Faculty of Arts Tour and Lunch  
11:00 a.m.  
Location to follow.

Meeting  
1:30 p.m.  
Needles Hall, Room 3407

Teleconference Coordinates  
Toll Free Number: 1-888-676-9057  
Participant PIN Code: 41273100

Note: directions/parking information for external members to follow.  
Please convey regrets to Erin Gillespie at 519-888-4567, ext. 32225 or egillespie@uwaterloo.ca.

### MEETING

#### OPEN SESSION

1:30  
1. Conflict of Interest Declaration  
2. Remarks from the Chair  
3. Agenda/Additional Agenda Items

**Consent Agenda**  
Motion: To approve or receive for information by consent items 4-8 below.

1:40  
4. Minutes of the 30 October 2018 Meeting

5. Report of the President  
   a. Honorary Degrees and Convocation Speakers  
   b. Recognition and Commendation  
   c. Sabbatical and Administrative Leaves and Administrative Appointments

6. Report of the Vice-President, Administration & Finance  
   a. Residence Fees 2019-20

7. Reports from Committees  
   a. Finance & Investment  
   b. Governance  
   c. Pension & Benefits

8. Accountability Status Reports  
   a. Consolidated Undergraduate and Graduate Academic Reviews  
   b. Undergraduate and Graduate Recruitment and Admissions

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OPEN SESSION

Regular Agenda

1:45
9. Business Arising from the Minutes

10. Report of the President
1:50
   a. President’s Update
2:10
   b. Board of Governors Retreat Summary

2:40
11. Report of the Vice President, Advancement

12. Report of the Vice-President, Academic & Provost
2:55
   a. Student Experience Update
3:00
   b. Operating Budget: 2018-19 Update/
      Planning for 2019-2020
3:15
   c. Tuition Fee Setting

3:30 BREAK

13. Reports from Committees
3:45
   a. Buildings & Properties
   b. Finance & Investment

4:00 14. Other Business

CONFIDENTIAL SESSION

4:05 15. Conflict of Interest Declaration

4:10 Consent Agenda

Motion: To approve or receive for information by consent items 16-17 below.

16. Minutes of the 30 October 2018 Meeting
17. Report of the President
   a. New Appointments with Tenure

Regular Agenda

4:15 18. Business Arising from the Minutes

4:20 19. Report of the President

4:30 20. Report of the Vice President, Advancement

4:40 21. Reports from Committees
   a. Pension & Benefits

4:45 22. Other Business
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<td>26. Report from Governance Committee</td>
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<td>a. President’s Mid-Year Assessment</td>
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<td>27. Other Business</td>
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<td>5:28</td>
<td>Next Meeting: Tuesday 2 April 2019 at 1:30 p.m.</td>
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KJJ/ejg
29 January 2019

Karen Jack
University Secretary
Secretary to the Board of Governors
OPEN SESSION

1. CONFLICT OF INTEREST
Governors were asked to declare any conflicts they may have in relation to the items on the agenda. No conflicts were declared.

2. REMARKS FROM THE CHAIR
The chair congratulated Berry Vrbanovic and Dave Jaworsky on their re-election as mayors of Kitchener and Waterloo, respectively. She also offered kudos to Ken Seiling on concluding 33 years as Regional Chair, and more than four decades in municipal politics. A round of applause followed each remark, and Seiling offered some reflections on the relationship between the University and the Region over that time. Forbes also acknowledged members Hill and Marques, both attending their first meeting.

The chair reminded members of the Board’s annual appeal and encouraged all to take part in whatever way they can. She invited members to contact Jason Coolman, associate vice-president, development & alumni relations if they are interested in making a philanthropic gift.

Members were reminded about the President’s Reception being held immediately following the meeting.

The chair acknowledged Professor Donna Strickland, Nobel Prize in Physics winner for her work in generating high-intensity, ultra-short optical pulses. Forbes made the following motion:

That the University of Waterloo’s Board of Governors offers its highest praise to Dr. Strickland for her revolutionary work in laser physics, and commends and honours her extraordinary distinction as a winner of the Nobel Prize in Physics in 2018.

Forbes and Gamble. Carried unanimously.

Dr. Strickland then addressed the Board, advising members of her pleasure to attend the meeting, and she briefly described the research she undertook which won her the award. She noted that the award also acknowledges the value of science, and expressed her pleasure in representing scientists, Canada and the University of Waterloo. She closed with an expression of gratitude that she has already heard from many young women that the award has inspired them to pursue studies in science.
3. AGENDA/ADDITIONAL AGENDA ITEMS
The chair advised that Item 13.a., Report of the Vice-President, Administration & Finance (Responsible Investing Working Group Recommendations) was intended for the consent agenda, and will be considered new Item 6.b.

The Board heard a motion to approve the agenda as amended.

Windsor and Arora. Carried unanimously.

Consent Agenda

The Board heard a motion to approve and/or receive for information by consent items 4-8 below.

Bardswick and Kennedy.

4. MINUTES OF THE 5 JUNE 2018 MEETING
The Board approved the minutes of the meeting as distributed.

5. REPORT OF THE PRESIDENT
   Sabbatical and Administrative Leaves and Administrative Appointments. The Board heard a motion to approve the sabbatical leaves and changes as presented in the report. The Board received the remainder of the report for information.

   Recognition and Commendation. The Board received the report for information.

6. REPORT OF THE VICE-PRESIDENT, ADMINISTRATION & FINANCE
   Incidental Fee Changes. The Board heard motions to approve incidental fee changes as follows:
   Motion: To approve the Federation of Students Administered Fee as presented in the report.
   Motion: To approve the Engineering Society Fee as presented in the report.

   Implementation of the Responsible Investing Working Group Recommendations
   Motion: To approve the allocation of responsibilities for implementing Environmental, Social & Governance related (“ESG”) investment approaches as recommended in the report.

7. REPORTS FROM COMMITTEES
   Building & Properties. The Board received the report for information.

   Executive. The Board received the report for information.

   Finance & Investment. The Board received the report for information.

   Governance. The Board heard a motion to approve a change to the resolution of the Governance Committee as provided in the attachment. The Board received the remainder of the report for information.

   Pension & Benefits. The Board received the report for information.

8. REPORT OF THE VICE-PRESIDENT, ACADEMIC & PROVOST
   Undergraduate/Graduate Admissions Update. The Board received the report for information.

In response to questions about the ESG factors in agenda item 6, members heard: a concern re: the time scale; that it is understood that these factors are a starting point and will change over time; there is a
mechanism in place for review of the factors; the recent report from the Intergovernmental Panel on Climate Change was not reviewed specifically, but the recommendations were thoughtfully considered and review of such materials will be undertaken in the future.

The question was called and the motion carried with one abstention.

Regular Agenda

9. BUSINESS ARISING FROM THE MINUTES
There was no business arising.

10. REPORT OF THE PRESIDENT
President’s Update. The president briefly spoke to various matters, including: the recent promotion of Dr. Strickland to professor; last week’s installation of Dominic Barton as the new chancellor; a welcome to James Rush as the new vice-president, academic & provost, and Norah McRae, the new associate provost, co-operative and experiential education; an update on new Royal Society of Canada members; admissions and hiring data; new faces in government; an update on the student mental health initiative; rankings.

The president then spoke to the report titled “Strategic Plan 2013-2018: Progress and Outcomes – Fall 2018 Update” distributed by mail before the meeting, and, members heard: data re: outcomes and performance indicators; how the plan informs the next plan; next steps.

In discussion: some details re: the hiring process for the Director of Indigenous Initiatives; the steering committee’s decision to not release its report, but advice that the new director will receive it; in response to a question re: Hamdullahpur’s most significant achievements between 2014 and 2018, his belief that they are: the attention being paid to student concerns and enabling their success, and, the growing awareness of and appreciation for the University’s connection to the rest of the world and its role in providing solutions to global issues; commentary from Chief Hill of her disappointment that the meeting did not open with a land acknowledgement, her desire to educate and help to inform other members of the Board re: Indigenous matters, an invitation to all members to visit the Six Nations, and a suggestion to hold a Board event at the Six Nations to facilitate this information exchange. The chair agreed that all future meetings of the Board will include a land acknowledgement, and the president extended his thanks to Chief Hill for the opportunity to engage on these issues. In further discussion: agreement to provide members with the full dashboard relating to the implementation of the student mental health report; the new Ontario government has not provided any clarity on next steps re: the strategic mandate agreement; there is more to come on the mandate to implement a “freedom of speech” policy.

11. STRATEGIC PLAN BRIDGE TO 2020 – DISCUSSION OF WHITE PAPER: INTERNATIONALIZATION
The president introduced Ian Rowlands, associate vice-president, international, to present on internationalization efforts at the University. Members heard: definitions; why Waterloo is pursuing this activity; data re: on- and off-campus activities and connections; global trends; how the endeavour has changed over time; challenges and opportunities; what is being learned at the consultation sessions for the next strategic plan.

In discussion: how the University contemplates where it wants to arrive in the future in light of growing demand, the need to ensure sound student experiences, service considerations (the focus is on developing and building meaningful global interactions where transformative opportunities exist and where members can work with the best in the world); agreement that work remains to be done re: identifying outcomes and strategic priority areas; support for increasing external exposure; recent growth and increasing sophistication re: building connections with students abroad and alumni, but
12. REPORT OF THE VICE-PRESIDENT, ACADEMIC & PROVOST

Student Experience Update. Rush advised that he is undertaking a full review of the student experience. In the short term, this will include assembly of a committee, and will include a review by an external body in the early winter with a view to production of a report by the spring; the Board will be apprised of progress.

Memorandum of Agreement between FAUW and the University of Waterloo – Section 13 Amendment. The Board heard a motion to approve an amendment to Article 13.5.11 of the Memorandum of Agreement between FAUW and the University of Waterloo.

Dea and Freeman. Carried unanimously.

13. REPORTS FROM COMMITTEES

Audit & Risk. The Board heard a motion to reappoint Ernst & Young as the University’s external auditors for the fiscal year ending 30 April 2019.

Pristanski and Arora.

In discussion about the information item in the report relating to the University Risk Management Program, a question was raised re: how the risk factors are determined to which Huber and Pristanski advised of the program’s history and its deliberative process. A suggestion was made that climate change considerations ought to be considered by senior management when it next assesses categories. Other governors agreed that a sustainability lens ought to be brought to all risk assessment activities, and Pristanski agreed to bring the suggestions to the committee for its consideration.

