BRIEFING SESSION – PART 3

12:45 1. Strategic Plan Themes
   a. A Sound Value System
   b. Robust Employer-Employee Relationship

1:40 BREAK

MEETING

OPEN SESSION

1:50 2. Remarks from the Chair

1:55 3. Agenda/Additional Agenda Items

2:00 Consent Agenda

Motion: To approve and/or receive for information by consent items 4-8 below.

4. Minutes of the 3 June 2014 Meeting [enclosed]

5. Report of the President
   a. Recognition and Commendation
   b. Sabbatical Leaves and Administrative Appointments/Appointment Date Changes

   a. Amendments to Policy 68 – Vice-President, University Research
   b. Repeal of Policy 58 – Search and Nominating Committee for Director Guelph-Waterloo Centre for Graduate Work in Chemistry

7. Report of the Vice-President, Administration & Finance
   a. Engineering Society Fee

8. Report from the Executive Committee

Regular Agenda

2:05 9. Business arising from the Minutes
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<th>Time</th>
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<td>2:10</td>
<td>10. Report of the President</td>
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<td></td>
<td>a. President’s Update</td>
<td>27-33 Information</td>
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<td>b. Ranking Results – Overview and Strategies for Improvement</td>
<td>34-41 Information</td>
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<td>c. Strategic Plan 2013-2018, Progress and Impact – Fall 2014 Update</td>
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<td>a. Temporary Foreign Worker Program</td>
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<td>b. Changes to the Memorandum of Agreement between FAUW and the University of Waterloo</td>
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<td>c. Undergraduate Admissions Update</td>
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<td>3:00</td>
<td>12. Report of the Vice-President, University Relations</td>
<td>Oral Information</td>
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<td>3:10</td>
<td>13. Report of the Vice-President, Advancement</td>
<td>Oral Information</td>
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<td>3:20</td>
<td>BREAK</td>
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<td>3:35</td>
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<td>a. Audit &amp; Risk [Financial Statements enclosed]</td>
<td>43 Decision/Information</td>
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<td>3:45</td>
<td>b. Building &amp; Properties</td>
<td>44-45 Decision/Information</td>
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<td>3:55</td>
<td>c. Finance &amp; Investment</td>
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<td>4:05</td>
<td>d. Pension &amp; Benefits</td>
<td>47-65 Decision/Information</td>
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<td>4:15</td>
<td>15. Other Business</td>
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<td>4:20</td>
<td>CONFIDENTIAL SESSION</td>
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<td>Motion: To approve by consent items 16 and 17 below.</td>
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<td>4:30</td>
<td>17. Report of the President</td>
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<td>a. New Appointments with Tenure</td>
<td>CS1-CS2 Decision</td>
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<td>4:35</td>
<td>18. Business Arising from the Minutes</td>
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<td>a. Gift Agreement</td>
<td>CS3-CS5 Decision</td>
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<td>b. Donor List – New Gifts and Pledges $250,000+</td>
<td>CS6-CS7 Information</td>
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<td>4:50</td>
<td>20. Reports from Committees</td>
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<td>a. Audit &amp; Risk</td>
<td>CS8 Information</td>
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<td>5:00</td>
<td>b. Finance &amp; Investment</td>
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<td>5:10</td>
<td>c. Governance</td>
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<td>21. Other Business</td>
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### IN CAMERA SESSION

22. Next Meeting: Tuesday 3 February 2015 at 1:30 p.m.

23. Minutes of the 3 June 2014 Meeting [enclosed]  

24. Business Arising from the Minutes

25. Other Business

**Enclosed:** November *University Affairs*

**Note:** To allow the board to complete a number of matters quickly and to devote more of its attention to major items of business, the agenda has been divided between items that are to be approved and/or received for information by consent and those that are to be presented individually for discussion and decision and/or information.

A consent agenda is not intended to prevent discussion of any matter by the board, but items listed under the consent sections will not be discussed at the meeting unless a governor so requests. Governors are supplied with the appropriate documentation for each item and all items will be approved by means of one omnibus motion. The board will then move immediately to consideration of the items on the regular agenda.

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JLA: tad  
21 October 2014

Logan Atkinson  
University Secretary & General Counsel

Guests: Aldo Caputo, Jana Carson, Emanuel Carvalho, Jeff Casello, Mario Coniglio, Ray Darling, Mike den Haan, George Dixon, Ian Goulden, Mark Haslett, Bob Hicks, Sue Horton, Dennis Huber, Beth Jewkes, Jennifer Kieffer, Geoff McBoyle, Ken McGillivray, Daniel Parent, Chanakya Ramdev, Chris Read, Ellen Réthoré, James Rush, Daniela Seskar-Hencic, Allan Starr, Pearl Sullivan, Bud Walker, Melissa Zapletal

Secretariat & Office of General Counsel: Tracy Dietrich, Erin Windibank

Regrets: Catherine Booth, Danielle Burt, Michelle DiEmanuele, Brenda Halloran, David McKay, Michele Mosca, Mark Walker, Prem Watsa, Carl Zehr, Frank Zorzitto

BRIEFING SESSION – PART 2

1. STRATEGIC PLAN 2013: IMPLEMENTATION STRATEGY

Sue Horton, associate provost graduate studies, and Mario Coniglio, associate vice-president academic, leads for the “Outstanding Academic Programming” theme, made the opening presentation. They explained that the theme’s goal is to encourage excellence and provide support for innovative programs for which academic units are responsible. They indicated that the academic agenda will be driven by innovation and relevance to the real world in order to prepare graduates who will be highly sought after and succeed in the globalized economy.

Priorities identified for 2014 include: becoming a national leader in online education; enhancing graduates’ communication skills; providing opportunities for graduate students to develop and enhance professional skills (through an innovative new suite of online modules); using innovative online technology to facilitate course evaluations; and taking a critical look at classroom infrastructure to meet needs of teachers and students.

Highlights moving forward include: providing leadership together with the Council of Ontario Universities to guide government direction re: online learning; and developing innovative ways to deliver programming online, including fully online professional master’s programs, virtual laboratories, and programs to enhance linkages to secondary schools through efforts aimed at both students and teachers.

Chris Read, associate provost students, presented efforts relating to the “Vibrant Student Experience” theme. He identified current areas of focus as student space planning (developing a cohesive, campus-wide strategy and ongoing student consultation process), student relationship management (adopting a more systemic and integrated approach to support services), and creation and implementation of a student portal (currently in beta testing).
Geoff McBoyle, vice-president academic & provost, provided an overview of how funds have been allocated to support strategic plan implementation activities to date, noting that $5.6M has been allocated, $1M of which comes from external sources.

Slides used in the presentations may be seen at: https://uwaterloo.ca/secretariat-general-counsel/sites/ca.secretariat-general-counsel/files/uploads/files/strat_plan_20140603.pdf

MEETING

Organization of Meeting: Kevin Lynch, chair of the board, took the chair, and Erin Windibank acted as secretary. Windibank advised that due notice of the meeting had been given, a quorum was present, and the meeting was properly constituted.

OPEN SESSION

2. REMARKS FROM THE CHAIR
The chair welcomed everyone to the meeting, especially those new and returning. He referred specifically to the conflict of interest declaration for completion by governors.

The chair’s speech at the Annual Lecture @ Humber College may be seen at: https://uwaterloo.ca/secretariat-general-counsel/sites/ca.secretariat-general-counsel/files/uploads/files/humber_college_annual_lecture_20140602.pdf

3. AGENDA/ADDITIONAL AGENDA ITEMS
The board heard a motion to approve the agenda, subject to the withdrawal of items 6 (changes to Policy 59) and 11 (change to the MOA between FAUW and UW).

Schlegel and Gamble. Carried.

Consent Agenda
The board heard a motion to approve and/or receive for information by consent items 4, 5 and 7 below.

4. MINUTES OF THE 1 APRIL 2014 MEETING
The board approved the minutes of the meeting as distributed.

5. REPORT OF THE PRESIDENT
Recognition and Commendation. The board received the report for information.

Sabbatical/Administrative Leaves and Administrative Appointments/Reappointments. The board approved the recommended leaves and received the administrative appointments/reappointments for information.

6. REPORT OF THE VICE-PRESIDENT, ACADEMIC & PROVOST
Changes to Policy 59, Reduced Workload to Retirement. The item was withdrawn at the request of the vice-president, academic & provost.

7. REPORT OF THE VICE-PRESIDENT, ADMINISTRATION & FINANCE
Incidental Fees. The board approved the recommended fees as presented in the report.

Lynch and Hamdullahpur. Carried.
Regular Agenda

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

9. ONLINE LEARNING DEVELOPMENT
   Aldo Caputo, associate director, Centre for Extended Learning, delivered a presentation on the centre’s activities in support of high quality fully online courses and programs at the graduate and undergraduate levels as well as non-credit professional development courses, noting that the university sees itself as a national leader in the number of fully online professional master’s degrees offered. He provided data showing the substantial growth of online course offerings, highlighting that 75% of University of Waterloo students see themselves as taking a mix of online and on-campus courses. Looking forward, Caputo reported that the centre hopes to further expand its capacity to serve the needs of the University and play a leadership role in online development within the province, while also looking at the horizon for new technologies.

   In discussion, the board considered opportunities to use online courses as a means of reaching out to secondary school students.

   Slides used in the presentation may be seen at: https://uwaterloo.ca/secretariat-general-counsel/sites/ca.secretariat-general-counsel/files/uploads/files/online_learning_20140603.pdf

10. REPORT OF THE PRESIDENT
   Speaking to his presentation, Hamdullahpur thanked board members who attended yesterday’s 14th annual President’s Golf Tournament, which raised $1M in support of student athletes.

   He reported that the University’s Strategic Mandate Agreement with the provincial government was signed on 31 March; however, further action depends on the outcome of the provincial election.

   Noting that the co-operative education model is one of the University’s major differentiators, Hamdullahpur presented data re: employment rates following graduation, relevance of employment to skills developed in field of study and income, in which co-op graduates compared favorably against University of Waterloo and Ontario graduates overall. He also shared highlights of the most recent survey of incoming students showing that: the co-op program is now the primary reason that students accept offers from the University of Waterloo; 44% of admitted students consider themselves to be entrepreneurial; 90% of respondents would have accepted their offer without scholarship support, but 37% of those who declined would not have done so if offered more money; and the perception that the academic environment is too stressful was the fifth most likely reason for declining an offer (up from 20th in 2009).

   Some comments were offered on the provincial election and possible impacts on funding allocations promised in the last provincial budget, which may or may not survive.

   Hamdullahpur reported that mini town hall meetings on strategic plan implementation are proceeding as planned and stakeholders are providing meaningful feedback to move the plan forward. He also mentioned a recent large delegation received from the University of Bordeaux to further academic collaboration in a range of areas, and his recent visit to several top Chinese universities where agreements were signed to help create strategic connections, as well as a meeting with China’s vice minister of education.

   Slides used in the presentation may be seen at: https://uwaterloo.ca/secretariat-general-counsel/sites/ca.secretariat-general-counsel/files/uploads/files/president_20140603.pdf
Tribute. Hamdullahpur expressed gratitude to McBoyle, who steps down as vice-president, academic & provost effective 30 June 2014.

Spring 2014 Convocation. Board members heard that ten ceremonies will take place from 10-14 June and were encouraged to attend whenever possible.

Executive Appointments. Hamdullahpur announced that Robert Crow has been appointed interim vice-president, university relations, and the committee to identify a successor is in place. He also noted four upcoming searches for deans of mathematics, science and environment (Jean Andrey will serve as interim dean of environment following André Roy’s departure at the beginning of August), as well as associate provost, graduate studies.

Hong Kong Technology Transfer Subsidiary. The board heard a motion to approve that the University incorporate a wholly-owned for-profit Hong Kong subsidiary for the purpose of the management of technology commercialization activities including licensing transactions and start-up company investments, and to approve the use of the words “Waterloo” and/or “University of Waterloo,” the coat-of-arms of the University of Waterloo, and all related marks and designs, in connection with the name of the subsidiary corporation and its business, without power of further assignment of such rights of use.

Hamdullahpur and Gamble.

In discussion: intellectual property counsel has been provided by Miller Thomson’s international practice; liability generated by the subsidiary would not transfer to the University as a shareholder; monitoring would be effected through the Office of Research Finance and the board’s Audit & Risk Committee; George Dixon, vice-president university research, and Scott Inwood, director of commercialization, Office of Research, would serve as directors; once the vehicle is in place, intellectual property will be managed on a case by case basis through individual agreements; providing support through the University mitigates risk to faculty members who may choose to engage in licensing activity independently.

Members asked Dixon to circulate more in-depth information following the meeting addressing costs, benefits and risks, and to bring an item before the Audit & Risk Committee in advance of operationalizing for discussion of how the subsidiary will be used taking risk into account.

The motion carried.

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

Change to the Memorandum of Agreement between FAUW and the University of Waterloo. The item was withdrawn by McBoyle pending further discussion with the Faculty Association of the University of Waterloo.

Exceptions to Policy 40, The Chair. The board heard a motion to approve exceptions to Policy 40, The Chair as presented in the report.

Porreca and Charette. Carried.

New Academic Department, Faculty of Environment. The board heard a motion to approve the transformation of the Centre for Knowledge Integration into the Department of Knowledge Integration within the Faculty of Environment as presented in the report.

Wilkinson and Lazaridis.
In discussion: this change is not intended to establish a precedent for research centres to become departments as no other centre is currently permitted to enroll its own students; the unit offers an interdisciplinary program that is attracting very high quality students.

The motion carried.

**Undergraduate Applications and Admissions Update.** The registrar presented the report on undergraduate applications and admissions for 2014-15. Discussion included: while applications increased by 1.3%, there was a drop in Ontario secondary school applications for the first time; enrolments in arts are down across the province; co-op is at 113% of target as compared to regular programs at 92% (it was suggested that the future of regular programs might be raised for discussion in the context of a board retreat).


12. **REPORT OF THE VICE-PRESIDENT, ADVANCEMENT**

**Office of Advancement FY14 Update.** The board received the report for information. McGillivray offered congratulations to those who worked to achieve this year’s success and highlighted areas of focus for the Office of Advancement, including post-campaign stewardship, talent management and strengthening prospect management, increasing call activity, development and implementation of an advancement strategic framework, and reviewing alumni relations with a view to enhancement.

**School of Urban and Regional Planning Alumni Association – Consent to Use University Name.** The board heard a motion to give consent to the “School of Urban and Regional Planning Alumni Association” to change its legal name to “University of Waterloo Planning Alumni of Toronto.”

McGillivray and Schlegel. Carried.

13. **RESEARCH PRESENTATION**

The board heard that Bryan Smale, professor of recreation & leisure studies and director of the Canadian Index of Wellbeing, would deliver a presentation at dinner immediately following the meeting.

14. **REPORTS FROM COMMITTEES**

**Audit**

- **UW Financial Statements, 2013-2014.** The board heard a motion to delegate its authority to approve the University’s audited financial statements for the fiscal year ended 30 April 2014 to the Board Executive Committee.

  Forbes and Wilkinson. Carried.

- **Amendment to Governing Resolution.** The board heard a motion to approve amendments to the governing resolution of the Audit Committee as presented in the report.

  Forbes and Hulan. Carried.

The remaining items in the report were received for information.
Building & Properties

- **Applied Health Sciences Expansion.** The board heard a motion to approve a revised project budget of $18.639 million for the construction of an expansion building for Applied Health Sciences – Kinesiology on a portion of parking Lot M.

  Gamble and Lazaridis.

  In discussion: the budget increase represents reconceived project to meet a greater need for space identified in the consultative design phase and not a cost overrun; 20 parking spaces will be lost in Lot M following construction, however, the university acquired 1,000 new parking spaces with the five BlackBerry buildings.

  The motion carried.

- **Applied Health Sciences Expansion.** The board heard a motion to approve the award of a design/build contract to Melloul-Blamey Construction Inc. for $16,041,518, plus HST.

  Gamble and Wilkinson. Carried.

- **Light Rail Transit Project.** The board heard a motion to delegate authority to the Building & Properties Committee to approve minor land transactions between the University and the Region of Waterloo to facilitate the implementation of the light rail transit project intended to operate along the east boundary of the University’s main campus.

  Gamble and Guild. Carried.

The remaining items in the report were received for information.

Finance & Investment

- **Endowment Fund Investments.** The board heard a motion to appoint Dalton Investments as an approved global equity manager for the University of Waterloo endowment fund.

  Wilkinson and Porreca.

  In discussion: while Asian markets are generally more volatile than the broader global markets, the committee believes this is one of the best firms investing on an Asia-specific basis and is consistent with the University’s long term value-oriented approach; approval enables the committee to take future action, but does not necessarily mean that an investment will be made.

  The motion carried.

Governance. The board received the report for information.

Pension & Benefits

- **Actuarial Valuation of the UW Pension Plan as at 1 January 2014.** The board heard a motion to approve filing of the “Actuarial Report: University of Waterloo Pension Plan” as of 1 January 2014 with the Financial Services Commission of Ontario and the Canada Revenue Agency.

  Watson and Wilkinson. Carried.

The remaining items in the report were received for information.
15. INSTITUTE FOR QUANTUM COMPUTING ANNUAL REPORT TO INDUSTRY CANADA, EXECUTIVE SUMMARY
The board heard a motion to approve the report for submission to Industry Canada.
Hamdullahpur and Guild. Carried.

16. OTHER BUSINESS
There was no other business.

The board convened in Confidential Session.

