy. The School anchors the University's Health Sciences Campus in downtown Kitchener.

Graduates will be well-prepared to pursue a range of career options, including clinical patient care, public policy, regulatory agencies, the pharmaceutical industry, research, and academia. The entry-to-practice PharmD program will be well-prepared for all aspects of the expanding scope of practice for pharmacists in Canada and capable of practicing in a broad range of settings, including: community pharmacy; hospital pharmacy; long-term care; and primary care entities like family health teams. The curriculum emphasizes breadth and flexibility, providing students the opportunity to pursue areas of specific interest through the selection of elective courses and co-op work experiences in settings that range from traditional areas of pharmacy practice to professional organizations, government, pharmaceutical industry, and academic research. A key component of the program is a focus on inter-professional education, where students learn to work as highly-functioning members of professional health care teams, which may include practitioners from medicine, optometry, social work, nursing, and a variety of health care fields.

Pharmacy is a regulated health-care profession. The requirements to become a licensed pharmacist in Canada include: completion of an undergraduate degree in Pharmacy; completion of the national board examination offered by the Pharmacy Examining Board of Canada (PEBC); practical experience gained
through an apprenticeship/internship program following graduation; and fluency in English or French. Each province in Canada has its own regulatory agency, responsible for granting licenses, and ensuring competency.

The Bachelor of Science in Pharmacy program of the School of Pharmacy at the University of Waterloo has been awarded the status of Conditional Accreditation by the Canadian Council for Accreditation of Pharmacy Programs for the three year term 2012-2015. The School of Pharmacy will continue to work closely with the accreditation body to ensure that the institution fulfills all accreditation requirements for the entry-to-practice PharmD program that was approved by the Ministry of Training, Colleges and Universities in January 2013.

**Admission to a Reduced Course Load**

Normally, students are required to take all courses for each respective term of the Pharmacy program during a specific academic year. However, students who have extenuating circumstances may request permission to undertake a reduced course load (for one or more terms or years). Only students who have a clearly identified need may be considered for a reduced course load. Academic weakness or a preference for a lighter course load shall not be a valid reason will not be considered valid reasons. Students requesting a reduced course load need to be mindful of a limitation that the maximum duration allowed for a student to complete the Doctor of Pharmacy (PharmD) program is eight six years from the initial registration.

**Degree Requirements**

[NOTE: Students are advised that these degree requirements are subject to change, as the School of Pharmacy incorporates revisions into the program to meet the new accreditation standards for an entry-to-practice PharmD program and to improve the overall educational experience and outcomes. Acceptance of an offer of admission is confirmation that the student acknowledges and accepts this reality].

[NOTE: The final year will be composed of three clinical rotations starting with the Winter Term and running through the Spring term. Each of the three clinical rotations is 8 weeks long, for a total of 24 weeks of clinical experience toward the end of the degree program. There are also 8 weeks of classroom work in the final year of the program, either in the Winter or the Spring term depending on the scheduling for individual students.]

**Curriculum**

**Year One**

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**Winter**

PHARM 110 Systems Approach to the Study of the Human Body 1  
CHEM 333 Metabolism  
PHARM 120A Introduction to the Profession of Pharmacy  
PHARM 124 Pharmaceutics 1  
PHARM 126 Pharmaceutical Calculations  
PHARM 127 Professional Communication Skills in Pharmacy Practice 1  
PHARM 129 Professional Practice 1  
PHARM 150 Introduction to Applied Pharmaceutical Sciences

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**Spring**

PDPHRM 1 Co-op Fundamentals  
PHARM 111 Systems Approach to the Study of the Human Body 2  
PHARM 120B Introduction to the Profession of Pharmacy  
PHARM 125 Pharmaceutics 2
PHARM 128 Professional Communication Skills in Pharmacy Practice 2  
PHARM 130 Professional Practice 2  
PHARM 131 Professional Practice Laboratory 1  
PHARM 141 Introduction to Medicinal Chemistry, Toxicology and Pharmacology  
PHARM 151 Foundation and Application of Health Informatics  
PHARM 155 Introduction to Drug Information Fundamentals  

**Fall – Work Term 1**  
PDPHRM 1 Co-op Fundamentals  
PHARM 220 Integrated Patient Focused Care 1  
PHARM 221 Integrated Patient Focused Care 2  
PHARM 224 Pharmacokinetic Fundamentals  
PHARM 227 Health Systems in Society  
PHARM 228 Professional Practice 3  
PHARM 229 Professional Practice Laboratory 2  
PHARM 232L Medical Microbiology Laboratory 1  
PHARM 290 Seminars in Pharmacy 1  