The question was called and the motion carried unanimously.

Finance & Investment. The Board heard a motion to amend the terms of reference of the Finance & Investment Committee to add text that will delegate certain powers and responsibilities of the committee to the Pension Investment Committee.

Schlegel and Vrbanovic. Carried unanimously.

The Board heard motions to approve the revised Endowment Fund Investment Guidelines, and to approve the revised IQC Fund Investment Guidelines, both effective 1 November 2018.

Schlegel and Kennedy. Carried unanimously.

Pension & Benefits. The Board heard a motion to approve an amendment to the healthcare benefit for non-retired faculty, staff and CUPE Local 793 employees to increase the level of reimbursement for basic dental services from 80% to 95%, and to remove the two year lag in the dental fee guide by adopting the current year fee guide, all effective for eligible expenses incurred on or after 1 January 2019.

Bardswick and Freeman. Carried unanimously.
The Board heard a motion to approve the filing of the actuarial valuation report as at 1 January 2018 with the Financial Services Commission of Ontario (FSCO) and the Canada Revenue Agency (CRA).

Bardswick and Arora. Carried unanimously.

The Board heard a motion to approve amendments to the terms of reference of the Pension & Benefits Committee to add text that will delegate certain powers and responsibilities of the committee to the Pension Investment Committee.

Bardswick and Schlegel. Carried unanimously.

**Joint Report from Finance & Investment and Pension & Benefits.** The Board heard a motion to approve the dissolution of the Registered Pension Plan Investment Subcommittee.

Schlegel and Bardswick. Carried unanimously.

The Board heard a motion to approve the 1 November 2018 version of the University of Waterloo Pension Plan (2011) Statement of Investment Policies and Procedures (the “SIPP”), effective 1 November 2018.

Schlegel and Arora. Carried unanimously.

**14. REPORT OF THE UNIVERSITY SECRETARY**

The Board heard a motion to approve the terms of reference for the Pension Investment Committee (the “PIC”).

Schlegel and Bardswick. Carried unanimously.

**15. OTHER BUSINESS**

There was no other business.

The Board convened in confidential session.

9 November 2018

Karen Jack

University Secretary
CONFIDENTIAL SESSION

The confidential minutes have been removed.
CONFIDENTIAL SESSION

The confidential minutes have been removed.
The *in-camera* minutes have been removed.
To: Board of Governors

From: Feridun Hamdullahpur, president and vice-chancellor

Date: 5 February 2019

Subject: Call for Nominations for Honorary Degrees

An honorary degree is the highest honour conferred by the University. Through the conferring of honorary degrees, the University of Waterloo seeks to recognize outstanding achievement, whether academic or through service to society. These achievements are celebrated at Convocation where they inspire those in attendance and, in particular, our newly graduating students.

Guidelines for the awarding of honorary degrees, including selection guidelines, procedures, considerations to make in assessing a candidate’s qualifications, and details on what to submit in a nomination package, can be found on the website for the Senate Nominating Committee for Honorary Degrees (https://uwaterloo.ca/secretariat/committees-and-councils/honorary-degrees-committee/guidelines-awarding-honorary-degrees). You are also welcome to contact the committee secretary, Rebecca Wickens (rebecca.wickens@uwaterloo.ca) for information and assistance.

We invite you to consider nominating a worthy candidate for this honour. Please note, the University embraces and appreciates diversity and wants to ensure a diverse pool of candidates. With the community’s input we can continue to maintain a substantial pool of deserving individuals whose achievements the University would be delighted to celebrate and honour.

Thank you in advance for your contribution to this important tradition.
Recognition and Commendation
Report of the President – 5 February 2019

University of Waterloo
BOARD OF GOVERNORS
Report of the President
5 February 2019

FOR INFORMATION

Recognition and Commendation

The University of Waterloo has been recognized as Canada’s most innovative university by Maclean’s magazine for the 27th consecutive year. It also named Waterloo 2nd place in the ‘best overall’ and ‘leaders of tomorrow’ reputation categories and 3rd place among comprehensive universities in Canada. (adapted from the Daily Bulletin 12 October 2018)

St. Paul’s GreenHouse, in partnership with the Murray Alzheimer Research and Education Program and the Faculty of Applied Health Sciences, hosted Hack4Health 4.0, alongside the MS Society and the Alzheimer Society. Winners for the Best Potential for Impact category were HotStop, a team focused on empowering and supporting individuals living with mild to moderate dementia to cook both independently and safely in their homes. Winners for the Best Problem-Solution Fit category were BakeDem, a team who focused on using a baking social media app to tackle social isolation and withdrawal from social activities for those living with mild to moderate dementia. (adapted from the Daily Bulletin 18 October 2018)

Peter Huck, a civil and environmental engineering professor and Industrial Research Chair in Water Treatment, was recently awarded more than $3 million to continue his research program at the University of Waterloo. As part of the Natural Sciences and Engineering Research Council of Canada (NSERC) Industrial Research Chair (IRC) program, Huck leads a group of researchers, graduate students and postdoctoral fellows addressing challenges in water treatment and supply. (adapted from the Daily Bulletin 22 October 2018)

For the third year in a row, the University of Waterloo was named one of Canada’s Top 100 Employers through a survey conducted by MediaCorp Canada. The official announcement was published in the national edition of the Globe and Mail on November 9, 2018. (adapted from the Daily Bulletin 9 November 2018)

Waterloo’s international co-op team has won two Excellence Awards from the Canadian Bureau for International Education (CBIE). The North Star Award was presented to Shabnam Ivkovic, Team Manager, International Mobility. This is awarded to a new professional who has shown extraordinary promise in the field of international education. The Panorama Award was given to Waterloo’s international co-op team in recognition for their innovation and excellence in design, planning, implementation and management of high-quality endeavours in international education, with programming that focuses on academic, extracurricular, capacity building and/or learning abroad.

The ten Panorama Award recipients from the University of Waterloo are:

- Bettina Wahl, International Employment Specialist
- Cathy Stein, International Employment Specialist
- Celeste Horne, Student Advisor
- Gail Tymchuk, Account Manager
Cheriton School of Computer Science Professor Srinivasan Keshav has been named by the Institute of Electrical and Electronics Engineers as an IEEE Fellow for his contributions to fair queueing techniques and flow-control algorithms in computer networks. (adapted from the Daily Bulletin 23 November 2018)

The Velocity Fund Finals were held on November 27, 2018 in the Student Life Centre. The four companies awarded the top $25,000 prizes were: Brink Bionics, which is developing bionic arms for amputees that use machine learning to seamlessly integrate with the human body; CataLight, which is making safe drinking water accessible for all with a new water treatment solution; Pulse Industrial, which is developing a smart monitoring system for steam traps to improve safety and reduce CO2 emissions and Membio, which is developing a scalable biological manufacturing platform. The $10K prize was awarded to startup Intelline, to help with the additional hardware costs associated with the development of their scalable cryocoolers. These startups will also receive $5,000 in IP legal services from PCK, mentorship, coaching, and workspace in the Velocity Garage, Canada’s most productive startup incubator.

The teams awarded $5K in seed money were: Material Futures Lab, which uses bacteria to create natural eco-friendly pigments for textile dyeing; Oleotech, which uses oleophilic properties of fiber from waste tires to remove hydrocarbons in stormwater runoff; FEM in STEM, which is empowering young women to develop careers in underrepresented industries through programming and resources; and PriveHealth, which is developing a gamified cybersecurity training platform for healthcare professionals. Each of the $5K winners also receives an offer to live in a residence at a discounted rate, offered in partnership with Waterloo Residences. (adapted from a Velocity news story 27 November 2018)

The President’s Community Impact Awards were presented on December 13, 2018 at the President’s annual Holiday Dinner. Awards were given to:

Community Leaders
Michael Beazely, Professor, School of Pharmacy
Mike has contributed to the Waterloo Region Crime Prevention Council and has been involved with the Waterloo Region Integrated Drug Strategy (WRIDS) since its inception. As chair of the WRIDS since 2017, Mike’s leadership has contributed to prevention resources, partnerships with school boards and the Waterloo Region Local Health Integration Network, and promotion of student volunteer engagement in this critical community issue.

Robin Mazumber, PhD candidate, cognitive neuroscience
Robin has served on the City of Kitchener Cycling & Trails Advisory Committee and as Guest Librarian to the Kitchener Public Library in 2016. He partnered with the Waterloo Region Local Health Integration Network and the Kitchener Downtown Community Health Centre to make light therapy lamps available at all KPL locations and to the Waterloo campus.
University Leaders

Sustainable Waterloo Region

Sustainable Waterloo Region (SWR) programs such as TravelWise and the Regional Sustainability Initiative have helped shape the University of Waterloo’s sustainability strategy, which was recognized with a SWR Breakthrough award in spring 2018. A unique partnership between SWR, the Cora Group, EY Canada and the University’s David Johnston Research & Technology Park (R&T Park) led to the opening of Canada’s first net-positive multi-tenant building in the R&T Park this fall. Many UWaterloo students and faculty are SWR volunteers.

Volunteer Action Centre Waterloo Region

In 2014, the Volunteer Action Centre Waterloo Region (VACWR) began a formal partnership with the University’s Federation of Students (FEDS), leading to the launch of the FEDS Volunteer Centre one year later. To date, the online volunteer database has made more than 2,000 meaningful community connections for Waterloo students, as well as staff and faculty. VACWR is a regular participant at our biannual campus Volunteer Fairs, and have also partnered with the University’s Centre for Career Action, St. Paul’s Greenhouse, and the First Year Engineering Leadership conference. (adapted from the Daily Bulletin 14 December 2018)

The Association for the Advancement of Sustainability in Higher Education (AASHE) has given the University of Waterloo a Silver rating on the Sustainability Tracking, Assessment, and Rating System (STARS). The rating recognizes Waterloo’s progress and actions across academics, campus operations, community engagement and campus planning and governance as it relates to sustainability efforts. (adapted from the Daily Bulletin 17 December 2018)

At the Canadian Mathematical Society (CMS) Winter Meeting Banquet, the CMS announced the Inaugural Class of Fellows. Professor Kenneth Davidson, Department of Pure Mathematics was one of 49 members named. (adapted from the Daily Bulletin 3 January 2019)

Waterloo was just awarded four international 2018 CASE District II Awards, which recognize innovative, strategic and creative programs in print, multimedia, marketing, communications, events and program development. CASE District II is an organization of advancement professionals in alumni relations, communications and philanthropy.