13 October 2014
Erin Windibank
Associate University Secretary & Legal Counsel
FOR INFORMATION

Recognition and Commendation
The Canadian Association of Physicists (CAP) and the Institut national d’optique (INO) have awarded Melanie Campbell, professor of physics and astronomy, cross-appointed to optometry and vision science, the 2014 CAP-INO Medal for Outstanding Achievement in Applied Photonics. This prestigious award acknowledges Campbell’s numerous contributions to the field of visual optics and imaging of structures within the eye. “I am honoured to accept this award and pleased that I have had the opportunity to do the research that I love,” said Campbell. Campbell’s work on optical imperfections in human and animal eyes has and will likely result in earlier detection methods and better treatments for several eye diseases. For example, her fundamental study of crystalline lens optics has helped researchers explain the loss of near vision (presbyopia) with age and spurred new treatments to improve vision in elderly patients. More recently, Campbell’s research into eye imaging has led her to patent several methods including one to image a protein marker in living eyes, which could lead to a non-invasive test for Alzheimer’s disease. Campbell received her medal at the 2014 CAP Congress hosted by Laurentian University, Sudbury.
[18 June 2014 Daily Bulletin]

Roydon Fraser, professor of mechanical and mechatronics engineering, received the National Science Foundation (NSF) Outstanding Long Term Faculty Advisor Award at the EcoCAR 2 competition finals held in Washington in June. Fraser, whose research expertise includes fuel cells and stability control, is a long-term supervisor of the University of Waterloo Alternative Fuels Team. He was honoured with the same award at the conclusion of the EcoCAR competition in 2010 for providing guidance, administrative support and leadership that the NSF says is fundamental to the students’ understanding of the program deliverables and keeps the student teams on course throughout the program. The US Department of Energy (DOE) also recognized Fraser for his participation in EcoCAR 2, awarding him the DOE Applied Automotive Engineering Fellowship in recognition of his contributions to the Advanced Vehicle Technology Competitions Applied Automotive Engineering Curriculum Project (AAECP). The AAECP is a unique project designed to leverage the knowledge and expertise of EcoCAR 2 faculty advisors to create a body of practical automotive engineering knowledge that is gained through hands-on vehicle competitions. [28 July 2014 Daily Bulletin]

Professors Yulia Gel, Stefan Steiner and Changbao Wu have each been named Fellow of the American Statistical Association (ASA), one of the world’s preeminent professional statistical societies. Gel, Steiner and Wu are professors in the Department of Statistics and Actuarial Science. To be recognized as a 2014 ASA Fellow, each honouree must make outstanding professional contributions to, and have exhibited leadership in, the field of statistical science. Gel was honoured “for theoretical contributions to nonparametric aspects of spatiotemporal processes; for promoting the application of modern statistical methodologies in law, public policy, and the environmental sciences; and for championing the advancement of women and other under-represented groups in the mathematical and physical sciences.” Steiner was cited “for substantial research contributions in process monitoring and measurement system assessment; for highly productive collaborative consulting in industry that has resulted in improved industrial and business processes; and for service to the ASA and the profession.” The citation for Wu explains he was elected “for outstanding contributions to survey sampling theory and practice, especially the development of pseudo-empirical likelihood methods for the analysis of complex survey data, and for strong leadership and service to the profession.” All recipients were awarded a certificate at a ceremony
in August at the annual Joint Statistical Meetings in Boston, Massachusetts. “I congratulate Professors Gel, Steiner and Wu on being honored as a new ASA Fellow,” said ASA President Nathaniel Schenker. “Their accomplishments have contributed greatly to the advancement of statistical science and have rightfully earned each of them the respect and admiration of their ASA peers.” The designation of ASA Fellow has been a significant honour for nearly 100 years. To be honored, nominees must have an established reputation and have made outstanding contributions in statistical science. [4 July 2014 Daily Bulletin]

Department of Electrical and Computer Engineering Professor Mohamed Kamel and Perimeter Institute for Theoretical Physics Director Neil Turok (physics and astronomy professor) have been named fellows of the prestigious Royal Society of Canada (RSC). Fellows of the Royal Society are “peer-selected as the best in their field,” in areas spanning science, the arts, and Canadian public life. “Mohamed Kamel has made distinguished and outstanding contributions to the fields of pattern recognition and machine intelligence. He introduced novel approaches in clustering and classification and developed valuable solution methods,” his citation reads. “He pioneered the application of these approaches in character recognition, biometrics, visual inspection, solving differential equations and data mining. His work has significantly impacted industry as demonstrated through his patents, research contracts with industry and his involvement in spin-off companies.” “Neil Turok is an internationally renowned physicist who has made major contributions to cosmology, the study of the origins and evolution of the universe,” reads the RSC’s citation. “He is a world leader in developing and testing fundamental theories and is the co-inventor of the cyclic model for cosmology. His visionary leadership has advanced science in Canada and worldwide, in directing the Perimeter Institute for Theoretical Physics and by founding the African Institute for Mathematical Sciences.” Kamel and Turok are invited to join the other new fellows to be inducted to the academies of the RSC during a ceremony on Saturday 22 November at Fairmont Le Château Frontenac in Quebec City. Founded in 1882, the RSC comprises the Academies of Arts, Humanities and Sciences of Canada. Its mission is to recognize scholarly, research and artistic excellence, to advise governments and organizations, and to promote a culture of knowledge and innovation in Canada and with other national academies around the world. [10 and 11 September 2014 Daily Bulletin]

Professor Susan Tighe of the Department of Civil and Environmental Engineering and Professor Chris Eliasmith of the Departments of Philosophy and Systems Design Engineering are among the inaugural 91 members of the College of New Scholars, Artist and Scientist recently named by the RSC. Those named to the college have been nominated by 51 Canadian universities and the National Research Council, and they represent the emerging generation of scholarly, scientific and artistic leadership in Canada. Tighe was cited for her “pioneering work in pavement engineering resulting in major changes to road and highway technology, specifications and standards worldwide. Work through novel integration of field and laboratory performance has resulted in improved safety, unique material usage and structural designs which are cost-effective and resilient to climate and loading impacts. She has an extensive record of scientific achievement and is at the forefront of research in this field.” “Chris Eliasmith is a pioneering figure in the rapidly developing field of theoretical neuroscience,” reads his citation. “His most visible contribution has been in the development of Spaun, the world’s largest functional model of the brain. Spaun has garnered wide acclaim, both in the academy and in the popular press. Behind Spaun’s success is a deeply influential body of work implementing an innovative approach to the problem of how brains encode meaning.” The presentation ceremony for this first cohort will take place on Friday 21 November at Fairmont Le Château Frontenac in Quebec City. [18 September 2014 Daily Bulletin]

Germany’s top honour was awarded to Distinguished Professor Emeritus David John for his work in promoting German language and culture throughout his career as a professor in the Department of Germanic and Slavic Studies, including establishing the Waterloo Centre for German Studies. The Order of Merit of the Federal Republic of Germany, called the Bundesverdienstkreuz, honours both Germans
and foreigners in all areas of endeavour. Similar to the Order of Canada, this award represents the highest tribute Germany pays for services to the nation in political, economic, social or intellectual fields. Walter Stechel, the consul general of Germany, presented John with the Order of Merit at a ceremony in Kitchener in June. “This prestigious award is an especially fitting one for David John whose career has been distinguished by his passion for and commitment to German language, literature and culture,” said Douglas Peers, dean of the Faculty of Arts. “We are very proud and grateful for his significant contributions to scholarship, teaching and inter-cultural understanding.” [16 June 2014 Daily Bulletin]

University of Waterloo historian Ken McLaughlin was recently presented with the Waterloo Award, the City of Waterloo’s highest civic honour, recognizing individuals whose outstanding contributions have enhanced the local quality of life. McLaughlin was cited for his long academic career and the role he played in significantly shaping local history. He is a retired St. Jerome’s University professor of history, a distinguished professor emeritus, and has authored a number of works about communities in Waterloo Region, including two books about the history of the University of Waterloo. [24 September 2014 Daily Bulletin]

Mary Thompson, distinguished professor emerita of statistics and actuarial science, is the recipient of the 2014 Distinguished Service Award from the Statistical Society of Canada (SSC). The award “honours an individual who has played an important and substantial role in fostering growth and success of the Canadian Statistical Sciences community through leadership in the SSC.” In addition, the SSC named Liqun Diao, statistics and actuarial science graduate, the winner of the 2013 Pierre Robillard Award for the best PhD thesis in probability or statistics defended at a Canadian university in 2013. Liqun’s thesis was entitled “Copula Models for Multi-Type Life History Processes.” It was written under the supervision of Richard Cook, professor of statistics and actuarial science. [31 July 2014 Daily Bulletin]

Kinesiology doctoral candidate, Kristin Marks, has been awarded a 2014 Women’s Health Scholars Award from the Council of Ontario Universities. The $20,000 award, which is funded by the Ontario Ministry of Health and Long-Term Care, recognizes outstanding research in women’s health issues. Marks researches the ways estrogen affects the synthesis of different fats. The results of her work will help improve the design of clinical trials, and will also provide a foundation for dietary guidelines that account for women’s different needs during the premenopausal, pregnant, and postmenopausal phases of their lives. Marks is one of six recipients of the Women’s Health Scholars Award across the province, and one of three PhD candidates to receive the prize this year. The prize is part of a decades-long push from the health research and medical communities to include women’s health issues in scientific studies. [18 June 2014 Daily Bulletin]

Erin Wong, kinesiology undergraduate student, is the recipient of the Multinational Association of Supportive Care in Cancer (MASCC) Young Investigator’s Award. This award is reserved for individuals under the age of 40 who have made significant contributions to their field through their research efforts. While the award is typically given to medical doctors and residents in training, Wong is receiving this award as an undergraduate for her outstanding work investigating the efficacy and safety of re-irradiation of bone metastases in stage 4 cancer patients and other research projects in patients with advanced cancer. This research was conducted by Wong while on a co-op term at Sunnybrook Odette Cancer Centre in Toronto. She is currently on her fourth consecutive work term at Sunnybrook, and she credits the winning of this award, in part, to the work environment there. “I have learned so much from my past three work terms at Sunnybrook,” says Wong. “I’ve become very knowledgeable in the field of radiation oncology. The experiences I’ve gained from working here and the support from my employer have definitely aided in my candidacy for this award.” Wong’s award was presented to her at the MASCC/ISOO International Symposium on Supportive Care in Cancer in Miami, Florida. [25 June 2014 Daily Bulletin]
In June the University of Waterloo Alternative Fuels Team (UWAFT) completed the EcoCAR 2 competition and was accepted into the next competition in the series, EcoCAR 3. The UWAFT was at the General Motors proving grounds in Milford, Michigan to take part in the final evaluation of the EcoCAR 2 competition, a North American engineering collegiate competition sponsored by the US Department of Energy and General Motors. Competing against 14 other schools from across North America, UWAFT looked to make a car that was innovative, eco-friendly and performance driven while maintaining consumer acceptability. This vision was realized through a 2013 Chevrolet Malibu, converted into a Series Plug-in Hybrid Electric Vehicle. The car can run on pure electricity as well as E85, a biofuel that burns cleaner than regular gasoline and can be made from corn or sugar cane. The idea is that one day, eco-cars such as UWAFT’s will become a standard design in the automotive industry. In the upcoming EcoCAR 3 competition, students will be challenged to redesign a Chevrolet Camaro into a hybrid-electric car that will reduce environmental impact, while maintaining performance. Teams will be tasked to incorporate innovative ideas, solve complex engineering challenges, and apply the latest cutting-edge technologies. This model is already the most technologically advanced Camaro in the vehicle’s history, and participating teams have four years to integrate their own ideas, meeting engineering, environmental and economic goals. [18 August 2014 Daily Bulletin]
FOR APPROVAL

1. **Sabbatical Leaves**

   The University of Waterloo Policy 3 – Sabbatical and Other Leaves for Faculty Members [excerpts below, full text available at: http://uwaterloo.ca/secretariat-general-counsel/policies-procedures-guidelines/policy-3] sets out the purpose of leaves for faculty members as well as the requirements/responsibilities of faculty who are granted such leave.

   The granting of a leave . . . depends on the University’s assessment of the value of such leave to the institution as well as to the individual, and on whether teaching and other responsibilities of the applicant can be adequately provided for in her/his absence. A faculty member who is granted a sabbatical or other leave is expected to return to duties in the University for at least one year and upon return will be expected to submit a brief report to the Department Chair regarding scholarly activities while on leave.

   The purpose of a sabbatical leave is to contribute to professional development, enabling members to keep abreast of emerging developments in their particular fields and enhancing their effectiveness as teachers, researchers and scholars. Such leaves also help to prevent the development of closed or parochial environments by making it possible for faculty members to travel to differing locales where special research equipment may be available or specific discipline advances have been accomplished. Sabbaticals provide an opportunity for intellectual growth and enrichment as well as for scholarly renewal and reassessment.

   . . . the granting of sabbatical leave is contingent upon the faculty member’s department being able to make the necessary arrangements to accommodate such an absence, and also upon the financial resources of the University in any given year. Should problems arise in any of the above, it may be necessary to postpone individual requests until such time as all the conditions can be satisfied.

   **Aagaard, Mark.** Chemical and Computer Engineering, January 1, 2015 to December 31, 2015, at 85% salary

   *I will stay in Waterloo to conduct research on digital hardware design and verification, specifically looking at mathematical models for verification and optimization of pipelined and cryptographic circuits. I will also complete my textbook on digital hardware design that evolved from my course notes.*

   **Abukhdeir, Nasser.** Chemical Engineering, January 1, 2015 to June 30, 2015, at 100% salary

   *During this sabbatical period I will focus on further development of a new research area, simulation-based engineering of multiphase reactors. Leveraging my existing expertise in computational fluid dynamics, I will continue to grow my research program in the areas of theory and simulation of multiphase flows. Outcomes include the establishment of this new research area and solidification of existing industrial collaborations.*
Adair, Wendi, Psychology, January 1, 2015 to June 30, 2015, at 85% salary
I will research a) conflict and negotiation in China and b) Aboriginals’ bicultural identity and workplace experiences. I will travel to China for data collection with Chinese MBA students and to Alberta and Quebec to develop connections with Aboriginal communities. I will also prepare manuscripts for publication based on data already collected from existing projects.

Agnew, Gordon, Electrical and Computer Engineering, January 1, 2015 to December 31, 2015, at 100% salary
I have been doing collaborative research with Cisco Systems since 2007. I have recently begun research on secure and reliable distributed storage and processing systems (the cloud). My sabbatical will give me the opportunity to focus on this work with Cisco and explore relationships with other companies that offer cloud storage systems (such as IBM, Google, Apple, and others).

Al-Mayah, Adil, Civil and Environmental Engineering, January 1, 2015 to June 30, 2015, at 100% salary
I will be concentrating on a new research theme that involves the integration of imaging and mechanics to address engineering materials and soft tissues characterizations. In addition, I will write papers on my research findings to be submitted for publication.

Bandyopadhyay, Satiprasad, Accounting and Finance, January 1, 2015 to June 30, 2015, at 100% salary
I want to continue work on my current research-in-progress, including one SSHRC-funded project (as collaborator) and start a new project on Indian banks’ non-performing assets problem. This new topic complements my current research on US and Canadian banks and India’s financial markets. I will spend time at Indian Institute of Management, Calcutta, India to obtain insights into this new topic.

Basu, Dipanjan, Civil and Environmental Engineering, January 1, 2015 to June 30, 2015, at 100% salary
The sabbatical leave will be spent in developing new expertise in energy-related geotechnology, namely, compressed air energy storage, enhanced geothermal energy and wind energy foundations. In addition, research on foundation engineering, soil structure interaction, reliability analysis and Load and Resistance Factor Design (LRFD) will be performed with an aim to write three journal articles.

Blowes, David, Earth and Environmental Sciences, January 1, 2015 to December 31, 2015, at 100% salary
I plan to use my sabbatical leave period to prepare manuscripts based on two major projects, to implement new equipment in my laboratory, to visit collaborators and colleagues. I will collaborate with researchers at UW and at other institutions to develop and implement new approaches for remediation of environmental contamination.

Budman, Hector, Chemical Engineering, January 1, 2015 to December 31, 2015, at 100% salary
The first part of the sabbatical will be spent in my lab at Waterloo developing a perfusion bioreactor system for continuing research in the area of metabolic flux models. The second half will be spent at MIT (MA, USA) collaborating with Professor Richard Braatz in the area of robust identification and optimization of biotechnological processes using metabolic flux models.
Campbell, Melanie, Physics and Astronomy, January 1, 2015 to December 31, 2015, at 100% salary
During this sabbatical leave, I will undertake research on optical signals that control eye growth and I will shape wavefronts of light and exploit the eye’s interaction with light to improve light based therapies and the diagnostic imaging of eye diseases as well as the diagnosis of Alzheimer’s disease. I will submit grant applications, travel to collaborators’ labs and pursue technology licensing opportunities.

Clausi, David, Systems Design Engineering, January 1, 2015 to June 30, 2015, at 85% salary
During my sabbatical, I plan to primarily remain close to the University of Waterloo in order to continue my substantial research program in the field of computer vision. This will give me the opportunity to spend dedicated time conducting research, applying for new grants, writing journal papers, and working with students and post-doctoral fellows.

Cluett, Cora, Fine Arts, January 1, 2015 to June 30, 2015, at 85% salary
As an abstract, process based painter I have developed a working methodology that uses oil paints, resins, solvents and glazing mediums that are environmentally toxic and I am seeking a way of making paintings that resolve this issue. I will be working to change how I make my paintings from solvent based to less toxic water-based polymers, acrylic colours and mediums. This will require time, research, and experimentation.

Cook, Richard, Statistics and Actuarial Science, January 1, 2015 to June 30, 2015, and January 1, 2016 to June 30, 2016, at 100% salary
I intend to write a book with Jerry Lawless on “Multistate Models and Analysis in Public Health Research.” I will spend time at McMaster University and the University of Toronto.

Cozzarin, Brian, Management Sciences, July 1, 2015 to June 30, 2016, at 94% salary
My research is based on finding the effects of private equity investment on firm patenting activity in a global context. The answer to this question is important for innovation policy, especially as it pertains to the venture capital industry.

Craik, Neil, Environment, Enterprise and Development, January 1, 2015 to June 30, 2015, at 100% salary
During this leave I will be completing work related to geoengineering law and policy and the law related to resource extraction and Indigenous rights, respectively. I have planned trips to University College London, the Arctic Centre in Finland and to the Institute for Advanced Sustainability Studies (Potsdam, Germany) to pursue collaborations associated with these projects.

Daun, Kyle, Mechanical and Mechatronics Engineering, May 1, 2015 to October 31, 2015, at 100% salary
I will be visiting Germany, where I will research laser-based diagnostics with Professor Christof Schulz and with members of the Centre for Nanointegration Duisberg Essen (CENIDE) and Professor Stefan Will at the University of Erlangen-Nurnberg. We will focus on developing laser-based diagnostics for characterizing synthetic nanoparticles, specifically laser-induced incandescence and multiangle elastic light scattering.

Di Marco, Chrysanne, Computer Science, January 1, 2015 to June 30, 2015 and January 1, 2016 to June 30, 2016, at 91.3% salary
My areas of research include: computational linguistics, computational rhetoric, computational argumentation, games for behaviour change, games for health, serious games, narrative in games, artificial intelligence. During my leave I plan to investigate the use of narrative medicine, cognitive rhetoric, and games for behaviour change in the development of virtual human therapy environments.
Dmitrienko, Gary, Chemistry, January 1, 2015 to December 31, 2015, at 100% salary
I am the lead of the Canada-UK Team in Bacterial Resistance to β-Lactam Antibiotics involving research groups at Waterloo, Montreal, Laurentian, Calgary and University of British Columbia (UBC), funded by CIHR, and at Bristol, Cardiff, Leeds and Oxford, funded by MRC. During my sabbatical I will coordinate the research activities of the team and secure funding to support a continuation of the team activities.

Dong, Weizhen, Sociology and Legal Studies, January 1, 2015 to June 30, 2015, at 85% salary
While on sabbatical leave, I will be mainly working on the project “social determinants of health in rural China” as principal investigator. In collaboration with scholars in China, this project aims to look into various socioeconomic factors that affect rural population’s health. The project is sponsored by the Lupina Foundation of Canada.

Doyle, Matthew, Economics, January 1, 2015 to June 30, 2015, at 85% salary
I am taking this sabbatical opportunity to pursue my research on markets with search frictions. In particular, I will be investigating: the source of mismatch between workers and jobs; the role or wage negotiations in labour markets; and the implications of crime avoidance behaviour in black markets.

Duncan, Robin, Kinesiology, January 1, 2015 to June 30, 2015, at 100% salary
The primary purpose of the leave is to accelerate development of promising research avenues involving discovery of novel genes in the brain.

Dupuis, Sherry, Recreation and Leisure Studies, January 1, 2015 to June 30, 2015, at 85% salary
Half of this sabbatical will be used to finish the Community University Research Alliances (CURA) research funded by the Alzheimer Society of Canada that involves travelling with a research-based drama and examining the impacts of the drama in long-term care homes.

