OPEN SESSION

2:30 1. Remarks from the Chair

2:35 **Consent Agenda**

**Motion:** That items 2-4 below be approved and/or received for information by consent.

2. Approval of the June 1, 2010 Minutes [enclosed] Decision

3. Report of the President
   a. Promotion of Faculty Members Information
   b. Recognition and Commendation Information
   c. Sabbatical/Administrative Leaves and Administrative Appointments Information

4. Report of the Vice-President, Administration & Finance
   a. Tuition/Incidental Fees Decision

Regular Agenda

2:40 5. Business Arising from the Minutes

2:45 6. Report of the President
   a. Balsillie School of International Affairs Information
   b. Review of the FUAC/UW Relationship Information
   c. Annual Performance Indicators [overview enclosed; full report at analysis.uwaterloo.ca/docs/pi.php] Information
   d. Environmental Scan Information

   a. Report of the Associate Provost, Students Working Group Information
   b. Report on Undergraduate Student Retention Issues, Opportunities and Initiatives Information
   c. Student Success Office Information

3:45 Break

4:00 8. Report of the Vice-President, External Relations Information

4:10 9. Reports from Committees
4:20  b. Building & Properties
4:30  c. Finance & Investment
4:40  d. Pension & Benefits

4:50  10. Other Business

**CONFIDENTIAL SESSION**

4:55  **Consent Agenda**

**Motion:** That items 11-13 below be approved by consent.

11. Approval of the June 1 and August 9, 2010 Minutes [enclosed]
   Decision

12. Report of the President
   a. New Appointments with Tenure
   CS1  Decision

13. Other Business
   a. Delegation of Authority to the Executive Committee
   CS2  Decision

5:00  14. Business Arising from the Minutes

5:05  15. Reports for Committees
   a. Audit
   CS3  Information

5:15  b. Building & Properties
   CS4  Information

5:25  c. Governance
   CS5  Decision/Information

5:35  16. Other Business
   a. Naming
   Oral  Information

5:35  17. Next Meeting
   Tuesday, February 1, 2011 at 2:30 p.m.

5:50  18. Adjournment

**Enclosures:** October University Affairs; UW Newswatch

**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.

LC:tad/October 19, 2010

Lois Claxton, Secretary of the University

Please convey regrets to Tracy Dietrich at 519-888-4567 x36125 or tdietrich@uwaterloo.ca
FOR INFORMATION

Promotion of Faculty Members
Policy 77, Tenure and Promotion of Faculty Members, provides that “Promotion to the rank of Professor recognizes a high order of achievement in both scholarship and teaching by tenured Associate Professors, together with satisfactory performance in service.

Although evidence of strong teaching performance is required, normally the greatest emphasis is placed on scholarship and achievement within an individual's discipline. However, in exceptional cases, a tenured Associate Professor may be promoted on the basis of an outstanding teaching record accompanied by a continuing and long-standing record of satisfactory or better scholarship and service.

A continuous program of scholarship with positive peer review by nationally and internationally recognized scholars is essential for promotion to Professor. The candidate's record is to be judged in comparison with the records of faculty members recently promoted at UW and other universities of comparable standing. Promotion to Professor is not an assured step in the career of a faculty member, and some will not attain this rank.”

The 2009/10 promotion cycle carried out under Policy 77 resulted in the following individuals being promoted to professor, effective July 1, 2010.

Otman Basir, Electrical & Computer Engineering
Gerard Boychuk, Political Science
Giovanni Cascante, Civil & Environmental Engineering
David Clausi, Systems Design Engineering
Eric Croiset, Chemical Engineering
Ehab El-Saadany, Electrical & Computer Engineering
Paul Fieguth, Systems Design Engineering
Bruce Hellinga, Civil & Environmental Engineering
Marios Ioannidis, Chemical Engineering
Elizabeth Irving, Optometry
Richard Kelly, Geography & Environmental Management
Susan Leat, Optometry
Jonathan Li, Geography & Environmental Management
Paul McDonald, Health Studies & Gerontology
Christine Moresoli, Chemical Engineering
Christine Purdon, Psychology
James Rush, Kinesiology
Stefan Steiner, Statistics & Actuarial Science
Scott Taylor, Chemistry
Grace Yi, Statistics & Actuarial Science
FOR INFORMATION

Recognition and Commendation

“For research excellence and service to the research community,” Professor David Clausi, systems design engineering, has been given this year’s award from the Canadian Image Processing and Pattern Recognition Society. It was presented at the annual Canadian Conference on Computer and Robot Vision held in Ottawa in June.

The Institute of Electrical and Electronics Engineers’ 2010 Canada Computer Medal for outstanding contributions to pattern recognition and intelligent systems has been awarded to Professor Mohamed Kamel, electrical & computer engineering. The award, established in 2007, consists of a silver medal and a plaque. It was presented at the Canadian Conference on Electrical and Computer Engineering held in Calgary in May.

Professor Janusz Pawliszyn, chemistry, was presented with the PerkinElmer, Inc. 2010 Marcel Golay award in June “for a lifetime of achievement in capillary chromatography, most notably his development of solid phase microextraction,” says the company’s news release. “The award was instituted in honor of Marcel Jules Eduard Golay, the inventor of capillary columns. Dr. Golay, one of the pioneers of gas chromatography, introduced the theory of dispersion in open tubular columns (capillary columns) and demonstrated their efficacy at the second International Symposium on Gas Chromatography in 1958.”

The Toronto architecture firm Lateral Office has won the $50,000 Professional Prix de Rome in Architecture for 2010. The firm’s founding partners are Professor Lola Sheppard, architecture, and Mason White. Sheppard is the fourth Waterloo architecture faculty member to win this prestigious prize – Dereck Revington, Philip Beesley and John McMinn are previous winners. Administered by the Canada Council for the Arts, this award recognizes excellent achievement in Canadian architectural practice. “Sheppard and Mason will use the prize funds to travel to the Arctic to pursue their research proposal “Emergent North.” The travel research continues an ongoing investigation and documentation of cold-climate settlement forms, issues, and vernacular innovations in the Circumpolar region.

Leonardo Simon, chemical engineering professor and member of the Waterloo Institute of Nanotechnology, was one of the guests of honour at a Toronto luncheon in July as the annual “Top 40 Under 40” winners were celebrated. A proud announcement from WIN says Simon “won the prestigious honour for excellence in research, most notably his leadership of the Ontario BioCar Initiative. BioCar is a joint venture between Ford Canada and the Universities of Waterloo, Guelph, Windsor, and Toronto. For his part, Dr. Simon obtains waste fibres from the agricultural industry, like wheat or straw, and chemically modifies these at the nano-scale to obtain new functionality. These modified fibres are then transformed into composites. Ford uses these composites in the Flex, its sport utility vehicle.” Each year, Canada’s Top 40 Under 40, an annual awards event organized by executive search firm The Caldwell Partners International, celebrates “exceptional Canadians under the age of 40, who are outstanding leaders in their chosen fields, and who are shaping the country’s future.”

Five Waterloo faculty members are among the 80 scholars across Canada and beyond who will be inducted to the Royal Society of Canada – a status that is considered to be this country’s highest academic honour – in a ceremony November 27 at the National Gallery of Canada in Ottawa: François Paré,
French studies; Michael Yovanovich, mechanical & mechatronics engineering; Richard Cleve, computer science and Institute for Quantum Computing; Ian Goulden, combinatorics & optimization and dean of mathematics; Janusz Pawliszyn, chemistry. Savvas Chamerlain, DALSA Corporation and formerly a faculty member in electrical & computer engineering, and David Johnston, president emeritus, have been named “specially elected fellows.”

Four engineering professors were among the 48 new Fellows of the Canadian Academy of Engineering inducted on June 4: Raafat Mansour, electrical & computer engineering; Mike Worswick, mechanical & mechatronics engineering; Allan Plumptree, distinguished professor emeritus, mechanical & mechatronics engineering; Peter Silveston, distinguished professor emeritus, chemical engineering.

Ten students from Waterloo were among 117 from across Canada (and three from Hong Kong) who took part in the “Rising Stars of Research” undergraduate poster competition held in mid-August at the University of British Columbia. Prizes were awarded in seven theme areas. An honourable mention in computational sciences and technology went to Waterloo student Peter Forbes, statistics & actuarial science, whose project was “ENTREE, A Personalized Recipe Recommendation Engine.”

Waterloo’s Alternative Fuels Team won the Best Mechanical Integration award and the National Science Foundation Outstanding Long Term Faculty Advisor award in the recent EcoCAR Challenge held in San Diego. The team is supervised by professors Roydon Fraser, mechanical & mechatronics engineering, and Mike Fowler, chemical engineering. This three-year collegiate advanced vehicle technology engineering competition, established by the U.S. Department of Energy and General Motors, “challenges university engineering students from across North America to reengineer a GM-donated vehicle to minimize the vehicle’s fuel consumption and emissions, while maintaining its utility, safety and performance.”

The Research + Technology Park received an Excellence in Economic Development Award for its WATCH Magazine in the category of Magazines for communities with populations of 25,000 – 200,000 from the International Economic Development Council. The honour was presented at an awards ceremony on September 28 during the IEDC Annual Conference. “We recognize the University of Waterloo Research + Technology Park for providing successful strategies to promote new paradigms in economic development in this period of global recovery,” said William Best, IEDC chair. “Our awards honor organizations and individuals for their efforts in creating positive change in communities. The University of Waterloo Research + Technology Park are showing that they are at the forefront of the economic development profession and are using innovative and effective practices that can be replicated in other communities.”
1. Sabbatical/Administrative Leaves

UW Policy 3, Sabbatical and Other Leaves for Faculty Members [excerpts below, full text available at: http://www.adm.uwaterloo.ca/infosec/Policies/policy3.htm], 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.

- Sabbatical Leaves
  - Britt Anderson, Psychology, January 1, 2011 to June 30, 2011 at 100% salary
    The sabbatical has the goal of advancing my research and teaching. My research on probability models of spatial attention and neural correlates of “updating” in decision making will benefit from more time and the freedom to visit other laboratories (including those conducting primate neurophysiology, e.g. Brown Univ.) to obtain converging evidence for my models. The teaching goal is to draft a manuscript for a textbook to support my teaching of computational neuroscience techniques to psychology students at UW.
  - Kankar Bhattacharya, Electrical & Computer Engineering, January 1, 2011 to December 31, 2011 at 100% salary
    During this period I will undertake a revision and update of my book – Operation of Restructured Power Systems (Kluwer, 2001). This will involve a significant re-write due to major policy changes that have taken place in the power sector in recent years. I also intend to collaborate with some Ontario-based utilities and policy organizations to gain useful experience. I also plan to spend some time at the Indian Institutes of Technology in India to develop research collaborations in sustainable energy and power systems.
  - Mario Boido, Spanish & Latin American Studies, January 1, 2011 to June 30, 2011 at 100% salary
I will finish editing my book manuscript of Limits and Convergences: the Word/Image Relationship in Contemporary Latin America. I will also continue to advance on a new project funded by UW/SSHRC entitled Image Resistance: Representations of History and Identity in Latin American Visual Culture. I plan to travel to Guatemala, Argentina, and Mexico to research for my project Image Resistance which focuses on the visual construction of historical and cultural memory, in particular on the question of how counter-hegemonic discourses of resistance are imaged in Latin American visual culture.

**Niels Bols**, Biology, September 1, 2011 to February 28, 2012 at 100% salary

I propose to spend my sabbatical to start the beginning of the end of 32 years of research at the university. This includes writing manuscripts with my graduate students and international colleagues and organizing and distributing a cell culture collection that I have developed so that other scientists can use the collection in the future.

**Alexander Brenning**, Geography & Environmental Management, January 1, 2011 to June 30, 2011 at 100% salary

The early sabbatical is intended to prepare for the application for Tenure & Promotion in 2011 by conducting research on spatial modeling in mountain geomorphology on campus and abroad. A 3-month stay at Catholic University, Santiago, Chile is planned during this leave. This planned stay would partly be funded by funds available at UW, and partly with funds applied for at the Chilean university.

**Kareen Brown**, Accounting & Finance, January 1, 2011 to June 30, 2011 at 100% salary

The purpose for applying for the leave is to complete unfinished research projects and start a couple of new projects. Currently, I have six research papers under or close to submission to peer-reviewed journals. In addition, I wish to focus on further research on severance pay in North American firms, for which I received a SSHRC grant.

**Anton Burkov**, Physics & Astronomy, January 1, 2011 to June 30, 2011 at 100% salary

I am planning to spend half of the leave at the Kavli Institute for Theoretical Physics in Santa Barbara, California and the second half at the California Institute of Technology in Pasadena, California. Both institutions are among the top places for theoretical condensed matter physics in the world and I expect to greatly benefit from the interaction with the local faculty and visitors.

**Jun Cai**, Statistics & Actuarial Science, January 1, 2011 to June 30, 2011 at 100% salary

Concentrate on the current project supported by NSERC, develop a new project, and carry out cooperative research.

**Naveen Chandrashekar**, Mechanical & Mechatronics Engineering, November 1, 2010 to April 30, 2011 at 100% salary

I am requesting a 6-month sabbatical in order to get trained in some of the new research areas I hope to explore and to catch up with my current research obligations. I would like to finalize research articles and submit them to international journals in preparation for my tenure application which is due at the end of the proposed sabbatical term. I also intend to visit my collaborators in the US and to write new grants.

**Joan Coutu**, Fine Arts, January 1, 2011 to June 30, 2011 at 85% salary

Completion of revisions of book mss. Whigs and Sculpture and research on my new project, “Public Art in Canada in the 1930s.”

**Duane Cronin**, Mechanical & Mechatronics Engineering, May 1, 2011 to April 30, 2012 at 85% salary
The proposed sabbatical will be focused in two areas. I am planning a short (approximately 3 months, starting in May 2010) academic visit (location TBD) to further my work in the area of Impact Biomechanics. The remainder of the sabbatical will be dedicated to supporting several large research projects currently underway including my project as a Centre of Expertise for the GHBMC.