Waterloo’s four awards include:

- **GOLD for best Annual or Institutional Reports**: Print for the Institute for Quantum Computing’s 15 years of discovery and innovation;
- **GOLD for best Website: Publications/News** for the Student Success Office’s international student guide;
- **SILVER for best Alumni Relations Events and Affinity Programs** for Get Ready for: Life After Graduation, created in partnership with Advancement and Housing and Residences; and
- **GOLD for best Special Event**: Individual Events for the Hong Kong 60th Anniversary Dinner, created in partnership with Advancement and the University of Waterloo Hong Kong Alumni Association.

(adapted from the Daily Bulletin 10 January 2019)

Each month, the Office of the President recognizes students, faculty, staff and alumni who go above and beyond. The President’s Accolades was launched in November on the Office of the President website to celebrate stories of dedication, passion and contribution from our University community.

Congratulations to the University of Waterloo community members currently being recognized:

- The Finance department’s social committee raised an impressive $1500 for the Food Bank, providing more than 4,500 healthy meals to those in need over the holiday season.
• Multimedia Design Manager Matt Regehr stepped up this year’s President’s annual holiday video message with a creatively nostalgic stop-motion animated video.
• PhD student Max Salman spearheaded an initiative to inspire and encourage students, faculty and staff to express themselves through music with open access to pianos.
• Post-doctoral fellow Veronika Irvine was recognized for combining science and art in a meaningful way by teaching artisans new lace making patterns she creates through mathematical models.
• Denise Mueller, Undergraduate Advisor for Chemical Engineering, went the extra mile to provide encouragement—through tea, fruit and cookie stations in student study spaces—throughout the exam season.
• Accounting and Finance student and pollution warrior Dillon Mendes co-founded social venture PickWaste to host weekly litter cleanups.

(adapted from the Daily Bulletin 10 January 2019)

On January 10, Graduate Studies and Postdoctoral Affairs hosted its first annual GRADflix Showcase, a red-carpet event featuring the fifteen best 1-minute videos made by graduate students to describe their research.

The winners were:
• 1st place - $750 prize: Fraser King, from Geography and Environmental Management, for his video CloudSat and Arctic snow
• 2nd place - $500 prize: Jason Lajoie, from English Language and Literature, for his video Making gay identities: Queer media practices queering media technologies
• 3rd place and People’s Choice winner - $500 prize combined: Siyavash Izadi, from Kinesiology, for his video Virtuality of motion sickness
• 4th place - $250 prize: Amanda Lim, from Environment, Resources and Sustainability, for her video Worms and waste

(adapted from the Daily Bulletin 14 January 2019)
FOR APPROVAL

1. **Sabbatical and Administrative Leaves**

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

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

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

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

- **Sabbatical Leaves**
  - **Alumur Alev, Sibel,** Management Sciences, May 1, 2019 to October 31, 2019 at 100% salary
    I plan to finish several research papers developing mathematical models and efficient solution methodologies for problems related to facility location and logistics. In particular, I will work on hub location and hub network design, charging station location problems, and shipment consolidation. I will prepare the proposal for the first renewal of my NSERC Discovery Grant application.

  - **Clapp, Jennifer,** Environment, Resources and Sustainability, July 1, 2019 to June 30, 2020 at 100% salary
    I plan to continue my work on my SSHRC funded research projects on the Sustainability Challenge for Global Food Security Governance and the New Politics of Financial Actors in the Food System. I also plan to apply for a major partnership grant to bring together researchers on the theme of Sustainability in the World Food Economy.

  - **Coniglio, Mario,** Earth and Environmental Sciences, July 1, 2019 to June 30, 2021 at 100% salary
    I plan to pursue three goals: 1) professional development opportunities in a number of areas of interest, including institutional and academic leadership and academic program evaluation; 2) re-engagement
with my disciplinary research area (sedimentology); and 3) participation in initiatives/projects at the institutional, faculty (Science) or departmental (Earth and Environmental Sciences) levels.

**De Loë, Robert,** Environment, Resources and Sustainability, January 1, 2020 to December 31, 2020 at 89.2% salary
I am winding down my three-decade water governance research program and starting a new research direction that explores the intersection of art and science around environmental sustainability challenges. During my leave, I will: 1) complete current water governance research commitments; and 2) support the transition to my new area through applying for a SSHRC IDG and developing a major photography project.

**Ferro, Mark,** Public Health and Health Systems, January 1, 2020 to June 30, 2020 at 100% salary
I will engage in activities to support my application for tenure and promotion. I will write manuscripts to estimate costs of psychiatric service use among children with multimorbidity and equivalence of mental health measures across age and sex. I will prepare CIHR grant applications to extend the MY LIFE study and initial DETOUR projects, if appropriate. I will attend the Section of Epidemiology and Social Psychiatry of the European Psychiatric Association conference and the Canadian Academy of Psychiatric Epidemiology conference to initiate collaborations with international colleagues.

**Fong, Geoffrey,** Psychology, May 1, 2019 to April 30, 2020 at 100% salary
I will continue to work in my role as Chief Principal Investigator of the International Tobacco Control Policy Evaluation Project (the ITC Project) – our research project across 29 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.

**Guenin, Bertrand,** Combinatorics and Optimization, May 1, 2019 to April 30, 2020 at 100% salary
I plan to spend a significant amount of time researching existing literature on graphs on surfaces and on deepening my understanding of convex optimization. I will continue ongoing research with graduate students and external scholars including a visit to London School of Economics and Carnegie Mellon.

**Huang, Alan,** Accounting and Finance, July 1, 2019 to June 30, 2020 at 85% salary
I will wrap up my SSHRC project on the information context of debt IPO prospectuses, as well as finish four working papers, some of which are already in late R&R stages. I will spend time in China, most notably at Shanghai Jiaotong University and GF Securities, exploring collaboration with researchers there. I will focus on computer-aided linguistic analysis of financial texts: 1) conference call transcripts; and 2) corporate filings and news in Canadian, Hong Kong, and Chinese markets. I will promote our undergraduate and graduate quantitative/data finance programs.

**Johnson, Corey,** Recreation and Leisure Studies, September 1, 2019 to August 31, 2020 at 85% salary
I will focus on three priorities: 1) analyze data and write publications related to sexual and gender social relations and geo-social networking applications; 2) co-edit and contribute to a book on sex and leisure; and 3) advance knowledge on current literature related to gender, sex, digitality and leisure.

**Karigiannis, Spiro,** Pure Mathematics, July 1, 2019 to December 31, 2019 at 85% salary
I will spend the first two months finishing some research papers in Waterloo and taking a short trip to Oxford to work with two collaborators. Then I will spend the fall term at the Center of Mathematical Sciences and Applications (CMSA) at Harvard University to work with Shing-Tung Yau and Sebastien Picard on special U(m)-structures on manifolds.

**Lank, Edward,** Computer Science, January 1, 2020 to June 30, 2020 at 85% salary
I plan to visit INRIA Lillie – Nord Europe in France to further an already active collaboration with this group through joint student supervision and shared research projects. I will continue this work with a focus on gestural interaction in augmented reality environments.

Lysy, Martin, Statistics and Actuarial Science, March 1, 2019 to August 31, 2019 at 85% salary
I will focus on publishing articles and software relating to my research on computer simulation and analysis of continuous-time stochastic models found in chemical, biophysical, and pharmacological applications. I will visit with several collaborators including: Dr. Hind Al-Abadleh, Wilfrid Laurier; Dr. Aleks Labuda, Asylum Instruments; Dr. Alexander Franks, University of California, Santa Barbara; Dr. Gregory Forest, University of North Carolina, Chapel Hill; Dr. Natesh Pillai, Harvard University; Dr. Vahid Partovi Nia, Polytechnique Montréal and Dr. Masoud Asgharian, McGill University.

Mayer, Michael, Mechanical and Mechatronics Engineering, September 1, 2019 to August 31, 2020 at 85% salary
I will visit and work with Naneo Company in Lindau, Germany. The purpose is to build expertise towards novel manufacturing technologies for advanced electronics. This includes new optical joining for advanced photonics, and new fabrics metallization for electronic textiles, leading to new impulses for my research area of electronics hardware manufacturing.

Melko, Roger, Physics and Astronomy, May 1, 2019 to April 30, 2020 at 100% salary
I will work on developing a new research direction in the cross-disciplinary field combining quantum physics with artificial intelligence. My work will focus on the integration of modern machine learning techniques as tools for computational many-body physics research, with applications in condensed matter and quantum information physics.

Quadrilatero, Joe, Kinesiology, July 1, 2019 to December 31, 2019 at 100% salary
I will complete several manuscripts related to my research on muscle biology. This research is tied to my NSERC Discovery grant that investigates the molecular regulation of cell death signaling in skeletal muscle. I will meet with collaborators Paul Spagnuolo (University of Guelph), Brendon Gurd (Queen’s University), and Chris Perry (York University), to discuss ongoing projects related to muscle and mitochondrial health/function. I will update the content of both my undergraduate course (KIN 406 - Physiology of Muscle Aging and Disease) and graduate course (KIN 606 - Molecular Basis of Disease).

Singh, Rashmee, Sociology and Legal Studies, March 1, 2019 to August 31, 2019 at 85% salary
My research focuses on legal responses to violence against women and sex work and specialized courts. I will complete one journal article on prostitution courts in the United States and one book chapter on domestic violence courts in Toronto. I will conduct two research trips: one to Toronto to interview domestic violence survivors for my SSHRC Insight grant and one to Dallas to interview prostitution court defendants.

Taylor, Lynne, History, July 1, 2019 to December 31, 2019 at 85% salary
I will continue my research for a project on the reconstruction of Belgium after World War I.

Tupling, Russell, Kinesiology, May 1, 2019 to April 30, 2020, at 100% salary
I will co-write a textbook “Biochemistry Primer for Exercise Science, Fifth Edition” which has been reviewed by Human Kinetics. In addition to upgrading my undergraduate and graduate courses, I will also complete several manuscripts from ongoing research projects and prepare research grant applications for new initiatives.

Warner, Barry, Earth and Environmental Sciences, September 1, 2019 to August 31, 2020 at 100% salary
My research will focus on ecology, paleoecology, conservation, restoration and ecological engineering of wetlands in North America and the world. I will complete projects and write papers. Specific unfinished and unpublished project work includes: high altitude peatlands of northern Chile; wetlands of Mexico; wetlands in the Experimental Lakes Area (ELA), NW Ontario; wetlands in Akwesasne. I will summarize work on the Marshes of Southern Iraq.