**Year Two**  

**Winter ** - Work Term 1  

**Spring**  
PHARM 222 Integrated Patient Focused Care 3  
PHARM 223 Integrated Patient Focused Care 4  
PHARM 233L Medical Microbiology Laboratory 2  
PHARM 237 Applications of Analyses and Devices in Pharmacy & Medicine  
PHARM 229 Professional Practice 4  
PHARM 252 Institutional Pharmacy Practice  
PHARM 262 Foundation and Application of Health Informatics  
PHARM 290 Seminars in Pharmacy 1  

**Fall – Work Term 2**  

**Year Three**  

**Winter**  
PHARM 320 Integrated Patient Focused Care 5  
PHARM 321 Integrated Patient Focused Care 6  
PHARM 322 Clinical Application of Pharmaceutical Sciences  
PHARM 329 Professional Practice Laboratory 3  
PHARM 350 Fundamentals of Business Administration and Management  
PHARM 391 Seminars in Pharmacy 2  
*One PHARM Elective (0.5 unit)  

**Spring – Work Term 3**  

**Fall**  
PHARM 323 Integrated Patient Focused Care 7  
PHARM 324 Integrated Patient Focused Care 8  
PHARM 330 Professional Practice 4  
PHARM 391 Seminars in Pharmacy 2  

65
**One business selective (0.25 unit)
*Two PHARM Electives (1.0 units)

Year Four

Winter — Work Term 4

Spring

PHARM 415A Clinical Rotation: Integrated Care
PHARM 416 Public Health, Emergency Preparedness
PHARM 417 Professional Practice Lab
PHARM 418 Research Skills
PHARM 422 Integrated Patient Focused Care 9
PHARM 415B Clinical Rotation: Integrated Care
PHARM 425 Symposium
PHARM 491 Seminars in Pharmacy 3
* Three One Electives (1.5 units 0.5 unit)
PHARM 430 Clinical Rotation 1: Primary Care
PHARM 440 Clinical Rotation 2: Institutional
PHARM 450 Clinical Rotation 3: Elective

Fall Spring

PHARM 418 Research Skills
PHARM 422 Integrated Patient Focused Care 9
PHARM 425 Clinical Rotation: Integrated Care Symposium

PHARM 491 Seminars in Pharmacy 3
* Three One PHARM Electives (1.5 units 0.5 unit)
PHARM 430 Clinical Rotation 1: Primary Care
PHARM 440 Clinical Rotation 2: Institutional
PHARM 450 Clinical Rotation 3: Elective

*Normally electives are taken beginning in Year 3. For students who enter Pharmacy and qualify for transfer credits, electives may be selected earlier in consultation with the Associate Director, Curriculum and Assessment (or delegate). Independent Study electives require permission of the Associate Director (or delegate). A student may take a maximum of 1.0 credit as Independent Study electives.

**Business “selectives” are elective courses focusing on a range of business topics and management issues within different practice settings. These courses will be identified as such in the course catalog. Prior to course selection for the fall term of Year Three, students will be provided with a list of “selectives” that will be offered for their cohort.

The maximum duration allowed for a student to complete the Doctor of Pharmacy (PharmD) program is eight six years from the initial registration.

English Language Proficiency Requirement
Before enrollment in their 3A 2B academic term, students must meet the English language proficiency requirements for the Faculty of Science as stated in the Undergraduate Calendar. Successful completion of this requirement is mandatory for graduation.

Mid-Point Assessment
All Pharmacy students must participate in a mid-point assessment that will take place in the second year of the program. The mid-point assessment will not affect academic progression. Rather, this assessment will help identify students for whom a remediation plan may be implemented to help them succeed in the program.

Community Service Learning Milestone

All Pharmacy students must satisfy the program’s requirement for community service learning. Details of the requirements will be provided to students at the beginning of the degree program. In order to graduate, students must achieve this milestone before the end of the 4B academic term.