Elliott, Susan, Geography and Environmental Management, January 1, 2015 to December 31, 2015, at 100% salary
The environment – whether it’s built (how we construct cities), physical (water, climate change) or socially constructed (policies to create safe spaces for the burgeoning food allergic population) – has a substantial impact on human health. My sabbatical year will be spent researching and writing about the impacts of the environment on human health as well as undertaking major knowledge mobilization activities, including leading the development of a National Food Allergy Strategy for Canada.

Esselment, Anna, Political Science, January 1, 2015 to June 30, 2015, at 100% salary
The six months will be spent editing a peer-reviewed volume on “Permanent Campaigning in Canada” (advanced contract received from UBC Press in July 2014), researching and writing a chapter on political staff for this volume, and organizing a workshop on the permanent campaign for the June 2015 meeting of the Canadian Political Science Association in Ottawa.

Evans, Stephen, Earth and Environmental Sciences, May 1, 2015 to April 30, 2016, at 100% salary
During my sabbatical leave, major review papers in the fields of catastrophic landslides and related processes, glacier hazards, natural disasters, and urban damage systems will be prepared for high-impact journals. Field work will be undertaken in the Peruvian Andes and the Tibetan Plateau (China) and collaborative research visits will be made to universities in China (Chengdu), UK (Sussex) and Sweden (Uppsala).
Fernandes, Myra, Psychology, January 1, 2015 to June 30, 2015, at 85% salary
I will implement a neuroimaging study at Grand River Hospital to examine brain regions contributing to memory performance following different encoding strategies. I will visit colleagues at UCLA, give a colloquium talk, and exchange ideas relating to current models of memory. I will also write manuscripts stemming from projects in my lab conducted over the past 2 years.

Forrest, Brian, Pure Mathematics, January 1, 2015 to December 31, 2015, at 100% salary
I plan to continue my research in the area of harmonic analysis on locally compact groups with a particular emphasis on the nature of Banach algebras arising from such groups. I have several existing projects to complete and I am hoping to start a number of additional projects with my postdoctoral students and my other research colleagues.

Gingras, Michel, Physics and Astronomy, January 1, 2015 to December 31, 2015, at 100% salary
As a condensed matter theorist, I will spend six months at University of British Columbia and Canada’s National Laboratory for Particle and Nuclear Physics (TRIUMF) to work on the physics of interfaces and topological materials. I will also visit the Max Planck Institute in Dresden and/or the École Polytechnique Fédérale de Lausanne (EPFL) and/or the École Normale Supérieure de Lyon (ENS). I will also spend time at McMaster working with neutron collaborators and carry out some experiments.

Golab, Lukasz, Management Sciences, January 1, 2015 to June 30, 2015, at 100% salary
I intend to stay at the University of Waterloo and continue working on existing research projects with my students and colleagues. My current projects include educational data mining, data analytics for sustainability, and systems and algorithms for big data.

Haldenby, Eric, Architecture, January 1, 2015 to June 30, 2015, and January 1, 2016 to June 30, 2016, at 100% salary
The work will focus on the tradition of industrial building in the Region and the Province and on the roots of modern design and design excellence in Waterloo Region. The leave will also provide an opportunity to bring to publication excavation reports from previous archaeological work in Carthage and existing manuscripts on the architecture of the Roman Villa.

Hammond, David, Public Health and Health Systems, January 1, 2015 to June 30, 2015, at 100% salary
I will use the sabbatical to continue my research on tobacco, nutrition and drug policy. I will visit colleagues in Europe, including regulatory agencies such as the UK Department of Health, the European Commission, and the French Food Agency (ANSES), as well as researchers in France and Spain. During the remainder of my sabbatical, I will continue to supervise my graduate students and oversee my research program.

Hampton, Clark, Accounting and Finance, January 1, 2015 to June 30, 2015, at 100% salary
My three research projects while on sabbatical will consist of 1) decomposition, variable identification, and testing of IT budgets into systematic and firm specific components; 2) estimation and evaluation of effects of dashboard technology strategic alignment and flexibility on management decision quality and firm performance; 3) development and testing of hierarchical measurement model to estimate Porter’s five forces model of industry attractiveness with latent variable measurement error.
Heikkila, John, Biology, January 1, 2016 to December 31, 2016, at 100% salary
Small heat shock proteins (sHSPs) which are a component of the cell’s emergency response system, protect cells from disease-, heat shock- or heavy metal-induced formation of toxic protein aggregates. During my sabbatical I will adapt and develop new technologies with collaborators in Canada and the USA to examine in detail the protective role of sHSPs in an amphibian model system.

Heppler, Glenn, Systems Design Engineering, January 1, 2015 to December 31, 2015, at 100% salary
I will remain in Waterloo to finish my book on Advanced Dynamics as well as outlining and starting a new book on Introductory Mechanics with my coauthor Professor G.M.T. D’Eleuterio at the University of Toronto. I also will pursue some additional work on micropolar material models of beams.

Jakobsh, Doris, Religious Studies, January 1, 2015 to June 30, 2015, at 85% salary
My research interests are in Sikhism and other eastern religions, and specifically gender and Sikhism. I intend to travel on this sabbatical, to India, Thailand and Indonesia, allowing me to interact with Sikh communities as I work on the following projects: “Seeking the image of the ‘unmarked’ Sikh female body,” Journal of Religion/Gender; “Feminizing the Khalsa: text, narrative and image,” Dialogues with/in Sikh Studies (Routledge); and “Marking the female Sikh body,” Young Sikhs in a Global World (Brill).

Jha, Ranjini, Accounting and Finance, March 1, 2015 to August 31, 2015, at 100% salary
I will work with my co-authors in Waterloo on a project that will examine the implications of low interest rates on the business models of the Canadian banking, insurance and asset management sectors.

Kennings, Andrew, Electrical and Computer Engineering, May 1, 2015 to April 30, 2016, at 85% salary
The intent is to build upon recent positive research outcomes in the area of computer-aided design. Specifically, my focus will be on placement algorithms, specifically routability-driven application, specific integrated circuit placement and field programmable gate array placement. I will visit with several academic collaborators at other institutions (Calgary/Michigan). I will strengthen professional relationships with several industrial contacts.

Kleinke, Holger, Chemistry, January 1, 2015 to December 31, 2015, at 86.4% salary
I will spend several weeks each at Caltech/Jet Propulsion Laboratory (JPL) and the Max Planck Institute of Molecular Cell Biology and Genetics (MPI) in Dresden, Germany, pursuing new areas in thermoelectric module research.

Kohandel, Mohammad, Applied Mathematics, January 1, 2015 to December 31, 2015, at 100% salary
During my sabbatical, I will continue my research on application of mathematics and physics to cancer biology. I will visit my collaborators, including Dr. Kardar (MIT), Dr. Sengupta (Harvard Medical School), and Dr. Mani (MD Anderson Cancer Centre). I plan to work on writing a book on “Mathematical Oncology” based on a graduate course.

Leonenko, Zoya, Physics and Astronomy, January 1, 2015 to December 31, 2015, at 100% salary
Perform multidisciplinary research at the interface of biophysics and nanotechnology in relations to Alzheimer’s Disease, establish international collaborations, write publications and apply for national and international funding.
Levine, Peter, Electrical and Computer Engineering, January 1, 2015 to June 30, 2015, at 100% salary
My research is focused on precision analog/mixed-signal integrated circuit design for biotechnology and life science applications. During my sabbatical, I will work with my graduate students on developing integrated transimpedance amplifier arrays for patch-clamp electrophysiology and bioimpedance sensor arrays for measuring the electronic properties of cells. I will also construct a new bioelectronics laboratory with funds previously obtained from CFI.

Lewis, Geoffrey, Planning, November 1, 2015 to April 30, 2015, at 100% salary
I intend to integrate previous work and continue research on mapping Canada’s realizable renewable energy potential by: preparing papers a) exemplars review – what’s been done elsewhere; b) state of Renewable Energy (RE) data in Canada – what data are available, at what quality; c) Ontario solar potential vs. electricity demand; and refining spatial analysis methods to incorporate economic, technical, ecological, and social factors to determine realizability.

Lluis, Stéphanie, Economics, January 1, 2015 to June 30, 2015, at 85% salary
I am taking this sabbatical opportunity to dedicate my time fully to the pursuit of my research agenda which is built around two areas: employment insurance effects on post-unemployment outcomes, and worker job satisfaction, career concerns and mobility outcomes.

Lynes Murray, Jennifer, Environment, Enterprise and Development, January 1, 2015 to June 30, 2015, at 100% salary
I will be spending my sabbatical at Queensland University of Technology in Brisbane, Australia. My main plan is to write a book on marketing for sustainability. Australia is at the forefront of social marketing initiatives related to sustainability, so I will use this time to establish research connections.

MacDonald, Michael, English Language and Literature, January 1, 2015 to June 30, 2015, at 85% salary
I will devote my sabbatical to a) finish editing the “Oxford Handbook of Rhetorical Studies”; b) finishing the glossary, timeline, and introduction; c) writing my chapter on Shakespeare and rhetoric.

Mann, Richard, Computer Science, January 1, 2015 to December 31, 2015, at 85% salary
I plan to work on recording, analysis and measurement of audible and infrasound from Industrial Wind Turbines (IWT), time frequency and wavelet analysis for audio signals, and machine learning for music transcription.

Marin, Patricia, Philosophy, March 1, 2015 to August 31, 2015, at 85% salary
I intend to work on two ongoing projects relevant to contentious public debates in Canada. The first applies philosophical theories of autonomy to sexual freedom. The second investigates the role values play in economic reasoning. I plan to write a number of research articles on these topics, and eventually a book about the first.

McAllister, Mary Louise, Environment and Resource Studies, July 1, 2015 to December 31, 2015, at 85% salary
The sabbatical will be used to research and write a book manuscript on Canadian local government and sustainability entitled “Governing Ourselves Sustainably? The Politics of Green Canadian Communities.” This book will be a companion to an already published university press book entitled “Governing Ourselves? The Politics of Canadian Communities” 2004 (Vancouver, UBC Press) that won a 2005 Outstanding Academic Title Award, Choice.
McMinn, John, Architecture, January 1, 2015 to December 31, 2015, at 100% salary
I will be completing research and writing for a book on regionalism in contemporary Canadian architecture, framed in the context of the current discourse on regionalism in architecture abroad. I will also be working on a new research project examining the potential for integration of architecture with renewable energy generation and continuing creative professional practice research work in my Toronto architectural office.

Medley, John, Mechanical and Mechatronics Engineering, January 1, 2015 to June 30, 2015, at 100% salary
My sabbatical involves helping set up an “Orthopaedic Wear Laboratory” at St. Joseph’s Hospital (London, ON) for providing accurate pre-clinical determination of likely wear behaviour of upper limb joint replacement implants. In addition, I plan to go to Kyushu University (Fukuoka, Japan) to develop collaborative research on cartilage tissue engineering and artificial cartilage constructs.

Mitran, Patrick, Electrical and Computer Engineering, July 1, 2015 to December 31, 2015, at 85% salary
I plan to explore new research topics in the areas of signal processing and communications as well as visit with several colleagues in Toronto with a focus on starting new collaborations. I also have several journal papers under review and about to be submitted.

Murphy, Stephen, Environment and Resource Studies, January 1, 2015 to June 30, 2015, at 100% salary
I will be writing two books on restoration ecology (one technical and one theoretical), at least six papers, three grant proposals, running two centres, one workshop, and visiting colleagues in the United Kingdom and Australia to discuss grant proposals and advances in measuring novel socio-ecological systems.

Neufeld, Josh, Biology, January 1, 2015 to December 31, 2015, at 97.5% salary
This sabbatical will provide me with new exposure to molecular and microscopy-based methodologies that I require for conducting cultivation-based, genomic, and metagenomic investigations of complex microbial communities. I will contribute as an author to a textbook used in my introductory microbiology course and develop new material for a 3rd year course I will be adopting in 2016.

Nielsen, Christopher, Electrical and Computer Engineering, January 1, 2015 to June 30, 2015, at 100% salary
My first sabbatical will be used to expand my research program in nonlinear control systems and robotics. I intend to spend this time abroad strengthening existing collaborations (Prof. Luca Consolini, University of Parma, Italy) and to foster new collaborations in Europe and the USA.

Petrone, Richard, Geography and Environmental Management, January 1, 2015 to June 30, 2015, at 85% salary
I will be conducting research on the effects of disturbance and hydroclimatic drivers on wetland and forest resiliency, and informing oilsands reclamation policy via this work across Canada’s Western Boreal Plain. The emphasis of my work will be on hydrological and biogeochemical processes occurring during the growing season.
Ptacek, Carol, Earth and Environmental Sciences, January 1, 2015 to December 31, 2015, at 100% salary
I will conduct research to delineate mechanisms controlling the fate of toxic elements and emerging contaminants in groundwater and wastewater and to develop remediation systems. I will work with collaborating researchers to improve analytical facilities and to develop innovative approaches to limit release of these contaminants to the environment.

Schmenk, Barbara, Germanic and Slavic Studies, January 1, 2015 to June 30, 2015, at 85% salary
I will work on a volume on “Sloganizations in Language Education Discourse” that I am co-editing with two colleagues from the Humboldt University in Berlin, Germany. In addition, I will pursue a new research project on “Language Education and Governmentality.”

Scholz, Guenter, Physics and Astronomy, September 1, 2015 to February 29, 2016, at 100% salary
I want to return my Transmission Electron Microscopy (TEM) to working order so that (a) I can continue research, (b) provide TEM services to UW researchers and (c) train undergraduate and graduate students. I will resume my TEM studies of ashes from munition explosions near CFB Valcartier, QC that pollute the ground water. Ashes can indicate the ‘quality’ of an explosion via the presence of graphitic micro-diamonds, giving indications of the temperatures and pressures during an explosion. Incomplete explosions leave hazardous residues that pollute.

Schulze, Mathias, Germanic and Slavic Studies, January 1, 2015 to June 30, 2015, at 85% salary
My main research area is computer-assisted language learning (CALL). I am planning to complete articles and chapters on complexity-theoretical analyses of students’ developmental trajectories in online language learning. These papers are based on a SSHRC-funded study (data collection completed in 2014). I will also work on a funding application to SSHRC for a project on CALL, involving partners at three other Canadian universities.

Scott, Stacey, Systems Design Engineering, January 1, 2015 to June 30, 2015, at 100% salary
The proposed sabbatical leave will focus on an emerging area in my research program, Visual and Data Analytics. Research activities will include a 3-4 month visit to the Technical University of Dresden, Germany, short visits to several European centres specializing in Visual and Data Analytics, and attending the European Visual Analytics Workshop in June.

Singh, Ajit, Electrical and Computer Engineering, January 1, 2015 to June 30, 2015, at 85% salary
I have been working in the area of battery power requirement estimation, measurements related to actual battery consumption and techniques for economizing power consumption associated with software applications on mobile devices. I intend to concentrate further on my research work in this area.

Smucker, Mark, Management Sciences, March 1, 2015 to August 31, 2015, at 85% salary
I intend to use my sabbatical to conduct research in the areas of search engine quality and search engine user behaviour. I am hoping to visit and collaborate with colleagues at Microsoft Research in Redmond, Washington, USA. Such industrial collaboration will provide my research program with access to resources that are available only via extended on-location visits.

Tan, Lin, Electrical and Computer Engineering, May 1, 2015 to October 31, 2015, at 100% salary
I will broaden the impact and scope of my research in software engineering, software reliability, and software text analytics. Prospective visits and collaborations with other top institutes will focus on research topics related to software engineering, program analysis, and systems. These visits will be exploratory and involve exchanging research ideas and expanding my knowledge to areas specific to my hosts.
Taylor, James, Physics and Astronomy, January 1, 2015 to June 30, 2015, at 85% salary
I plan to visit the International Centre for Radio Astronomy Research in Perth, Australia, as well as the Canadian Centre for Theoretical Astrophysics in Toronto. I will pursue ongoing work on the dynamics of merging galaxies and dark matter halos, and the spatial distribution of galaxies in the local universe.

Tierney-Hynes, Rebecca, English Language and Literature, September 1, 2015 to February 29, 2016, at 85% salary
During my leave, I will pursue my current book project, “The Afterlife of Genre,” a study of Restoration and early eighteenth-century comedy and the history of emotion. I will also take up a two-month funded fellowship at The Centre of Excellence for the History of Emotion in Australia.

Tighe, Susan, Civil and Environmental Engineering, January 1, 2015 to June 30, 2015, at 100% salary
I will spend the sabbatical collaborating with Australian researchers at the Queensland Functional Pavement Centre. This will involve the design and construction of an innovative Accelerated Pavement Testing facility which will focus on resilient pavement infrastructure in light of climate change.

Tizhoosh, Hamid Reza, Systems Design Engineering, January 1, 2015 to June 30, 2015, at 100% salary
I will stay in Waterloo and focus mainly on publications. I plan to write a book on ‘Machine Intelligence’ as well as multi journal papers on ‘opposition,’ ‘image search’ and ‘binary atlas’ in the medical imaging field. I will also collaborate with researchers from Sunnybrook Hospital in Toronto.

Toman, David, Computer Science, January 1, 2015 to June 30, 2015, at 85% salary
The broad directions of research during my sabbatical leave will focus on the general topics of query compilation in knowledge-representation contexts, such as Resource Description Framework’s (RDF), RDF Schema (RDF’s) and Ontology-Based Data Access (OBDA). During my leave I plan to visit top research groups in this and related research areas.

Walker, James, History, January 1, 2015 to June 30, 2015, at 85% salary
Continuation of a project begun during my last sabbatical on ‘Perspectives on the Black Movement in Canada During the 1960s and After,’ in collaboration with Dr. George Elliott Clarke. Most of the research is already completed. My sabbatical will be spent writing in Waterloo, with some travel to archives in Ottawa, Toronto, and Halifax, and meetings with collaborator.

Warley, Linda, English Language and Literature, January 1, 2015 to June 30, 2015, at 85% salary
During this sabbatical leave I will accomplish two things: a) further my research on the life narratives of German refugees who were expelled from the eastern zones during the final months of WWII; b) strengthen my contacts with faculty and students in Croatia, Austria, and Germany, which I made during my last sabbatical leave in 2011.

Wells, Richard, Kinesiology, January 1, 2015 to June 30, 2015, at 100% salary
Ergonomics is often used to help prevent musculoskeletal disorders – low back pain or shoulder injury – at work. I am developing methods to simultaneously prevent injury and improve product and service quality. I plan to visit colleagues in Sweden to share experiences and improve my knowledge in this emerging field.
Willard, Ross, Pure Mathematics, January 1, 2015 to December 31, 2015, at 85% salary
I plan to work intensely on a project to prove that a recently developed algorithm correctly solves constraint network problems whenever the template of the network has nontrivial symmetry.

Wolfe, Sarah, Environment and Resource Studies, January 1, 2015 to June 30, 2015, at 100% salary
I will a) complete my principle investigator (PI) obligations for my SSHRC-SRG and SSHRC-IDG research; b) finalize drafts of four papers and final corrections for one paper; c) organize an international workshop hosting Canadian, Israeli and American researchers on non-rational drivers of water decision-making (August 2015); and d) pending a grant decision develop an international field course for senior undergraduate and graduate students (September 2015).

FOR INFORMATION

2. Administrative Appointments
   Culham, Rick, appointment as Associate Dean, International, Faculty of Engineering, July 1, 2014 to June 30, 2017.

   Ferguson, Barry, re-appointment as Associate Dean, Co-op Education, Faculty of Mathematics, July 1, 2015 to June 30, 2017.