Willett, Thomas, Systems Design Engineering, July 1, 2019 to December 31, 2019 at 100% salary
I will run two CIHR funded research projects on 1) 3D Printable Biomaterials for Skeletal Reconstruction and 2) Bone Quality and Fracture Resistance. I will 1) prepare my tenure package, 2) investigate writing a textbook on mechanics for biomedical engineering students, 3) attend international conferences, and 4) develop my technical elective on Mechanics of Biomaterials and Tissues for W2020.

Worth, Nancy, Geography and Environmental Management, July 1, 2019 to December 31, 2019 at 100% salary
I will write two papers about young adults’ co-residence with parents: one on the concept of privilege; the other on the temporality of co-residence. I will do analysis and writing of the completed data collection for 1) Counting Ourselves In: understanding why women decide to engage with the media and 2) GenY at Home: Wellbeing, Autonomy and Co-residence with Parents. I have also applied for an Insight grant in the area of Feminist Economic Geography, exploring agential experiences of economic subjects.

Yarusevych, Serhiy, Mechanical and Mechatronics Engineering, September 1, 2019 to February 29, 2020 at 100% salary
I will be working on a collaborative research project in experimental fluid mechanics at the University of Munich (Bundeswehr), Germany. The project will involve applying cutting-edge technological advances in volumetric, time-resolved velocity measurements to investigate external flows over lifting surfaces, such as blades and wings, commonly used in various mechanical systems.

- Administrative Leaves
  Warner, Barry, Earth and Environmental Sciences, May 1, 2019 to August 31, 2019 at 100% salary
  My research will focus on ecology, paleoecology, conservation, restoration and ecological engineering of wetlands in North America and the world. I will complete projects and write papers. Specific unfinished and unpublished project work includes: high altitude peatlands of northern Chile; wetlands of Mexico; wetlands in the Experimental Lakes Area (ELA), NW Ontario; wetlands in Akwesasne. I will summarize work on the Marshes of Southern Iraq.

- Sabbatical Cancellation
  Smyth, Heather, English Language and Literature, January 1, 2019 to June 30, 2019 has been cancelled.

- Sabbatical Change
  Carvalho, Emanuel, Economics, January 1, 2019 to December 31, 2019 at 100% salary changed to July 1, 2019 to June 30, 2021, at 100% salary

FOR INFORMATION

2. Administrative Appointments
Carvalho, Emanuel, appointment as Interim Director, Interaction Design and Business, Faculty of Arts, January 1, 2019 to June 30, 2019.

Suderman, Derek, appointment as Acting Chair, Religious Studies, Faculty of Arts, February 10, 2019 to October 15, 2019.

Warley, Linda, appointment as Associate Dean, Graduate Studies, Faculty of Arts, January 1, 2019 to June 30, 2020.

Administrative Appointment Change
Seljak, David, appointment as Chair, Religious Studies, Faculty of Arts, July 1, 2018 to June 30, 2022 changed to July 1, 2018 to February 9, 2019 and October 16, 2019 to June 30, 2022.

Feridun Hamdullahpur
President
### Student Villages
*(includes Village 1, Ron Eydt Village & Mackenzie King Village)*

<table>
<thead>
<tr>
<th>Student Villages (Two-term fee)</th>
<th>2018/19</th>
<th>2019/20</th>
<th>Increase %</th>
<th>Monthly $</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dorm Style:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>6,437</td>
<td>6,553</td>
<td>1.8</td>
<td>820</td>
</tr>
<tr>
<td>Interconnecting</td>
<td>6,144</td>
<td>6,255</td>
<td>1.8</td>
<td>782</td>
</tr>
<tr>
<td>Double</td>
<td>5,775</td>
<td>5,879</td>
<td>1.8</td>
<td>735</td>
</tr>
<tr>
<td>Triple</td>
<td>4,620</td>
<td>4,703</td>
<td>1.8</td>
<td>588</td>
</tr>
<tr>
<td>Quad</td>
<td>3,754</td>
<td>3,821</td>
<td>1.8</td>
<td>478</td>
</tr>
<tr>
<td><strong>Suite-Style:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single room (4-bedroom suite style)</td>
<td>7,684</td>
<td>7,823</td>
<td>1.8</td>
<td>978</td>
</tr>
</tbody>
</table>

**Recommendation:** That the Student Villages 2019/20 room rates are approved effective Fall 2019 term

### UW Place

<table>
<thead>
<tr>
<th>UW Place (Two-term fee)</th>
<th>2018/19</th>
<th>2019/20</th>
<th>Increase %</th>
<th>Monthly $</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Suite Style:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Double Room (Beck Hall)</td>
<td>6,065</td>
<td>6,174</td>
<td>1.8</td>
<td>772</td>
</tr>
<tr>
<td>Triple Room (Beck Hall)</td>
<td>4,852</td>
<td>4,939</td>
<td>1.8</td>
<td>618</td>
</tr>
<tr>
<td>Quad Room (Beck Hall)</td>
<td>3,942</td>
<td>4,013</td>
<td>1.8</td>
<td>502</td>
</tr>
<tr>
<td>Single Room (2-bedroom suite style)</td>
<td>6,945</td>
<td>7,069</td>
<td>1.8</td>
<td>884</td>
</tr>
<tr>
<td>Single Room (3- or 4-bedroom suite style)</td>
<td>6,573</td>
<td>6,691</td>
<td>1.8</td>
<td>837</td>
</tr>
<tr>
<td><strong>Hybrid Dorm Style:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Claudette Millar Hall - Single Room</td>
<td>7,061</td>
<td>7,188</td>
<td>1.8</td>
<td>899</td>
</tr>
<tr>
<td>Claudette Millar Hall - Double Room</td>
<td>6,730</td>
<td>6,851</td>
<td>1.8</td>
<td>857</td>
</tr>
<tr>
<td>Claudette Millar Hall - Triple Room</td>
<td>5,384</td>
<td>5,481</td>
<td>1.8</td>
<td>686</td>
</tr>
<tr>
<td>Claudette Millar Hall - Quad Room</td>
<td>4,375</td>
<td>4,453</td>
<td>1.8</td>
<td>557</td>
</tr>
</tbody>
</table>

**Recommendation:** That the UW Place 2019/20 room rates are approved effective Fall 2019 term

### Columbia Lake Village

<table>
<thead>
<tr>
<th>Columbia Lake Village (Two-term fee)</th>
<th>2018/19</th>
<th>2019/20</th>
<th>Increase %</th>
<th>Monthly $</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single room (4-bedroom townhouse)</td>
<td>6,140</td>
<td>6,250</td>
<td>1.8</td>
<td>782</td>
</tr>
</tbody>
</table>

**Recommendation:** That the Columbia Lake Village 2019/20 room rate is approved effective Fall 2019 term
### Minota Hagey

*Residence for VeloCity*

<table>
<thead>
<tr>
<th>Minota Hagey (One-term fee)</th>
<th>2018/19 $</th>
<th>2019/20 $</th>
<th>Increase %</th>
<th>Monthly $</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single room</td>
<td>3,356</td>
<td>3,416</td>
<td>1.8</td>
<td>854</td>
</tr>
</tbody>
</table>

**Recommendation:** That the Minota Hagey 2019/20 room rate is approved effective Fall 2019 term.

### Columbia Lake Village

*Single Grad Residence*

<table>
<thead>
<tr>
<th>Columbia Lake Village (One-term fee)</th>
<th>2018/19 $</th>
<th>2019/20 $</th>
<th>Increase %</th>
<th>Monthly $</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single room (2-bedroom townhouse)</td>
<td>3,068</td>
<td>3,123</td>
<td>1.8</td>
<td>781</td>
</tr>
</tbody>
</table>

**Recommendation:** That the Columbia Lake Village 2019/20 room rate is approved effective September 1, 2019.

### Columbia Lake Village

*Family Residence*

<table>
<thead>
<tr>
<th>Columbia Lake Village (Townhouse style – Rent per Month)</th>
<th>2018/19 $</th>
<th>2019/20 $</th>
<th>Increase %</th>
<th>Monthly $</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-bedroom</td>
<td>1,283</td>
<td>1,306</td>
<td>1.8</td>
<td>N/A</td>
</tr>
</tbody>
</table>

**Recommendation:** That the Columbia Lake Village 2019/20 rental rate applicable to full-time University of Waterloo students is approved effective September 1, 2019.
FOR INFORMATION

1. General Oversight

**Operating Budget.** The committee received an update from the Vice-President, Academic & Provost on performance against the 2018-19 operating budget to date, and preliminary planning for the 2019-20 operating budget.

**ESG Implementation.** The committee reviewed sample summaries re: environmental, social and governance (ESG) reporting from a number of approved investment managers. The committee observes that the breadth and depth of ESG reporting offered by managers continues to evolve.

**Clean Sheet Exercise.** The committee will undertake a proactive “clean sheet” exercise, which is a process that applies the lens of a classic rebuild of the overall endowment portfolio as though the fund had only cash today for deployment in the near term. This exercise will be undertaken with the understanding that the process is non-binding, and aims only to yield meaningful insights that F&I may decide to implement. It is expected that this exercise will take place by May 2019 at the earliest.

This exercise will consider only the endowment fund, as these funds carry less regulatory burden and are simpler to make any changes that the process might suggest. Depending on the outcomes and perceived value of the exercise, the opportunity exists to extend this treatment to other university investment funds.

/mg

James Schlegel
Chair
This report is submitted to the Board of Governors following the meeting of the Governance Committee on 17 January 2019.

FOR INFORMATION

1. Board Orientation

The President will host an orientation session for all new and current members on a half-day to be identified in May 2019. The committee agreed to reduce slightly the length of the session this year in light of the relatively light turnover in the Board’s membership this year. Nevertheless, the session will provide the usual materials by way of introduction to the University and the work of the Board, and all governors are encouraged to attend.

Cindy Forbes
Chair, Governance Committee
This report is submitted following the committee’s meetings of 9 November 2018, 14 December 2018 and 18 January 2019, and is recommended for inclusion in the consent agenda.

FOR INFORMATION

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

During the reporting period, this included: progress of the benefits review led by Aon, with a working group formed to focus on this task into 2019; ongoing discussion regarding a university-sector jointly-sponsored pension plan; review of the university’s pension plan funding, led by Aon, with particular attention on the sharing of annual contributions between employees and the university, contribution rates and pension benefits at comparable universities, pension limits and caps, and the potential impact of the implementation of changes to the Canada Pension Plan over the 2019-25 period.