Examinations and Standings

The School of Pharmacy sets and administers its examinations in accordance with the rules and regulations set by the Faculty of Science and the University of Waterloo. Student academic standings are considered each term by the School of Pharmacy faculty body and are made in accordance with the regulations listed as follows:

- The factors considered in academic standing in Pharmacy are the term average and the number of failed courses.
- The minimum term average required for promotion in the program is 60%.
- The standard minimum passing grade in each PHARM course is 60% with the following exceptions. A grade of at least 70% will be considered a passing grade for PHARM 443A and B, 440 and 450.
- A number of courses will be graded on a credit/no credit (CR/NCR) basis.

Explanation of Standings

- "Satisfactory Standing" requires that a student achieves a minimum term average of 60% with no failed courses. This entitles a student to proceed to the next term of study.
- "May Not Proceed" standing will result if a student achieves a minimum term average of 60% but fails a maximum of two term courses. The failed courses must be cleared before the student is permitted to proceed to the next academic term.

Note: A student with only one failure per term may be permitted to proceed to the next term; however, any failed course must be cleared. The student must make arrangements with the course instructor as to the mechanism for clearing the failed course. In the event that the failed course is a prerequisite for a course in the following academic term, and it is not cleared before the start of the term, the student must obtain the appropriate approvals by completing a Course Override Form. This form should be accompanied by a statement of the arrangements made with the instructor to clear the failed course. If the instructor of the subsequent course does not approve the course override, the student will be required to clear the failed course before proceeding to the next academic term. Due to the limited scheduling of Pharmacy courses, this will typically result in the student falling behind and extending the time required for program completion. In the event that the next term is a co-op work term, the student will be permitted to begin the co-op work term. Depending on individual circumstances, the School of Pharmacy may contact the student's employer, who may elect to terminate the student's employment. For work terms that continue to completion, the student will be required to submit the appropriate evaluations and the work term report.
- "Failed-Required to Withdraw" will result if a student fails to achieve the minimum term average of 60% or the student fails three or more courses in a term or the student leaves the program without proper notification and fails to write the final examinations. This status will also result if the student fails three attempts at the Final Year OSCEm as described under Degree Requirements.

Note: In the event that the student has begun or was to begin a co-op work term, the School of Pharmacy will notify the employer as well as the Ontario College of Pharmacists (OCP) that the student is no longer enrolled as a student in the School of Pharmacy. Accordingly, the student will no longer be a registered pharmacy student with OCP and will not be permitted to perform the controlled acts of counselling and dispensing. The employer may elect to terminate the student's employment.
"Failed - May Not Continue in Pharmacy Academic Plan" will result if a student has accumulated five failures in the degree requirements of the Pharmacy program (i.e. failures in courses and/or co-op work terms). Readmission into the Pharmacy program is not possible; however, a student receiving this standing may be considered for admission to another program in the Faculty of Science.

Clearing Failed Courses

Normally, failed courses may be passed in one of two ways. Pharmacy will decide which mechanism is appropriate. The two options are:

1. Obtaining a minimal passing grade for the course based on the outcome of a supplemental examination or on another mechanism determined by the course instructor. There is a fee for supplemental exams. Supplemental examinations may not be available for all courses. Normally, a supplemental examination for a course may be offered if there is a maximum of 2 failed courses/term and the student is in satisfactory academic standing. If a supplemental examination is to be offered, the student will be notified regarding the supplemental examination. When a supplemental examination is passed, "Sup Satisfied" will appear on Quest and on the transcript in the "Sup" field adjacent to the original grade for the course. Only one attempt at a supplemental examination is allowed. If the student is not successful, s/he must re-take the course when it is next offered, and may not proceed to the next term.

2. Re-taking the failed course or an approved alternative and obtaining a minimal passing grade for the course. When a failed course has been successfully cleared the grade obtained in the cleared course is indicated on Quest and on the Transcript. The original course and failing grade remain on the Transcript. If a grade of less than the minimal passing grade is obtained for a repeat course, the student is given the academic decision "Failed - May Not Continue in Pharmacy Academic Plan." Readmission into the Pharmacy program is not possible; however, a student receiving this standing may be considered for admission to another program in the Faculty of Science.

Academic decisions will be revised as appropriate based on clearing of failed courses.

**Rationale:** Three major events drive the proposed curricular changes: (1) approval from the Ministry of Training, Colleges and Universities in January 2013 to modify the Pharmacy professional degree from a BScPhm to an entry-to-practice Doctor of Pharmacy (PharmD); (2) changes to Canadian Council for Accreditation of Pharmacy Programs (CCAPP) Accreditation Standards and Guidelines, effective in January 2013, that now specify that “a sustained period of required concluding practice experiences near the end of the program must involve at least twenty-four weeks (960 hours) of fulltime, student placement in practice sites.”; and (3) a review of the Pharmacy curriculum involving faculty, staff, students and external stakeholders and feedback from a 2012 accreditation visit.