Kenneth Davidson, Pure Mathematics, January 1, 2011 to June 30, 2011 at 100% salary
I plan to pursue my research program in operator algebras. I will remain based in Waterloo with a number of short trips to collaborate with various co-authors. I will continue to supervise my graduate students during this period.

Diana Denton, Drama & Speech Communication, January 1, 2011 to December 31, 2011 at 85% salary
Write articles/ a book on leadership based on her research/interviews conducted with leaders across sectors from 2008-present. As the co-lead on the Federal Public Service Leadership initiative (a collaboration with the federal public service and McMaster University), I will initiate and oversee the expansion of this initiative to universities across Canada.

Kaan Erkorkmaz, Mechanical & Mechatronics Engineering, January 1, 2011 to December 31, 2011 at 91.9% salary
During January-August 2011, I plan to conduct research at the University of Stuttgart, Institute for Control Engineering of Machine Tools and Manufacturing Units (ISW) on ball screw drive position/vibration control. During September-December 2011, I intend to conduct research at Koç University (Turkey) on optimal trajectory planning for freeform machining. I also intend to teach a graduate course at Koç.

Myra Fernandes, Psychology, January 1, 2011 to June 30, 2011 at 85% salary
During my proposed 6-month sabbatical I have three goals. First, I will visit colleagues at the University of Hong Kong to give an Invited Colloquium talk, and to exchange ideas relating to current models of memory and cognitive decline associated with normal aging. During my visit to the Psychology Department there, I plan on collecting data in a short experiment, in which memory for Chinese characters is measured, as these data can be compared to those collected here at the University of Waterloo to establish the generalizability of results. Second, I will design and implement a neuroimaging study at Grand River Hospital in which I examine brain regions contributing to memory performance in normal aging senior citizens. Third, I will focus on writing manuscripts (3 to 4 of these) stemming from projects in my lab conducted over the past 2 years.

Geoffrey Fong, Psychology, January 1, 2011 to June 30, 2011 at 100% salary
I will continue to work in my role as Chief Principal Investigator of the International Tobacco Control Policy Evaluation Project; the research project is across 20 countries which focuses on evaluating the impact of tobacco control policies of the WHO Framework Convention for Tobacco Control, the world’s first-ever health treaty.

Brian Forrest, Pure Mathematics, January 1, 2011 to June 30, 2011 at 100% salary
I will use my sabbatical leave to continue my research on Banach algebras arising from locally compact groups. In particular, I intend to work on problems concerning the Fourier algebra with my postdoctoral fellow Michael Cheng. I will also organize a large international conference in Banach Algebras to be held at Waterloo in August 2011.

Michael Fowler, Chemical Engineering, January 1, 2011 to June 30, 2011 at 100% salary
The sabbatical leave period will be used to strengthen research collaborations with industrial partners, develop new research proposals, design and build a significant new electrochemical
power source test bench in a new research area, and to move the current experimental research lab to the new building. A new research program will be developed with respect to zinc bromine flowing electrolyte batteries.

**Liping Fu**, Civil & Environmental Engineering, January 1, 2011 to June 30, 2011 at 100% salary

*During this requested sabbatical leave, I will focus on three main activities including organizing a technical conference, expanding my research field and applying for new research funding. Furthermore, I plan to strengthen professional relationships with some leading research institutes around the world.*

**Murray Haight**, Planning, January 1, 2011 to June 30, 2011 at 100% salary

*During this leave I will pursue two projects. The first is a new initiative focused on planning and managing biomedical waste in Cameroon. The second ongoing waste management project in Hainan, China is focused on expanding an already successful community-based composting project.*

**Bruce Hellinga**, Civil & Environmental Engineering, January 1, 2011 to June 30, 2011 at 100% salary

*I will be spending my sabbatical at the Technical University of Delft in the Netherlands and working with several faculty members in the Department of Transport and Planning. This work will focus on the issue of transportation reliability.*

**Laura Johnson**, School of Planning, July 1, 2011 to December 31, 2011 at 85% salary

*I plan to develop a book manuscript on the results of my SSHRC-funded, longitudinal, qualitative research on tenants' experience of displacement, relocation, and resettlement in the redevelopment of their Regent Park public housing.*

**Joseph Kim**, Statistics & Actuarial Science, January 1, 2011 to June 30, 2011 at 100% salary

*Concentration on research and collaboration with other researchers.*

**Luna Khirfan**, Planning, January 1, 2011 to June 30, 2011 at 100% salary

*Early sabbatical leave during winter which will allow me to publish several papers in progress, finish my book contract with Ashgate Publishing and carry out research on the cross-national transfer of planning knowledge of two case studies Toronto-Amman, and Vancouver-Abu Dhabi.*

**Greta Kroeker**, History, January 1, 2011 to June 30, 2011 at 100% salary

*I plan to work on my new book project, the Era of Catholic Innovation. To that end, I will visit archives in Toronto, Berkeley, Basel (Switzerland) and Paris.*

**John Lawrence**, Pure Mathematics, January 1, 2011 to June 30, 2011 at 100% salary

*This is a six-month sabbatical to continue research on Gröbner bases and applications to decision problems.*

**Norbert Lutkenhaus**, Physics & Astronomy/Institute for Quantum Computing, January 1, 2011 to June 30, 2011 at 100% salary

*During my leave, I will be interacting with collaborating groups in Canberra, Erlangen, Innsbruck, Zurich, Osaka and Singapore to push forward research in the theory of optical quantum communication. The research will involve the further development of theoretical tools in analyzing the security of practical quantum cryptography protocols, but also benchmarking of quantum communication devices.*

**Alicja Muszynski**, Sociology & Legal Studies, July 1, 2011 to June 30, 2012 at 100% salary
Of several ongoing book projects, I plan to complete a draft of a manuscript on women and immigration, tracing developments from the 1950s to 2010 with a focus on Canadian immigrants and refugees in Waterloo Region. Over the past few years I have been researching immigrants and refugees settling in this region from various of the African countries. I also plan to produce several journal articles.

**Linda Nazar**, Chemistry, January 1, 2011 to June 30, 2011 at 100% salary
I will be spending most of my time to jump-start a new “Energy Materials” initiative/institute here, based on funding recently donated to UW. I will also spend a month of the sabbatical carrying out research at Caltech; and possibly another at the Technical University of Delft.

**Selcuk Onay**, Management Sciences, November 1, 2010 to April 30, 2011 at 100% salary
Planning to use my sabbatical leave mainly on developing two research ideas that have always been of deep interest. One of these projects is on the role of time perception in intertemporal choice and the other one is on ambiguity aversion over time. In addition to pursuing new projects, I am planning to complete a revision and to finish up a paper that is about to be submitted.

**Francis Poulin**, Applied Mathematics, January 1, 2011 to June 30, 2011 at 85% salary
First, I plan to travel to visit Peter Franks at UCSD. Second, I will visit with Xavier Carton from L’Universite de Bretange Occidental. Third, while in France I will visit Alex Stegner and Guillaume Lapeyre of Ecole Normale Superiere to work on two different projects. Fourth, I will visit my doctoral advisor, Glenn Flierl, at MIT.

**Robert Prus**, Sociology & Legal Studies, January 1, 2011 to June 30, 2011 at 85% salary
I will use this leave time primarily to continue studies on a project that traces the study of human knowing and acting in Western social thought from the classical Greek era to the present time. This project is part of a much larger sociological study of community life that has characterized my career as a scholar.

**Kevin Purbhoo**, Combinatorics & Optimization, January 1, 2011 to June 30, 2011 at 100% salary
I will be working on ongoing research projects in enumerative geometry and algebraic combinatorics, and finishing partially written papers. Research topics include: geometry of Orthogonal Grassmannians, the Belkale-Kumar product, negative correlations for spanning forests. The majority of my time will be spent in Waterloo, with some travel to visit with collaborators.

**Julia Roberts**, History, January 1, 2011 to June 30, 2011 at 100% salary
I am requesting a sabbatical leave in the winter term of 2011, as negotiated when I accepted this position three years ago, in order to work on a SSHRC funded book manuscript.

**Magdy Salama**, Electrical & Computer Engineering, January 1, 2011 to December 30, 2011 at 96.1% salary
During my sabbatical year 2011, I’ll be focusing on my research activities and supervising my graduate students. I have recently established a new research direction in Smart Distribution Systems with Hydro One and Nature Resources Canada and I need to put a concentrated effort to make this initiative succeed. I am the principal investigator in four major research grants (plus my operation and equipment grants) and I am a research collaborator in another three research grants. Also with the new structuring of the Renewable Energy Resources (wind and solar), there are great opportunities for research funding in this area, and during my sabbatical I’ll be participating in these activities.
Barbara Schmenk, Germanic & Slavic Studies, January 1, 2011 to June 30, 2011 at 85% salary
Conduct research at some of the most important libraries at German universities in Applied Linguistics/Language Education and Philosophy of Education (Bochum, Gießen, Berlin).

Mathias Schulze, Germanic & Slavic Studies, January 1, 2011 to December 31, 2011 at 85% salary
I will continue my SSHRC funded research collaboration (2010-13) with a colleague at Simon Fraser on the instructional design of online tutoring systems for language learning and will begin writing a book on learner variability and computer-assisted language learning, which is built on research on the application of Complexity Science to Second Language Acquisition Research and Computer-Assisted Language Learning.

Sherman Shen, Electrical & Computer Engineering, January 1, 2011 to December 31, 2011 at 85% salary
I will spend most of the time on campus, working on ORF/RE and NSERC research projects, supervising more than 20 graduate students. I will also initiate new research direction in e-health and prepare new NSERC CRD and ORF-RE proposals to support the research. In addition, I will make short visits to universities and research institutes in Japan, Singapore, and China for research collaboration in wireless communication networks and in e-health. I will also edit and write books on Vehicular Communications networks.

Winifried Siemerling, English Language & Literature, January 1, 2011 to June 30, 2011 at 85% salary

Ajit Singh, Electrical & Computer Engineering, January 1, 2011 to June 30, 2011 at 85% salary
For the past two years, I have been working in the area of battery power conservation techniques on various types of handheld communication devices. I believe I have some very valuable leads in this area. I would like to devote all my energy to pursuing this topic further. Even though my last sabbatical was only about a year ago, I believe I must work on this topic while it is timely and also immensely important to cell-phone and smart-phone industries.

Theophanis Stratopoulos, Accounting & Finance, January 1, 2011 to June 30, 2011 at 100% salary
The purpose for applying for the leave is to complete my unfinished research projects and start a couple of new projects. Currently, I have three research papers for further revisions and resubmissions to top-tier journals. In addition, I have five research projects that are in progress and several research ideas to further explore.

Ireneusz Szarycz, Germanic & Slavic Studies, January 1, 2011 to June 30, 2011 at 85% salary
This leave will allow me to complete my SSHRC-supported book project on Aleksandr Grin (1880-1932), which I started during my 2006-2007 sabbatical leave. My second project is to write an article on The Maya Indian Prophecy in Dmitrii Glukhovskii’s Novel Sumerki (Twilight), which will pilot another book project on the Apocalypse in Contemporary Russian Literature.

Xiaowu (Shirley) Tang, Chemistry, January 1, 2011 to June 30, 2011 at 100% salary
The purposes of this sabbatical leave are to accelerate research activities, publish results, apply for research funding, establish collaborations, advance knowledge through short-term stays in world-class laboratories.

Thomas Vance, Accounting & Finance, January 1, 2011 to June 30, 2011 at 100% salary
I will remain here on campus and focus on three tasks: 1) Ensuring that my completed projects
do not languish in the review process (i.e. promptly respond to review feedback); 2) Converting the results of planned Fall 2010 data collection into a new working paper; 3) Collecting data on new project currently under design.

**Tara Vinodrai**, Geography & Environmental Management, January 1, 2011 to June 30, 2011 at 100% salary
I will be conducting field research in Copenhagen, Denmark for my SSHRC-funded study of design-led innovation in advanced economies. I will be applying to be a Visiting Scholar at the Copenhagen Business School. I plan to present research at Uppsala and Lund Universities, as well as two international conferences. Finally, I hope to complete several writing projects in preparation for tenure.

**Zhou Wang**, Electrical & Computer Engineering, January 1, 2011 to June 30, 2011 at 100% salary
The main purposes of this sabbatical leave are to enhance external research collaborations, and to attend top conferences and exchange research ideas with peers in the field. Targeted institutions for visit include University of Ottawa, CRC, New York University, University of Texas, Peking University, Microsoft Research and Hong Kong Polytechnic University. Targeted conferences include SPIE Electronic Imaging and IEEE-ICASSP.

**Linda Warley**, English Language & Literature, January 1, 2011 to June 30, 2011 at 85% salary
I will be Visiting Professor in the Department of English at the University of Zagreb, Croatia. I will teach an undergraduate course on Canadian Multicultural Literature; I will consult with colleagues – both faculty and graduate students – about their research projects. I will also continue my own research on digital life writing and finish an article on Canadian graphic memoir and social class.

**John Wright**, Mechanical & Mechatronics Engineering, January 1, 2011 to June 30, 2011 at 85% salary
Green building design is an emerging and high priority field. There is a strong demand for glazing/shading system models to conserve energy and reduce CO₂ production. Software produced with ASHRAE contract and NSERC network funding has been well received. Plans include (a) implementation in several major commercial simulation packages and (b) creation of a rating tool with graphical interface.

- **Sabbatical Leave Changes**
  - **William Cunningham**, Combinatorics & Optimization, change from July 1, 2010 to June 30, 2011 to August 1, 2010 to July 31, 2011 at 100% salary.
- **Beth Jewkes**, Management Sciences, change from September 1, 2010 to August 31, 2011 to November 1, 2010 to October 31, 2011 at 100% salary.