2. Indexation of Pension Benefit and Contribution Limits
The maximum pension benefits payable through the Registered Pension Plan (RPP) is governed by the Income Tax Act. Each year, the limit is adjusted based on the Average Industrial Wage (AIW) increase. The plan text for the Payroll Pension Plan (PPP) states that the maximum benefit payable through the PPP is also adjusted each year by the AIW increase. In addition to the RPP and PPP benefit limits, both plans include caps (i.e. $3,200 for RPP and $3,400 for PPP) that are set at the discretion of the committee. The PPP cap has been reached for 2019, and so the pension for higher earning members will be impacted starting this year; the committee is proactively discussing the overall plan design, including caps, in 2019.

3. Indexing of Health and Dental Plan Maxima and Retiree Life Insurance Coverage
The committee agreed to adjust the benefits plan maxima and caps effective 1 January 2019 based on one year of inflation. The incremental annual cost of the increase is estimated at $14,900. Retiree life insurance coverage was increased to $5,600 to adjust for inflation over the past year.

/mg

Marilyn Thompson
Chair
FOR INFORMATION

CONSOLIDATED UNDERGRADUATE AND GRADUATE ACADEMIC REVIEWS

The Associate Vice-President, Academic (AVPA) and Associate Vice-President, Graduate Studies and Postdoctoral Affairs (AVPGSPA) report annually to the Board of Governors and to the Ontario Universities Council on Quality Assurance (Quality Council) on the results of academic reviews of existing programs, new programs and major modifications. These processes are carried out under Waterloo’s Institutional Quality Assurance Process (IQAP).

Program Reviews
The following are Final Assessment Reports received by Senate for the September 2017 – August 2018 reporting period:

- Pharmacy (MSc, PhD)
- Intercultural German Studies (MA)
- Master of Mathematics for Teachers (MMT)
- Combinatorics and Optimization (MMath, PhD)
- Pure Math (MMath, PhD)
- Management Studies (minor)
- Philosophy (BA, MA, PhD, minor)

The following are the Two-Year Progress Reports received by Senate for the September 2017 – August 2018 reporting period:

- Planning (BES, MA, MES, MAES, PhD)
- Women’s Studies (BA)

New Programs
The following are the New Program Proposals received by Senate for the September 2017 – August 2018 reporting period:

- Sustainability Management (PhD) – approved by Quality Council February 2018
- Architectural Engineering (BASc) – approved by Quality Council February 2018
- Climate Risk Management (GDip (Type 3)) – approved by Quality Council April 2018

Major Modifications
The annual report of Major Modifications for undergraduate and graduate programs was submitted to the Quality Council in July 2018.

GENERAL OBSERVATIONS
Waterloo’s commitment to continuous improvement and outstanding academic programming has continued to evolve over the past few years. In particular, the establishment of a central Quality Assurance Office has raised the profile of academic program reviews, and the Office has been pivotal in implementing more efficient processes (e.g., self-study templates prepopulated with program data, regular follow-up meetings with programs, and additional administrative support to assist with the completion of self-studies), as well as better monitoring and oversight of Waterloo’s IQAP. These supports have
simplified the process for programs under review and have enabled programs to focus on the content of their report. Programs have responded positively to these changes and have been more readily engaged in their reviews.

INSTITUTIONAL QUALITY ASSURANCE PROCESS AUDIT
The University of Waterloo’s IQAP was scheduled for its first formal audit by the Ontario Quality Council in the 2017-2018 academic year. The Quality Council auditors chose to review:

- Two New Program Approvals
  - Health Promotion (BHP)
  - Master of Environmental Studies in Sustainability Management (MES)

- Four Cyclical Program Reviews
  - Civil Engineering (MEng/MASc/PhD)
  - History (MA/PhD) – Joint with the University of Guelph, the University of Waterloo and Wilfred Laurier University
  - Social Work (BSW) – Renison University College
  - Studio Art (BA/MFA), Art History and Visual Culture (BA), Film Studies and Visual Culture (BA)

- One Expedited Review
  - Graduate Diploma in Data Analytics (Type 2)

- Two Major Modifications
  - Biology, Biochemistry, Biomedical Sciences, Chemistry, Environmental Science, Earth Sciences, Mathematical Physics, Materials and Nanosciences (BSc)
  - Environment, International Development Program (BES)

The programs reviewed went through our IQAP process between 2013 and 2015. A desk audit of relevant documentation was provided to the Quality Council in late November 2017, and a site visit was conducted on March 19-21, 2018. The Final Report on the auditors’ findings was received on September 24, 2018, and there were nine recommendations; a number of the issues identified by the auditors had already been noted by the Quality Assurance Office prior to the audit. The auditors’ report is posted on the Academic Program Reviews website.

The Quality Assurance Office is working to address the audit recommendations. There were a number of changes to the IQAP envisaged prior to the audit, and coupled with the auditors’ feedback on the IQAP, a rewrite of this guiding document is in progress. Within a year of the publication of the final audit report, the institution will report to the Quality Council on what steps it has taken to address the recommendations. In addition, the revised IQAP will go forward through Senate for approval and then to the Quality Council for ratification.

Future work of the Quality Assurance Office will focus on the ultimate goal of fostering a culture of continuous improvement that focuses on maximizing the quality of academic programming. Particularly, increasing communication regarding the purpose and scope of the IQAP, increasing engagement with the campus community, and building consistency in our language and approval processes.
FOR INFORMATION

Report on Undergraduate Recruitment and Admissions Fall 2018

- overall a successful recruitment and admissions cycle
- competition for undergraduate students is intense and continuing (Ontario demographic decline)
- overall entering average of first year full-time newly registered students was 89.99%
  - some programs extraordinarily competitive; others made offers to all admissible students with 80% or greater averages to achieve targets (no differentiation between co-op and regular)
- crucial to continue growing the depth and breadth of our applicant pool to reduce institutional risk, and to maintain positive momentum.

Admission and Registration Performance
(new first-year, full-time undergraduates including BASE/ELAS and excluding continuing students)

<table>
<thead>
<tr>
<th>Applications</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Admitted (Offers)</td>
<td>50328</td>
<td>53295</td>
<td>57706</td>
</tr>
<tr>
<td>Registered Nov 1</td>
<td>25716</td>
<td>27448</td>
<td>29188</td>
</tr>
</tbody>
</table>

Recruitment and Confirmation Initiatives
Evidence-based recruitment and confirmation initiatives were critical to mitigate the impact of Ontario’s demographic decline and escalating competition in the domestic and international markets. These included outbound campaigns, print/digital communications, and a record-level array of in-person events and visits across all of our recruitment markets.

Performance vs Ontario “Market”
The Ontario Universities Application Centre had more applications overall, with a slight decline in first-choice applications from Ontario Secondary School students and over 10% more applications from outside Ontario. For Fall 2018, data suggests that each applicant submitted a greater number of applications (on average). Waterloo received 15,788 first choice applications for Fall 2018, representing about a 10% ‘market share’ of applications and ranking second among all Ontario universities in terms of first-choice applications from outside Ontario.
Admission Standards
As a measure of quality, the percentage of Ontario Secondary School (OSS) students with 80% or higher (best 6 grade 12 U/M courses) was 99.3% of the total first year registered newly admitted students. The 85% or higher group accounted for 81.3% of the registered students. In addition, the overall median average for first-year full-time registered students increased to 89.8%, which is one of the highest in Ontario.

Our programs with the most competitive admissions pools typically require applicants to submit an Admissions Information Form (AIF) and we score and apply metrics from several criteria. However, many Waterloo admission decisions are based primarily upon an applicant’s overall average which includes grades in required courses. To reach our 2018 domestic and international targets, 32 of 39 entry programs outside of Mathematics and Engineering admitted at the minimum required 80% overall average. This means that even though the overall quality of our incoming class was strong, we admitted almost every single eligible student to achieve our targets in these programs. This reinforces the need to recruit even more qualified applicants from both domestic and international markets to reduce institutional risk and continue improving the overall quality of the incoming class.

Composition of the incoming class

- Our first year, full-time new enrollment was 79.5% Domestic and 20.5% Visa (includes BASE and ELAS, excludes continuing students)
- Among Visa Students
  - China continues to be the largest source of students by both “source country” and “Country of Citizenship”
  - Continued strong growth particularly in India and among Indian citizens
  - Other top international markets/countries include the Middle East, Trinidad, Mauritius, USA, Indonesia, Singapore and Bangladesh
- Among Domestic Students
  - “Out of Province” represents 512 students for Fall 2018
  - Top Canadian provinces continue to be BC and Alberta with 19% and 9% growth compared to F2017

Recruitment activities continue to reflect a pursuit of diversity and strength for our incoming class. Development and growth of additional markets to reduce the impact and influence of any one source country among our international student base remains an ongoing priority.

André Jardin
Associate Registrar, Admissions

Tina Roberts
Director, Marketing & Undergraduate Recruitment
PRESIDENT’S UPDATE TO THE BOARD OF GOVERNORS  
FEBRUARY 5, 2019

Dear Governors,

I am pleased to provide you with a brief summary of major achievements, initiatives and updates since our last meeting in October including an update to the strategic planning process underway. I will be happy to discuss any items in further detail.

ACHIEVEMENTS/CONGRATULATIONS/NOTABLE EVENTS

- University of Waterloo adopts Okanagan Charter to promote student health
- Tech leaders came together to discuss how technology can adapt the impacts of climate change at the Beyond Impact Innovation Summit in Vancouver (Nov. 13) hosted in partnership by University of Waterloo with Microsoft Canada and SAP Canada
- Waterloo alumnus donates $25 million towards Engineering 7
- University of Waterloo’s Velocity launches AngelList-powered venture fund in March 2019
  - Fund will give investors a simple way to invest in a diversified portfolio of early-stage startups supported by Waterloo’s Velocity Garage. The new venture fund will replace a grant system used to fund awards in the incubator’s tri-annual Velocity Fund Finals pitch competition, which awards four $25,000 grants to new and emerging startups.
- University of Waterloo President and Chancellor present at DAVOS World Economic Forum 2019
- Undergraduate student Fiqir Worku named recipient of Lincoln M. Alexander Award for her work to eliminate racial discrimination and promote both inclusivity and social equality
- President’s Lecture (Jan. 30) Professor Donna Strickland, 2018 Nobel Laureate in Physics
- Launch of The Centre – New Student Service Centre has opened in its newly renovated location on the 1st floor of Needles Hall (Jan. 30) and will centralize core frontline services for students in one convenient location

STRATEGIC PLAN UPDATE

Strategic Planning – 2020-2025

We have continued to advance our strategic planning process for 2020-2025. During this quarter we have:

- completed accountability reports for our 2013-2018 Strategic Plan Summative Report which also provided important evidence for our 2020-2025 Strategic Plan consultations;
- completed the consultation phase of the Strategic Plan;
- begun working on the next stage of the strategic plan to develop goals; and
- have continued to communicate progress with the university community.