Proposed changes fall into two main categories: modification of experiential offerings to meet CCAPP accreditation standards resulting in the addition of three eight-week structured clinical rotations in the final 32 weeks of the program and the elimination of one co-op term; and streamlined program execution that allows us to reduce contact time by approximately one-third while increasing opportunities for independent learning. This is consistent with the skill set required in a profession whose scope is expanding and in transition. The revised curriculum is expected to meet CCAPP accreditation standards and keeps the university competitive in terms of both curricular integrity and time required to complete degree requirements.

Mario Coniglio  
Associate Vice-President, Academic
Centre for Intelligent Antenna and Radio Systems (CIARS)

Shaping the future of wireless technology, Waterloo’s newly opened CIARS facility offers researchers access to new technologies that may offer life-changing outcomes in bio-technology, genetics, pharmaceutics, and targeted drug delivery. (cover art)
Introduction

The ninth edition of the University of Waterloo’s Performance Indicators reflects our place at the forefront of research, entrepreneurship and experiential education. This edition is different from those presented in previous years, with a focus sharpened to reflect the priorities identified in the University of Waterloo Strategic Plan, and the input of university leaders.

In this report, we have reduced a set of more than 90 indicators to less than 40 core indicators. We have included new indicators to help us understand Waterloo’s position in a national and global context and to track success towards strategic goals. We have also set the stage for the development of new metrics to support the accountability framework for our revitalized strategic plan. Indicators are presented digitally to facilitate access and use (see https://uwaterloo.ca/performance-indicators).

The role of the Performance Indicators report is unchanged. This report presents a comprehensive view of our institutional performance using high-level measures of university activity\(^1\). The report serves as a barometer by which to measure the health of our institutional system overall and provides university governance and members of the wider community with a statistical profile. This report will continue to be presented to the Board of Governors annually.

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1 Totals in this report may not add due to rounding.
Our Students

Full-time Equivalent (FTE) Enrolment

Since 2003/04, undergraduate FTEs increased 38% and graduate FTEs increased 80%

Percentage of undergraduate students with entering grade averages of 90%+ has continued to rise since 2009

Degrees Granted

In 2012, the University of Waterloo granted over 6,700 degrees
Co-op

Fall, Full-time Count of Undergraduates by System of Study

In fall 2012, 62% of undergraduates were enrolled in a co-op program

The percentage of students seeking co-op employment has increased 30% since 2008/09. Their co-op employment rates were maintained at 96%.

Co-op Employment Summary

In 2012/13, overall earnings increased to $183M, with an average income of $11.6K per co-op student per term

Co-op Employment Earnings
Co-op

New Co-op Employers

On average, ~1,300 new employers hired Waterloo co-op students each year since 2008/09

Over 90% of co-op student employees “exceeded expectations” according to recent employer satisfaction ratings

178 co-op programs with 15 new programs since 2008

Percent of Incoming Students in Co-op

Preliminary fall 2013 data show 73% of incoming undergraduate students are enrolled in a co-op program
Co-op

Graduate Employment Rates - 2010 Graduates

Waterloo co-op graduates are more likely to be employed six months and two years after graduation.

Employment Related to Field of Study - 2010 Graduates

Waterloo co-op graduates are more likely to be hired in positions closely or somewhat related to their field of study.

Graduate Employment Earnings - 2010 Graduates

Waterloo co-op graduates are more likely to earn a higher income after graduation.

Salary 2 years after Graduation > $50,000
In 2012/13, 12% of undergraduates and 34% of graduates had an international visa status.

In 2012/13, 45% of new international undergraduates and 43% of new international graduate students were citizens of China.
International

International Faculty

27% of our regular, full-time faculty members held citizenship outside of Canada at the time of their first appointment.

In 2012/13, 770 co-op work terms were located internationally, and over 1,000 additional work terms located in the U.S.

International (excluding U.S.) Co-op Work Terms

In 2012/13, $17M of research funding was received from international sources.