   Gorbet, Robert, appointment as Chair, Knowledge Integration, Faculty of Environment, September 1, 2014 to August 31, 2018.

   Gorecki, Tadeusz, re-appointment as Associate Dean, Co-op Education, Faculty of Science, September 1, 2014 to August 31, 2015.

   Hill, Robert, appointment as Associate Dean, Graduate Studies, Faculty of Science, September 1, 2014 to August 31, 2017.

   Lin, Shoufa, re-appointment as Associate Dean, International Programs, Faculty of Science, September 1, 2014 to August 31, 2015.

   O’Connor, Daniel, appointment as Interim Chair, Sociology and Legal Studies, Faculty of Arts, October 1, 2014 to June 30, 2015.

   Park, Robert, re-appointment as Associate Dean, Infrastructure and Technology, Faculty of Arts, July 1, 2014 to June 30, 2018.

   Parker, Paul, appointment as Associate Dean, Graduate Studies, Faculty of Environment, July 1, 2014 to June 30, 2015.

   Parker, Wayne, re-appointment as Associate Dean, Co-op Education and Professional Affairs, Faculty of Engineering, February 1, 2015 to August 31, 2015.

   Rowlands, Ian, appointment as Acting Chair, Environment and Resource Studies, Faculty of Environment, January 1, 2015 to June 30, 2015.

   Stubley, Gordon, appointment as Acting Associate Dean, Computing, Faculty of Engineering, August 1, 2014 to December 31, 2014.
Taylor, William, appointment as Chair, Earth and Environmental Sciences, Faculty of Science, September 1, 2014 to August 31, 2015.

Vechtomova, Olga, appointment as Associate Dean, Computing, Faculty of Engineering, January 1, 2015 to December 31, 2016.

Warner, Barry, re-appointment as Chair, Earth and Environmental Sciences, Faculty of Science, July 1, 2014 to August 31, 2014.

Weber, Olaf, appointment as Acting Director, School of Environment, Enterprise and Development, Faculty of Environment, January 1, 2015 to June 30, 2015.

Wells, Mary, re-appointment as Associate Dean, Outreach, Faculty of Engineering, September 1, 2014 to August 31, 2017.

3. Administrative Appointment Date Changes

Dawson, Lorne, appointment as Chair, Sociology and Legal Studies, Faculty of Arts, date change from July 1, 2011 to June 30, 2015 to July 1, 2011 to September 30, 2014.

Vechtomova, Olga, appointment as Associate Dean, Computing, Faculty of Engineering, date change from January 1, 2014 to December 31, 2016 to January 1, 2014 to July 31, 2014.

Feridun Hamdullahpur
President
Amendments to Policy 68 – Vice-President, University Research

Motion: To approve amendments to Policy 68 – Vice-President, University Research, as set forth in Attachment 1.

Summary of Amendments:
- In the section re: Term of Office, the renewal term has been changed to five years (instead of three), to a maximum of ten years (instead of eight). The original renewal term and maximum term reflect the position’s origins as a decanal appointment. The proposed renewal term and maximum term are consistent with the appointment terms for other vice-presidents with definite-term appointments.
- The language in section 5.B has been changed to mirror the language in Policy 48 – The Vice-President, Academic & Provost regarding the approval process for reappointments and new appointments.
- The chair of the nominating committee has been changed from provost to president or delegate to reflect the current reporting structure.
- For purposes of alignment with the new policy template (as part of the Policy Project), a section titled “Legal Framework” has been added.
- The term “Federated and Affiliated Colleges” has been replaced with the term “Affiliated and Federated Institutions of Waterloo.”
- Capitalization has been updated to reflect the Waterloo Writing Style Guide published by Marketing and Strategic Communications.

Background: The proposed amendments were approved by the Faculty Relations Committee on 11 September 2014, the president on 25 September 2014 and Senate on 20 October 2014.
Policy 68 – Vice-President, University Research

The policies found on the website of the Secretariat & Office of General Counsel (SOGC) are compulsory rules for the university community. The authoritative copies of the policies are held by the SOGC and bear the seal of the university. The online version accessible through the website of the SOGC is available for information purposes only. In case of discrepancy between the online version and the authoritative copy held by the SOGC, the authoritative copy shall prevail. Please contact the SOGC for assistance if necessary.

Established: 21 November 1988
Revised: 27 October 1998
Mandatory Review Date: [2014]
Supersedes: N/A
Class: A
Responsible/Originating Department: Office of the President Vice President, Academic & Provost
Executive Contact: President Vice President, Academic & Provost

Related Policies, Guidelines and Procedures:
N/A

1. **General**
The vice-president, university research provides leadership in research throughout the university and externally. He/she is appointed for a definite and known term after the appropriate selection procedure has been followed.

2. **Qualifications, Duties and Responsibilities**
The vice-president, university research is a senior faculty member of considerable scholarly stature. He/she is a university officer, serving in that capacity on the Senate, appropriate major committees, and on other such university bodies. As a university officer, the vice-president, university research has responsibility for making independent judgments on total university matters, representing the particular interests, policies and point of view of research as determined by the Senate Graduate & Research Council, and being the external representative for the university with regard to research and research-related issues. The vice-president, university research has particular responsibility for maintaining the autonomy and intellectual independence of the university in matters related to research, and for fostering an environment which promotes a high academic standard of scholarly activity.

The vice-president, university research is co-chair and academic mentor of the Senate Graduate & Research Council; together with the Faculty deans, he/she is responsible for setting and maintaining a high academic standard of scholarly activity with respect to research throughout the university.

3. **Legal Framework**
In addition to the abovementioned “Related Policies, Guidelines & Procedures”, the Policy must be construed in accordance with the following legal provisions:
   - Employment Standards Act, 2000, S.O. 2000, c. 41;
   - Pay Equity Act, R.S.O. 1990, c. P.7;
   - Occupational Health and Safety Act, R.S.O. 1990, c. O1;
4. Term of Office
A. The term of office for the vice-president, university research is normally five years, renewable for three five years, to a maximum of eight ten years.

B. Reappointment beyond a second consecutive term should be considered unusual and will occur only if there are compelling reasons, as specified by the nominating committee, along with strong support throughout the university.

C. In the event of the absence of the vice-president, university research for any prolonged period, arrangements should be made for the president to appoint an acting vice-president, university research for a period of no more than one year.

If the office of the vice-president, university research becomes vacant through death, resignation, or other causes, it is the responsibility of the President to appoint, after appropriate consultation, an interim vice-president, university research and to initiate the process of filling the vacancy as prescribed in Section 5. The term of office of the interim vice-president, university research should be of sufficient length for the nominating committee to complete its task and, normally, should not exceed one year.

5. Appointment and Reappointment Procedures
A. Appointment of a Nominating Committee

When nominations for the vice-president, university research are required, as through notice of resignation, death, or the approaching end of a term, a nominating committee shall be formed by the president. The nominating committee shall normally be formed no earlier than 18 months and no later than one full calendar year prior to the end of the term of office of the incumbent.

The nominating committee shall consist of:
- The Vice-President, Academic & Provost or the president’s delegate, who shall chair the committee.
- The associate provost, graduate studies.
- One senator of professorial rank from each Faculty, elected by a vote within that Faculty.
- Two graduate students, appointed by the Graduate Student Association.
- One staff member appointed by the Staff Association, and one elected by and from the regular staff in the Office of Research.
- One faculty member from and appointed by the affiliated and federated institutions of Waterloo Federated and Affiliated Colleges.

A reasonable gender balance should be maintained on nominating committees, whenever feasible.

Membership on nominating committees shall be conditional on each person agreeing to maintain in confidence the information discussed by the committee, except on points where the committee subsequently agrees otherwise, and to exercise authority and responsibility as an individual in order that decisions may be taken at the time and place of committee meetings.

If any member of the nominating committee becomes, or seeks to become, a candidate for the office of vice-president, university research, the member shall resign from the committee.
In the event of a perceived conflict of interest that could compromise or be seen to compromise the member's judgment of the candidates, he/she shall disclose the nature of that conflict to the committee in sufficient detail to enable the committee to determine whether the member must resign from the committee.

If the association of any member of the nominating committee with the university is terminated or in any way significantly altered, or if for any reason, including resignation, any member is unable to carry out responsibilities on the committee, the nominating committee will request a replacement member, unless the committee has reached a stage in its deliberations where it deems such a replacement inadvisable.

B. Terms of Reference

It is understood that the committee shall be responsible for soliciting the views of those affected, including graduate students.

1. Reappointment at the End of a First Term
   The first charge to the nominating committee will be to solicit, with the prior knowledge of the incumbent and by whatever means it may decide, the opinion of the Senate Graduate & Research Council, the Faculty deans and other persons affected, with respect to the reappointment of the incumbent. If the incumbent is found to be generally acceptable, the committee shall then determine the incumbent's willingness to accept reappointment. If the incumbent indicates willingness to accept, the committee shall recommend reappointment to the president Senate without considering other candidates. Upon receiving the report of the nominating committee and the recommendation of the Senate, the president shall recommend an reappointment to the Board of Governors.

2. New Appointments
   If the incumbent is not to be recommended for reappointment at the end of a first term, or if the incumbent is nearing the end of a second term, or if the incumbent has died, resigned or been removed, then the following procedure shall be followed: the committee will invite nominations, by whatever means it considers appropriate, from any person or group; it will advertise the position internally, and also externally if this seems appropriate; and it will establish criteria against which nominations and applications may be measured.

   The committee will consider all names placed before it and will develop a short list of candidates as its first step in proceeding towards a recommendation. These candidates will be invited to meet with the committee and/or with such other persons and/or groups as it may determine. After screening candidates, the committee shall select the person it regards as most suitable for the position and submit its recommendation for the appointment of that candidate, in confidence, to the members of the Senate Graduate & Research Council, and to the Faculty deans and the vice-president, academic & provost (“VPAP”). If the committee feels that two or more of the candidates are well qualified, it may choose to submit the choice between these, in confidence, to the members of the Senate Graduate & Research Council, and the Faculty deans and the VPAP.

   The members of the Senate Graduate & Research Council, and the Faculty deans and the VPAP will then have the opportunity to indicate the acceptability of each candidate, and their choice among candidates, in a secret mail ballot which shall be returned to the chair of the nominating committee. The results of the ballot shall be made known to the nominating committee. If the results of the ballot indicate that no candidate is acceptable to a majority of the members of the Senate Graduate & Research Council, and the Faculty deans and the VPAP, the nominating committee shall resume its screening activities. If the Senate Graduate & Research Council, and the Faculty deans and the VPAP generally approve a candidate, the nominating committee shall recommend the appointment of that candidate to the Senate President. When more than one candidate is generally acceptable and the ballot results indicate no clear preference, the nominating committee shall select the person it regards as most
suitable for the position and recommend the appointment of that candidate to the President Senate. If the results indicate that the candidate is unacceptable to a majority of the Senate, the nominating committee shall resume its screening activities. If the Senate approves the recommendation it shall be forwarded to the president. Upon receiving the report of the nominating committee and the recommendation of the Senate, the president shall recommend an appointment to the Board of Governors.

All such discussions, in the committee and in the Senate, will be carried out in confidence.

6. Removal of the Office Holder Before Expiration of Term

A. General Principles
The vice-president, university research may only be removed from office for cause. Cause is to be understood in relation to the duties of the vice-president, university research as indicated by all relevant university policies. Causes for removal include negligence, incompetence, unprofessional conduct, and inability to maintain the confidence of the university research community.

Dismissal for cause from an administrative position is not to be confused with the dismissal for cause of a tenured faculty member. The criteria used and the procedures to be followed are different.

B. Reconciliation
In cases where the president becomes aware of serious problems, for example through individual submissions or a general petition, the president will, where appropriate, seek to mediate the situation as early as possible. Especially in cases of widespread disaffection or dissatisfaction with the vice-president, university research the process of reconciliation may involve the holding of a meeting with members of the Senate Graduate & Research Council for a full and frank discussion of concerns.

C. The Setting-Up of a Formal Inquiry
If the process of reconciliation fails or is inappropriate, then the president should determine whether there is sufficient evidence to warrant an inquiry into whether there is cause for removal. The vice-president, university research will be informed in writing of the president's decision and the basis for it, and be given an opportunity to respond. If the president believes that formal proceedings are necessary, the president will set up a formal inquiry. At the same time, the president may choose to suspend the vice-president, university research, without prejudice, financial or otherwise, for the period of the inquiry, if this is warranted by the general interests of the university and of the individuals involved, and is compatible with principles of natural justice. In the case of suspension, the president will appoint an acting vice-president, university research so as to facilitate the operation of research affairs during that time.

D. Formal Inquiry
The president will appoint a committee of three senior faculty members and inform the vice-president, university research. The vice-president, university research may challenge, in writing, a member or members of the committee for bias, apprehension of bias or conflict of interest.

The committee shall determine its own procedures. However, in all its proceedings it shall be guided by principles of natural justice. In particular, it shall make sure that the vice-president, university research has full knowledge of every charge, and has every opportunity to respond to these charges. On completion of its work, the committee shall report to the president with a recommendation, supported by reasons, that the vice-president, university research either (1) continue in office (or be reinstated if temporary suspension has occurred) or (2) be removed for cause. The president will then take appropriate action. The report of the committee shall be made available to the vice-president, university research, the VPAP and, at the discretion of the committee, to other concerned parties within the Senate Graduate & Research Council.
FOR APPROVAL

Repeal of Policy 58 – Search and Nominating Committee for Director Guelph-Waterloo Centre for Graduate Work in Chemistry

Motion: To repeal Policy 58 – Search and Nominating Committee for Director Guelph-Waterloo Centre for Graduate Work in Chemistry, effective immediately.

Rationale: The Faculty of Science has operated the Guelph-Waterloo Centre for Graduate Work in Chemistry and Biochemistry (“(GWC)²”, formerly called the Guelph-Waterloo Centre for Graduate Work in Chemistry) since the 1970s. Although it is called a “centre,” its sole purpose is to administer a joint graduate program.

The nomination process for director of (GWC)² set out in Policy 58 [Attachment 1] is historical and does not reflect current university practices re: appointment of graduate program directors. Several other joint graduate programs exist throughout the university (e.g., the Guelph-Waterloo Physics Institute, the Waterloo-Laurier Graduate Program in Geography, and the Tri-University Graduate Program in History with Guelph and Laurier). In each case, procedures for appointment of directors have been negotiated between the relevant Faculties of the collaborating institutions, but none is effected through a university-level policy.

In order to bring the director nomination process for (GWC)² in line with that of other joint graduate programs, the Faculty of Science wishes to have Policy 58 repealed. A nomination process will be developed by the Faculty that is consistent with university policies and procedures, including the Memorandum of Agreement with the Faculty Association of the University of Waterloo.

Background: The repeal was approved by the Faculty Relations Committee on 19 June 2014, the president on 18 August 2014 and Senate on 15 September 2014.

Ian Orchard
Vice-President, Academic & Provost
Search and Nominating Committee for Director Guelph-Waterloo Centre for Graduate Work in Chemistry

Established: July 1, 1978  
Class: A

1. TERM OF OFFICE

The term of office for the Director of the Centre for Graduate Work in Chemistry shall be for a period of three years, renewable for additional terms of three years.

2. APPOINTMENT

A. Nominating Committee

When nominations for the Director of the Centre are required through notice of resignation, death, or the approaching end of term, a Nominating Committee shall be formed to consist of the following:

1. The Dean of Graduate Studies at the University of Guelph and the Associate Provost, Graduate Studies, University of Waterloo.
2. The Chairs of the Departments of Chemistry at the University of Guelph and the University of Waterloo.
3. Two faculty members who are members of the Centre appointed by the Vice-Presidents, Academic, at the University of Guelph and the University of Waterloo.

The Nominating Committee shall elect its Chair from among its members. The Nominating Committee normally shall be appointed no later than one full calendar year prior to the end of the term of office of the incumbent.

3. TERMS OF REFERENCE

A. The first charge of the Nominating Committee will be to determine, with prior knowledge of the incumbent, if the members of the Centre generally wish to reappoint the incumbent without competition. If the members favour reappointment, the Committee may determine the incumbent’s willingness to accept reappointment. If acceptance is indicated, the Committee shall recommend reappointment without considering other candidates.

B. If the incumbent is not willing to accept reappointment or if the incumbent is not recommended for reappointment, the Committee shall be responsible for the initial selection of suitable candidates and shall invite nominations from members of the Centre. After screening candidates, and after obtaining whatever advice it deems appropriate, the Committee shall identify the person it regards as most suitable for the position and submit a recommendation to
the President of the University of Guelph and the President of the University of Waterloo, who shall jointly appoint the Director.

4. **PEREMPTORY REMOVAL OF A DIRECTOR OF THE CENTRE**

The Director may be removed or suspended from office by the Presidents of the Universities of Guelph and Waterloo, acting jointly and on the advice of their respective Vice-Presidents, Academic.
FOR APPROVAL

Engineering Society Fee

Motion: That the Engineering Society Fee, assessed and collected each term from all full-time on-campus undergraduate engineering students, be increased effective winter term 2015 as follows:

<table>
<thead>
<tr>
<th></th>
<th>Current Fee</th>
<th>Proposed Fee</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undergraduate full time</td>
<td>$15.22</td>
<td>$15.45</td>
<td>1.5%</td>
</tr>
</tbody>
</table>

Comments:
- The fee increase was approved at the annual Engineering Society Joint Council meeting held on 22 June 2014.
- The previous increase from $14.72 to $15.22 per term (3.4%) was effective spring term 2014 to reflect the CPI increases over the previous two years.
- The fee is refundable through the Engineering Society.

Dennis Huber  
Vice-President,  
Administration & Finance
University of Waterloo
Board of Governors
EXECUTIVE COMMITTEE
Report to the Board of Governors
28 October 2014

FOR INFORMATION

University of Waterloo Financial Statements, 30 April 2014
On the delegated authority of the Board of Governors, the committee approved, on behalf of the board, the University of Waterloo Financial Statements for the year ended 30 April 2014.

Of note with respect to the Financial Statements:
- The University’s balance sheet continues to show a strong financial position
- The University has early adopted the accounting standard under section 3463 of the CPA Canada Handbook-Accounting, "Reporting Employee Future Benefits by Not-for-profit Organizations"
  - Under this section, current service costs and finance costs are expensed during the year and reported in the Statement of Operations. Remeasurement costs, including actuarial gains and losses and other items are not recognized through the statement of operations but directly as increases or decreases to net assets
- Revenues were $905.8 million, an increase of approximately 3.2% over the prior year
- Scholarships and bursaries totaled $107.9 million, an increase of approximately 8.8% over the prior year
- The university invested approximately $103 million in new capital assets, including $40 million in the new buildings purchased from BlackBerry Limited.

Kevin Lynch
Chair
Welcome – I am pleased to welcome new and returning members to the 2014-2015 academic session, and want to acknowledge with thanks the strength and talent brought to the Board table in the service of our community. Best wishes for a strong and productive year. I am also pleased to welcome Professor Ian Orchard as Vice President, Academic and Provost and Bob Crow as Interim Vice President, University Relations.

I hope that you find the following update informative with respect to key initiatives and developments since we last met. My intention is to provide similar updates in advance of all Board meetings. Your feedback and/or questions are most welcome.