Completed 2013-2018 Strategic Plan Summative Report

In April 2018 we wrapped up our 2013-2018 Strategic Plan. In October 2018, I was proud to present the final summative strategic plan report at the October Board of Governors meeting. This report provides a five year overview of the progress made in key strategic areas. These
strategic areas remain the focus of our current strategic initiatives as we prepare for our new strategic plan, to be confirmed in October 2019 with implementation in May 2020.

**Completed 2020-2025 Strategic Plan Development Consultation Phase**
The consultation phase was completed in late November 2018. Informed by evidence gathered through the development of strategic issue papers and the 2013-2018 Strategic Plan Summative Report, consultation methods included face-to-face consultations, an online survey, submissions and feedback on the issue papers. The main focus of the consultation phase was to identify outcomes for Waterloo in 2025 that will further advance our distinctive characteristics.

Between September and late November 2018, we completed 37 face-to-face consultations focussed on specific stakeholders (Board of Governors, alumni, faculty, students, staff), strategic issue areas (empowering people, graduate studies, internationalization, learning environment, leveraging resources, and undergraduate learning), each of the six Faculties, and particular constituency groups (entrepreneurship council, international students, experiential education, student ambassadors). More than 800 members of the Waterloo community participated in these face-to-face sessions. In addition, over 2000 surveys were completed by Waterloo stakeholders and several written submissions were also included as part of the input. The consultations and surveys also generated tremendous interest in the 2020-2025 Strategic Plan.

**Next Stage of the 2020-2025 Strategic Plan Development – Goals and Objectives Development**
A robust qualitative analysis process distilled overall input into three main strategic areas: global impact, transformed learning and Waterloo as a community. The Strategic Plan Advisory Committee (SPAC) and senior university leadership are currently working with IAP to sort, refine and prioritize the initial input.

**Ongoing Communication**
We continue to maintain a robust Bridge to 2020 website to ensure that the campus community remains informed about the strategic plan process. Every six weeks, the President provides a university-wide communication about the Strategic Plan, and this information is also shared with Deans to facilitate communication with their respective Faculties. Meanwhile, we are beginning to develop the 2020-2025 Strategic Plan website which will be an engaging and comprehensive communication vehicle incorporating the Strategic Plan, implementation of the plan and accountability elements. We plan to launch this site in October 2019 in time for the final approval of the plan, and the preparation for the implementation and accountability-related activities.

**WATERLOO BUDGET MODEL (WBM)**
- After one shadow year (2016-17) and two years of full implementation (2017-18 & 2018-19), a number of refinements and adjustments to the WBM have been modelled and are expected to be implemented for the 2019-20 fiscal year.
- Changes to the model structure, cost drivers, funding of the strategic resource fund and funding of corporate wide expenses have improved clarity and transparency. The move from a slip year revenue allocation to current year revenue allocation with current year enrollment data allows for better planning for all units for the current year but also for future years. The model has been designed to ensure risk can be mitigated, subvention can be managed better and to ensure adequate short and long term funding will be available for the strategic resource fund. The strategic resource fund is very important as

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It provides funding so that activities in each of the areas of the strategic plan can be adequately resourced.

**ENROLMENT 2018**
- Waterloo’s Fall 2018 first-year new registrants is 4% above target and 3% above last Fall term’s new registrants. Waterloo has surpassed its first-year new registrant targets for both domestic students (4%) and international students (6%).

**SEARCHES**
- Searches near completion:
  - Dean of Applied Health Sciences
  - Dean of Arts

**EXPERIENTIAL EDUCATION UPDATE**

**Centre for Career Action (CCA)**
CCA has developed a new ‘Alt-Ac’ job shadowing program that enables PhD candidates to explore non-academic roles in PSE.
- 17 students will take part in round 1 of pilot in Winter 2019
- 14-15 different departments across UW have signed on as hosts

**Co-op**
Co-op continued to set records in 2018, as highlighted through a number of key performance indicators: Overall, the number of co-op work terms grew by 7% year-over-year, increasing from 20,177 in 2017 to 21,587 in 2018.

Co-op employment rates continued to be strong in 2018, even with a record-setting number of students scheduled out to work: Fall 2018 finished with a 99.7% rate, on par with the record-setting 99.8% percent in Fall 2017, despite a 7.8% increase year-over-year in the number of students scheduled out for the term. This resulted in 459 more students employed in Fall 2018 when compared to Fall 2017.

Winter 2018 finished with a 98.7% employment rate, a +1.5% increase over Winter 2018 and an additional 586 students employed year-over-year.

Reporting is ongoing for Winter 2019, which has seen a record-setting number of students scheduled out to work, at over 8,640 students scheduled out. With an employment rate of 90.3% as of December 20\(^{th}\), 2018 (compared to 90.2% at the same point in Winter 2017), and an additional 391 students already hired to-date, Winter 2019 is on-pace to become the single highest term for co-op employment in Waterloo’s history.

Other positive indicators included an increase in first work term employment rate in 2018 (up from 94.4% in 2017 to 97.0% in 2018), an increase of 3% in average co-op earnings (up to $23.98 per hour in 2018), and an increase in the average satisfaction rating provided by students for co-op jobs (rising from 8.36 to 8.45 out of 10 in 2018).

**International student career & co-op supports**
Ongoing strat-theme funded initiatives to enhance career/co-op supports for international students and students seeking an international experience have this term yielded:
- Faculty of Math has made it mandatory for Master’s of Math students who want to participate in co-op to attend CCA preparatory series designed for this student group
Centre for Career Action trialled new type of live-streamed alumni guest speaker event “Coming to you live from Hong Kong” during International Education Week. Ian Rowlands introduced session.

RESEARCH UPDATE

Associate Vice-President Innovation appointed
Sanjeev Gill joined the University of Waterloo in the role of Associate Vice-President Innovation on January 2, 2019. This is a new position created to enhance the University’s ability to better connect with industry and highlight Waterloo’s innovation ecosystem. Prior to accepting this role, Sanjeev was IBM Canada’s National Industry Executive for Research & Innovation where he promoted and enabled research and innovation initiatives across Canada within Higher Education and other Public Sector entities towards sustainable societal and economic benefits for Canada. He has extensive experience in the development of talent for high demand skills in Cybersecurity, Artificial Intelligence and Blockchain in collaboration with universities and colleges across Canada. In his role as AVP Innovation, Sanjeev Gill reports to the Vice-President, Research and International and has oversight of the commercialization and industry partnerships portfolios as well as leadership of the Global Entrepreneurship and Disruptive Innovation (GEDI) initiatives at Waterloo.

University of Waterloo Interdisciplinary Trailblazer Fund
A new fund has been established to catalyze cross-campus interdisciplinary collaborations by providing stipend support for teams of Graduate Students and/or Postdoctoral Fellows. This program has been designed to encourage applications from two or more Faculty members with different home Departments/Schools and preferably from different Faculties, where the proposed project must include elements from at least two different disciplines. The overall intent is to provide seed funding (maximum $80K) for promising, novel projects that would allow the cross-campus team to initiate joint research and position them strongly for external funding opportunities.

Highly Cited Researchers
Five University of Waterloo professors named to Clarivate Analytics’ 2018 Highly Cited Researchers list. Published annually, this list is comprised of scientists and social scientists in 21 fields that rank in the top one per cent by citations for field of study and publication year. Out of 166 researchers listed in Canada, five are from Waterloo: Zhongwei Chen (*Cross-field) Geoffrey Fong (Social Sciences) David Hammond (Social Sciences) Sharon Kirkpatrick (Agricultural Science) Linda Nazar (Chemistry & Materials Science)

*Identifies researchers with substantial influence in several fields from 2006-2016

2018 Canadian Women in Global Health
Susan Elliott, Faculty of Environment and Water Institute member named to 2018 Canadian Women in Global Health (CWIGH) List. The CWIGH List is inspired by a broader global movement to recognize the achievements and expertise of women in global health.
Canada Research Chairs
Four University of Waterloo researchers have been named new or renewing Canada Research Chairs (CRC).

New:

Nicole Nolette (French Studies) – SSHRC Tier 2 Canada Research Chair in Minority Studies ($500,000 over five years)
Duane Cronin (Mechanical and Mechatronics Engineering) – NSERC Tier 1 Canada Research Chair in Trauma Biomechanics and Injury Prevention ($1.4 million over seven years)

Renewal:

Alexander Wong (Systems Design Engineering) – NSERC Tier 2 Canada Research Chair in Artificial Intelligence and Medical Imaging ($500,000 over five years)

Linda Nazar (Chemistry) – NSERC Tier 1 Canada Research Chair in Solid State Energy Materials ($1.4 million over seven years)

GOVERNMENT RELATIONS UPDATE

Ontario Provincial Update – Tuition Fees

On January 17th, the Government of Ontario announced changes to three policy and program areas including: i) a reduction and freeze of tuition; ii) a new optional approach to student fees; iii) changes to OSAP.

i) Tuition Reduction/Tuition Freeze
Under the new Tuition Fee Framework, colleges and universities are required to reduce tuition fee levels for domestic students in grant-eligible programs by 10 percent for the September 2019-20 intake, relative to 2018-19 levels. Tuition for funding-ineligible programs (such as full cost recovery programs) and for funding-ineligible students (such as most international students) are excluded from the policy.

Under the new Tuition Fee Framework, colleges and universities are expected to freeze tuition fee levels in 2020-21 at the same level as 2019-20 tuition.

ii) New Approach to Student Fees
Under the government’s new “Student Choice” initiative, the government will create two categories of student fees:

- core “essential services” (co-op, mental health and counselling, safety “walk-home service”, building maintenance, student assistance, athletics and recreation)
- non “essential services” (transit passes, support for clubs, campus life initiatives and community spaces)

iii) Changes to OSAP
The Government is changing the OSAP system to focus on support to those with the greatest need. The main component of this is the elimination of non-needs based grants, grants for families with a household income of $140K+, and grants for independent students earning
$120K+ (now defined as those 6 years out of high school); loans versus grants at all levels; assistance is maintained.