- **Sabbatical Leave Cancellation**

- **Administrative Leave**
  - **Susan Wismer**, Environment & Resource Studies, January 1, 2011 to April 30, 2011 at 100% salary
  This leave will allow me to continue research activities and publication preparation, carrying on from work in the current sabbatical in three areas: women and water resource management; biofuels as a catalyst for sustainable livelihoods in India; ecology, gender and environmental ethics.
• Administrative Leave Change
  William Cunningham, Combinatorics & Optimization, change from July 1, 2011 to October 31, 2011 to August 1, 2011 to November 30, 2011 at 100% salary.

FOR INFORMATION

2. Administrative Appointments
   Howard Armitage, re-appointment as Executive Director, Centre for Business, Entrepreneurship & Technology, Faculty of Environment, July 1, 2010 to December 31, 2010.

   James Barnett, re-appointment as Director, School of Accounting & Finance, Faculty of Arts, August 1, 2010 to July 31, 2014.

   Paul Fieguth, appointment as Chair, Department of Systems Design Engineering, Faculty of Engineering, September 20, 2010 to August 31, 2013.

   Richard Helmes-Hayes, appointment as Interim Chair, Department of Sociology & Legal Studies, Faculty of Arts, July 1, 2010 to June 30, 2011.

   Michael Hudson, appointment as Associate Dean, Computing, Faculty of Science, September 1, 2010 to August 31, 2013.

   Ed Jernigan, re-appointment as Director, Centre for Knowledge Integration and Waterloo Unlimited, Faculty of Environment, September 1, 2010 to August 31, 2013.

   George Labahn, re-appointment as Associate Dean of Graduate Studies & Research, Faculty of Mathematics, July 1, 2010 to June 30, 2011.

   Guy Poirier, appointment as Chair, French Studies, Faculty of Arts, September 1, 2010 to August 31, 2014.

   Frank Safayeni, appointment as Interim Chair, Department of Management Sciences, Faculty of Engineering, July 1, 2010 to December 31, 2010.

   Jennifer Simpson, appointment as Interim Chair, Department of Drama & Speech Communication, Faculty of Arts, October 1, 2010 to June 30, 2011.

   Ian VanderBurgh, re-appointment as Director, Centre for Education in Mathematics Computing, Faculty of Mathematics, July 1, 2011 to June 30, 2014.

   Nancy Waite, appointment as Interim Director, School of Pharmacy, Interim Associate Dean of Science for Pharmacy and Interim Director, Health Science Campus, Faculty of Science, July 1, 2010 to December 31, 2010.

   David Welch, appointment as Interim Director, Balsillie School of International Affairs, Faculty of Arts, May 1, 2010 to June 30, 2011.

   Steven Young, re-appointment as Interim Director, School of Environment, Enterprise & Development, Faculty of Environment, July 1, 2010 to June 30, 2011.
FOR APPROVAL

1. New Tuition Fee
   Bachelor of Global Business and Digital Arts
   Recommendation: Commencing fall 2011, a new fee of $1,230 per 0.5 unit course to a maximum of $5,500 per term for domestic students. Fees for international students to be $2,107 per 0.5 unit course to a maximum of $10,535 per term.

Since the fees proposed for this professional undergraduate program are higher than the regular arts and science regulated fees for domestic students, the fee is also subject to approval by the Ministry of Training, Colleges and Universities (MTCU). Students in the Global Business and Digital Arts program will complete their first two years of the program on the Waterloo campus. They will attend the Stratford campus to complete years three and four. The global business and digital arts honours program meets MTCU’s requirements as a professional undergraduate program. As such, the university is permitted to assess higher fees than the regulated arts and science programs.

2. Incidental Fees
   International Development Field Placement Fee
   Recommendation: A compulsory fee of $3,000 to be charged to full-time students in their fourth year of the International Development undergraduate program. The fee will be charged in three equal payments of $1,000 in their last three registered terms (4A, 4B, 4C).

The fee will fund services provided by World University Service of Canada (WUSC) and is for 2011 placements. Future changes to the fee will be negotiated with WUSC as per the Memorandum of Understanding. Students in the International Development program are required to participate in an eight-month international placement in their fourth year. The university guarantees a field placement in a developing country for all students and has contracted with WUSC to provide the placement, orientation and supervision services. The entire fee is transferred directly to WUSC. The fee has the support of the Student Association of International Development.

Federation of Students Administered Fee
   Recommendation: That the Federation of Students Administered Fee be increased to reflect changes in U-Pass (bus pass) component effective January 2011 (winter term).

<table>
<thead>
<tr>
<th></th>
<th>Dental</th>
<th>Health</th>
<th>U-Pass</th>
<th>SRP*</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regular</td>
<td>$45.38</td>
<td>$50.00</td>
<td>$52.94</td>
<td>$1.00</td>
<td>$149.32 (increase $1.19 for U-Pass)</td>
</tr>
<tr>
<td>Co-op</td>
<td>$81.59</td>
<td>$92.50</td>
<td>$52.94</td>
<td>$1.00</td>
<td>$228.03 (increase $1.19 for U-Pass)</td>
</tr>
</tbody>
</table>

- SRP = Student Refugee Program
- The Federation of Students has contracted with StudentCare for the health and dental components and with Grand River Transit for the bus pass component
- The university assesses the fee on behalf of the Federation of Students and transfers the funds to the Federation of Students for disbursement
- Payment of the fee is a requirement of registration; the health and dental components are refundable through the Federation of Students and their service provider; the bus pass is non-refundable; the Student Refugee Program is refundable through the Federation of Students
- During the winter term, regular students pay twice the rate for health and dental to continue coverage from May to September

Dennis Huber
Vice President,
Administration & Finance

A12
Environmental Scan

- **International Overview.** Waterloo’s international rankings have fluctuated this year. The Academic World Ranking of Universities, also known as the Shanghai ranking, reports that this year Waterloo improved its 2009 ranking, tying with the University of Calgary in the 151-200 category. Last year, Waterloo was listed in the 201-300 category. The new QS World University Rankings has released its 2010 report, and Waterloo saw its position slip from 113th in the world to 145th. The QS methodology is based on reputation for academic excellence as judged by professors, research excellence, the quality of students as judged by employers, and internationalization. The Times Higher Education World University Rankings is a new ranking based on research indicators. Waterloo, which was ranked 113th last year, no longer appears in the top 200. We are working to track down the reason for Waterloo’s decline in the QS and Times Higher Education rankings. I will provide further updates on this issue at the meeting.

Canada has slipped from 9th to 10th place in the World Economic Forum’s annual ranking of 139 global economies based on productivity and competitiveness. Canada is behind Denmark, the Netherlands, Finland, Japan, Germany, the United States, Singapore, Sweden, and Switzerland. The report calls for improved private sector sophistication and innovation potential, which we believe can be achieved through greater industry-academic collaboration.

- **National Overview.** The Council of Education Ministers has released its Education Indicators in Canada report that compares Canada to 30 OECD countries. Canadians continue to be among the best educated in the world, with half of Canadian adults completing college or university programs, above the OECD average of one-third. Canada sports a considerable educational advantage in the college sector, with 24 per cent of Canadian adults having completed certificates or diplomas from community colleges, CEGEPS, schools of nursing, and university certificates below the bachelor’s level.

- **Provincial Overview.** Statistics Canada reports that on average, undergraduate tuition increased by 4 per cent to $5,138 for 2010-2011, up from $4,942 last year. Ontario holds the distinction of carrying the highest average fees in the country, at $6,307, which is an increase of 5.4 per cent over last year. Quebec continues to have the lowest average undergraduate tuition in the country, with an average of $2,415.

    The government has withdrawn funding to a number of university outreach programs for “first-generation” students whose parents did not attend university, choosing instead to fund retention efforts for those students once they have arrived on campus.

- **Local Overview.** Waterloo Region’s Vital Signs 2010 reports that progress has been made in terms of education – the high school non-completion rate has dropped 20 points since 1990. As well, poverty rates in Waterloo Region are declining.
Report of the
Associate Provost, Students Working Group
June 10, 2010

Working Group Members

Allan Babor, Meg Beckel, Mario Coniglio, Mike Makahnouk, Janet Passmore, Bud Walker, Roger Mannell (Chair), Bruce Mitchell, Deep Saini, Bud Walker

Working Group Terms of Reference

1. Conduct a broad review of student service functions at the University of Waterloo and recommend a new or modified structure for the student services portfolio.

2. Develop a position profile and job description for Associate Provost, Students.

Vision: An Emphasis on Student Success

The vision is for student services at the University of Waterloo to foster and support a “student-centred environment” to ensure student success. Student success is broadly defined as retention, graduation and educational attainment (Kuh et al., 2005). Successful students persist, benefit in desired ways from their university attendance, have a satisfying university experience and graduate (Manning et al., 2006). At Waterloo, student services include a broad range of activities and programs that are supported and managed by a number of units in the central University administration, the six Faculties and the affiliated university colleges. Underlying the vision for student services is the expectation that current services and future service innovations should be comprehensive, coherent and well coordinated.

Approach

The recommendations in this report and the proposed Associate Provost, Students’ position profile were guided by the above vision and informed by the experience and current responsibilities of the working group’s members and existing Waterloo documents including the Sixth Decade Plan (2007), Beyond the Classroom: Living-Learning Project Report (2005) and Student Engagement Task Force Report (2008). Also, various reviews of student services’ practices and models were examined, including Manning et al.’s (2006) book on traditional and innovative models of student services’ practice, gathered from universities in Canada and the United States. Other information available to the working group included a summary and overview of Waterloo’s student service functions and their organizational location and an inventory of initiatives that currently exist centrally and in the six Waterloo Faculties for promoting student success and retention. The inventory was completed by Bud Walker. Also, Bud, in his role as Interim Associate Provost, Student Services, organized a workshop.

1 The title “Associate Provost, Students” has been used throughout this document. A number of people, including some members of the working group, feel that the removal of the word “services” places the focus where it should be, that is, on student outcomes and not services, which, themselves, are only a vehicle for the support of a student-centred environment.
involved Waterloo student services staff to gather information on the extent to which Waterloo student service areas are student centred or success oriented and to obtain views on developing a student success approach. A report on the outcomes of this workshop was prepared for the working group by Ron McCarville. Information was also provided by Career Services and Aboriginal Student Services at St. Paul’s.

This report primarily deals with services and supports for undergraduate students who complete the majority of their academic programs at the University of Waterloo’s main and satellite campuses. Services for students who are for the most part involved in extended learning and for graduate students also will need to be reviewed and further enhanced.

**Context**

The Sixth Decade Plan creates expectations that the University community will foster conditions that will “distinguish” Waterloo. In particular, it is expected that Waterloo will strive to increase the “quality of the student experience and learning through deeper integration of experiential learning” as well as “support services to enhance the quality of student life and the formation of strong alumni links with Waterloo.” Developing a student success culture is central to improving the quality of the student experience. All members of the university community share responsibility for student success. Student success refers to what is often called the development of the “whole student.” The goal is to positively influence Waterloo students’ character as much as their academic knowledge and skills, and their emotional well-being as well as their grade point average.

Various factors are driving the need for a student-centred or student-success approach besides the Sixth Decade Plan’s general directive to enhance the quality of student life. There is growing awareness of the need to increase students’ satisfaction with their experience at Waterloo, improve student retention rates, effectively compete with other educational institutions in attracting high quality students and adapt to students’ changing needs. In the case of changing needs, Waterloo attracts an increasingly culturally diverse student body that needs support. In addition to these factors, the Sixth Decade Plan identifies the need to increase the engagement of alumni with the University – a positive relationship is known to exist between a student success orientation and the maintenance of life-long connections with alumni.

Organizationally, student services that contribute to an effective student success orientation should have the following characteristics: (1) integrated – it must involve all the elements that comprise student life at the university (academic and non-academic); (2) flexible – student service provision should facilitate a dynamic setting in which creative and adaptive responses to student needs occur; (3) timely – efforts to enhance student success should quickly and effectively respond to student needs as they arise and begin with the very first contacts with students and continue after they have graduated; (4) supportive – the emphasis should be on meeting the needs of the various student groups and while doing so satisfy administrative and program requirements; and (5) quality driven – the goal should be to offer services in a manner consistent with the principles of service quality (empathy, responsiveness, reliability, etc.).

To make the student success vision a reality, some restructuring of existing student services will be required and some new services will need to be developed. Also, an Associate Provost, Students (APS) is
required who shares this vision and can act as its champion. This individual must be able to work effectively with other people and units at Waterloo with student service functions to achieve the vision.

**Current Organizational Structure for Student Services**

Many student services are located in the central administration in Academic and Student Affairs (see Appendix 1), Student Services, and University Business Operations. However, student-related services are also managed by the six Faculties and by other units in the central Waterloo administration under the direction of the Associate Provosts of Human Resources (e.g., student leadership development) and Information Systems and Technology (e.g., student computing), the Secretary of the University (e.g., parking and policing), and Associate Vice-President, Academic (Writing Clinic, Centre of Extended Learning, Centre for Teaching Excellence, WATPORT, Undergraduate Program Reviews) and Associate Vice-President, International (e.g., Waterloo International).

The Student Services portfolio is overseen by an Interim Associate Provost, Student Services who also oversees the University Business Operations portfolio (see below). These portfolios include services that for the most part are important student services. Also, included and labelled “governance” areas are committees of which the Interim Associate Provost is a member and that provide coordination of service service/university business functions with student service functions located in other Waterloo units.