In Remembrance – The entire University of Waterloo community was saddened by the tragic passing of alumnus Andrei Anghel who died in the downing of Malaysian passenger aircraft MH17, on July 17, 2014. Andrei was remembered by one professor as a curious and ambitious student. On September 5, 2014, it was with deep sadness that I had to report the death of an 18 year old Nanotechnology engineering first-year student who was struck by lightning. This student was both academically strong and personally vibrant.

Congratulations/Accomplishments

- UW appointed Tom Jenkins, Executive Chairman of OpenText Corporation, as the institution’s 10th chancellor. Tom’s term as Chancellor begins May 1, 2015. We look forward to thanking Prem Watsa for his six years in the position at a reception to be organized in the New Year.

- Chancellor Emeritus Mike Lazaridis was elected to the Fellowship of the Royal Society (London) in April 2014.

- Perimeter Institute Director Neil Turok, and Professor Mohamed Salem Kamel (Dept. of Electrical and Computer Engineering) were both elected as Fellows of the prestigious Royal Society of Canada in 2014, the highest honour awarded to Canadian scholars.

- Jud Whiteside, senior partner of Miller Thomson, former member of Senate/Board of Governors chosen as the recipient of the 2014 Faculty of Arts Alumni Achievement Award which recognizes alumni who have made outstanding contributions to their professional field and in community and/or public service.

Fall 2014 Student Updates

- President’s and Merit Scholarships – We welcomed close to 5,000 full-time first year students all with an admission average of 85% or higher. I am also pleased to report that the number of students with an average of 90% or higher has increased by 13% and by 29% for those students with an average of 95% or higher. For Fall 2014, 51% of the total students confirmed have a 90% or higher average compared to last year at 42% and the year before at 39%. This number continues to grow and reflects the high calibre of students attracted to the University of Waterloo.

- Two students awarded prestigious Schulich Leader Scholarships
  - Amanda Rampertab (Oakville, ON) won an award worth $80K and is enrolled in mechatronics engineering. She was selected on the basis of her outstanding admission average of 95.2%, and her demonstrated leadership in school life and within the community.
Emily Pass (Charlottetown, PEI) won an award worth $60K and is enrolled in physics and astronomy. She received the scholarship based on her outstanding admission average of 98.5% her demonstrated leadership and in school life and her strong interest and talent in entrepreneurship.

- **Student Orientation** – UW welcomed more than 8,200 students this fall. There were a number of activities to help students settle into campus life at Waterloo. Members of senior administration, deans, faculty and orientation leaders helped students move into their new homes on campus.

- **Enrollment** - We are projecting that we will be at 103% of our first year undergraduate enrolment target as of our November 1st reporting date. We are above target in Applied Health Sciences and Mathematics and below target in Arts. The other faculties are tracking close to target. We are also above target in International Students, projecting that we will be at 151% of our target of 632 first year undergraduate students or 954 students. Overall, our first year undergraduate enrolments are in good shape. The Provost will provide more information at the October Board meeting.

- **New Programs** – Biomedical Engineering program admitted their first students this fall (45). The moratorium on new program approvals which MTCU had introduced last fall has been lifted and MTCU has released new guidelines for a reshaped program approval process. New programs with a clear link to our Strategic Mandate Agreement areas of program strength and areas of program growth will be eligible to proceed with an expedited MTCU approval.

**World University Rankings 2014**

Waterloo analyses UW performance in the “big three” world university rankings: ARWU (Academic Ranking of World Universities, formerly known as the Shanghai ranking), QS (Quacquarelli Symonds) and THE (Times Higher Education). Updated results in these three rankings are shown below:

<table>
<thead>
<tr>
<th>World University Rankings</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>QS</td>
<td>160</td>
<td>191</td>
<td>180</td>
</tr>
<tr>
<td></td>
<td>ARWU</td>
<td>151-200</td>
<td>151-200</td>
<td>151-200</td>
</tr>
</tbody>
</table>

Waterloo performed well in the following subject rankings:
- Top 25 in the QS Computer Science subject (24th)
- Top 25 in the QS Mathematics subject (24th)
- Top 50 in the ARWU Engineering field (47th)
- Top 100 in the QS Engineering & Technology faculty area (57th)
- Top 100 in the THE Engineering & Technology subject area (68th)
- Top 100 in the ARWU Computer Science subject area (90th)
- Top 200, for the first time, in the ARWU Social Sciences subject fields (176th)

If we compare our scores year over year, we have improved or maintained stable scores in most indicators.

In the ARWU ranking, Canadian universities were in general negatively affected by changes in the Highly Cited Researcher indicator methodology. In QS and THE, our weakest performance is in our reputational scores. While we saw some improvements this year in our QS reputational scores, we still need to continue to raise awareness of Waterloo’s research impact through enhanced international collaboration and networking. We also plan to increase our advocacy efforts with rankings organizations to improve transparency in reputational survey methodologies.
Other Rankings 2014

- **QS Stars University Rankings** – Waterloo was awarded a 5+ star rating. Only 10 other institutions worldwide achieved this rating in 2014 (including only one other Canadian university), most of which are ranked in the top 100. Primary audiences for these results are international students/parents. This rating system assesses against benchmarks in many different areas, from research, employability, teaching, facilities, internationalization, innovation, engineering and technology and access. This 5+ rating puts Waterloo in the same category as some of the world’s most prestigious universities, such as MIT and Monash University in Australia.

- **RESEARCH Infosource** – designated Waterloo as University of the Year in the Comprehensive category for the 7th Year in a row. According to Canada's Top 50 Research Universities, Waterloo is first among Canadian universities when it comes to growth of research income. The majority of university research is conducted at institutions in the Medical/Doctoral category. Waterloo does not have a medical school yet it attracted nearly $167 million in research income last year. This number represents an increase of 21.8 per cent.

- **LinkedIn** – a new ranking that measures universities that are launching graduates into desirable jobs. UW tops the list for Finance Professionals and Software Developers and comes in second for Accounting Professionals.

Research News

- **Canadian Institutes of Health Research (CIHR)** – Canada’s federal funding agency for health research awarded UW with two Chairs in Applied Public Health. The expected number of awards across Canada was only 13 and this competition is held once every 5 years.
  - Chairs in Applied Public Health are: Dr. Dave Hammond and Dr. Scott Leatherdale, both of the School of Public Health and Health Systems.
  - Each of the awards is worth $185K/year for 5 years

- **Research Internships at EPFL (Ecole Polytechnique Federale de Laussane)**
  - One of the top 5 European research institutes
  - Created research internships to increase collaboration with prestigious partner universities
  - Only those from select universities can participate:
    - McGill University
    - University of British Columbia
    - University of Toronto
    - UNIVERSITY OF WATERLOO
    - Technion – Israel Institute of Technology - Haifa
    - Hebrew University of Jerusalem
    - Weizmann Institute of Science
    - Hong Kong University of Science and Technology
    - National University of Singapore
    - Nanyang Technological University
    - Cambridge University
    - Oxford University
    - Imperial College of Science Medicine & Technology
    - Carnegie Mellon University/Cornell University (Life Sciences)
    - Georgia Institute of Technology/Harvard Medical School
    - Johns Hopkins University/MIT
    - Princeton University/Stanford University
    - University of California Berkeley

International Activities and Visits

- **Aug. 28th - UW signed 5 year exchange agreement with Konstanz University** (Germany) - established an annual student exchange between UW’s Masters of Arts in Global Governance program based at the Balsillie School and Konstanz’s MA in International Administration and Conflict Management
- **Sept 15th** – **University of Woolongong, Australia** - hosted Vice-Chancellor, Paul Wellings
- **Sept. 17-19th** – **IQC/Technion Workshop** – a 3 day follow-up workshop specifically related to Quantum research. We have also had extensive discussions around sustained research plans in Water and Nanotechnology studies as well as in Architecture and Entrepreneurship programs, the hiring of Waterloo PhD graduates by Technion, and common projects such as the creation of Quantum MOOC courses
- **Sept. 18th** - **Nanjing University** of Aeronautics and Astronautics – hosted President HONG Nie
- **Sept. 19th** - **Waterloo established/strengthened ties to South Korean research powerhouses** – MOUs signed with two research-intensive South Korean institutions (Korea Advanced Institute of Science and Technology (KAIST)/Korea Institute of Science and Technology (KIST) regarding integrated learning and possible research collaborations in computer science, electrical and computer engineering, chemical engineering and quantum computing and nanotechnology. KAIST was recently ranked 51st in the world according to QS world rankings. UW also signed a new agreement with KIST (a national research institute) to expand research partnerships in the field of quantum information science.
- **Oct 7th** – **Sorbonne Strategic Committee** - attended first meeting of the group of top level academics and global industry leaders
- **Oct 8 – 10th** - **U15/Russell Group Meetings (UK)** – Members of the U15 Group of Canadian Research Universities and The Russell Group held their first association-to-association meeting, having engaged in a productive discussion about the particular needs of research-intensive universities and their essential role as critical assets in our knowledge-based economies. Members agreed to work together to increase research partnerships and opportunities for collaboration among our member institutions, including fellowships, visiting professorships and student exchanges.

**Government Relations Update**

**Provincial**
- **Aug. 7th** - Strategic Mandate Agreements were made public
- **Sept. 12th** - Velocity Foundry (UW’s newest incubator specifically for hardware, materials and life sciences) with support of both the provincial Campus-Linked Accelerator (CLA) program and the federal CAIP funding (doubling the size of Velocity’s incubation space)
- **Sept. 15th** - Velocity programs welcomed 29 new companies to its Velocity Garage, Velocity Foundry and Velocity Science programs – the largest number of incoming companies to date
- **Sept. 18th** - Minister Moridi announced the Campus-Linked Accelerator funding of $3.3M for Waterloo region’s partners ($2.4M will be coming to UW over the next two years for Conrad, Velocity, St. Paul’s Greenhouse and the Accelerator Centre)
- **Sept. 26th** – Major Capacity Expansion proposal submitted to MTCU for E7 ($56M) and Science buildings ($50M)

**Federal**
- **June 20th** - visit by Prime Minister to announce success of Waterloo region’s CAIP (Canada’s Accelerator and Incubator Program) proposal
- **Aug. 14th** - visit by Minister Chris Alexander, Citizenship and Immigration
- **Sept. 3rd** - visit by Alex McEachern, Senior Policy Advisor to Industry Canada’s Minister James Moore
- **Sept. 10th** - visit by Liberal Party Leader Justin Trudeau
- **Sept. 21st** - attended State Dinner in honour of Her Excellency PARK Geun-hye, President of the Republic of Korea, Ottawa and briefed her about co-op
- **Sept. 30th** - met with Minister Yaakov Perry (Israel's Minister of Science, Technology and Space), Ambassador Rafael Barak and Consul General of Israel, DJ Schneeweiss to discuss furthering UW/Israel collaboration on satellite communications and cryptography
• Oct 1<sup>st</sup> - represented the U15 to the Standing Committee on Finance’s pre-budget consultation, specifically responding to research-intensive universities’ current contributions and additional opportunities to increase the competitiveness of Canadian businesses through research, development, innovation and commercialization

• Oct. 1<sup>st</sup> - visit to Ted Hewitt (Executive VP of Social Sciences and Humanities Research Council) who is responsible for administering the Canada First Excellence Fund (CFREF) which was set up to help research universities increase contributions to Canada and the Canadian economy despite increasing global competition. Economic Action Plan 2014 proposes to provide the Fund with $50 million in 2015-16, growing to $100M in 2016-17, $150M in 2017-18, and reaching a steady-state level of $200M annually in 2018-2019 and beyond. It is expected that within the next decade, this Fund will provide an additional $1.6B to advance the global research leadership of Canadian institutions.

• Oct. 2<sup>nd</sup> - visit to Robert Dunlop (Assistant Deputy Minister, Science & Innovation)

• Oct. 3<sup>rd</sup> – meeting with Minister James Moore, Industry at UW

Community relations and Events Update

• Launched “What’s on at your University of Waterloo”, a monthly outreach strategy to promote community engagement at public lectures, athletics events, and other University activities. The tool is being featured in The Record and is promoted online through community partners including the City of Waterloo and the Waterloo Public Library

• UW participated in a broad array of community partner events (Doors Open Waterloo Region; Town & Gown return to campus fall activities; United Way Kitchener Waterloo campaign kick-off; Kitchener Waterloo Community Foundation 30<sup>th</sup> Anniversary evening; Terry Fox Run; Waterloo Region Food Bank warehouse event; and mobilized 50 students, faculty and staff to take part in the Take Back the Night community march)

• Sept. 19-21<sup>st</sup> – “Hack the North” - Canada's premier hackathon, where 1,000 students with different technical backgrounds and skill levels come together, for 36 hours, form teams around a problem or idea, and collaboratively code a unique solution from scratch. Top alum (Chamath Palihapitiya, Sam Altman, Michael Litt & Eric Migocovsky were key participants and sponsors of this event)

• Sept. 25<sup>th</sup> - Hosted community roundtable at Stratford with local stakeholders

• Sept. 27-28<sup>th</sup> - Reunion Weekend – among the highlights, Heather Moyse, two –time Olympic gold medalist and Waterloo alumna delivered a public lecture

• Oct. 15<sup>th</sup> – Hosted community roundtable in Cambridge with local stakeholders

Marketing and Strategic Communications Update

• Brand and reputation (national, quantitative) research is in field with results expected late 2014

• Print and digital advertising program timed to coincide with major international rankings (QS, THE and Shanghai) and geo-targeting key international markets

• President’s Annual Report to be published in fall 2014

• Canadian Jewish News Op-ed (June 26/14) – “Canada can learn from Israel’s innovation”

• Globe & Mail Op-ed (July 30/14) – “Why University research rankings miss the big picture”

Alumni and Fundraising Update

Ken McGillivray has provided a written update on the Advancement portfolio which is included in the materials. He will also provide an update at the meeting. Advancement has recently completed a major senior staff reorganization which has vacated the current AVP, Alumni Relations position. A search committee has been struck to recruit for this position. The development of alumni renewal for Reunion, Innovation Summit and alumni signature events and communication is critical to Waterloo’s success and to any campaign work. From a development perspective, I was in San Francisco, LA and Paulo Alto at various
advancement meetings and successful alumni events in June. In early November, I will be travelling to Korea, Hong Kong and Singapore as well.

**Ad hoc Committees**

Both the Committee on Technological Innovation and the Committee on Alumni Relations, Outreach and Communications are fully set up with meetings set up before the end of October.

**BlackBerry Building Update**

Below please find a financial summary and space planning progress report with respect to the 5 BlackBerry buildings which are now called East Campus buildings (EC1-EC5).

- **Financial Summary**
  - Capitalized costs (purchase price of $41M plus net HST/disbursements) $42.99 M
  - 2013/14 capital payment $ 3.50 M
  - 2014/15 capital payment $ 4.00 M
  - 2014/15 parking payment $ .10 M
  - Balance outstanding October 1, 2014 $35.39 M
  - On target to fully fund within the planned 10 year period

- **Space Planning Update**
  - EC1 – Building fully occupied January 2015 (Advancement, International, HR, Equity, Games Institute)
  - EC2 – Building fully occupied December 2014 (IST in process of moving 100 employees)
  - EC3 – Due to accessibility regulations/elevator required – occupancy expected Spring 2015 (Engineering/Arts)
  - EC4 and EC5 – not transferred yet

**UW Strategic Plan Implementation - Progress and Impact Fall 2014 Update**

The attached package is the first annual update to the Board of Governors describing progress towards Waterloo’s strategic goals. A similar package will be presented each year in the fall. This update, developed in consultation with numerous campus stakeholders, includes three key documents:

- **Strategic Plan, Progress and Action Fall 2014 Update:** This document presents baseline measures that will be monitored over the next four years, and progress highlights from the current year’s initiatives. Further information on the baseline measures, as well as additional measures and information, can be found at the web interactive tool (uwaterloo.ca/strategic-plan-action).

- **Faculty 2014 Updates:** Faculty initiatives drive Waterloo’s strategic goals forward. This document presents key Faculty initiatives undertaken this past year in the Strategic Plan theme areas, with a specific focus on Transformational Research and Academic Programming.

- **Implementation Plan:** This document offers a high level summary of the action plans for each theme. Action plans were developed by the theme leads in a consultative process over the course of fall 2013, and presented in January 2014.

**Fall Convocation**

Members of the Board are invited to attend the Fall 2014 Convocation celebrating student achievement which will be held on Friday, October 24th and Saturday, October 25th. Please contact my office or the Secretariat should you wish to attend any of the ceremonies.

- Honorary doctorate recipients for Fall 2014 include:
  - October 24th (10:00 am) Faculties of Applied Health Science and Science – Alain Aspect; Doctor of Science
I would like to encourage interest and participation in the process for nominating exceptional individuals for an honorary doctorate. By awarding honorary degrees, the University of Waterloo seeks to recognize extraordinary achievement, in Canada or abroad, in community, national or international involvement, and to honour those individuals whose accomplishments are of such generally perceived excellence that they provide, through example, inspiration and leadership to graduates and bring distinction to our institution. Please contact Logan Atkinson for more information on this nomination process.

**President’s Reception**

I will be hosting our annual President’s Reception after the Board meeting on October 28th from 5:30 – 7:30pm at the School of Optometry. I hope that you will be able to join me as we recognize and celebrate the wonderful support of our loyal circle and society members and volunteer leaders.

**Board of Governor’s Retreat**

As context for our upcoming retreat, I wanted to provide some food for thought in advance of our meeting scheduled for November 27th.

As we move further into the 21st century, there is a global tectonic shift to fundamentally change our assumptions about the nature and purpose of post-secondary education. What impact will this have on our vision for the University of Waterloo?

Do we see our university system and, in that regard Waterloo, as a logical next step to secondary school where we simply add more information to the students’ information bank? Or do we see ourselves as the most critical element for a smart, innovative and highly-skilled Canada? The University of Waterloo’s 2013 Strategic Plan answers these question clearly and decisively. Thus, we cannot possibly be content for having been known as a “great Canadian university” Our goal is to stand out as one of the best in the world doing what we have been doing great.

We imagine a university that is capable of transforming its curiosity and creativity into a global source essential for an innovative culture and healthy society and economy.

This retreat aims to learn more about global and local trends, examples and facts and reconfirm the ability of our strategic plan to stand tall and lead in these fast changing yet fantastically exciting times.

I look forward to seeing everyone on November 27th and thank you for committing valuable time to this exercise. The Board’s engagement and contributions will be critical for our further progress.

Feridun Hamdullahpur
President
To: Board of Governors
Date: October 20, 2014
Subject: University of Waterloo World International Ranking Results - Overview and Strategies for Improvement

Key points

1) Waterloo understands and recognizes the importance and value of global rankings as a contributor to the institution’s reputation, and as one of the key branding features for universities that aim to attract high performing international researchers, students and global partnerships.

2) When assessing a university’s position (and changes to said position), it is critical to understand that its position in an international university ranking, and its actual academic performance are not necessarily related.

3) Small annual fluctuations in a given institution’s rankings position are essentially a reflection of methodological noise; any over-interpretation should be avoided. It is more important to observe long-term trends.

4) Waterloo’s overall performance in ARWU, QS, and THE position is at 204 (evenly weighted). The University does well on select internationalization metrics and research outcomes. It scores lower on academic reputation survey metrics, HiCi scores, and lacks Nobel Prizes/Fields Medals.

5) Key academic strengths of Waterloo include: Engineering, computer science, and select natural sciences. Waterloo’s strengths in Social Sciences are almost comparable to the Natural Sciences. The University’s strength in student outcomes and employer relations is not properly reflected in ARWU, QS, and THE.