International Research Awards
Research Funding

Total Sponsored Research 2012/13

In 2012/13
Total Sponsored Research increased to $194.2M

Tri-Agency Funding 2012/13

In 2012/13 - NSERC funding accounted for 75% of the total funding from the Tri-Agencies; Waterloo ranked by Maclean’s magazine as the top Canadian comprehensive university for success in securing SSHRC grants

Top 5 U15 Institutions for NSERC Partnerships

NSERC Partnerships foster collaboration between researchers and other sectors such as government and industry
According to the 2013 Leiden Ranking, between 2008 and 2011, 46% of Waterloo publications were co-authored by authors from two or more countries and 7% were co-authored with one or more industrial partners.

Discipline-level and size-dependent metrics will allow further understanding and comparison in appropriate fields.

- Waterloo Arts researchers won 3 competitive and prestigious Early Researcher Awards in the most recent competition
- Waterloo Arts researchers are the go-to experts for media reports on current events, including Middle East politics, national and international terrorism, and labour economics
- Waterloo Arts researchers awarded 2 Killam Prizes in the past three years

In the STEM disciplines, citation counts act as a proxy for impact; this is not reflective of the impact of research in the Arts and Humanities.
Research Impact

Professor Gary Dmitrienko
Waterloo Pharmaceuticals Inc.

- Discovery of promising compounds that enhance effectiveness of antibiotics
- Developed research team and partnered with WatCo
- Secured patent protection and $345k in government funding
- Waterloo Pharmaceuticals launched with $300k in seed investment
- Leads interdisciplinary team of Canadian and U.K. researchers funded by CIHR and MRC (UK)
- $4-million funding secured

It is expected that Waterloo Pharmaceuticals will play a leading role in the battle against lethal antibiotic resistant bacteria across Canada and internationally, reducing the length of stay for patients in hospitals and the associated costs.

Professor Daniela O’Neill

Language Use Inventory (LUI)

- Founded University of Waterloo’s Centre for Child Studies
- Findings relevant to early childhood educators, teachers, literacy specialists, researchers, child clinicians, and parents
- Developed standardized Language Use Inventory (LUI) to assess early language in children
- Knowledge in Development founded in 2009 to make LUI commercially available
- LUI used by speech language professionals and researchers worldwide
- International media attention on studies including links between narrative and mathematical thinking and LUI

Daniela O’Neill studies children’s early communicative development, narrative development, and the assessment of early pragmatic language development.
Entrepreneurship

Student Entrepreneurial Landscape

Credit Programs
- On-line Courses
- BETS
- Coop
- Entrep. Clubs
- Velocity Campus
- Other Courses
- ECoop
- Capstone Projects
- Capstone Awards
- Option in Entrep.
- Discovery Clinics
- Velocity Residence
- Mentorship
- MBET Practicum
- Conrad MBET
- Conrad Graduate B.E. Dipl.
- Conrad VIP Program
- Research Comm’n Cert.
- Velocity Venture Fund
- Velocity Foundry
- Velocity Garage
- WatCo

Support Programs

Increasing student-driven activity
Entrepreneurship

**Waterloo Commercialization Office (WatCo)**
- $5M in prototype development funding
- 5 faculty startups raising over $2M in financing (2009-2012)
- Annual licensing revenue of ~ $600k/year
- Student entrepreneur fellowships: 15 companies created, $16+ million follow on investment, 50+ jobs created

**VELOCITY**
- Investment funding to date: over $90M
- 63 current and alumni companies
- 341 jobs created
- 30 companies currently in the VeloCity Garage

**CONRAD**
- Research funding to date: $3.76M
- Commercialization initiatives >$30M
- 870+ Conrad alumni
- 100+ startups
- 45% of MBET grads have led a startup

**Recent Notable Alumni**
- BufferBox
- Couple
- Kik Interactive
- Thalmic Labs
- Vidyard
- PushLife
- Clearpath Robotics
- Miovision
- MappedIn
- Tangam Systems
- Cango
- Angle Media Group

Undergraduate Education Foundations
- Inspired education and coop opportunities
- 4th year engineering capstone projects
- E-Coop ~ 1000% growth in 2yrs
- Recent initiatives contributing to E-culture at uW
  - Options in E-ship, REAP, Greenhouse, Aboriginal, Social Innovation, Research

Total capital investment in clients: $157M
49 current clients at 3 sites: AC/Hub/Stratford
33 graduates - 64% of grads have uW founder
119 clients launched since inception
97% of graduates still in ON
1,055 jobs created
Entrepreneurship

Thalmic Labs MYO lets you use the electrical activity in your muscles to wirelessly control your computer, phone, and other favorite digital technologies.