The Ministry has confirmed that there are no plans to cut provincial operating grants.

As more details become available, we will be able to better assess the impacts this announcement will have at Waterloo and we will communicate our short, mid- and long-term plans to move forward in light of this announcement.

**Federal Fall Economic Statement**
On November 21st, the Government of Canada introduced its Fall Economic Statement which focused primarily on measures to improve business competitiveness and economic growth for the middle class. Announcements related to the university sector include the announcement of an International Education Strategy, additional funding for Mitacs internships and an additional $800 million over five years to the Strategic Innovation Fund which will be available for investments across the country and in all economic sectors.

**Supercluster Announcements**
On November 13th, the Government of Canada announced the signing of an agreement to invest up to nearly $230 million in the Ontario-based Next Generation Manufacturing Supercluster, one of the two supercluster projects involving Waterloo. On December 6th, Prime Minister Trudeau announced that the Quebec-based Scale AI Supercluster, also involving Waterloo, will receive $230 million from the Government of Canada. Federal funding will be matched dollar for dollar by the private sector.

**New Frontiers in Research Fund**
On December 6th, the Government of Canada announced the New Frontiers in Research Fund, a new tri-agency fund of $275 million over five years, to support international, interdisciplinary and fast-breaking research. The first competition under this program will support early career researchers.

**Free Speech**
In response to the earlier announcement from the Government of Ontario, the University of Waterloo has implemented its free speech policy to meet the January 1, 2019 deadline.

**UNIVERSITY RELATIONS UPDATE**

**Waterloo Innovation Summit**
In 2018, the Waterloo Innovation Summit shifted to a Speaker Series. Two successful events were hosted in partnership with the Globe & Mail (March 23 in Toronto) and Microsoft (November 13 in Vancouver).

Two Waterloo Innovation Summit events will be held in 2019, with an international focus and a return to Waterloo.

February 18, 2019 will see the Summit at Canada House in London, England, hosted in partnership with the High Commission of Canada. The program will feature remarks from Chancellor Dominic Barton, as well as a presentation by Nobel Laureate Professor Donna Strickland. This invitation only event will also include panels highlighting Waterloo’s strengths in transformational research and entrepreneurship.
On September 10, 2019, the Waterloo Innovation Summit will be hosted in the new Engineering 7 facility. The program will include Nobel Laureate Professor Donna Strickland and will also highlight emerging technologies and transformative solutions coming out of Waterloo. The fall Summit is expected to draw up to 200 leaders in business, academia, and government.

**Executive Communications**

Over the course of this reporting period, the Executive Communications team supported thirty-one speaking engagements for me that included on-campus events such as the university strategic planning process and off-campus engagements in Vancouver, New York City, Stockholm and Davos, along with additional appearances across Ontario.

On campus from September to January, some of the key events included:

- 10th anniversary celebration for Velocity,
- press conference with Professor Donna Strickland on the day it was announced she had won the 2018 Nobel Prize in Physics,
- Fall 2018 Convocation ceremonies that included the installation of the University’s 11th chancellor, Dominic Barton,
- town hall on Student Mental Health that included the signing of the Okanagan Charter,
- Grand Opening of the Engineering 7 building and a Gala dinner later that evening, and
- Annual President’s Town Hall event with the campus community.

Outside of the campus community from September to January, key events included:

- speaking to a select group from RBC Capital Markets Mosaic at an event in Toronto dedicated to discussing how education is evolving to meet the demands of a rapidly changing work environment and what the University of Waterloo is doing to meet these challenges,
- an alumni event in New York City with roundtable meetings the following day,
- Waterloo Innovation Summit Speakers Series event in Vancouver at the Microsoft Vancouver offices.
- Attendance at the World Economic Forum in Davos (January 21-25)
  - It was an honour to represent the University of Waterloo at WEF through the sponsorship of Waterloo alum and Chairman and CEO of AMTD Group in Hong Kong, Calvin Choi.
  - In addition to networking with hundreds of leaders in global business, government and NGOs during WEF’s various sessions, I held engaging and productive meetings with a large number of business leaders from around the world. In addition, I met with WEF’s leads for the Global University Leaders Forum and also participated in a Times Higher Education session with 15 university presidents on the topic of “Redefining Talent.” I also presented a UWaterloo-focused presentation on innovation and entrepreneurship at AMTD’s WEF headquarters.
  - Attending WEF was an incredible environment for networking and also deal making across business, government and academic sectors. While the overall objectives of the entire event are fluid, it is the largest gathering of business and government in the world and a unique opportunity to enhance our institution’s presence and expertise on a global scale. As the only other Canadian university, along with McGill, present at WEF, it was wonderful to engage with global business leaders and be recognized for our leadership in co-op and the main topic
of conversation in Davos, artificial intelligence. Taking a full week to attend WEF was well worth the time and planning as it was a new and rewarding experience for our university on a global stage that has further positions us as a leading institution of teaching and research.

**Media Relations**

- How universities can lead our country in a new economic world – op-ed by Feridun Hamdullahpur (Globe and Mail)
- How universities can lead in a time of disruption – op-ed by Dominic Barton (Canadian Business)
- People’s memories better aided by drawing than writing (Bloomberg, CBC, Times of India, Fast Company, TIME, MSN, Boston Globe)
- The University of Waterloo develops new powder that can dramatically reduce CO2 emissions (Times of India, IFL Science, Canadian Mining Journal)
- The University of Waterloo unveils building to take on the Fourth Industrial Revolution (Globe and Mail, Waterloo Record)
- Most Canadian cities unprepared for climate disasters (National Post, CTV, Toronto Star, Vancouver Sun, The Province, Ottawa Citizen, Toronto Star, Huffington Post, MSN)
- University of Waterloo astrophysicist accurately predicts blackhole phenomenon (Scientific American, Space.com)
- Waterloo researchers discover antidepressants can be used to fight Alzheimer’s (Forbes).

**Campus Wayfinding Plan**
Waterloo’s Campus Wayfinding Plan (CWP) was launched with a mandate to develop an integrated and overarching plan for wayfinding and related signage for the Waterloo campus. After the Fall’s community-wide unveiling, a competition was held to pre-qualify vendors for the fabrication and installation phase planned for 2019. Upon completion, an RFP was developed that will be issued when the project’s budget is approved.

**“Beyond” Brand Awareness Campaign**
The 3rd phase of the University’s BEYOND brand awareness campaign launched on October 10 with advertising in support of the Waterloo Innovation Summit Speaker Series in Vancouver, followed by the start of the full national campaign on November 15.

In support the University’s strategic plan and University Relations key priorities, campaign goals include:
- Increase reach and visibility among key audiences (business, government and university leaders) in priority national markets (Ontario, BC, Alberta);
- Enhance audience engagement and understanding of Waterloo and its differentiators;
• Build awareness of Waterloo as a top global innovation university;
• Support key University funding, recruitment and partnership goals;
• Build stakeholder pride.

ADVANCEMENT UPDATE

Campaign planning
The Campaign Planning Committee, chaired by former board member Mike Stork, conducted a two-day collision workshop on October 29 with senior leadership, to learn about priority funding initiatives for the future. The committee also met for two sessions in late December to finalize its recommendations for proceeding with a campaign. The draft campaign recommendation, to be presented to the Board on February 5th, includes financial goals, proposed timelines, funding priorities, volunteer structure and an overview of areas to be addressed in 2019 to position the University to be campaign ready by 2020.

Sustainable growth strategy
In order to build sustainable growth in fundraising, the central Advancement and Faculty teams continue to operate on this strategic framework:
  1. Alumni and donor-centred decision-making and strategy-setting
  2. Faculty focus
  3. President and leadership engagement
  4. Central Advancement optimization
  5. Accountability, transparency and results

COMMITTEE ON STUDENT MENTAL HEALTH UPDATE

As of January 2nd, 2019, 50% of the recommendations put forward by the President’s Advisory Committee on Student Mental Health (PAC-SMH) are underway or have been completed, and the Committee on Student Mental Health (CoSMH) continues to receive feedback and suggestions from the university community through an online feedback form. Related recommendations have been grouped together to enable effective strategizing and to draw the most appropriate campus partners into the consultation and planning process. After consultation with representatives from the Student Success Office (SSO), AccessAbility Services, and Campus Wellness, CoSMH has made significant progress on Recommendations 17 and 20 (ranked first and second in priority).

Upcoming tasks in winter 2019 include the examination of strategies to encourage faculty members to engage in mental health training, providing oversight to a steering committee focused on UWaterloo mental health training programs, and the maintenance of a central resource inventory. Following that, CoSMH will address recommendations related to broader mental health literacy training, and the formation of various groups with focuses on academic-related recommendations and cultural competency. The University of Waterloo continues to be engaged in the Mental Health Commission of Canada and Canadian Standards Association expert committee for development of a national standard for Psychological Health and Safety for Post-secondary Students. For monthly updates, please visit the CoSMH website.
Welcome and Introductory Comments

Speakers: Cindy Forbes, chair, Board of Governors
         Feridun Hamdullahpur, president and vice-chancellor

Following a welcome to the retreat by Forbes, Hamdullahpur walked attendees through a brief presentation highlighting: performance indicators and progress made since 2013; international recognition of the University; status of the current strategic plan; guiding principles; competing areas of importance; emerging themes from recent consultations.

Hamdullahpur and Forbes reminded members that the day is intended to enable deep discussion by governors on the next strategic plan. Governors were invited to participate fully in the development of the next strategic plan, both today, and in the future.

Session I – How to Prepare for Disruption in the Post-Secondary Education Context

Speaker: Terry Stuart, chief innovation officer, Deloitte

Stuart led members through an engaging and thought provoking session. Members heard: a challenge as to the Board’s role in helping the University find its next “big thing”; advice that every industry is changing rapidly; the value of “soft skills”; the significance and benefits of exponential growth; the opportunity presented by “life-long learning” initiatives.

In discussion: the potential role of the University to focus strategically on helping the less fortunate, particularly in the life-long learning realm; a suggestion that the University identify social and cultural needs, and opportunities, and provide mechanisms to create solutions for them.
Session II – Governors’ Panel

**Topic:** Given Waterloo’s inherent strengths, current success, position, risks, challenges, and opportunities, from your personal perspective, where do you want Waterloo to be in 2025?