6) Lack of a medical school has a significant impact on the ranking of the University of Waterloo. Only 32 universities ranked in the Top 200 do not have a medical school (ARWU, QS, and THE amalgamated).

7) Three approaches have been and will continue to be used to maintain and improve Waterloo’s international rankings:
   - Internal: Waterloo will continue to optimize data submission processes while monitoring ongoing methodological changes, and engaging with the academic community to ensure full recognition of the University’s capabilities and performance.
   - Internal/External: Waterloo’s international standing has been strategically addressed through a concerted buildup of international relationships, coupled with incentivizing researchers to engage in impactful ways.
   - External: A sustained, multi-dimensional campaign to better communicate the University’s performance to relevant stakeholders. This should include methodological and relationship triangulation efforts with the International Rankings Evaluation Group (IREG)
Purpose and Need
Since their introduction just over a decade ago, global rankings have become a key branding and accountability feature for universities that aim to attract high performing international researchers, students, and global partnerships.

This briefing describes and addresses the University of Waterloo’s (UW) 2014 performance in the Times Higher Education (THE) ranking. It also provides an update on recent trends in international rankings, their impact on UW and strategies that are currently being pursued to advance UW’s position.

A more in-depth view into the rankings will be available in November 2014 in a form of a comprehensive report prepared by Illuminate Consulting; this will be followed by several in-person sessions that will further help refine UW’s ranking strategy.

International rankings have been subject to intense gaming by universities all the way to outright fraud (the ICG report will lay out details). Any recommendations made to the University are grounded in ethical, appropriate behavior.

Understanding the 2014 Times Higher Education (THE) results
THE ranked the University of Waterloo 256 in 2014 (251-300 band), down from 250 in 2013 (201-250 band). In bands below 200, change in rank within or between consecutive bands does not typically signal meaningful differences in university performance. As an illustration, in 2014, Waterloo was only 4.3 points away from being placed in the top 200.

In 2014, Waterloo tied for 16 – 17th among Canadian institutions; this is a drop compared with last year’s results. Between the two years, Waterloo’s scores actually improved from a score of 39.8 in 2013 to 41.2 in 2014. With the exception of a 0.7 decrease in citations (see Table X for more detail), UW improved in all THE indicators.

Waterloo’s weakest indicators continue to be reputational survey results; in 2013 these were addressed with intensified promotional activities, and we anticipate these efforts will continue. It is worth noting that THE’s reputational survey methodology is completely opaque. This lack of transparency means it will be difficult to validate efforts in this area.

Both THE and QS include indicators which are based on the results of reputational surveys. In the THE, survey results account for 33% of the total score; in the QS, survey results account for 50% of the total score. In essence, these surveys are circulated to a “convenience” sample of academics (THE, QS) and employers (in the case of QS), who are asked to list the top universities in their fields in a couple of dimensions. Survey results form the basis for the scores on the reputational indicators.

With QS, universities have an opportunity to provide a list of names of potential participants for both surveys (academic and employer), thereby increasing representativeness as well as providing an opportunity to acknowledge existing relationships and partnerships. However the success of such initiatives hinges upon ensuring that potential survey participants are indeed engaged in meaningful and positive research partnerships and collaborations with UW, therefore requiring continuous and strategic networking and collaboration.
Why did some Canadian institutions surpass Waterloo?

Variations in all rankings are a combined result of institutional scoring relative to that of other institutions on specific indicators, not necessarily on objective performance. Addressing the volatility of rankings is critical to the understanding of their impact and the development of strategies to address them. THE, in particular, is more susceptible to volatile results, and is vulnerable to statistical anomalies and potential manipulation. The volatility of the 2014 THE ranking indicates that UW’s 2014 results are likely not a signal of significant change in institutional performance. These changes are likely as a result of improvements in other institutions’ scores on the citation measure, and the reputational survey.

THE’s citation measure is vulnerable to effects of outliers: improved performance on the citation measures in a single publication, or publications in certain fields can create a disproportionate impact on the overall citations scores for an institution. The reputational surveys are highly susceptible to unrepresentative and subjective interpretations. Additionally, THE’s reputational surveys do not address an institution’s reputation/impact with employers (a key strength for an institution built on co-op education, and an indicator in the QS methodology).

Most Canadian institutions fell in THE between 2011 and 2012, likely as a result of changes in the reputational survey methodology. Between 2012 and 2014, even with no changes to the methodology, most Canadian institutions have continued to experience variability and a downward trend in their results.

Waterloo examined the THE citation performance of Canadian institutions that scored higher on this metric than Waterloo. The analysis revealed that the THE methodology does not control for the potentially disproportionate effect of multiple authors from multiple institutions contributing to the same highly cited publication (each author is counted once). As an illustration, a publication related to Higgs Boson published in September 2012, has 17 authors from the University of Victoria, 12 authors from Carleton and three authors from York – the three Canadian institutions that experienced the greatest improvement in their THE rankings in 2014. This behaviour, multiplied several times, can exert an undue and disproportionate influence on rankings.
Waterloo in the global context: global comparisons vs peer comparison

The graph above shows the Waterloo performance in the three key global rankings. In ARWU – a notoriously stable ranking due to its base in objective measures - over the course of the last ten years UW has ranked consistently around 200. UW’s drop in 2014 is attributable to changes in the Highly Cited methodology. In 2014, Thomson Reuters published a new list of Highly Cited Researchers using a different methodology than that used for previously published lists. This year, ARWU used a combination of the previous Highly Cited researchers list (weighted at 50%) and the new 2014 list (also weighted at 50%). We anticipate that ARWU will use only the 2014 list next year, so Waterloo can expect to move slightly lower next year. It is worth noting that if the prize-based indicators in this ranking were to be omitted (Nobel Prize and Field Medal), Waterloo would rank within the top 200. Significantly, ARWU lists UW in the top ten performing Canadian universities in all indicators with the exception of those which measures papers published in Nature and Science journals; this is an effect of not having a medical school.

Since 2011, Waterloo has experienced the greatest improvement on the QS ranking, most likely due to an institutional strategy to better organize its data submission and submit suggestions for potential academics and employers to QS’s reputational survey participant database. Waterloo moved from the ninth Canadian university in 2011 to the seventh in 2013 and 2014.

It is important to keep in mind that volatility in institutional rankings with each main agency is a product of each ranking agency’s specific methodology. Between 2013 and 2014, the positions of the top 500 universities in ARWU moved on average about 25 positions, particularly among those below 300. In QS, the volatility in 2014 was around 9 positions over 2013 and over 18 since 2011. In the THE ranking from 2013 to 2014.
Volatility of the THE Top 400

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<td>55</td>
<td>49.6</td>
<td>9</td>
<td>54</td>
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</table>

Notes: Analysis based on universities ranked in the THE top 400 in 2014-2015. Ordinal ranks for universities below the top 200 assigned based on a calculation of the overall score (not published) for each university. Average rank change based on absolute value of changes in ranking positions. Average rank change for 2013-2014 does not include ranking position changes for universities who were not ranked among the top 400 in 2013. Similarly, average rank change for 2010-2014 does not include changes for universities not ranked among the top 400 in 2010.

Waterloo and selected peers

Awareness of an institution’s strategic orientation is important when analyzing performance in international rankings. Strategic choices may have an adverse effect on the overall institutional rankings. For example, UW is strategically positioned as a non-medical, non-business school university, with an orientation to educate highly employable graduates and stimulate research innovation, commercialization, entrepreneurship and interdisciplinary research. Traditional ranking methodologies are not designed to acknowledge these features. Identifying and monitoring performance against appropriate peers is one of the key opportunities for Waterloo to truly assess its relative position and advance its ranking goals. Here too, there are a number of complexities to take into consideration, including large variations in size, age and research focus. QS is the only ranking that offers a reasonable classification of universities based on the factors listed above, and Waterloo is classified in the “comprehensive” category. When this criteria is applied in QS, Waterloo is the highest ranking comprehensive university in Canada, ahead of Simon Fraser University and University of Victoria. At the national level, Waterloo was successful in advocating for a similar differentiated methodology with the Maclean’s university rankings, which has been for a number of years now, using a similar categorization that acknowledges Waterloo’s status as a comprehensive university.

Analysis by ICG that includes universities ranked in the top 200 (2014 ARWU, QS, and THE amalgamated) revealed that only 32 of these universities did not have a medical school. This data suggests that any (additional) medical research would be a key driver for the University to improve its ranking.
Composition of Universities in the Top 200 Based on an Amalgamated Ranking (2014)

<table>
<thead>
<tr>
<th>Rank</th>
<th>Includes Medical School and Engineering School</th>
<th>Includes Medical School Only</th>
<th>Includes Engineering School Only</th>
<th>Includes Neither Medical nor Engineering School</th>
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<td>23</td>
<td>9</td>
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</tbody>
</table>

Notes: Review based only on whether or not a university included a medical school and/or an engineering school. Other faculty areas or professional schools not addressed for the purposes of this comparison. Source: ICG.

**UW in field/discipline-specific rankings**

Discipline or subject based rankings typically offer a much more meaningful, reliable, and actionable view of the university performance in terms of focusing on international partnerships and recruitment of faculty and students. All three of the major international rankings offer assessments based on subject or field areas. Waterloo performed well in the following subject rankings:

- Top 25 in the QS Computer Science subject (24th)
- Top 25 in the QS Mathematics subject (24th)
- Top 50 in the ARWU Engineering field (47th)
- Top 100 in the QS Engineering & Technology faculty area (57th)
- Top 100 in the THE Engineering & Technology subject area (68th)
- Top 100 in the ARWU Computer Science subject (90th)
- Top 200, for the first time, in the ARWU Social Sciences subject fields (176th)

Across rankings UW performs well in specific fields – highest in the engineering and technology field, followed by the natural and physical sciences, as well as social sciences.

In 2014, QS listed seven subjects at UW among the top 100 universities in the world and amongst the top 200 universities globally for 19 of the 30 subjects evaluated – with improved rankings in four subject areas. QS subject rankings are driven by reputational indicators.

The Thomson Reuters Global Institutional Profiles Project confirmed that Waterloo’s performance in social sciences is almost comparable with engineering and natural sciences; the exception being that Waterloo’s social science subjects experience lower reputational survey scores.

Analysis of the Leiden ranking of subject-based performance (based entirely on bibliometric indicators) reveals that UW performs moderately above average overall and in key discipline areas such as Mathematics, Computer Science, Engineering, Natural Sciences and Social Sciences as well as on the proportion of international collaborations (authors from two or more countries), and co-authorship with one or more industrial partners. The proportion of Waterloo publications coauthored with one or more other organization may need attention to affect UW’s status in this ranking.
Another important insight from the Leiden Ranking is that the University does score significantly better in impact (153) across all rated disciplines than on international collaboration (260) (measured as Impact P versus Collaboration PP international at 100 minimum publications).

Addressing and improving Waterloo status in global rankings
In the last two years, Waterloo has used a multi-prong approach to improving its status in the “big 3” key international rankings. Those efforts have included data optimization, improvements in outreach, promotion and university branding and other forms of strategic communication; strengthening of international efforts through institutional partnerships and collaboration; and recruitment of international faculty and students. Specifically, Waterloo has been engaged and will continue to work on the following:

1. Optimizing the impact of rankings methodologies and data submissions. In the last two years, Waterloo has been continually improving its data sources and alignment with definitions of the rankings agencies and Canadian peers, which resulted in optimization of the student and research staff data. Waterloo continues to work with rankings organizations to ensure that transparent, accurate data is published, which properly showcases Waterloo’s research productivity.

2. Engagement with the Academic Community. Waterloo is working with its academic community to raise internal awareness of the importance of rankings and ways to optimize the results. This work also engages centres and institutes to ensure that the University of Waterloo name is listed in their publications. Finally, two cross- institutional groups have been formed to achieve better collaboration in the improvement of bibliometric and ranking measures, including the expansion of the listings for potential national and international raters.

3. Strategic communication efforts are well underway to implement measurable and robust programs in media relations, social media and digital marketing. Waterloo is making efforts to directly market to key influencers who can shape the university’s performance in rankings activity and have programs underway to reach key audiences with targeted communications and marketing (for example engagement and greater visibility at AAAS annual conference). Waterloo has also implemented targeted international advertising efforts to coordinate with the institutions strategic priorities, such as advertising in Korean media outlets to coincide with the President’s upcoming visit to Asia.

4. Strengthening international efforts includes focus on improving attractiveness and access to international students, and improving opportunities for research collaborations through strategic international research partnerships, including pursuing the opportunity to join the Warwick-Monash Alliance. Warwick recently improved their rank in THE moving 38 spots up from last year and placed at 103. Monash is at 83 compared to 91 last year. One of the drivers of this change might have been joint appointments of strong research performers. In the past couple of years, we have received requests for partnerships from very highly ranked universities, including:

- Warwick-Monash Alliance (we are already partnered with both institutions for purposes of research and student mobility)
- Ecole Polytechnique Federale deLausanne. To join a network that includes, inter alia, MIT, Stanford, Carnegie-Mellon, Oxford, Cambridge, Imperial College, NTU and NUS;
- Korea Advanced Institute of Science and Technology
- Seoul National University; and
- Nanyang Technological University, and the Global Alliance of Technological Universities
5. Research collaboration incentives. Waterloo Strategic Plan is focusing on the development of a strong international research relationships with an investment to develop research projects, such as the fully matched funds between Waterloo and Technion. An investment of 300 K is being made over four years to develop research collaboration with Bordeaux University and a further 450K a year to incentivize international research collaborations globally. We expect to see the results of these efforts within a year or two.

6. Intensify participation in subject, field and niche rankings that better reflect Waterloo mission and strategic orientation. Waterloo is particularly interested in continuing to monitor and promote its status with respect to the selected areas of focus – innovation, entrepreneurship, legacy fields and disciplines, new and emerging research areas, such as aging, nano and quantum research and water; inter and trans-disciplinary areas and those rankings that look at graduate outcomes.

7. Engagement and Advocacy. Finally, in an effort to increase the visibility and transparency of its strengths, Waterloo has recently applied for and acquired a QS 5+ star rating after going through a rigorous assessment process. Waterloo has begun to actively participate in IREG conferences, and contributed to the employability ranking discussion in 2014. Waterloo intends to step up its efforts to link to the international ranking associations, ranking agencies, and institutions that are interested in the advancement of legitimate, accountable ranking practices, advancements of subject-based rankings and new measures, including employability, where Waterloo leadership has been widely recognized.
FOR APPROVAL

Change to the Memorandum of Agreement between the Faculty Association of the University of Waterloo (FAUW) and the University of Waterloo

Motion: To approve the following amendment to Article 13.3.3.e of the Memorandum of Agreement between FAUW and the University of Waterloo [Note: new text underlined; deletions strikethrough]:

Effective May 1, 2004, the University will provide annually an Outstanding Performance Fund for each Faculty equal in value to ten percent of that Faculty’s Selective Increase Pool, to provide special permanent salary increases as described below.

Members in each Faculty unit (department or school) whose annual performance rating for the current year is within the top twenty percent of ratings within the unit may be considered for a special permanent salary increase. Members who have received a special increase in either of the previous two years are not eligible to receive a special increase, and are excluded for purposes of determining the top twenty percent and those within it.

All Members identified by the process above will form a single Faculty-wide pool. The Dean of the Faculty, in consultation with the Vice-President, Academic & Provost, will review the performance of all Members in this pool, and make special salary increase awards equal in value to one Selective Increase Unit (SIU) to a subset of them. The primary criteria will be outstanding performance in teaching and in scholarship. For at least eighty percent of the awards, the sole criterion will be outstanding performance in teaching and scholarship. Remaining awards may be given on the basis of outstanding service to the University. Consideration also should be given to dispersing the awards across Faculty units, ranks, and to both women and men. Awards given on the basis of outstanding service will not be limited to Members holding administrative positions. The number of awards made will be such that, in the aggregate, they will differ from ten percent of each Faculty’s Selective Increase Pool by less than one SIU, and any unspent amount in the Fund of a given Faculty will be carried forward to the next salary year. The Vice-President, Academic & Provost will publicly announce the award recipients.

Rationale: This change was brought forward by FAUW to address concerns that some outstanding performance awards are perceived to be awarded primarily on the basis of service as opposed to teaching and research activity. Recognizing that it is desirable to reward outstanding service, it is proposed that a maximum of twenty percent of the awards be permitted for this purpose, noting that “service” will be considered as a whole and not limited to the holding of administrative positions. The Faculty Relations Committee also suggests that a celebratory event be created to recognize outstanding faculty performance and other awards university-wide.

Background: The proposed change was supported by Dean’s Council on 18 December 2013 and unanimously supported by the Faculty Relations Committee at its meetings of 19 December 2013 and 19 June 2014. It was ratified by a vote of the FAUW membership on 6 June 2014. If approved, the change will take effect in 2014 for outstanding performance awards delivered in 2015.

Ian Orchard
Vice-President, Academic & Provost
This report is submitted following the committee’s meeting of 30 July 2014. The chair may supplement this report with oral comments following the committee’s meeting on the morning of 28 October 2014.

FOR APPROVAL

Appointment of External Auditors: Ernst & Young

With the endorsement of the vice-president, administration & finance, and subject to a satisfactory audit plan and fee to be discussed at the meeting on 28 October 2014, the committee recommends the reappointment of Ernst & Young as the university’s external auditors for the fiscal year ending 30 April 2015.

FOR INFORMATION

Financial Statements, 2013-2014

The university’s financial statements for the year ended 30 April 2014, which were approved by the Board Executive Committee, are included with the meeting agenda package for your information.

Cindy Forbes
Chair
FOR APPROVAL

1. **Engineering 7 [brochure at governors’ places]**
   
   **Motion:** To approve an Engineering 7 project budget of $88 million where the building will be connected to and integrated with the east façade of the existing Engineering 5 building and designed by Perkins + Will Canada.

   **Background:** The proposed Engineering 7 project is intended to serve the needs of the new Biomedical Engineering program and an expanded Mechatronics Engineering program, with a heavy emphasis on entrepreneurship. Many new students and faculty are expected as a result of this project. Engineering 7 is to be a twin of Engineering 5, and is intended to give substance to the idea of “educating the engineer of the future.” The building will have a very heavy focus on student space, entrepreneurship and innovation. Approximately $36.5 million has been raised already, and the provost has committed a further $10 million. The project is one of two submitted to the provincial government by the University for additional funding support.

2. **New Residence Building [preliminary perspective attached]**
   
   **Motion:** To approve the award of a design/build contract (CCDC14) to Melloul-Blamey Construction Inc. for $32,532,000 plus HST.

   **Background:** At its meeting of 1 April 2014, the Board of Governors approved a $47.5 million budget for the construction of a 500-bed residence (192,000 square feet) on the west parking lot at the existing University of Waterloo Place complex. The project is intended to support the University’s commitment to offer a first year residence guarantee for undergraduate students and create additional opportunities for upper-year student mentorship. The project includes a full service dining facility and extensive community space to support both the students occupying the new beds as well as the existing 1,700 students occupying the complex immediately to the east.

   Five design/build teams were pre-qualified to bid the project, and all submitted bids. The bids were ranked based on design, strength of team, quality of submission, quality of presentation and price. Following the ranking, the President’s Advisory Committee on Design recommended to the president that Melloul-Blamey Construction Inc. be awarded the contract, and the president accepted that recommendation.