1. **Current Departments/Units**

   a. **Current Student Services**

      i. Athletics and Recreational Services
      ii. Health Services
      iii. Counselling Services
      iv. Office of Persons with Disabilities
      v. Theatre Centre
      vi. Day Care Centres
      vii. **Student Life Office (is currently being transformed into a unit that will address student success through a significantly enhanced new-student transition program, service learning, parent programs, engagement initiatives, faculty mentorship programs, leadership training, and other purposeful student engagement activities)**

   b. **Current University Business Operations**

      i. Housing and Residences
      ii. Food Services
      iii. Retail Services
      iv. WatCard Office

   c. **Services Co-Managed with FEDS**

      i. Campus Bar Operations
      ii. Student Life Centre
      iii. Student Resource Office
2. Current Governance Areas

a. Oversight of student issues, policy, initiatives and government (FEDs & GSA)
b. Chairing of committees on student technology, alcohol management, food, LGBTQ, AODA, transition etc.
c. Membership or oversight with respect to a number of governance bodies (Athletics Advisory Board, Res Council, Town & Gown committee, student relations committees, SSAC, and several ongoing student committees)
d. Executive Council

Reorganization and Development of the APS Portfolio

It is recognized that some of the essential characteristics (i.e., integration, flexibility, timeliness, supportive and quality) necessary for an effective student success structure are not present to the extent that they need to be because of the:

1. centralized and decentralized nature of Waterloo’s structure and challenges of coordination;
2. distributed nature of the centralized student services and functions; and
3. lack of recognition of the importance of a student success orientation and culture for the overall health and reputation of Waterloo.

As an initial step in restructuring and reorganizing student services, a number of changes can be made immediately. However, further restructuring and reorganization of student services will be required as Waterloo builds its student success orientation and capacity and the Waterloo community comes to appreciate and support the development of a student success culture. Underlying this process of restructuring and reorganization, a “recruitment to being an alumnus lifecycle” approach should be taken that ensures that the student-centred focus begins with student recruitment and extends throughout the student experience to graduation and beyond.

It is recommended that an immediate restructuring and reorganizing involve: (1) creating a new Office of Student Success as part of the APS portfolio; (2) identifying those existing Student Service departments, units and programs, and those departments, units and programs from other areas that will report to this Office; (3) reviewing student service functions and developing plans for new services that should eventually be part of the APS portfolio; and (4) arranging for improved governance structures to enhance collaboration and coordination between student service/success units that will not immediately or ever become departments/units/programs in the APS portfolio. Regarding this latter point, strategies to ensure effective coordination between units and functions must be developed whether they report to the new APS or are located in Faculty or other central administrative units. Important and valuable contributions are made by these services but one of the significant challenges can be lack coordination. The restructuring and reorganization will assign substantial authority to the APS but this individual will have to work closely with those involved with student services, programs and activities across the University. Consequently, a governance model should link the APS to all student service functions either through a direct and indirect reporting structure within the APS portfolio or indirectly through appropriate coordinating governance committees to student service functions in other units outside the APS portfolio.
The proposed structure and governance arrangements for the APS portfolio are described below. The organizational chart can be found in Appendix 2. Also identified and discussed are several units, functions or services that will need further review before a decision is made about relocating them to the APS portfolio.

1. Departments/Units/Programs

   a. The departments, units and programs that currently report to the Interim Associate Provost, Student Services should be included in the APS portfolio. The larger APS portfolio will need additional resources and a new support structure, which would include the creation of an Office of Student Success and the hiring of a Director of this Office who would report to the APS.

   In the new Office of Student Success, the programs and services listed below as items i. to v. should be included when the Office is created while services vi. and vii. require further study and discussion before a recommendation is made². Items viii. to xii. are examples of programs and services being developed or planned and could be located in the Associate VP Academic, Associate Provost Academic and Student Affairs or the APS portfolios³.

   i. Transition (start-up skills, bridge programs, transition programs, parent programs)
   ii. Learning support (supplemental instruction, advising, tutoring, study skills)
   iii. Student Development (leadership, mentorship, co-curricular record)
   iv. Entrepreneurship (centre & programs, Velocity)
   v. Applications management (student portal, mobile apps, incident/alert system)
   vi. Career services (currently AP Academic and Student Affairs)
   vii. International student support (currently AP International)
   viii. Bridge programs (possibly Student Success Office)
   ix. Central advising (possibly Student Success Office)
   x. Central tutoring (possibly Student Success Office)
   xi. Learning skills development (possibly Associate VP Academic)
   xii. Learning communities (possibly Associate VP Academic)

   b. A “Student Success Centre” is currently being promoted to the student leaders for their support. It would be a physical centre in a new building integrating many of the student support areas into a one-stop concept for career/academic advising, tutoring, supplemental instruction, counselling, entrepreneurship, transition, disability/accessibility support, study space, English skills, learning skills, development skills, technology support, a campus job centre and graduate student facilities. It should report to the Office of Student Success.

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² Career Services and Waterloo International (the student support functions) could become part of the Student Success Office. It is very difficult to disentangle the academic and support roles for Waterloo International and it may be more useful for it to be in the unit overseen by the Associate VP International. However, the student support functions in Waterloo International would benefit from more formal linkage with the APS portfolio to offer more effective services and support to International students including recruitment.

³ Other possible student services that could be developed have been identified such as an Office of Student Advocacy.
c. An integrated “wellness” unit formed by combining Health Services, Counselling and the Office for Persons with Disabilities eventually should be created. In the meantime, they will each report independently to the APS.

d. Some retention initiatives could become part the Student Success Centre.

2. Governance areas

   a. Governance structures such as the Student Relations Committee and Student Services Advisory Committee already exist and both are under the Associate Provost, Academic and Student Affairs. The APS should be a member of these committees.

   b. There should be new student services/success committees to provide oversight for student entrepreneurship and the proposed Student Success Centre.

**Position Profile/Job Description for the New Associate Provost Students**

Based on the above recommendations for the development of a student-centred or student-success oriented culture at Waterloo and the recommendations for the immediate as well as possible future restructuring of student services and the creation of a Student Success Office, a position profile was drafted (see Appendix 3) for the type of individual needed to provide leadership to guide and facilitate these developments.

**References**


Appendix 1

Associate Provost, Academic and Student Affairs Portfolio

1. Departments/Units
   a. Registrar’s Office (includes student awards, undergrad recruitment, etc.)
   b. Library
   c. Co-operative Education and Career Services
   d. WatPD
   e. Academic Integrity Office
   f. Space

2. Governance Areas
   a. Faculty Relations
   b. Staff Relations and Compensation
   c. Student Relations committees
   d. Student Services Advisory Committee
   e. Senate membership
   f. Other areas where Associate Provost is involved in governance on the academic side – Deans Council, Executive Council, Aboriginal Programs at St. Paul’s, Chairs Forum, etc.
Appendix 2

Organizational Chart for the Proposed Associate Provost, Students Portfolio
**Student Facilities**
- IT support
  - Application development
  - Student tech environment
  - Mobile/web apps development
- Buildings/space
  - SLC
  - Student Success Ctr Building
  - Student non-academic space
  - Theatre Centre
- Watcard
- Daycare

**Wellness**
- Health Services
- Counselling Services
- OPD

**Student Success Office**
- Transition
  - Academic skills start-up
  - Advising/counselling
  - Bridge programs
  - Culture change awareness/support
  - Parent programs
  - High school to university programming
  - Welcome week/orientation
  - Social acclimatization support
  - Info & orientation re: services
  - Fall term transition courses
- Entrepreneurship
  - Centre for entrepreneurship
  - Entrepreneurship programs
  - VeloCity
- Student Applications Management
  - Portal
  - Mobile, learning and web apps
  - Incident system (alert system)
- Learning Support
  - Academic advising
  - Central tutoring
  - Supplemental instruction
  - Study skills
- Career Support
  - Career advising
  - Placement
  - Campus jobs centre
  - Career Centre
- Student Development
  - Leadership
  - Mentoring
  - Peer programs
  - Co-curricular record (e-portfolios)
  - Student development programs
  - Volunteerism
- International student support

**Committee Oversight**
- Transition steering/mgmt
- STAC
- Alcohol & Education
- Food Advisory Board
- Diversity awareness
- Wellness Management (new)
- Athletic Advisory Board
- Residence council
- SLC Management Board
- Ad Hoc Committees:
  - Buildings/student space
  - Student policy, initiatives & issues
- Entrepreneurship (new)
- Success Ctr Board (new)
- AODA
- Orientation

**Committee Membership**
- Executive Council
- Info Group
- Town & Gown
- Persons of concern
- Campus Response Team
- SSAC
- Undergrad Relations
- Grad Relations
- Undergrad Operations

*Two new positions are proposed: Associate Provost, Students; Director, Student Success Office.*

**These units are to be implemented in 2011/12. Until then, Health Services, Counselling, OPD, WatCard, Theatre Centre, SLC and daycare will continue to report directly to the AP Students.*

***Subject to further examination and discussion, these are potential units in the SSO.***

**Note:** Units shaded in grey above have no relevant change from their current function.
Appendix 3
Draft Position Profile

University of Waterloo
Associate Provost, Students

The Opportunity

The University of Waterloo is seeking an outstanding leader for the position of Associate Provost, Students. Known as Canada’s most innovative university and home to the world’s largest post-secondary co-operative education program, Waterloo is committed to providing a holistic, student-success oriented learning environment in the context of its pursuit of global excellence. The new Associate Provost will play a key role in the realization of these ambitions.

The University

Located in the Waterloo Region of Ontario and in the heart of Canada’s Technology Triangle, the University of Waterloo has become one of Canada’s leading comprehensive research universities with 23,100 full-time undergraduate, 1700 part-time undergraduate students, 3,300 full-time graduate students, and 670 part-time graduate students from more than 100 countries. Through the co-operative education program, opportunities are provided for students to experience the symbiotic benefit of academics integrated with practical public and private sector work experience. Waterloo has developed a reputation for producing leaders of tomorrow through the excellence and relevance of its undergraduate and graduate education in both co-operative and regular programs delivered through six Faculties: Applied Health Sciences, Arts, Engineering, Environment, Mathematics and Science. Waterloo also has strong relationships with its federated and affiliated university colleges: St. Jerome’s University, Conrad Grebel University College, Renison University College, and St. Paul’s University College. Founded in 1957, the University’s 1000-acre Waterloo campus remains the hub, with campuses now in the neighbouring cities of Cambridge and Kitchener and the United Arab Emirates, and plans for a campus in Stratford. There are 977 faculty and 2,277 staff at Waterloo.

The Position

As the chief student services officer for the University of Waterloo, the Associate Provost, Students (APS) will provide vision, leadership and strategic direction for all the departments, units and programs in this portfolio dedicated to creating and maintaining an institutional climate fostering student learning and development for an increasingly diverse student body. The APS has overall responsibility for developing and implementing the strategic vision for student life and student services at Waterloo as well as administering these services. This vision requires the APS to serve as a steward of the quality of student life and to provide leadership to enhance the student learning environment to ensure a total educational experience and the development of student personal growth. The goal is to promote student success, that is, the development of the “whole student” by positively influencing Waterloo’s students’ character as much as their academic knowledge and skills, and their emotional well-being as well as their grade point average. The APS advises senior administration on issues and policies related to student life, including dealing with students in crisis, non-academic misconduct by students, and the ongoing development of a student code of conduct. The position also requires the maintenance of ongoing, excellent working relationships with leaders of student government and business acumen as
the APS has ultimate responsibility for an 80 million dollar budget and works with the Federation of Students concerning student fees, culture and policies and procedures. The APS will also work closely with the Associate Provost, Graduate Studies to meet the needs of graduate students.

The APS will provide oversight of the following areas: Student Success Office, Athletics and Recreational Services, Health Services, Counselling Services, Office of Persons with Disabilities, Housing and Residences, Food Services, Retail Services, WatCard Office, Theatre Centre and Day Care Centres as well as co-managing with the Federation of Students Campus Bar Operations, Student Life Centre and Student Resource Office. Further, the APS will be responsible for student leadership development, crisis and risk management, communications, financial and resource management, the advancement of diversity and inclusion, and student advocacy. The successful candidate will strive to achieve Waterloo’s goals, as articulated in its Sixth Decade Plan, by developing and implementing collaborative working relationships. The APS reports to the Vice-President Academic and Provost and serves as a member of the University’s Executive Council.

The Candidate Qualifications

Waterloo seeks a distinguished, proactive, and visionary candidate with: a vision for and strong commitment to a quality student experience in a large, public, residential, research university; a record of progressive executive leadership in an academic setting; excellent communication skills; an understanding of the major issues facing today’s university students; experience applying best practices and addressing a wide range of business, administrative, and legal issues in post-secondary education and student services; experience managing professional staff and significant financial resources; successful collaborative experiences with key constituencies including students, faculty, staff, and community partners; experience in the development and implementation of various student and emergency protocols; collaborative experiences with academic units that have facilitated co-curricular student learning experiences; a commitment to and demonstrated experiences with diversity and inclusion as an integral component of a quality university experience; and strong leadership and administrative skills including planning and evaluation, budgeting, personnel management, fundraising, assessment, and facilities management. The successful candidate will have a demonstrated awareness of the range of student services structures in use in post secondary education today. A graduate and/or a professional degree are the preferred credentials, but the search committee will consider other backgrounds.

The Appointment

The new Associate Provost’s 5-year appointment will commence on ?????, or as soon as possible thereafter, and may be renewed. The Search Committee will begin consideration of candidates in September 2010. Nominations and applications, including relevant qualifications and accomplishments, should be submitted in confidence to the address shown below.

Waterloo respects, appreciates and encourages diversity. In accordance with Canadian Immigration requirements, priority will be given to Canadian citizens and permanent residents, but nominations and expressions of interest are invited from any qualified member of the global community. Also, please see www.hr.uwaterloo.ca.

All inquiries regarding this position will be treated in strict confidence and should be directed to...
UNDERGRADUATE STUDENT RETENTION ISSUES, OPPORTUNITIES AND INITIATIVES

William Chesney
Mario Coniglio
Wayne Loucks
Geoff McBoyle
Ron McCarville
David McKinnon
Bruce Mitchell
Mark Seasons

UNIVERSITY OF WATERLOO

30 April 2010
SUMMARY

The University of Waterloo ranks behind Queen’s, Western, Toronto, Guelph and Wilfrid Laurier University in retaining students between first and second year. As a result, it is recommended that Waterloo aim to improve its overall comparative retention rate of 89% in 2008-2009 of first year students to 90%, and then systematically increase it to 93%. A retention rate of 93% would place Waterloo second behind Queen’s in the Province of Ontario.