Clearpath Robotics builds the world’s best unmanned vehicles for research and development.
Our Faculty

Full-time, Regular Faculty Members

In 2012/13, Waterloo had 1,115 regular, full-time faculty members (26% female)

The number of regular, full-time faculty members has increased 37% since 2003

Student to Faculty Ratio
(Undergraduate and Graduate/Tenure Stream)

Student to Faculty ratio can vary from 23:1 to 31:1, depending on definitions of students and faculty

New Faculty Hires

In 2012, 33% of Waterloo new faculty hires were female. This percentage varies by Faculty and Department.
Our Resources

Operating Revenue by Source

In 2012/13, operating revenue was $618M

U15 Library Holdings 2011/12

The Tri-University Group (TUG) provides our students access to ~10M library holdings

Private Sector Contributions

In 2012, over $57M of private sector contributions were raised and received
FOR APPROVAL

University Professor – Changes to Description and Criteria

Motion: To approve changes to the description and criteria for University Professors as follows:

The University of Waterloo owes much of its international reputation and stature to the quality of its eminent professors. University of Waterloo recognizes exceptional scholarly achievement and international pre-eminence through the designation “University Professor.” Once appointed, a faculty member retains the designation for life until retirement.

Not counting retirees, it is anticipated there will be 14 University Professorships at steady state that there will be one University Professor for approximately every 60 full-time regular faculty members, with at most two appointments each year. Such appointments are reported to Senate and the Board of Governors in March and April respectively, and are recognized at convocation.

Selection process

1. Annually, nominations will be sought from faculty deans, directors of schools and department chairs, as well as from the university community generally. A nominee shall have demonstrated exceptional scholarly achievement and international pre-eminence in a particular field or fields of knowledge. The individual who nominates a colleague is responsible for gathering the documentation and submitting it to the vice-president, academic & provost before the December break. The University Tenure & Promotion Committee will act as the selection committee; its decisions are final.

Rationale: The proposed change from a set limit of University Professorships to a proportion based on the regular full-time faculty complement is intended to introduce greater flexibility and ensure that the honour is available to deserving individuals without compromising the high standard that has been established.

The existing cap of 14 University Professorships (exclusive of retirees) has now been reached. When the title was introduced in 2003, the university had a regular faculty complement of ~840, and the cap represented approximately one University Professorship for every 60 faculty members. Since that time, the complement has grown to ~1100. Maintaining the proportion would extend the cap to 18, and allow for future growth.

In addition, moving forward, the designation would end upon retirement. This reflects the current practice of nominating University Professors for the title “Distinguished Professor Emeritus/a” upon retirement, which includes formal recognition at convocation.
MEMO

TO: Senate
   Board of Governors

FROM: D. George Dixon, Vice-President, University Research

DATE: September 25, 2013

RE: Contracts Research and Industrial Grants (CRAIG) – Name Change

The Office of Research has decided to change the name of its ‘Contracts Research and Industrial Grants’ (CRAIG) group to ‘Research Partnerships,’ a name that more closely reflects the group’s responsibilities. The rationale for the name change is provided below.

When CRAIG was first established as a group within the Office of Research, its focus was on research sponsored by industry either through a research contract or an industrial grant. Of particular note, the interaction was directly with industry, and there were no additional partners. In the intervening period, this landscape has changed significantly. Specifically, various government departments and funding agencies have begun to promote industrially sponsored research by providing funds that match the industrial contribution. In effect, these government agencies have become partners with industry in supporting university research, and the CRAIG group has responsibility for negotiating and managing these multi-party research partnership agreements.

As well, the mandate of the CRAIG group has broadened to include oversight for all government grants and contracts that are not of Tri-Council origin. The group also has responsibility for proactively establishing new research partnerships, particularly with industry both within North America and overseas. To this end, the group now includes three industrial liaison officers who have responsibility for building these new research partnerships.
FOR APPROVAL

Degrees, Diplomas and Certificates

Motion:
That Senate approve the lists of candidates for degrees, diplomas and certificates as recommended by the Faculty Councils and the associate provost, graduate studies, and that Senate authorize the chair, the registrar and the associate provost, graduate studies to add to or change the lists of candidates for degrees, diplomas and certificates as approved at the meeting on 21 October 2013.