FOR INFORMATION

3. **General Oversight**
   
   The committee reviewed and accepted for information:
   
   - the capital financing commitments associated with capital projects and advises that these commitments fall within Waterloo’s board-approved debt policy
   - the status of capital projects
   - its work plan
   - the results of the committee self-assessment for the 2013-2014 meeting cycle

Murray Gamble, Chair
This report is submitted following the 26 September 2014 meeting of the Finance & Investment Committee.

FOR INFORMATION

1. Investment Fund Performance and Investment
   The committee reviewed the performance of the registered pension plan, endowment fund, IQC trust fund, and payroll pension plan portfolios as at 30 June 2014. The registered pension fund outperformed relative to its five-year performance target (CPI+3.85); the endowment fund’s performance was behind the policy benchmark for the four-year period; IQC trust fund’s four-year performance was ahead of the policy benchmark and four-year minimum risk portfolio; and the payroll pension plan’s four-year performance was slightly ahead of the benchmark. The committee will be comparing the registered pension fund and endowment fund performance to other Canadian universities’ funds in the future.

   The committee continues to review and make recommendations with respect to investments held by the above funds. The recommendations of the committee which do not require further approvals are implemented by the vice-president, administration & finance. Other recommendations proceed through to the Pension & Benefits Committee (via the Registered Pension Plan Investments Subcommittee) and/or to the Board of Governors, as per the terms of reference for the respective decision-making bodies.

2. UW Financial Statements: Salary Cost Increases
   The committee received a report from the vice-president, administration & finance breaking down the increase in salary expenses from fiscal 2012-13 to 2013-14 in response to a question raised by Board Executive Committee during the approval of the University’s audited financial statements. The committee was satisfied with the breakdown given, advising the University to be cognizant of the low inflation environment as future salary increases are considered.

3. Pension Fund Financial Statements
   As part of its annual work plan, the committee reviewed the audited pension fund financial statements as at 31 December 2013.

Prem Watsa, Chair
This report is submitted following the committee’s meetings of 20 June 2014 and 19 September 2014. The chair may supplement this report with business arising at the meeting held on 24 October 2014.

FOR APPROVAL

1. Statement of Investment Policies & Procedures for UW Pension Plan
   Motion: To approve the 1 January 2014 version of the University of Waterloo Pension Plan (2011) Statement of Investment Policies and Procedures (the “SIPP”). See Attachment 1.

   Background: Following its annual review to ensure compliance with legislative requirements and based on input from the Finance & Investment Committee and the Registered Pension Plan Investments Subcommittee, the Pension & Benefits Committee recommends approval of the following changes to the SIPP:
   - increasing the limit on the amount of cash that can be held in the plan in order to reflect decisions to retain additional cash for risk management purposes, and changing the way in which the cash position is calculated;
   - incorporating a chart reflecting the expected long-term asset mix over a period of seven or eight years to assist the actuary with plan valuations; and
   - incorporating language to reflect the purchase of US treasuries.

2. Life-time Maxima on Out-of-Province Healthcare Coverage for Pensioners
   Motion: To approve the removal of the life-time maxima on out-of-province healthcare coverage for pensioners living in Canada.

   Background: Pensioners who live within Canada, but outside of Ontario, continue to have coverage under the University’s extended healthcare plan. Coverage is subject to life-time maxima, which differ based on the period during which the individual retired (prior to 1 January 1996, between 1 January 1996 and 6 June 2000, or after 6 June 2000). The original intent of this feature was to protect the plan in the event a provincial government outside of Ontario decided to delist or discontinue healthcare coverage. The life-time maxima are reviewed annually by the committee. Since 2000, there have been two individuals who have reached the maxima.

   Human Resources reviewed this feature of the benefits plan in consultation with Aon Hewitt and Great-West Life and recommended the removal of the life-time maxima on the following bases:
   - In their experience, no other healthcare plan for retirees has coverage that differs by province;
   - The financial impact of removing the maxima is expected to be low, as the University has a $50,000 annual large amount pooling limit to protect against catastrophic claims, only a small percentage of pensioners live outside of the province of Ontario, and the average pensioner is not expected to surpass the current life-time maxima; and
   - The University now hires individuals to work in other provinces - coverage on retirement should be the same for these individuals as for those hired to work in Ontario.

   If this decision is approved by the board, the committee will continue to monitor extended healthcare costs associated with out-of-province pensioners and will monitor changes to healthcare coverage by provincial governments outside of Ontario.
3. **Actuarial Report**
   At the 3 June 2014 meeting of the Board of Governors, the board approved the filing of the Actuarial Report: University of Waterloo Pension Plan dated as of 1 January 2014 on the basis of the principles underlying the report. The Pension & Benefits Committee reviewed the full report at its 20 June 2014 meeting and approved the report for filing as presented. A copy of the filed report can be obtained from the committee secretary, Rebecca Wickens at rebecca.wickens@uwaterloo.ca or ext. 35924.

4. **Actuarial Assumptions and their Impact on University of Waterloo’s Financial Statements**
   In response to a discussion which occurred during the approval of the University’s audited financial statements by the Board Executive Committee, the committee was reminded of the impact of changing the actuarial assumptions on the University’s liabilities as reflected in the financial statements.

5. **Report to the Community**
   The Pension & Benefits Committee issued a report to the University community regarding its activities in 2013-2014. A copy of the report is appended as Attachment 2.

6. **General Oversight**
   The committee receives regular reports from the consulting actuary on legislative and policy changes anticipated and in force that impact public sector pensions, as well as changes implemented by other public sector pension plans. During the reporting period, this included discussion of the provincial budget as it was expected to apply to pension plans. The committee discusses implications for the University’s pension plans and takes the information into account when making decisions on matters including plan design, funding and administration.

Bill Watson, Chair
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10. Valuation of Investments
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13. Dismissal of a Fund Manager
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1. **PURPOSE**

The primary goal of the University of Waterloo Pension Plan (2011) (the “Plan”) is to provide members with a defined retirement income at a reasonable cost. The prudent and effective management of the assets of the pension fund has a direct impact on the achievement of this goal. The University of Waterloo (“UW”), sponsor and legal administrator of the pension fund, is responsible for achieving this primary goal.

This document has been prepared in accordance with the relevant legislation affecting the Plan to ensure continued prudent and effective management of pension fund assets. Deviating from this Statement of Investment Policies and Procedures (“Statement”) is only allowed with the prior written approval of the Pension and Benefits Committee (“P&B Committee”).

2. **BACKGROUND, PLAN TYPE AND LIABILITIES**

The Plan is a contributory defined-benefit plan, based upon an individual’s final average salary and years of participation in the Plan prior to retirement.

All pensions paid under the Plan are escalated annually by the cost-of-living factor described in the Plan. For benefits accrued prior to January 1, 2014, liabilities will grow in direct relation to the increase in the consumer price index (“CPI”). For benefits accrued on or after January 1, 2014, liabilities will increase by 75% of the increase in CPI\(^1\). Notwithstanding the foregoing, if the increase in CPI in a given year exceeds 5%, then the indexation paid in that year will be determined by P&B Committee, in its discretion, taking into account the fund’s ability to afford such an increase.

Thus, to provide pensions at a reasonable cost, it is necessary to strive for high real investment returns on the Plan assets over medium- and long-term periods. The investment philosophy, policies and procedures adopted in this document will assist in the achievement of this goal in a prudent and effective manner. In addition to the investments described in Section 4, the Plan holds real return bonds that are not actively traded and are intended to provide protection against inflation for a significant portion of the Plan’s indexed pensioner and beneficiary obligations. Subject to annual review, the long-term objective of the Plan is to hold a maximum of 70% of the retiree liabilities in this type of investment.

This Statement has been developed taking into account factors such as: the nature of the Plan’s liabilities; the allocation of such liabilities between active and retired members; the funded and solvency positions of the Plan; the net cash flow position of the Plan; the investment horizon of the Plan; historical and expected capital market returns; and the benefits of investment diversification.

3. **ALLOCATION OF RESPONSIBILITIES**

The Board of Governors of the University of Waterloo (the “Board”) has established a Finance and Investment Committee (“F&I Committee”) to assist in the determination of UW’s overall investment philosophy, policies, objectives and strategies, and a P&B Committee to assist in the management of the pension fund. A Registered Pension Plan Investments Subcommittee (“RPPI”)

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\(^1\) A protocol has been developed to set out the parameters under which the P&B Committee would increase the level of indexation beyond 75%.
was formed consisting of members from both F&I Committee and P&B Committee to assist in carrying out the responsibilities listed below.

RPPI will:

· review this document annually;
· review pension fund performance on at least a semi-annual basis;
· review Fund Manager performance on at least a semi-annual basis; and
· report to P&B Committee.

RPPI will make recommendations to P&B Committee and F&I Committee on:

· the content of this document;
· the selection of Fund Managers; and
· the purchase of specific investments, including real return bonds.

Working with the F&I Committee with respect to investment philosophy, policies, objectives and strategies and taking into consideration the recommendations of RPPI, the P&B Committee will make recommendations to the Board in the following areas:

· the content of this document after its annual review;
· the selection of a Consulting Actuary;
· the selection of Fund Managers;
· the selection of a Custodian/Trustee to hold the pension fund assets; and
· the purchase of real return bonds.

In addition, the P&B Committee will:

· review this document annually, taking into consideration any recommended changes from RPPI and F&I Committee;
· consider reports from RPPI on pension fund performance on at least a semi-annual basis;
· consider reports from RPPI on Fund Manager performance on at least a semi-annual basis;
· provide cash flow information to the Fund Managers, if necessary;
· be responsible for the delegation of any responsibilities not specifically mentioned; and,
· report to Plan members on at least an annual basis.

The Fund Managers will:

· participate, at least annually, in performance reviews by the RPPI;
· forward to RPPI quarterly reviews of investment performance, expectations of future returns on various asset classes and proposed investment strategies for the following 12 to 24 months;
· upon direction of the P&B Committee, invest in passive asset classes such as indexed bond funds, indexed equity funds, real-return bonds, etc.;
· manage asset mix and select securities within each asset class, subject to applicable legislation and the philosophy and other constraints set out in this document;
· advise the P&B Committee immediately of any changes in its senior investment personnel and/or significant changes in the size or mix of assets managed;
· comply with all relevant laws concerning the investment of the pension fund; and
· complete and deliver a compliance report (see page 10) to the P&B Committee and the Fund’s Consulting Actuary each quarter. The compliance report will indicate whether or not the Fund Manager was in compliance with this Statement during the quarter. In the event that the Fund Manager is not in compliance with this Statement, the Fund Manager is required to advise the
P&B Committee immediately, detail the nature of the non-compliance and recommend the appropriate course of action to remedy the situation.

The Fund Managers are expected to comply, at all times and in all respects, with the Code of Ethics and Standards of Professional Conduct as promulgated by the CFA Institute. The Fund Managers will manage the assets with the care, diligence and skill that an investment manager of ordinary prudence would use in dealing with pension plan assets. The Fund Managers will also use all relevant knowledge and skill that they possess or ought to possess as a prudent investment manager.

The Consulting Actuary (or his/her delegate approved by P&B Committee and RPPI) will:

- assist in the preparation and subsequent annual reviews of this document;
- participate in all reviews of the Fund Managers and the Plan;
- report, at least semi-annually, on the performance of the Fund Managers and the Plan;
- comment on any changes in the Plan’s benefits, membership or contribution flow which may affect how the Plan’s assets are invested;
- comment on the impact of potential investment opportunities/strategies/legislative changes which may affect how the Plan’s assets are invested;
- assist in the implementation of this Statement;
- monitor the performance of the Plan and the Fund Managers on a regular basis, and contact the chair of the P&B Committee immediately if there are adverse changes of any kind, which warrant further review and/or investigation;
- support RPPI and the P&B Committee on matters related to investment management and administration of the Plan; and
- meet with RPPI and the P&B Committee as required.

The Custodian/Trustee will:

- fulfill the regular duties required by law of a Custodian/Trustee and perform the specific duties required of the Custodian/Trustee pursuant to agreements entered into from time to time with UW; and
- provide the P&B Committee with monthly portfolio printouts of all assets of the Plan and transactions during the period.

4. RETURN EXPECTATION, BENCHMARK PORTFOLIO, FUND MANAGER INVESTMENT OBJECTIVES

**Return Expectation.** The annualized rate of return of the Plan must exceed the annualized rate of increase in the Consumer Price Index by at least 400 basis points (bps) net of the associated investment management fees over any ten-year period.

**Investment Philosophy.** All equity investments are to be made using the long-term value approach by investing in companies at prices below their underlying long-term values to protect capital from loss and earn income over time. The fund managers will attempt to identify financially-sound companies with good potential profitability which are selling at a discount to their intrinsic value. Appropriate measures of low prices may consist of: low price-earnings, high dividend yields, significant discounts to book value and low price to free cash flow. Downside protection is obtained by seeking a margin of safety in terms of sound financial position and a low price in relation to intrinsic value. Appropriate measures of financial integrity include debt/equity ratios, financial leverage, asset turnover, profit margin, return on equity, and interest coverage. It is anticipated that purchases will be made when economic and issue-specific conditions are less than ideal and
sentiment is uncertain or negative. Conversely, it is expected that gains will be realized when issue-
specific factors are positive and sentiment is buoyant. Assets of the Fund are administered and
managed on a combined basis through specialist portfolios. Fund managers will be expected to
generate a rate of return in the first quartile or better over a market cycle.

**Volatility Expectation.** The volatility of the Plan is directly related to its asset mix, and specifically,
the balance between Canadian bonds, Canadian equities and foreign equities. Since the Fund
Managers do not have authority to make any type of leveraged investment on behalf of the Plan, the
volatility of the Plan should be similar to the volatility of the Benchmark Portfolio set out below.

**Benchmark Portfolio.** The following benchmark portfolio is used by the Consulting Actuary to
calculate the return assumptions for the Plan. A portion of the Plan is invested in a buy-and-hold
real return bond portfolio. The following table applies to the remaining portion of the Plan.

<table>
<thead>
<tr>
<th>Asset Class</th>
<th>Benchmark</th>
<th>Canadian Equity Managers</th>
<th>Global Equity Managers</th>
<th>Canadian Fixed Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canadian Equities</td>
<td>S&amp;P/TSX Composite</td>
<td>20.0%</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Global Equities</td>
<td>MSCI World $ Cdn</td>
<td>-</td>
<td>40.0%</td>
<td>-</td>
</tr>
<tr>
<td>Fixed Income</td>
<td>DEX Universe Bond</td>
<td>-</td>
<td>-</td>
<td>40%</td>
</tr>
</tbody>
</table>

A diversified management structure has been adopted for the Plan consisting of several managers.
This structure has been adopted as it is believed that the different investment mandates will result in
increased diversification, while reducing the “manager risk” effect for the total Plan.

The investment management structure employs a mix of active and passive management styles.
Active management has been adopted for portions of the assets as it provides the opportunity to
outperform common market indices over the long-term, while controlling active risk levels. Passive
management has been adopted for portions of the assets as it minimizes the risk of
underperformance relative to a benchmark index and is generally less expensive than active
management.
Fund Manager Investment Objectives. Subject to the constraints cited in section 5, Fund Managers will employ security selection and asset allocation strategies to try to add to the returns that would be earned by the alternative of passively managing their respective investment portfolio as described below. The objective of passive management is to match the return that could be earned by investing in securities that compose an index which is representative of a specific market.

Active Fund Manager performance will be considered satisfactory if the annualized return (before investment management fees) over consecutive four-year periods exceeds the return that could have been earned by passively managing the combined Benchmark Portfolio by 100 bps for Canadian Equity Managers, 200 bps for Global Equity Managers and 50 bps for Canadian Fixed Income Managers. For Passive Canadian Fixed Income Managers, (excluding U.S. treasuries), performance will be considered satisfactory if the tracking error is not more than +/- 10 bps over one-year periods and +/- 6 bps over consecutive four-year periods. Similarly, for the hedged U.S. Equity Passive Managers, performance will be considered satisfactory if the tracking error is no more than +/- 20 bps over one-year periods and +/- 10 bps over consecutive four-year periods.

5. AGGREGATE INVESTMENT LIMITS and PERMITTED CATEGORIES, ASSET MIX POLICY

Aggregate Investment Limits and Permitted Categories. At all times, the market value of the individual asset classes will be within the following minimum and maximum aggregate investment limits:

Asset Classes (excluding real return bonds)

<table>
<thead>
<tr>
<th>Asset Class * +</th>
<th>Minimum **</th>
<th>Maximum **</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fixed Income</td>
<td>30%</td>
<td>70%</td>
</tr>
<tr>
<td>Cash or Equivalent</td>
<td>0%</td>
<td>15%</td>
</tr>
<tr>
<td>Equities</td>
<td>30%</td>
<td>70%</td>
</tr>
<tr>
<td>Alternatives</td>
<td>0%</td>
<td>20%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* These assets can be held in any combination of pooled funds or individual investments.
+ The asset classes (other than the cash maximum) exclude real return bonds. The long-term objective of the plan is to hold 70% of retiree liabilities in this type of investment.
** Minima and maxima do not sum to the total, as this would introduce artificial constraints.

Liquidity. All investments should be reasonably liquid (i.e. under normal circumstances, they should be capable of liquidation within one month).

Passively Managed and Specialty Investments. Assets that are passively managed or managed by specialty managers (e.g. global equities) are normally expected to be 100% invested with minimal, generally less than 2%, cash. The Passive Manager may equitize cash within its pooled funds.
Cash or Equivalents. Cash on hand, demand deposits, treasury bills, short-term notes and bankers’ acceptances, term deposits and guaranteed investment certificates.

Equities. Common shares, rights, warrants, global depository receipts, exchange-traded index participation units, units of income trusts domiciled in jurisdictions that provide limited liability protection to unitholders and securities convertible into common shares. American Deposit Receipts (ADRs) are considered to be Non-Canadian/Non-US investments. No single equity shall represent more than 10% of the total market value of any one of the Fund Manager’s equity portfolios.

Fixed Income. Bonds (including real-return bonds), debentures, mortgage loans, mortgage-backed securities, preferred shares and asset-backed securities (ABS’s). Investments in Canadian bonds and debentures will have a minimum rating of BBB or an equivalent rating, as rated by at least two of the three Recognized Bond Rating Agencies at the time of purchase. The following rating agencies shall be considered to be “Recognized Bond Rating Agencies”: (i) Dominion Bond Rating Service (Canadian issuers only); (ii) Standard and Poor’s and (iii) Moody’s Investor Services. Not more than 10% of the market value of the Canadian fixed income securities shall be invested in BBB bonds or debentures. In addition, up to 10% of the actively managed fixed income portfolio (excluding the buy and hold U.S. treasuries) may be invested in debt denominated in U.S. currency, including debt issued by the U.S. Government, its agencies and instrumentalities. No other foreign currency debt will be purchased.

Alternatives. Investments outside the traditional asset classes of stocks, bonds and cash. Examples of alternative investments are real estate, infrastructure, private equity, and hedge funds.

Downgrades in Rating Quality. In the event that a security is downgraded below the stated minimum in the Statement, the following steps will be taken: (i) The Fund Manager will notify UW of the downgrade by telephone at the earliest possible opportunity; (ii) Within ten business days of the downgrade, the Fund Manager will advise UW in writing of the course of action taken or to be taken by the Fund Manager, and its rationale; and (iii) Immediately upon downgrade, the Fund Manager will place the asset on a Watch List subject to monthly review by the Fund Manager with UW until such time as the security matures, is sold or until it is upgraded to a level consistent with the purchase quality standards as expressed in the guidelines mentioned above.