Retention is a complex matter, and no single approach or solution will improve retention. Rather, best practice requires a mix of coordinated and collaborative initiatives by both central units and Faculties.

The committee recommends that central units of Waterloo in 2010-2011 take action to: (1) improve provision of accurate and realistic information about support services to undergraduate students; (2) provide a one-stop portal service, especially to help students who decide to change academic programs; (3) ensure specific needs of international visa students are identified, and appropriate support is available; and, (4) initiate exit interviews for all students who leave Waterloo before completing a degree, as well as for a sample of students who graduate from Waterloo, to inquire about issues that challenged or supported their retention.

The committee also recommends that Faculties in 2010-2011 take action to: (1) improve provision of accurate and realistic information about Faculty-specific support services to their undergraduate students. This will require coordination with central units providing other information; (2) introduce early warning and intervention initiatives to identify and help students at risk in their academic programs; and (3) facilitate a student-focused learning environment, including enhanced student engagement. A key component will be to provide more and enhanced mentoring, by faculty, staff and senior undergraduate students.

Finally, the committee recommends that Waterloo needs to give attention to: (1) developing capacity for routinely monitoring progress related to retention; (2) designating responsibility for oversight for retention management; (3) determining incremental resources required to allow enhancement of existing support or introduction of new support activities; and (4) designing specific activities to deal with retention issues.
1. **INTRODUCTION**

An Undergraduate Student Retention Committee was created by the Vice President Academic and Provost, with endorsement by Deans Council, in the Fall term 2009, with a mandate to: (1) document and examine current retention rates; (2) propose realistic objectives regarding enhanced retention; and (3) identify best practice initiatives that should be improved or introduced. All of these aspects were to be considered in the context of the Sixth Decade Plan’s statement that, “To achieve UW’s academic excellence goals, each academic program is expected to: (1) attract excellent students, and (2) offer strong scholarly plans and programs …” These statements in the Sixth Decade Plan indicate that improved retention will not be sought at the expense of reducing quality of academic programs, or allowing students who are not performing satisfactorily to continue.

2. **COMMITTEE MEMBERSHIP AND APPROACH**

The Retention Committee membership includes the Associate Provost, Academic and Student Affairs (Chair), the Associate Vice President Academic, and the 6 Associate Deans, Undergraduate Studies.

In addition to reviewing literature related to retention and examining practices at other universities, the Committee met regularly during the Fall 2009 and Winter 2010 terms. Consultation occurred with members of the Faculty Relations Committee, the Manager of Residences, and residence dons, and the Undergraduate Student Relations Committee. In addition, the Associate Deans consulted with 94 first year students and 54 senior year students in the Faculties, as well as with 33 faculty teaching first year courses, plus 9 support staff.

3. **BASIC CONCEPTS**

*The students who withdraw in first year fall into two categories: those genuinely dissatisfied with the program offered and those who give up before they realize the program’s benefits. It is the second group that the University should target .... (Instructor in first year course)*

*Living away from home for the first time was a bit of a shock, not having access to friends and family. I was homesick early on in the year. (First year undergraduate student)*

The literature identifies various concepts or categories related to students and retention (http://www.answers.com/topics/college-student-retention):

1. **Stayer/Retained**
   A student who enrolls each term until graduation, studies full time, and graduates in 3 or 4 years (regular general or honours student) or in 5 years (co-op student), from either the program initially enrolled in or from another program at UW.
(2) Leaver
A student who begins an academic program but withdraws before graduation and never returns to UW. Students leave in two categories: (1) in good standing, or (2) required to leave due to unacceptable academic standing.

(3) Transfers
A student who starts at UW, but subsequently transfers to another university or college.

(4) Stopout
A student who re-enrolls, after voluntarily leaving UW.

(5) Slowdown
A student who begins at UW on a full-time basis, but later becomes a part-time student.

Although the above categories do not capture every situation, they do reflect different situations most likely to be encountered. In this report, the focus is upon full-time first year undergraduate students, and the issues they face in making a successful transition to second year. Attention is on the 'stayer/retained' and 'leaver' categories. It also is recognized that some students will leave Waterloo for good reasons, such as when accepted into a professional program (Dentistry, Law, Medicine, etc.) before completing an undergraduate degree.

4. PERSPECTIVES ON RETENTION

Retention is not a problem. If it's retention of individuals who cannot pass first year courses – then I think it's questionable why we are trying to 'retain' these students. You risk 'dumbing down' courses to artificially increase the number of 'passes', and you do a huge disservice to those individuals who are capable of handling more demanding material – they are not challenged, nor required to do more than average work. Is this really a monetary problem? Because if it is, trying to solve it by massaging course work to 'retain' students is the last thing that should be done. (Instructor in first year course)

Yes: We don't want to lose capable students if they are unprepared through no fault of their own (e.g., poor quality high school). No: We don't want to retain students who are not capable of meeting our standards. (Instructor in first year course)

The whole transition was difficult. Living away from home was a huge adjustment. Also the work load was very different, and handling my time is hard to learn how to do. (First year undergraduate student)

In order to improve overall retention, student persistence, academic success and graduation rates, it is necessary to identify effective student retention initiatives and support to enable more students to meet their academic goals. In addition to helping
students graduate, retained students also benefit the institution financially, as noted by the following statement from Brock University:

... the cost of recruiting students is significantly higher than the cost of retaining students. Indeed, it is often cited that the cost of recruiting one new student to the university approximates the cost of retaining 3 – 5 students already enrolled. (Brock University, 2007, Undergraduate Retention Strategy, February 13th: 1, 2)

No ‘silver bullet’ or ‘standard recipe’ exists to enhance retention. Various measures can be used to help students persist and successfully complete their degrees, but the specific approach has to fit the culture of a specific university and its students. Furthermore, a single initiative is unlikely to have a significant impact. A mix normally is required, requiring systematic coordination and collaboration among different units to ensure activities are complementary. Finally, it is critical that students are aware of the support to help them. A common challenge for universities is to ensure students are aware of services they can use to help them if they are having problems. Students may not be aware of the range of support, or encounter systemic difficulties in accessing what is available. The above conclusions are supported by the following comments from other institutions.

Regarding the need for a mix of coordinated strategies and initiatives, Colorado State University has stated that:

No single program or collection of unconnected strategies will produce meaningful change. Improvement [of retention] requires a ‘web of interlocking initiatives’ that engage many students in profound ways and increase the quality of the undergraduate experience.

(Colorado State University, http://www.president.colostate.edu/retention.aspx.)

The above conclusion is reiterated by the experience at the University of North Carolina.

Retention has been studied extensively over the past fifty years and there exists no single answer for improving retention and graduation rates. Students leave college for varying reasons .... It is important to note that many students who leave college do so for reasons other than poor grades.

... most experts agree that any successful intervention effort must involve a comprehensive plan in which all areas of the campus work together to improve student learning and engagement in the campus community. (University of North Carolina, Charlotte, 2005, The Role of Faculty in Undergraduate Retention Efforts, September 19:1).

In terms of benchmarking against retention rates in the United States, the following statement from the Encyclopedia of Education provides perspective:
The highest institutional retention rates in the country are above 95 percent, while the lowest may be only 10 percent. Typical graduation rates for elite schools may be 85 percent or higher; for average schools about 50 percent; and for non-elite schools 15 to 25 percent. Freshmen are most likely to drop out of school, .... For an average institution, freshman to sophomore attrition is about 25 percent; sophomore to junior year attrition is about 12 percent; junior to senior year attrition is about 8 percent; and about 4 percent of seniors might leave school. (http://www.answers.com/topic/college-student-retention).

5. RETENTION INFORMATION: WATERLOO RELATIVE TO CANADA AND ONTARIO

5.1 Retention Rates in Ontario and selected other Canadian Universities, 2006-2007, 2007-2008 data, for Fall Cohort of First-Year, Degree-Seeking, Full-time students

Five Ontario universities had higher average retention rates (Queen’s, 94.9%, Western, 91.5%, Guelph, 90.4%, Toronto, 90.3% and WLU, 89.4%) than Waterloo (88.2%) for first year students in 2006-2007 and 2007-2008 (Appendix 10.1). McGill at 91.6% is also ahead of Waterloo. Data from the same source also show that the Waterloo retention rate for 2008-2009 was 89.0%, with comparable data from the other universities not available until the summer of 2010. Most of these other universities are recognized as having large graduate programs and being research intensive, yet do better than Waterloo regarding retention of undergraduates.

In addition, some students with very high academic standing leave Waterloo, and the understanding is that they do so because they are not satisfied with the ‘Waterloo experience’. We also know that some students leave before completion in order to attend professional programs at other universities. The interest at Waterloo related to retention should be on the first category.

Given the better retention rates of other research intensive universities in Ontario, we recommend a Waterloo objective of 90% for an overall retention rate for students moving from first to second year (based on the methodology to calculate retention shown in Appendix 10.1). We propose that Waterloo should aim to increase overall retention by 1% annually until the 90% target is reached, and then aim to continue improving retention until a 93% target is achieved.

5.2 Retention by Faculty at Waterloo (Performance Indicators Reports, 2006, 2007, 2008, 2009)

Waterloo monitors undergraduate degree distribution by academic Faculty. Each cohort of students is tracked to determine the percentage graduating with a degree from their Faculty of first registration, graduating from another Waterloo Faculty, still
studying, or having withdrawn. We also calculate the three-year average of the number of full-time terms to complete a degree in their Faculty of first registration.

When the Ministry of Training, Colleges and Universities measures degree completion rates, it typically allows a six-year window for students in a four-year program to complete their degrees. Since students in a co-operative program generally require an extra year to complete their academic studies, due to their work term employment, we typically allow a seven-year window.

There is considerable variation in retention and withdrawal rates by Faculty for the cohorts between 1999-2000 and 2002-2003 (Appendix 10.2). For the 2002-2003 cohort, Engineering has the lowest withdrawal rate (10%), followed by Mathematics and Applied Health Sciences (17% each), Environment (22%), Science (23%) and Arts (27%). However, several Associate Deans have noted that the current attrition rate in their Faculties has been increasing since the figures shown in Appendix 10.2, indicating that the attrition rate is likely higher than shown in that Appendix. The actual situation in each Faculty needs to be documented with up-to-date information, to establish baselines against which to track changes.

Given the different nature of academic programs, and different retention base lines related to the withdrawal rates mentioned above, the same approach to improve retention will not be appropriate. For example, initiatives effective with the cohort classes in Engineering are unlikely to be transferable to most other Faculties. As a result, while there will be value in Waterloo-wide efforts to improve retention, there also needs to be capacity to meet needs in individual Faculties – one size will not fit all.

One of the difficulties with the public data is the lag between the student being unsuccessful (in first or second year) and the time it shows up in the retention data. This means that any change to improve retention will not be evident for many years. To address this situation, it is recommended that internal measures be defined and goals established by each Faculty. Appendix 10.3 provides retention information from IAP for 1, 2 and 3 elapsed years. It may be that one Faculty may decide to focus on increasing retention as measured after 2 elapsed years and another after 3. Information about withdrawal rates by Faculty is provided in Appendix 10.4.

It is recommended that, once there is endorsement for the proposals in this report, each Faculty determine the number of incremental students it will retain in order to reach a 90% retention rate in 2010-2011 for Waterloo overall, relative to the CSRDE data in Appendix 10.1, and then move to a goal of 93% retention for Waterloo overall.

6. MAIN RETENTION ISSUES AT WATERLOO

_I don't know how to, a priori, distinguish the unprepared from the incapable._ (Instructor in first year course)

_I found time management the hardest, and I underestimated the work load, and the difficulty of the courses. I do not feel that high school prepared me enough. I struggled a lot first term._ (First year undergraduate student)

Based on a review of the literature, examination of experiences at other universities, and consultation with students and first year instructors at Waterloo, our
conclusion is that retention requires engagement by students, faculty and staff. Furthermore, faculty are key individuals related to retention. Faculty need to understand their role related to retention, and what initiatives they can take, individually and collectively, to help students achieve success in courses and programs. Main retention issues include:

(1) Some guidelines and practices (e.g., aspects of progressions rules) reduce flexibility and impede efforts to improve retention.
(2) Waterloo provides some forms of support to help domestic students overcome difficulties and challenges related to retention. However, less support is provided for specific needs of many international students. Furthermore, for both domestic and international students, too often they are not aware of this support, and therefore do not take advantage of it. Thus, communication with students must be improved to alert them about existing support.
(3) Given that Waterloo has support services related to retention, existing services must be delivered in a collaborative, coordinated, and timely manner.
(4) Some students are in denial about the problems they are encountering or may not be motivated to seek help. As a result, Waterloo has to be more effective in identifying as early as possible students who need assistance (e.g., by the middle of their first academic term) and then in being systematically proactive in connecting with them.
(5) Parents are increasingly involved in their children’s lives while at university, especially in first year. Waterloo needs to enhance information and insight provided to parents about Waterloo and the first year experience.
(6) Waterloo’s reputation is of an institution with high quality programs which are very demanding and require focus and high commitment from undergraduate students. Furthermore, the very best students often have opportunity to receive enriched programs and to be celebrated. Less able students are weeded out. Attention is needed to ensure any student admitted to Waterloo receives appropriate support to be as good as he or she can be, and understands that they are valued.
(7) If a student concludes he or she is not in an appropriate program, or a Faculty concludes the student should not continue, and then the student wishes to move to another program within the same Faculty or in another Faculty, Waterloo does not provide effective support to facilitate examination of choices and help in the transfer process.
(8) Students consulted during this review indicated that many students do not feel they are part of a Waterloo community, and instead often feel isolated and alone.

Any initiatives to improve persistence and retention should relate to at least these eight issues. In Sections 7 and 8, we identify best practices which allow universities to address such issues.
7. BEST PRACTICES FOR RETENTION

I had a hard time learning how to study for exams. In high school, studying for an exam meant reading my notes once and making sure I knew the equations. I can't do that anymore. (First year undergraduate student)

Difficulties included adjusting to a variable class schedule; managing time between classes, homework, and leisure time; developing an effective work ethic that was suitable to each class; finding new friends. (First year undergraduate student)

My impression is that as many as 20% of first-year students are wasting everyone's time, and their parent's money. It would be a better service to them and the academic integrity of the University if they were sent away to mature before being re-admitted. (Instructor in first year course)

Frequently used best practices, which become components of an overall retention strategy, include (based on: http://www.answers.com/topic/college-student-retention; http://www.retain.unl.edu/bestpractices.shtml)

(1) bridge programs that introduce high school students to university courses.
(2) orientation or transition programs emphasizing academic strategies, social support and information about campus life.
(3) programs for parents to help them understand student life and the support structures in place to help students make the transition from high school to university.
(4) first-term courses that continue and extend orientation
(5) academic advising, as well as psychological and social counselling.
(6) development of academic skills, including time management, tutoring, course specific skills.
(7) instructors provide early (within first 3 weeks of class) assessment so students have early feedback before mid-term exams or first assignments are due.
(8) mid-term check for all first year students.
(9) early alert and intervention system focused on students encountering difficulties.
(10) social programming for information socializing as well as physical places for socializing.
(11) programs to celebrate cultural diversity.
(12) exit interviews.

8. OPPORTUNITIES FOR WATERLOO TO ENHANCE RETENTION

These are all useful activities. To my mind, the "big failing" comes in getting students who need these support activities to take advantage of them (sending them more e-mail messages, or posting more signs, etc., will not help, I don't think). My perception is that students are already bombarded with a tonne of information they simply ignore and/or cannot understand. (Instructor in first year course)
I do know that those students who are having difficulty with courses, do not seek out appropriate help or advice. For example, I have in past years withheld midterm grades of those who fail in the hopes that they would come to see me to get their mark, and in so doing take an opportunity to see where they are going wrong and get my assistance. This did not work for me - the majority of these students never contacted me and seem quite content not knowing their midterm grade. I'm sure we can offer many useful initiatives, but if the students don't uptake them, it will not help. (Instructor in first year course)

The NSSE 2008 survey asked students if they came to class without having completed readings or assignments. The percentage of first year students at Waterloo indicating they had not completed readings or assignments was AHS (35.7%), Arts (38.9%), Engineering (26.4%), Environment (43.7%), Math (28.6%) and Science (35.4%). The responses by students in their graduating year were AHS (40.4%), Arts (34.7%), Engineering (53.3%), Environment (32.4%), Math (42.7%) and Science (54.8%).

I would say, in general people don't like it here much, they just learn to deal with it for 5 years. Make it more pleasant. (Undergraduate student)

Students feeling engaged and having profs take interest in them is important. If the prof knows their name or has office hours, is personable and interested in the students it makes a difference. (Undergraduate student)

With regard to the issues identified in Section 6, the Retention Committee believes that, over time, Waterloo can improve retention by enhancing current practices and by introducing new initiatives to:

(1) improve provision of accurate and realistic information about support services to undergraduate students.
(2) ensure students receive program advice before they arrive at Waterloo, and then continue to receive program advice when in first and subsequent years.
(3) improve existing support services, such as those offered by Counselling and the Writing Center, to ensure needs are met in a timely manner.
(4) introduce early warning and intervention initiatives to identify and help students at risk in their academic programs.
(5) create and offer a new for-credit course for students required to withdraw after their first academic term due to unsatisfactory academic performance. The new course will focus on competencies and skills necessary for academic success.
(6) ensure specific needs of international visa students are identified, and appropriate support is available.
(7) provide a one-stop portal service, especially to help students who decide to change academic programs.
(8) review curricula to ensure a focus on learning and understanding rather than primarily on content.
(9) provide appropriate information to parents while undergraduate students are enrolled for their degrees.
(10) Use exit interviews to allow students to reflect on their experience at Waterloo, and to provide advice about changes which might be made to make that experience better.

The Retention Committee believes that it is not realistic for all of the above 10 activities to be enhanced or introduced at the same time. As a result, it recommends that priority be given by Waterloo to the following in 2010-2011:

(1) Improve provision of accurate and realistic information about support services to undergraduate students.

(2) Provide a one-stop portal service, especially to help students who decide to change academic programs.

Regarding a one-stop student portal service, the committee envisions it to be an e-portal, but also leading to a human presence. Ideally, students would find their way to the correct advice after clicking or talking through some fundamental questions. Either way, the initial experience would be fairly uniform and thorough, and follow a template.

The student portal would allow a student to easily consider the various dimensions of her/his situation, and then seek the appropriate advice. It would first help a student to place her/his situation into one of a number of categories: is the issue primarily academic (I'm in the wrong program; I'm flunking), personal (I'm depressed), financial, or social (I'm disconnected; I'm bored). Careful thought would be needed to determine the right categories, and how cross-over matters (which could well dominate: I'm depressed because I'm flunking and I'm flunking because I'm depressed) could be designed to still lead a student to the right outcome: my problem is first emotional, therefore I am directed towards counselling, and secondarily academic, so I will also seek academic advice with a better understanding of my issues.

(3) Ensure specific needs of international visa students are identified, and appropriate support is available.

(4) Initiate exit interviews for all students who leave Waterloo before completing a degree, as well as for a sample of students who graduate from Waterloo, to inquire about issues that challenged or supported their retention.

The Retention Committee is aware that another group led by Bud Walker is working to design a new transition program for first year students to replace the existing orientation program. Therefore, action is underway regarding the need “to ensure students receive program advice before they arrive at Waterloo, and then continue to receive program advice when in first and subsequent years.”

Faculties should consider initiatives to complement the above activities by central units, recognizing that what will be appropriate will vary among Faculties. The committee recommends the following:
(1) Improve provision of accurate and realistic information about Faculty-specific support services to their undergraduate students. This will require coordination with central units providing other information.

(2) Introduce early warning and intervention initiatives to identify and help students at risk in their academic programs.

(3) Facilitate a student-focused learning environment, including enhanced student engagement. A key component will be to provide more and enhanced mentoring, by faculty, staff and senior undergraduate students.

9. **NEXT STEPS**

The Retention Committee concludes that attention is required regarding several aspects to ensure progress is achieved to improve retention. In particular, decisions should be taken related to the following:

9.1 **Monitoring Progress related to Enhanced Retention**

Up-to-date retention data related to the progression of first year undergraduate students into second year need to be established for two levels: overall University, and for each Faculty.

Such data should be generated annually by Institutional Analysis and Planning, and be included in the annual key indicators report published by Waterloo.

A long-term goal, beyond the mandate of the Retention Committee, should be to collect and track other data reflecting changes, if any, in academic standing by students who access support services relative to students who do not. By collecting such data, it will be possible to determine systematically the value added by various retention initiatives.

9.2 **Oversight for Retention Planning and Management**

One management position should be assigned the role for overall retention planning and management, recognizing that such planning and management also will have to occur within each Faculty. Furthermore, there must be a close connection with Institutional Analysis and Planning, given its key role in compiling data related to retention.

Three positions are obvious candidates to take on oversight for retention: (1) Associate Vice President Academic, (2) Associate Provost, Academic and Student Affairs, or (3) Associate Provost, Students. The latter position is now being created, and it has been suggested in the draft report regarding this position that retention be allocated to its portfolio.

Given that the next Associate Provost, Students likely will not be hired until the autumn, the committee recommends that one of the other two positions should be given this oversight role immediately, in order to ensure actions are taken. Once the new Associate Provost, Students’ role is determined, there should be an assessment about which senior position should have ongoing responsibility for overseeing retention.
The committee also believes a Waterloo Undergraduate Retention Committee should be created and chaired by the central Waterloo person with responsibility for retention. Its membership would include an individual from each of the six Faculties and also from selected academic support units. Such a group should be in operation for the autumn term, 2010.

9.3 Incremental Resources

Assuming support is confirmed for enhancing existing services related to retention and/or adding new services, incremental financial and human resources will be required. The nature and amount of such incremental human and financial resources will need to be determined for both central and Faculty initiatives. Without such incremental financial and human resources, it is unlikely that significant progress will be achievable.

9.4 Specific Initiatives

Specific activities will need to be developed once there is agreement about direction and general means. For example, regarding early warning and intervention initiatives targeted at students at risk, what specific activities should be developed to facilitate early warning and follow up with proactive support? Regarding accurate and realistic information, which specific information needs to be provided and/or improved, and what are the best ways to get it to first year students? Identifying such specific activities will require attention by academic support units and Faculties.
## 10. APPENDICES

### Appendix 10.1 Summary of CSRDE Results

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<thead>
<tr>
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</thead>
<tbody>
<tr>
<td></td>
<td>Year1 - Year2</td>
<td>Year2 - Year3</td>
<td>Rank</td>
</tr>
<tr>
<td>Brock</td>
<td>86.6</td>
<td>74.0</td>
<td>85.5</td>
</tr>
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<td>Carleton</td>
<td>86.7</td>
<td>80.3</td>
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<td>90.2</td>
</tr>
<tr>
<td>Lakehead</td>
<td>86.7</td>
<td>79.3</td>
<td>86.0</td>
</tr>
<tr>
<td>Laurentian</td>
<td>83.4</td>
<td>76.8</td>
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</tr>
<tr>
<td>McMaster</td>
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<td>84.2</td>
<td>86.2</td>
</tr>
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<td>84.3</td>
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<td>79.2</td>
<td>88.9</td>
</tr>
<tr>
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<td>90.1</td>
<td>81.6</td>
<td>90.4</td>
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<tr>
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<td>81.5</td>
<td>73.6</td>
<td>80.6</td>
</tr>
<tr>
<td>Waterloo</td>
<td>88.5 (7)</td>
<td>83.6 (5)</td>
<td>87.9</td>
</tr>
<tr>
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<td>81.5</td>
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<tr>
<td>Laurier</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Windsor</td>
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<td>74.7</td>
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<td>Dalhousie</td>
<td>80.2</td>
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</table>

Notes: The CSRDE survey is based on a 4-year duration, regular program. Waterloo’s co-op program retention is adjusted to match the "regular" pattern. That is, the 5-year co-op cohort is restated to match the equivalent 4-year regular cohort who started at the same time. Ranking for Waterloo is indicated with O.
CSRDE uses Fall to Fall counts, so it is not dependant on the year-level of the student. i.e., a student in year-level 1B in their second year is counted as continuing to year 2. Coop students are allowed 1 extra year for graduation purposes, e.g., a coop student graduating in 5 years is reported as having graduated in 4 years on the CSRDE submission report. Continuation and Graduation rates are reported as a percentage of initial cohort, e.g., 100 students in 2006/07 cohort, 88% continue to year 2, 78% continue to year 3 means out of the initial 100, 78 have progressed to their 3rd year, i.e., to Fall 2008. CSRDE reports by total, gender, and international student levels.


<table>
<thead>
<tr>
<th>Faculty</th>
<th>Degree from Faculty of First Registration</th>
<th>Graduate From Another Faculty</th>
<th>Still Studying</th>
<th>Withdrawn</th>
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<tr>
<td><strong>AHS</strong></td>
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<td>79%</td>
<td>9.2%</td>
<td>.7%</td>
<td>11%</td>
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<tr>
<td>2000/2001 (279)</td>
<td>70.6%</td>
<td>7.9%</td>
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<td>2001/2002 (294)</td>
<td>71.4%</td>
<td>6.8%</td>
<td>14%</td>
<td>20.4%</td>
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<tr>
<td>2002/2003 (358)</td>
<td>76%</td>
<td>5%</td>
<td>2%</td>
<td>17%</td>
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<tr>
<td><strong>ARTS</strong></td>
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</tr>
<tr>
<td>1999/2000 (1162)</td>
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<td>2.1%</td>
<td>2.1%</td>
<td>25.4%</td>
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<tr>
<td>2000/2001 (1017)</td>
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<td>25.8%</td>
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<tr>
<td>2002/2003 (1306)</td>
<td>69%</td>
<td>1%</td>
<td>3%</td>
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<tr>
<td><strong>ENG</strong></td>
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<tr>
<td>1999/2000 (978)</td>
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<td>9.4%</td>
<td>1.8%</td>
<td>10.4%</td>
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<tr>
<td>2000/2001 (800)</td>
<td>84%</td>
<td>4.8%</td>
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<tr>
<td>2001/2002 (804)</td>
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<td>2002/2003 (882)</td>
<td>83%</td>
<td>3%</td>
<td>4%</td>
<td>10%</td>
</tr>
<tr>
<td><strong>ENV</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1999/2000 (235)</td>
<td>76.6%</td>
<td>3.8%</td>
<td>.4%</td>
<td>19.1%</td>
</tr>
<tr>
<td>2000/2001 (212)</td>
<td>74.1%</td>
<td>4.2%</td>
<td>1.9%</td>
<td>19.8%</td>
</tr>
<tr>
<td>2001/2002 (265)</td>
<td>74.7%</td>
<td>6.8%</td>
<td>1.5%</td>
<td>17%</td>
</tr>
<tr>
<td>2002/2003 (278)</td>
<td>68%</td>
<td>8%</td>
<td>2%</td>
<td>22%</td>
</tr>
<tr>
<td><strong>MATH</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1999/2000 (975)</td>
<td>77.5%</td>
<td>5.1%</td>
<td>1.7%</td>
<td>15.6%</td>
</tr>
<tr>
<td>2000/2001 (991)</td>
<td>77.8%</td>
<td>5.8%</td>
<td>2.8%</td>
<td>13.6%</td>
</tr>
<tr>
<td>2001/2002 (1050)</td>
<td>75.9%</td>
<td>7%</td>
<td>1.8%</td>
<td>15.3%</td>
</tr>
<tr>
<td>2002/2003 (1028)</td>
<td>72%</td>
<td>7%</td>
<td>4%</td>
<td>17%</td>
</tr>
<tr>
<td><strong>SCI</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1999/2000 (688)</td>
<td>68.2%</td>
<td>10.6%</td>
<td>.9%</td>
<td>20.3%</td>
</tr>
<tr>
<td>2000/2001 (523)</td>
<td>66.3%</td>
<td>9.8%</td>
<td>5%</td>
<td>18.9%</td>
</tr>
<tr>
<td>2001/2002 (639)</td>
<td>67.8%</td>
<td>10.2%</td>
<td>1.7%</td>
<td>20.3%</td>
</tr>
<tr>
<td>2002/2003 (630)</td>
<td>64%</td>
<td>6%</td>
<td>7%</td>
<td>23%</td>
</tr>
</tbody>
</table>

*Percentages do not always total 100% due to rounding errors.
Fiscal Year Cohort of First-Year, Degree-Seeking, Full-time students. Includes students who have their first term in the Spring, Fall, or Winter term of a particular fiscal-year, as opposed to CSRDE which only looks at students starting in the Fall term. Continuation rates are also measured as of succeeding fiscal years as opposed to CSRDE which only checks to see if a student is in succeeding Fall term as a point of measurement. The Retention Cube contains more reporting dimensions than CSRDE and is better suited for internal comparison. This cube has 3 variations By Faculty, By Department, and by 2nd Year Entry Department. Additionally, it contains a “snapshot” dimension to show what each cohort looked like in years out from the start of the cohort.