Split Ratings. In cases in which the Recognized Bond Agencies do not agree on the credit rating, the bond will be classified according to the methodology used by DEX, which states: (i) if two agencies rate a security, use the lower of the two ratings; (ii) if three agencies rate a security, use the most common; (iii) if all three disagree, use the middle rating.

Derivatives, Options and Futures. Derivatives, options and futures on any securities allowable under the Statement, including index options and futures. These instruments will be used to protect against losses from changes in exchange rates, interest rates and market indices. Aggregate limits encompass the securities underlying the futures and options. Upon prior written confirmation from the P&B Committee that such investments may be made, derivatives may be used as a substitute for more traditional investments if they are based on and are consistent with achieving the Plan’s long-term asset mix goal and rate of return objectives. Such products include debt, equity, commodity and currency futures, options, swaps and forward contracts, pooled or segregated funds that employ derivatives and synthetic products for purposes consistent with the investment objectives of the fund. Synthetic products used as substitutes for more traditional investments will not be used to gain
leveraged exposure to various asset classes and will be collateralized by cash equal to the risk-adjusted market value of the synthetic exposure. Hedging the currency on a fund position in a non-Canadian dollar investment is allowed into Canadian dollars only. Sufficient assets must be held to cover commitments due to the derivatives transactions. No derivatives can be used for speculative trading or to create a portfolio with leverage. Purchase or sale of any of these instruments for speculative purposes is prohibited.

**Pooled Funds.** Open-ended pooled funds investing in the asset categories noted above. The aggregate limits for these categories are inclusive of the underlying assets in the pooled funds.

*Global investments may only be made by the Global Equity Managers. Canadian Managers may only invest in Canadian investments, excluding any references to the contrary specifically outlined above. Passive Managers may only invest in securities that are contained in the appropriate benchmark index(es) for their mandate(s), subject to residual cash holdings and approved purchases of U.S. treasuries.*

**Asset Mix Policy.** The selection of investments is to be made with consideration given to the overall context of the investment portfolio without undue risk of loss or impairment and with a reasonable expectation of fair return or appreciation given the nature of the investments. All investments shall be made in accordance with all applicable legislation and the investment principles outlined above.

**6. REBALANCING**

The Plan will adjust the asset mix consistent with the investment philosophy described in this document.

**7. CONFLICT OF INTEREST POLICY AND DISCLOSURE REQUIREMENTS**

These guidelines apply to members of RPPI, P&B Committee, F&I Committee, Fund Managers, Consulting Actuary, Custodian/Trustee, the Administrator and any employee or agent retained to provide services to the Plan.

**Conflict of Interest Policy.** Consistent with UW Policy 69, “Conflict of Interest”, any person listed above must disclose any direct or indirect association or material interest or involvement in aspects related to her/his role with regard to the Pension Plan investments that would result in any potential or actual conflict of interest.

Without limiting the generality of the foregoing, this would include material ownership of or control over an asset held by the Fund, participation in the management or membership on the boards of corporations with which the Fund is invested or which have significant investments in assets held by the Fund, or interest in actual or proposed contracts involving the Fund. However, being a member of the Plan itself is not sufficient to constitute a potential conflict of interest.

Persons who are unsure as to whether or not a conflict of interest exists can seek clarification from the Secretariat on whether it is necessary to follow the procedures below.

**Disclosure Requirements.** Persons listed above shall disclose the nature and extent of any conflict to the Committee in writing upon becoming aware of the conflict; if knowledge of the conflict arises in the course of a discussion at a meeting, such disclosure will be made verbally and recorded in the minutes of the meeting.
If the person disclosing the conflict has voting power, he/she will refrain from participating in discussion and voting on the matter in respect of which the individual has a potential or actual conflict of interest. If the person is the chair, the chair will step down for the duration of the discussion and the members will choose one of their number to fill the chair during that period.

If the person disclosing the conflict does not have voting power, he/she may elect to continue in her/his activities with respect to the issue in conflict only with the unanimous approval of the members with voting rights.

The notification of a conflict shall be considered a continuing disclosure on that issue, until such time as he/she advises that the conflict no longer exists.

**Related Party Transactions.** For the purpose of this section, a “related party” and a “transaction” in respect of the Plan have the meanings given to such terms in Schedule III of the Pension Benefits Standards Regulations, 1985 (Canada). The following related party transactions are permitted for the Plan:

- any transaction that is required for the operation or administration of the Plan, the terms and conditions of which are not less favourable to the Plan than market terms and conditions;

- any transaction the value of which is nominal (that is, less than 3% of the market value of the Plan) or which is immaterial to the Plan (that is, the terms and conditions of the transaction are not less favourable to the Plan than market terms and conditions); two or more transactions with the same related party shall be considered a single transaction; and

- any purchase of securities of a related party, provided that those securities are acquired at a public exchange recognized under the *Pension Benefits Standards Act* and Regulations, 1985 (Canada).

**8. LENDING OF CASH AND SECURITIES**

The pension fund may not lend cash other than through investments described in this policy. Upon approval of the P&B Committee, the pension fund may enter into securities loan agreements. Such loans must be secured by cash and/or readily marketable government bonds, treasury bills and/or letters of credit, discount notes and banker’s acceptances of Canadian chartered banks. The amount of collateral taken for securities lending should reflect best practices in local markets. The market value relationship between collateral and securities on loan must be calculated at least daily. For equity loans, high quality, liquid assets, may also be accepted as collateral. The terms and conditions of any securities lending program will be set out in a contract with the Custodian. The Custodian shall, at all times, ensure that the UW has a current list of those institutions that are approved to borrow the Plan’s investments. Where the Plan is invested in a pooled fund, security lending will be governed by the terms and conditions set out in the pooled fund contract.

**9. DELEGATION OF VOTING RIGHTS**

The Fund Managers are delegated the responsibility of exercising all voting rights acquired through the Plan’s investments. The Fund Managers will exercise acquired voting rights with the intent of fulfilling the investment objectives and policies of the Plan. At least on an annual basis, the Fund Managers shall report their voting rights to the P&B Committee. However, in those situations in which the exercise of voting rights could have significant financial impact upon the Plan’s assets, the
Fund Managers will secure guidance from the P&B Committee as to how the rights should be voted. Further, the Fund Managers should advise the P&B Committee regarding their voting on any unusual items or items they voted against management (together with reasons) at least on an annual basis.

10. VALUATION OF INVESTMENTS

It is expected that all the securities held by the Plan will have an active market and therefore valuation of the securities held by the Plan will be based on their market values.

The Fund Managers will notify the P&B Committee if the market for any investment held by the Plan becomes inactive and provide for the Committee’s consideration a method for valuing the affected investment.
11. **BORROWING**

The Plan shall not borrow money.

12. **CONFLICTS BETWEEN THE POLICY AND POOLED FUNDS INVESTMENT POLICIES**

To the extent that the Plan’s assets are invested in a pooled fund, the provisions of the pooled fund’s own investment policy will supersede the above guidelines. The Fund Manager is required to advise UW in a quarterly compliance report in the event of any material discrepancies between the above guidelines and the pooled fund’s own investment guidelines.

In the event that the Fund Manager is not in compliance with the Fund Manager’s own investment policy, the Fund Manager is required to advise UW immediately, detail the nature of the non-compliance and recommend an appropriate course of action to remedy the situation.

13. **DISMISSAL OF A FUND MANAGER**

Reasons for considering the termination of the services of a Fund Manager include, but are not limited to, the following factors:

- performance results which are below the stated performance benchmarks;
- changes to the overall structure of the Plan’s assets such that the Fund Manager’s services are no longer required;
- changes in personnel, firm structure, ownership or investment philosophy; and/or,
- failure to adhere to this Statement.

In the event that a new Fund Manager must be selected or additional Fund Manager(s) are added to the existing structure, UW will undertake an investment manager search. The criteria used for selecting a Fund Manager will be consistent with the investment and risk philosophy set out in Section 4.

14. **POLICY REVIEW**

The Statement may be reviewed and amended at any time, but it must be formally reviewed by UW at least annually.

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| January 2013 2014 |
To be completed by Fund Managers immediately prior to each quarterly review.

UNIVERSITY OF WATERLOO
REGISTERED PENSION PLAN INVESTMENTS SUBCOMMITTEE
_______________, 2014

This is to certify that I/we have adhered to the guidelines contained in the January 2014 version of the “Statement of Investment Policies and Procedures” for the University of Waterloo Pension Plan (2011), approved by the Board of Governors of the University of Waterloo.

Signed _________________________

On behalf of _____________________

Date ___________________________
This report provides an overview of the issues addressed by the Pension & Benefits Committee in 2013-14. Further information on any of these topics may be obtained by contacting the committee secretary, Erin Windibank (erin.windibank@uwaterloo.ca), or by visiting the committee’s webpage at: http://uwaterloo.ca/secretariat-general-counsel/committees-and-councils/pension-benefits-committee.

The Committee and its Members
The Pension & Benefits Committee is a standing committee of the Board of Governors responsible for overseeing the university’s pension plans, extended health care and dental plans, self-insured sick leave, long term disability plans, and life insurance plans. The committee consists of representatives from senior administration, the Board of Governors, retirees, staff, faculty and CUPE Local 793.

The committee meets on a monthly basis (except April, July and August); meetings are open to the university community and agendas and minutes are available on the web. Recommendations for changes and improvements to the university’s pension and benefit plans are developed, refined and approved by the committee and forwarded to the Board of Governors for approval.

The committee’s approach to pension and benefit plans is based on the following principles:
1. There will be one pension and benefits plan for all members of the university community, regardless of the type of work performed or the employee group to which one belongs.
2. Benefits are provided for both the employee and his or her family, where relevant.
3. Employees should be covered for catastrophic events.
4. The current level of benefits should be maintained.
5. Cost implications to both the university and its employees should be considered.

Committee Activities in 2013-14

Benefits Plan

1. Benefits Review Working Group
   In response to feedback received from the community and information received from the committee’s resource people, the committee formed a working group in 2012 to:
   - look at the relevance, sustainability and competitiveness of the extended health, dental, life insurance, short- and long-term disability, and employee assistance plans;
   - research alternative plan designs without increasing the university’s costs for the current plan design; and
   - develop recommendations to the Pension & Benefits Committee.

   The working group included one Pension & Benefits Committee member from each of the employee groups, one of the president’s appointees and the non-voting member from the Affiliated and Federated Institutions of Waterloo.

   a. Community consultation. The working group surveyed employees in spring 2013 to collect feedback about awareness and understanding of the current benefit plan, as well as areas of satisfaction and deficiency. Responses were received from 1282 individuals (840 staff, 272 faculty and 170 CUPE members), representing 33.5% of the population surveyed. Based on the response rates, it was not possible to distinguish meaningful differences between employee groups in the
analysis of survey results, and members were cognizant that less than 35% of the respondents provided written comments.

Highlights of feedback received through the survey included:
- The majority of respondents indicated that they understand the medical and dental benefits plans.
- In general, employees are pleased to have the option to purchase additional life insurance, and feel that their short- and long-term disability benefits are generous. Employees expressed that these benefits provide them with a sense of security and well-being, and that they are cared for by their employer.
- Many employees expressed surprise and displeasure about lack of coverage for vision care.
- Some employees expressed concern that maximums are too low for paramedical services that require multiple visits; they also expressed concern with the level of dental coverage, which lags the dental fee guide by two years.
- Many employees feel that the existing employee assistance plan does not meet their needs as they are unable to access campus counseling services on a timely basis and the scope of service provided is limited (e.g. no service for dependents).

b. Exploration of options. The working group explored options for potential plan improvements based on the survey results combined with the results of a market comparison conducted by Aon Hewitt in 2012 that compared the university against nine other organizations. The working group determined that:
- Alternate plan designs for life insurance, sick leave and long term disability would not be explored.
- Issues pertaining to the employee assistance program require additional funding.
- Alternate plan designs for the extended health and dental benefits should be explored to address key issues around lack of vision care, level of chiropractic coverage, dental fee guide lag, and counseling.

Several healthcare plan design options were explored which introduced the following elements:
- Introduction of a health spending account
- Combining all paramedical practitioners under one annual maximum
- Introduction of a “buy up” option and the commencement of full-time employee contributions to premiums.

Based on the financial analysis of these elements, the working group determined that the only option capable of addressing the identified deficiencies within stated constraints would be a “buy up” option. Presentations of different models were made to the various stakeholder groups (faculty association, staff association, and CUPE), and feedback was mixed with some strong opposition expressed.

c. Recommendations. Based on the feedback received, the working group made a recommendation to the Pension & Benefits Committee that the buy up option not be pursued at this time and that a review of the university’s total compensation program is required to address any changes on a more holistic level.

It is the understanding of members of the subcommittee that the strategic plan theme group dealing with a robust employer-employee relationship includes an objective to conduct a review of the university’s total compensation programs, systems and processes to ensure competitiveness in the market. The benefits working group’s research and findings will be presented to this group for further development with the proviso that any and all changes to the pension and benefits programs must be brought forward to the Pension & Benefits Committee for review and approval.
Pension Plan

2. **Education and monitoring.** The committee receives regular reports from the consulting actuary on legislative and policy changes anticipated and in force that impact public sector pensions, as well as changes implemented by other public sector pension plans. The committee discusses implications for the university’s pension plan and takes the information into account when making decisions on matters including plan design, funding and administration.

Government initiatives the committee has been monitoring over the past year include discussions about voluntary consolidation options for public sector pension assets. Several committee members attended a first-ever Ontario university pension symposium presented by Wilfrid Laurier University in collaboration with Aon Hewitt (the university’s consulting actuarial firm) on 6 May 2014, that fostered productive discussion of issues facing Ontario university pension plans, including the potential for a voluntary university sector plan. The consulting actuary also keeps the committee up to date on changes initiated by the Canadian Institute of Actuaries, which finalized new mortality tables on 13 February 2014.

3. **Indexation Protocol.** At its 11 October 2013 meeting, the committee adopted a new protocol to assist with decisions re: topping up indexation for pensions in payment in the event that the registered pension plan returns to a positive funded status, plus a margin (indexation was reduced in 2012 from 100% to 75% of the increase in CPI up to a maximum increase in CPI of 5% for pension benefits accrued after 31 December 2013, in order to address the funding shortfall and long-term sustainability of the plan). Principles behind the indexation protocol include ensuring equity of treatment between cohorts of pensioners, and between pensioners and active members.

4. **Technical plan amendment.** On the committee’s recommendation, the Board of Governors approved a technical amendment to the registered pension plan, effective as at 1 January 2014, designed to prevent an unanticipated side-effect discovered in the course of implementing changes made to the plan in 2012. The amendment ensures that a member’s benefit and indexation are both paid from the same plan (i.e. the registered pension plan or payroll pension plan). It makes plan administration easier and provides clarification for the modest number of situations in which this issue could arise, without changing the total benefit eligible for indexation from the amount originally intended.

5. **Changes to actuarial assumptions.** During the discussion of the actuarial valuation assumptions in winter 2014, the committee was advised to consider whether certain actuarial assumptions needed to be changed to reflect shifts in economic and demographic trends.

Guided by the consulting actuary, the committee approved changes on 9 May 2014, including: (a) reducing the interest rate used to discount liabilities from 6.10% (CPI + 3.85%) to 6.00% (CPI + 3.75%) per year, resulting in an increase of approximately $19 million to the pension plan’s liabilities; (b) adopting a newly released mortality table that is based on Canadian experience and reflects significant longevity improvements (the previous standard table was based on US data), resulting in an additional increase of approximately $80 million to the pension plan’s liabilities; (c) using the new real interest rate of 3.75% per year to discount the cash flows from the real return bonds, resulting in an increase of approximately $1 million to the plan’s assets; and (d) taking immediate recognition of the deferred asset gains of approximately $48 million (resulting from three-year asset smoothing) in conjunction with the above changes to the actuarial assumptions increasing the plan’s liabilities. The net impact of all these changes is an increase of $50 million in the plan’s unfunded liability.

The changes to the actuarial assumptions also increase the university’s current service cost by approximately $1.7 million or 0.48% of pensionable salaries.
The committee believes that these changes provide an appropriate representation of the plan’s overall position and funding requirements.

6. **Solvency funding relief.** On 10 June 2013, the committee was informed that the registered pension plan was accepted for the stage one solvency funding relief, for which it applied in December 2012. Taking advantage of the solvency relief enables the university to defer making additional special payments into the pension plan over and above those already being made to fund the going concern deficit (if the need arises at the time of the next valuation in 2017).

The university continues to fund the going concern deficit over a fifteen year period through the funding already built into the university’s operating budget, as well as the pension plan changes approved by the Board in October 2012.

7. **Filing of the actuarial valuation.** The university is required to file an actuarial valuation of the registered pension plan every three years. The filing of the valuation determines the university’s statutorily enforceable obligations with respect to funding the plan, and the payments required to the Pension Benefits Guarantee Fund. The funding plan and payment obligations are built into the university’s operating budget. The Board of Governors approved filing of the actuarial valuation of the plan as at 1 January 2014 at its June meeting.

8. **Revisions to the Statement of Investment Policies & Procedures (SIPP).** Following its annual review, and with support from the Finance & Investment Committee and the Registered Pension Plan Investment Subcommittee, the committee approved the following changes to the SIPP, which will be presented to the Board of Governors for approval in fall 2014:
   - increasing the limit on the amount of cash that can be held in the plan in order to reflect decisions to retain additional cash for risk management purposes, and changing the way in which the cash position is calculated;
   - incorporating a chart reflecting the expected long-term asset mix over a period of seven or eight years to assist the actuary with plan valuations; and
   - incorporating language to reflect the purchase of US treasuries.

9. **Investment monitoring.** The Registered Pension Plan Investments Subcommittee, which is made of up members of the Pension & Benefits Committee and Finance & Investment Committee continues to meet on a regular basis to actively monitor the performance of the pension fund and investment managers.

On 7 January 2014, the three committees held a joint meeting for the purpose of developing common understanding with regard to: pension plan governance structure and operation; pension plan design, funding sources, liabilities, annual valuation calculation and status; and impact of investment decisions on the pension plan. The meeting was positive and discussions are ongoing regarding how these groups can work effectively to enhance communication and understanding of their respective roles with regard to pension stewardship.

10. **Changes to investment portfolio.** The following changes were made to the registered pension plan’s investments since the last report to the community:
   - In September 2013, a further $30M investment in Sionna Investment Managers was approved. The university approved Sionna as a new Canadian equity manager in 2012 and placed two $20M investments. The additional investment recognizes Sionna’s positive performance and investment approach, which is consistent with the plan’s investment philosophy, as well as addressing some

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*The going concern calculation assumes that the plan will continue to operate for the foreseeable future. A going concern deficit occurs when the value of the liabilities (calculated using plan member data, the benefit structure of the plan, and actuarial assumptions) is greater than the market value of the pension plan assets.*
concern re: the relatively low proportion of plan assets invested in Canadian equities and the large proportion of plan assets being held in cash.

- The plan’s cash position was further reduced through an investment of $85M in 30 year US treasuries in March 2014.
- Finally, the TDAM US equity position was liquidated in March 2014, as it was inconsistent with the plan’s adoption of a value-oriented investment approach with active asset management.

16 July 2014