Students are placed in 4 categories: 1. Degree in Same Faculty/Dept, 2. Degree in Different Faculty/Dept, 3. Still Registered, and 4. Withdrew. This cube also has an Academic Standing dimension to show the academic standing of students. The ADR Retention Cube is the source for both the Academic Department Review retention information and the degree distribution charts in the annual Performance Indicator Report.
Appendix 10.3 Waterloo Retention Information from IAP for 1, 2 and 3 elapsed years

<table>
<thead>
<tr>
<th>Faculty</th>
<th>Cohort</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>University</td>
<td>COHORT 2001/02</td>
<td>0</td>
<td>282</td>
<td>510</td>
<td>640</td>
</tr>
<tr>
<td>University</td>
<td>COHORT 2002/03</td>
<td>0</td>
<td>280</td>
<td>531</td>
<td>653</td>
</tr>
<tr>
<td>University</td>
<td>COHORT 2003/04</td>
<td>0</td>
<td>298</td>
<td>541</td>
<td>682</td>
</tr>
<tr>
<td>University</td>
<td>COHORT 2004/05</td>
<td>0</td>
<td>385</td>
<td>657</td>
<td>832</td>
</tr>
<tr>
<td>University</td>
<td>COHORT 2005/06</td>
<td>0</td>
<td>314</td>
<td>562</td>
<td>740</td>
</tr>
<tr>
<td>University</td>
<td>COHORT 2006/07</td>
<td>0</td>
<td>350</td>
<td>617</td>
<td>780</td>
</tr>
<tr>
<td>University</td>
<td>COHORT 2007/08</td>
<td>0</td>
<td>365</td>
<td>652</td>
<td></td>
</tr>
<tr>
<td>University</td>
<td>COHORT 2008/09</td>
<td>0</td>
<td>379</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: 0 elapsed years is the year of entry and so none have withdrawn as yet

Retention rates for the same data as in the above Table.

<table>
<thead>
<tr>
<th>Faculty</th>
<th>Cohort</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>University</td>
<td>COHORT 2001/02</td>
<td>100.0%</td>
<td>93.4%</td>
<td>88.0%</td>
<td>84.9%</td>
</tr>
<tr>
<td>University</td>
<td>COHORT 2002/03</td>
<td>100.0%</td>
<td>93.9%</td>
<td>88.4%</td>
<td>85.8%</td>
</tr>
<tr>
<td>University</td>
<td>COHORT 2003/04</td>
<td>100.0%</td>
<td>94.4%</td>
<td>89.8%</td>
<td>87.1%</td>
</tr>
<tr>
<td>University</td>
<td>COHORT 2004/05</td>
<td>100.0%</td>
<td>91.8%</td>
<td>86.1%</td>
<td>82.4%</td>
</tr>
<tr>
<td>University</td>
<td>COHORT 2005/06</td>
<td>100.0%</td>
<td>93.2%</td>
<td>87.9%</td>
<td>84.0%</td>
</tr>
<tr>
<td>University</td>
<td>COHORT 2006/07</td>
<td>100.0%</td>
<td>92.9%</td>
<td>87.5%</td>
<td>84.2%</td>
</tr>
<tr>
<td>University</td>
<td>COHORT 2007/08</td>
<td>100.0%</td>
<td>93.1%</td>
<td>87.6%</td>
<td></td>
</tr>
<tr>
<td>University</td>
<td>COHORT 2008/09</td>
<td>100.0%</td>
<td>93.2%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix 10.4 Withdrawal Rates by Faculty, 2001-2008 and 2001-2006

<table>
<thead>
<tr>
<th>Faculty</th>
<th>Elapsed 1: Withdraw 2001</th>
<th>Elapsed 1: Withdraw 2008</th>
<th>Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>AHS</td>
<td>24</td>
<td>28</td>
<td>4</td>
</tr>
<tr>
<td>ARTS</td>
<td>133</td>
<td>131</td>
<td>-2</td>
</tr>
<tr>
<td>ENG</td>
<td>17</td>
<td>46</td>
<td>29</td>
</tr>
<tr>
<td>ENV</td>
<td>28</td>
<td>34</td>
<td>4</td>
</tr>
<tr>
<td>MATH</td>
<td>24</td>
<td>79</td>
<td>55</td>
</tr>
<tr>
<td>SCI</td>
<td>56</td>
<td>60</td>
<td>4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Faculty</th>
<th>Elapsed 3: Withdraw 2001</th>
<th>Elapsed 3: Withdraw 2006</th>
<th>Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>AHS</td>
<td>60</td>
<td>70</td>
<td>10</td>
</tr>
<tr>
<td>ARTS</td>
<td>252</td>
<td>253</td>
<td>1</td>
</tr>
<tr>
<td>ENG</td>
<td>61</td>
<td>134</td>
<td>73</td>
</tr>
<tr>
<td>ENV</td>
<td>43</td>
<td>31</td>
<td>-12</td>
</tr>
<tr>
<td>MATH</td>
<td>102</td>
<td>123</td>
<td>21</td>
</tr>
<tr>
<td>SCI</td>
<td>120</td>
<td>143</td>
<td>23</td>
</tr>
</tbody>
</table>
Campaign Waterloo: Building a Talent Trust – It’s a wrap!

To coincide with David Johnston’s departure, Campaign Waterloo: Building a Talent Trust officially closed September 30, 2010, raising a remarkable $607 million (final total to be announced on October 26).

Ten years ago, KCI conducted a feasibility study to determine how much money we could fundraise for Waterloo’s students, spaces, and resources. We were told $250 million would be a stretch but could be done with some determination and the right players. Our campaign steering committee—David Johnston, Bob Harding, Mike Lazaridis, Rob Caldwell, Pamela Wallin, Val O’Donovan, Marty Lippert, Purdy Crawford, Dominic D’Alessandro, Laura Talbot-Allan, and Linda Kieswetter—were a bold and daring lot, and added another $10 million to the goal.

We had much to prove, lots of work to do, and a steep learning curve, but we developed a compelling case for support, based on the building a talent trust theme: attracting and rewarding talent, enabling talent, making room for talent, and creating a culture where talent could flourish. Thanks to David Johnston and Bob Harding’s enthusiastic leadership, people got behind the building a talent trust idea with gusto.

Unfortunately, the economy didn’t follow suit. We planned to publicly launch the campaign in 2002 but the tech bubble burst, causing a ripple effect throughout many areas of the economy. We decided to delay the launch, and by 2004 the timing was right.

When we launched the public phase of the campaign with a $260 million goal, we felt audacious stating our fundraising objectives: $150 million for scholarships, chairs, and fellowships; $45 million to enhance teaching and research; $40 million for new buildings and renovations; and $25 million for student programs and enhanced experiences. We had some key projects that we championed such as the next generation library, the Centre for Business, Entrepreneurship, and Technology (CBET), the Canadian Centre for Arts and Technology (CCAT), and the Centre for Education in Mathematics and Computing (CEMC), among many others. These programs, if well-funded, had the potential to be flagship centres of collaboration, education, and innovation.

Ten years, 500 volunteers, and 60,000 donors later, we’ve surpassed our $260 million campaign goal by $347 million—an astonishing feat. The campaign has inspired bold ideas, ambitious plans, and stunning generosity to help Waterloo push boundaries, make new discoveries, and redefine the cutting edge. New centres, programs, and buildings have been created with the help of Campaign Waterloo such as the Institute for Quantum Computing, the Balsillie School for International Affairs, and the Health Science Campus—all possessing great impetus and producing impressive results.

We now have an excellent foundation and great momentum to continue moving full speed ahead with our sixth-decade faculty, university college, and unit–specific fundraising goals. We are Making the Future for Waterloo, and for Canada.

Meg Beckel,
Vice-President, External Relations
FOR APPROVAL

1. **UW Financial Statements, 2009-2010**
   The committee recommends the appended UW Financial Statements for the year ended April 30, 2010.

   Of note:
   - The balance sheet continues to show a strong financial position.
   - Revenues were $735 million, an increase of approximately 9% over the prior year.
   - Scholarships and bursaries paid to undergraduate and graduate students totalled $81 million.
   - The university invested almost $152 million in new capital assets.
   - Endowment market value increased by $30 million.
   There are no audit or accounting issues to note.

2. **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 November meeting, the committee recommends the reappointment of Ernst & Young as UW external auditors for the fiscal year ending April 30, 2011.

FOR INFORMATION

3. **Risk and Risk Mitigation**
   The committee has received several audit reviews and audit follow-up reports. On the basis of reviews of UW management initiatives and approaches, the committee is satisfied that risk mitigation is being addressed.

   Rob Caldwell
   Chair
University of Waterloo  
Board of Governors  
BUILDING & PROPERTIES COMMITTEE  
Report to the Board of Governors  
October 26, 2010

FOR APPROVAL

1. Health Services Building Addition

Motion: That the Board of Governors delegate authority to the Building & Properties Committee to approve the appointment of the architect for the Health Services building addition.

Congruence with 6th Decade Plan: attract excellent students, student engagement through health/wellness services.

Risk: 20-year compulsory student fee is insufficient to cover capital costs plus interest (low probability).

Background: Both the Federation of Students (representing full-time undergraduate students) and the Graduate Student Association (representing both part-time and full-time graduate students) have completed successful referendums approving the collection of a $10/term fee from full-time undergraduate and graduate students and a $3/term fee from part-time graduate students over 20 years to fund this project. The fee commences once the building expansion is ready for occupancy; the fee will be indexed annually by CPI (to a maximum of 2 percent/year). Similar to the existing Health Services building, operating costs (maintenance and utilities) for the expansion space will be covered through the Student Services Fee.

At its June meeting, the board approved the $7,750,000 budget for this project.

Because the university will be in a position to appoint an architect between the October 2010 and February 2011 board meetings, and so this project may proceed without delay, the committee is requesting the above delegation of authority.

FOR INFORMATION


The committee recommends the report to the board and complements Plant Operations on its fine efforts and impressive results with respect to preventive maintenance, deferred maintenance, and energy conservation.

3. General Oversight

The committee reviewed and accepted for information:

- the capital financing commitments associated with the capital projects and advises that these commitments fall within Waterloo’s board-approved debt policy;
- the status of capital projects and advises that by March 31, 2011, Waterloo will be able to fully expend the $50 million funding provided under the Knowledge Infrastructure Program for three capital projects: Engineering 6, Mathematics 3 and Environment 3.

Catherine Booth  
Chair
Plant Operations is the University of Waterloo's largest academic support department, with a gross budget of $31,000,000 and a staff of 350 full-time employees. Plant Operations is responsible for the repair and maintenance of 67 buildings with an area of approximately 6,700,000 gross square feet. Those efforts are managed using a computerised maintenance management system, tracking some 18,000 work orders annually. This web hosted system tracks over 23,000 individual assets, which represent either an entire building or an individual subsystem. This system is used as the basis for a comprehensive preventive / predictive maintenance program and facilitates detailed analysis on asset reliability. The results of vibration testing, oil analysis, thermo graphic scans, insulation resistance and physical checks of equipment are logged and analyzed utilizing this system to prolong the life of existing equipment and identify areas where improvements can be achieved. In addition, approximately sixteen hundred renovation and improvement projects with a total value in excess of $14,000,000 per year are undertaken by various sections in Plant Operations.

Plant Operations is working to lower energy use and reduce our environmental footprint on campus. As a result of these efforts, Waterloo has had one of the lowest energy consumptions per unit area among Ontario universities for the past 20 years.

Our current energy consumption is 1.37GJ / M2 (09/10). Our energy intensity is about 30 per cent lower than the Ontario system average and almost 40 per cent lower than the average commercial / institutional energy use as reported by Natural Resources Canada.

Efforts in energy conservation include:
- Ongoing lighting retrofits use high-efficiency electronic ballasts and lamps, as well as occupancy sensors.
- High-efficiency lighting is mandated during renovations and for new construction projects.
- Variable flow pumping and fan systems result in lower energy consumption.
- Economizer installations recover waste heat from boiler exhaust. An extensive heat recovery system has been installed to allow condensing operation of the central boiler plant.
- Air conditioning systems have been replaced with high-efficiency CFC-free equipment.
- Using automated systems, procedures are implemented on a continuous basis to reduce electrical and heating loads.
- Boiler system operating pressures have been reduced from 1200 to 860 kpa.
- Improvements to steam line insulation have reduced distribution system losses.
- Ventilation system schedules are determined by the expected usage of the area; fans are shut down during periods of minimal occupancy. Night time and weekend temperature adjustments are implemented.
- Building automation systems conserve energy by measuring carbon dioxide, temperature, and humidity to control the amount of outside air required for ventilation.
- Electronic boiler controls adjust oxygen levels to optimize combustion efficiency of major boiler systems.
- Electronic controllers on cooling systems reduce water consumption and control algae and bacteria.
- Roofing projects include upgraded levels of insulation.
- Programs to upgrade single pane windows are currently underway.
- New exterior induction lighting fixtures are being installed.
- Instantaneous water heaters have been installed in high usage areas.
- Air to air heat recovery is being utilized on many new construction projects.
- Free cooling installations are being expanded throughout campus.

Rick Zalagenas
Director, Utilities & Maintenance
University of Waterloo
Board of Governors
FINANCE & INVESTMENT COMMITTEE
Report to the Board of Governors
October 26, 2010

FOR APPROVAL

1. Endowment Fund Investment Guidelines [Attachment 1]
   Motion: To approve the revised guidelines as presented.

   Background: See 2 below.

FOR INFORMATION

2. Finance & Investment Subcommittee [Attachment 2]
   Comprised of four members of the F&I Committee (Gordon who serves as chair, Rai, Watsa and Stacey), this subcommittee, constituted in July, serves as a mechanism whereby the F&I Committee can provide better oversight in fulfilling its mandate and provide direction more quickly/appropriately in volatile markets.

   Consistent with its stated range of activities, the subcommittee has recommended the introduction of a new RPP SIPP investment philosophy which informs and supports other recommendations, including: broadening the ranges of the RPP asset classes (seen as too restrictive), removing the targets (which became an automatic rebalancing mechanism so that investments always trend towards 60 percent equities and 40 percent fixed income - not always appropriate in volatile markets), and the addition of “alternative investments” should they be assessed appropriate for inclusion in the portfolios. These recommendations have been approved by the F&I Committee with respect to Endowment Fund Investment Guidelines [see 1 above] and by the Pension & Benefits Committee as reflected in that committee’s report which follows on the agenda.

3. Committee Membership
   Recommended changes, submitted to the Governance Committee for consideration, will result in a membership with robust financial and financial management expertise.

4. Oversight
   The committee reviewed Waterloo’s endowments and registered pension plan funds portfolios, how it manages its cash assets and is keeping current with provincial movements with respect to pension plan solvency. The committee notes that with respect to the Endowment Fund and arising from the committee’s direction to invest $7.1 million in long-term treasuries, fixed income in the fund was at approximately 52 percent, in excess of the maximum limit of 45 percent as set out in the UW Endowment Fund Guidelines.

Bruce Gordon
Chair
Finance & Investment Committee
Aggregate Investment Limits and Permitted Categories, Asset Mix Policy

### UW Endowment Fund - current

<table>
<thead>
<tr>
<th>Asset Class *</th>
<th>Minimum **</th>
<th>Benchmark Target</th>
<th>Maximum **</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash or Equivalent</td>
<td>0%</td>
<td>0%</td>
<td>10%</td>
</tr>
<tr>
<td>Fixed Income</td>
<td>35%</td>
<td>40%</td>
<td>45%</td>
</tr>
<tr>
<td>Equities</td>
<td>45%</td>
<td>60%</td>
<td>75%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>100%</td>
</tr>
</tbody>
</table>

### UW Endowment Fund - proposed

<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>10%</td>
</tr>
<tr>
<td>Equities</td>
<td>30%</td>
<td>70%</td>
</tr>
<tr>
<td>Alternatives</td>
<td>0%</td>
<td>20%</td>
</tr>
</tbody>
</table>

* These assets can be held in any combination of pooled funds or individual investments.
** Minima and maxima do not sum to the total, as this would introduce artificial constraints.

October 13, 2010
University of Waterloo
Finance & Investment Subcommittee
Terms of Reference

Membership
• a minimum of four and maximum of five members of the F&I Committee
• the chair of F&I will serve as chair of the subcommittee

The president, provost, vice-president, administration & finance and secretary of the university will attend.

Meetings
• at the call of the chair

Mandate
• a vehicle whereby the F&I Committee can provide additional oversight in fulfilling its mandate and provide direction more quickly and appropriately in volatile markets
• a forum for discussions on the economy, investment markets and interest rates and their implications on Waterloo investments, especially pension, endowments and short-term investments of general funds
• range of activities includes: development of investment philosophy; how investment philosophy affects asset mix and selection of fund managers; movement of funds between asset classes and within established ranges
• operates within the terms of reference of the F&I Committee and within board-established investment guidelines/policy

Reporting Structure
• all activity will be reported to the full F&I Committee/administration
• all recommendations will be made to the full F&I Committee/administration with a two- to three-day window for response
• the subcommittee’s activity will be formally reported to each meeting of the F&I Committee
FOR APPROVAL


Motion: To approve an investment philosophy for the UW registered pension plan and to authorize the Pension & Benefits Committee to amend the University of Waterloo Pension Plan (2000) Statement of Investment Policies & Procedures (SIPP) to be consistent with the investment philosophy, provided the amended SIPP is brought back to the board for approval. See Attachment #1.

Background: Following review by the Finance & Investment Committee and Registered Pension Plan Investments Subcommittee, the Pension & Benefits Committee agreed to recommend to the board an investment philosophy which informs and supports the changes to Section 5 of the SIPP recommended below.

Risk: There is no material risk associated with the adoption of the investment philosophy.

2. SIPP: Section 5 – Aggregate Investment Limits and Permitted Categories, Asset Mix Policy

Motion: To approve revisions to Section 5 of the SIPP. See Attachment #2.

Background: Following review by the Finance & Investment Committee and Registered Pension Plan Investments Subcommittee, the Pension & Benefits Committee agreed to recommend to the board the following changes to the SIPP: broadening the ranges of the registered pension plan asset classes, removing the targets, and adding “alternative investments” should they be assessed appropriate for inclusion in the asset mix.

Risk: There is no material risk associated with these modifications. The committee recognizes that by taking away the targets and broadening the ranges, the plan will require more active management. The committee also recognizes that the decision to invest in alternative investments cannot be made without the benefit of expert advice. The committee is in the process of planning information sessions with its advisors in order to determine how best to proceed.

FOR INFORMATION

3. Actuarial Report

The Pension & Benefits Committee approved the filing of the January 1, 2010 actuarial report on September 30, 2010. The university was not required to file a valuation report this year, but the committee felt it was a prudent decision in order to give the university a level of certainty with respect to funding the pension plan over the next four years. [The full report can be obtained from the Secretariat.]

/rmw
October 18/10

Janet Passmore
Chair
The investment philosophy currently selected by the Finance & Investment Committee and approved by the Board is the long-term, value-oriented approach as described below. The long-term value oriented investment philosophy was selected because the Finance & Investment Committee believes this approach will lead to good long-term results and is the most appropriate measure of fund manager performance.

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.

There should be no attempt made to forecast the short term economy or the stock market. The Investment Manager 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 some or all of the following characteristics: low price-earnings, high dividend yields, significant discounts to book value, and low price to free cash flow.

Downside protection is obtained by seeking margin safety in terms of sound financial position and a low price in relation to intrinsic value. Appropriate measures of financial integrity which should be regularly monitored, include debt/equity ratios, financial leverage, asset turnover, profit margin, return on equity, and interest coverage.

As a result of this value-oriented approach, 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. The investment time horizon is one business cycle (approximately 3-5 years).

As regards to bonds, the approach is similar. No attempt is made to forecast the short term economy or interest rates. The manager will attempt to purchase investment grade bonds so that the overall portfolio duration will be plus or minus one year of the DEX Universe, except for:

- US Treasury mandates will not have limitations on duration; and
- High-Yield fixed income mandates will not have limitations on duration and will adopt a benchmark appropriate for the mandate.
- High Yield fixed income mandates can purchase below investment grade bonds or other fixed income securities.

Rating services should not be considered as being an unimpeachable source for assessing credit quality any more than one would regard a broker's recommendation on a stock as being necessarily correct. In any form of investment research and evaluation, there is no substitute for the reasoned judgment of managers.

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 (3-5 years).
University of Waterloo Pension Plan (2000)
STATEMENT OF INVESTMENT POLICIES AND PROCEDURES
January 1, 2010

CONTENTS

1. Purpose
2. Background, Plan Type and Liabilities
3. Allocation of Investment Responsibilities
4. Return Expectations, Benchmark Portfolio, Fund Manager Investment Objectives
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10. Valuation of Investments
11. Borrowing
12. Conflicts Between the Policy and Pooled Fund Investment Policies
13. Dismissal of a Fund Manager
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1. PURPOSE

The primary goal of the University of Waterloo Pension Plan (2000) ("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 accrued under the Plan are escalated annually by the cost-of-living factor described in the Plan. If the cost-of-living factor is 5% or less it is automatically applied to all pensions. If it is greater than 5%, the P&B Committee takes into account the fund’s ability to afford any increase beyond 5%. Liabilities for both active members and pensioners will grow in direct relation to inflation.

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 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 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 policies, objectives and strategies, and a P&B Committee to assist in the management of the pension fund.

Working with the F&I Committee with respect to investment policies, objectives and strategies, the P&B Committee will make recommendations to the Board in the following areas:
the content of this document;
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;
- review pension fund performance on at least a semi-annual basis;
- review 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 P&B Committee;
- forward to the P&B Committee 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 constraints set out in this document;
- provide the P&B Committee with monthly valuation statements for the fund;
- 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 11) 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 Manager is 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 Manager 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 Manager will also use all relevant knowledge and skill that it possesses or ought to possess as a prudent investment manager.

The Consulting Actuary 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 development and 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 the P&B Committee on matters related to investment management and administration of the Plan; and
· meet with 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 four-year period.

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. A portfolio invested in the following asset mix should achieve the return expectation at an acceptable level of investment risk over the long term.

<table>
<thead>
<tr>
<th>Asset Class</th>
<th>Benchmark</th>
<th>Active Canadian Balanced Managers</th>
<th>Active Canadian Equity Managers</th>
<th>Active Global Equity Managers</th>
<th>Passive Canadian Fixed Income and U.S. Equity Managers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canadian Equities</td>
<td>S&amp;P/TSX Composite</td>
<td>10.0%</td>
<td>10.0%</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>U.S. Equities (US $)</td>
<td>S&amp;P 500 (Hedged to $ Cdn)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>10.0%</td>
</tr>
<tr>
<td>Global Equities</td>
<td>MSCI World $ Cdn</td>
<td>-</td>
<td>-</td>
<td>30.0%</td>
<td>-</td>
</tr>
<tr>
<td>Fixed Income</td>
<td>DEX Universe Bond</td>
<td>6.7%</td>
<td>-</td>
<td>-</td>
<td>33.3%</td>
</tr>
</tbody>
</table>

A portion of the Plan is invested in a buy-and-hold real return bond portfolio. The foregoing table applies to the remaining portion of the Plan.

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.

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 Active Canadian Equity Managers, 200 bps for Active Global Equity Managers and 50 bps for Active Canadian Fixed Income Managers. Similarly, for the Canadian Balanced Managers, 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 80 bps. For Passive Canadian Fixed Income Managers, 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>10%</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 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.

<table>
<thead>
<tr>
<th>Asset Class **+</th>
<th>Minimum **</th>
<th>Benchmark-Target</th>
<th>Maximum **</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash or Equivalent</td>
<td>0</td>
<td>0</td>
<td>40</td>
</tr>
<tr>
<td>Fixed Income</td>
<td>30%</td>
<td>40</td>
<td>50</td>
</tr>
<tr>
<td>Equities</td>
<td>40%</td>
<td>20</td>
<td>30</td>
</tr>
<tr>
<td>- Canadian</td>
<td>40%</td>
<td>20</td>
<td>30</td>
</tr>
<tr>
<td>- US</td>
<td>5%</td>
<td>10</td>
<td>15</td>
</tr>
<tr>
<td>- Global</td>
<td>25%</td>
<td>30</td>
<td>35</td>
</tr>
<tr>
<td>Total-Equities **+</td>
<td>50%</td>
<td>60</td>
<td>70</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* These assets can be held in any combination of pooled funds or individual investments.
** Minima and maxima do not sum to the total, as this would introduce artificial constraints.

+ The target asset mix and ranges apply also to the Canadian Balanced mandates.
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 any fixed income portfolio 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.

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 Active Global Equity Managers. Active 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.

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 has rebalancing guidelines which outline the requirements to: (i) make an annual determination regarding the adequacy of the real return bond holdings, (ii) rebalance on an ongoing basis using cash flows, and (iii) reallocate assets quarterly if any trigger points have been breached.

7. CONFLICT OF INTEREST POLICY AND DISCLOSURE REQUIREMENTS

These guidelines apply to members of the P&B and F&I Committees, 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 any interest in any asset of the pension fund, material ownership, membership on the boards of other corporations, or actual or proposed contracts. However, being a member of the Plan itself is not sufficient to constitute a potential conflict of interest.

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 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 made by her/him 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.

January 2010
To be completed by Fund Managers immediately prior to each quarterly review.

UNIVERSITY OF WATERLOO
REGISTERED PENSION PLAN INVESTMENTS SUBCOMMITTEE

This is to certify that I/we have adhered to the guidelines contained in the January 2010 version of the “Statement of Investment Policies and Procedures” for the University of Waterloo Pension Plan (2000), approved by the Board of Governors of the University of Waterloo.

Signed _____________________

On behalf of _____________________

Date _____________________