**Moderator:** Cindy Forbes

**Panelists:** Kathy Bardswick  
Tia Driver  
Neil Randall  
John Lounds

Forbes provided introductory comments, indicating the need to build on the University’s strengths, realize its potential and create an integrated strategic vision which is connected and relevant to all of the University’s stakeholders. In turn, panelists offered some initial thoughts:

Bardswick – there are three significant pressures/trends: climate, technology, and global influences, both political and economic; complex problems require interdisciplinary solutions and we ought to define what that means at the University of Waterloo.

Driver – generally pleased with where she sees the University heading; she came to Waterloo to gain skills that she believes will make a difference in the world; she has been pleased with what she has seen at consultation sessions; suggests three areas of focus: maintaining viability, integration, and interdisciplinarity.

Randall – offered some perspective over his more than 15 years at Waterloo; his sense that “out of the box” thinking is encouraged here; Waterloo’s strength at balancing tradition and change; his hope that Waterloo will continue to have a strong central vision and leadership which respects individual autonomy and recognizes innovation and change.

Lounds – offered thoughts on the changing world which is: becoming more experiential and interdisciplinary, expects authenticity, and is giving and philanthropic; he advised of the need for soft skills, awareness of technology, and the need to build and maintain trust; his desire to see Waterloo live up to these standards.

In discussion: the various issues associated with a dramatic increase in the number of students at Waterloo; the appetite for change across the campus; the need for stability, but with an eye toward enabling non-traditional approaches; ways to be relevant; the need to invest in talent acquisition and retention.

Session III – Lunch

**Topic:** Reflections on the 2013-2018 Strategic Plan from a Board member’s perspective.

**Speaker:** Murray Gamble

Gamble offered thoughts on the last strategic plan from his perspective. Members heard: Gamble’s history with the University; his observations as to what makes Waterloo unique; his thoughts on how Waterloo’s differences impact its strategic plans; how the Board can and should help with the process; lessons the Board ought to keep in mind; his thoughts on the best way that the Board can contribute in the development of the next plan: focus and prioritization, questioning assumptions, identifying risks, contributing expertise, encouraging realistic aspirational goals, helping to develop a great execution plan, and measurement and reporting.
Session IV – Breakout Sessions and Summary/Group Discussion

Group 1

Topic: What should the strategic plan include re: concrete measures regarding student success? How do we keep our standards/rigour up and be more innovative in our approach?

In discussion:

Student success:
- Need to reconsider definitions of success, and messaging
- Student experience changes over 1-4 years – i.e., academic rigour, or demands associated with co-op terms
- Create the environment for success (however defined)

Co-op:
- Has pros and cons – i.e., co-op gives students more responsibility and maturity, but could undervalue standard educational experience; could fragment sense of student community spirit; regular versus co-op students – is there a caste system?
- Need to promote what is offered by co-op in addition to a job

Perceptions of Waterloo/Community:
- Affection for Waterloo in head, less so in heart
- Potentially significant role for alumni re: ambassadors, mentors, employers, etc.
- Better articulate/advertise re: what students can expect when they arrive

Health and Wellbeing:
- Cannot lump all students together – not homogenous (e.g., introverts, extroverts)
- Need to increase awareness about supports that are available
- Examples: self-care: student mental health and well-being – use this lens, make it meaningful; especially with vulnerable groups – international students, First Nations’ students

The rigour question:
- Is this sense of rigour arbitrary? Does this criterion/objective really address needs of new economy and society – e.g., adaptability, creativity, etc.?
- Empowering students to have their own experience may be one way forward; this is seen in Velocity, can be difficult in very prescriptive programs

Group 2

Topic: Why international? How can we connect research, student success, financial stability and increased global visibility/reputation to internationalization?

In discussion:

Definitions/Overarching matters:
- What does the term really mean at Waterloo?
- The University needs to determine its frame of influence and define desired outcomes
- Waterloo is receptive to identifying when external ideas can have a local impact
- There is a need to identify important and fruitful partnerships at the global level

What should Waterloo do?:
- Have we seen benefits for students in these programs? Are they more successful?
There are tangible benefits for those who publish with international partners
Waterloo already seeks to work with the best in the world, and needs to continue this effort
It will be important to pay attention to real world problems and identify areas of strength at Waterloo to capitalize on these opportunities
Consider requiring an external, international course or other international experience in all degree programs; consider a “passport” for all students with required “stamps” or other markers demonstrating such activity

Group 3

*Topic: Should the University of Waterloo dare to challenge itself and look beyond its current administrative and academic structures?*

In discussion:
- What are the attitudes/thinking that would foster interdisciplinarity?
- Cultural change takes time and Waterloo needs to recognize this
- Value in exploring whether the more interdisciplinary centres and institutes can offer lessons
- There need to be incentives for deans, others to explore interdisciplinary avenues
- Not only are incentives needed, but disincentives need to be identified and removed
- Administrative silos need to be reconsidered
- Academic and administrative structures ought not be seen to be so separate

*Wrap-up and Conclusion*

Speakers: Cindy Forbes, chair, Board of Governors  
Feridun Hamdullahpur, president and vice-chancellor

Forbes and Hamdullahpur thanked attendees for a full and fruitful day of discussion. Members understood that further information with respect to the planning process for the next strategic plan will occur at the February meeting of the Board.
RECOMMENDATIONS
RECOMMENDATIONS

- Bold campaign with an ambitious range
- 7 – 9 year timeline
- Prominent volunteer leadership
- Responsive organization to drive engagement at every level
- Board support
SUCCESS CRITERIA

In order to be successful, we must...
DEFINE BIG, INTERDISCIPLINARY IDEAS QUICKLY
CREATE A VERSATILE STRUCTURE RESPONSIVE TO DONOR INTERESTS
3. SYNCHRONIZE THE CAMPAIGN PLAN IN SUPPORT OF THE NEW STRATEGIC PLAN
PROGRESS TO DATE
PROGRESS TO DATE

- Active involvement of Deans and academic leadership
- Campaign Planning Committee
- Advancement campaign-ready
- Extensive internal and external stakeholder input
KEY INSIGHTS
A BOLD FINANCIAL GOAL REQUIRES:

VISION

LEADERSHIP

EXECUTION
VISION

- Bold, futuristic and disruptive vision and strategic plan
- Transformational projects and global partnerships
- Pan-university collaboration
- Ambition for impact tackling the challenges of humanity
- Focus on and beyond 2030/2040
LEADERSHIP

- Inspiring leadership of Chancellor, President, Board, Deans, Campaign Chair and Cabinet

EXECUTION

- Confidence: demonstrated ability to think big, deliver and execute
- Robust pipeline – 95/5
- Adaptable, responsive and professional infrastructure
CHALLENGES
CHALLENGES

- Finding right goal that is both ambitious and attainable
- Long timeline may include leadership changes, fluctuating economy and political uncertainty
- Timely alignment with strategic plan and vision for Waterloo of the future
- Accurate forecasting of the potential donor base and its capacity
- “Marathon not a sprint” – volunteer leadership and engagement
NEXT STEPS
NEXT STEPS

- Recruit campaign leaderships and volunteers
- Test feasibility of campaign goals with donors
- Prepare ambitious case for support aligned with strategic plan
- Branding and collateral materials for silent phase, including elevator pitch
- Campaign operating plan including budget
- Strengthen the pipeline
- Prepare University leadership, board and fundraising team
- Engagement of alumni base and broader community
THANK YOU
BOARD OF GOVERNORS

2018/2019 BUDGET UPDATE

2/5/2019

Presented by: James W.E. Rush
Vice-President Academic and Provost

UNIVERSITY OF WATERLOO
OUTLINE

- 2018/19 Operating Budget Update
- Planning for 2019/20 Operating Budget
## 2018/19 Budget (April 2018)

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2018/19 BUDGET

Board Approved April 2018

Revenue + Cost Recoveries $776.7 M
Expenses $779.6 M

Deficit: ($2.9 M)

Surplus: $0.1 M

Estimate February 2019

Revenue + Cost Recoveries $778.6 M
Expenses $778.5 M
2018/19 BUDGET - UNDERGRADUATE ENROLMENT

Fall 2018 First Year Enrolment:

- New admits exceeded target by 295 students or 4% (actual 6,903, target 6,608)
  - Domestic new admits, 104% of target (3.5% increase over Fall 2017)
  - International new admits, 106% of target (0.3% increase over Fall 2017)

- Entering average continuing strong at 90.0% in Fall 2018 (89.8% in Fall 2017)
2018/19 BUDGET - UNDERGRADUATE ENROLMENT

Total Undergraduate Enrolment:

- Moderate growth in international students due to flow-through from previous admission cohorts
- Slight growth in domestic students
- Total Fall 2018 Undergraduate headcount 34,002 (up from 33,238 in Fall 2017)
- Continued growth in professional programs (eg. Computer Science, Engineering)
2018/19 BUDGET - GRADUATE ENROLMENT

- Total Masters enrolment up 2.9%, PhD enrolment up 5.0% (over 2017/18)
  - Eligible\(^1\) Masters down by 1.0%, PhD up by 12.3%
  - International Masters up by 6.4%, PhD down by 0.6%

- Eligible Graduate Targets negotiated in SMA2 (over 2016/17)
  - 2,854.1 Masters WGUs (Weighted Grant Units) to be filled by 2019/20 (growth of 32.4%)
  - 808.7 PhD WGUs (Weighted Grant Units) to be filled by 2019/20 (growth of 11.5%)

- Performance on SMA2 grad are targets critical to graduate funding negotiations in SMA3

\(^1\) Eligible are defined as domestic, not in excess of the funding time limit
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<td>1,820</td>
<td>778,569</td>
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### UNIVERSITY OF WATERLOO
#### 2018/19 Operating Expense Budget

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<tr>
<th>EXPENSES</th>
<th>Estimated 2018/19</th>
<th>Increase / (Decrease)</th>
<th>Estimated 2018/19</th>
<th>% of Income</th>
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<td>As at February 5, 2019</td>
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<tr>
<td>Current salaries and wages</td>
<td>433,544</td>
<td>574</td>
<td>434,118</td>
<td>55.8</td>
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<td>Benefits</td>
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<tr>
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<td>Student Support</td>
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<tr>
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<td>8,831</td>
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<td>160</td>
<td>-</td>
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<tr>
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<td>17,550</td>
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<td>Subtotal</td>
<td>612,978</td>
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<td>611,886</td>
<td>78.6</td>
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**Board of Governors**  
**February 5, 2019**
Other

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<tr>
<th>Description</th>
<th>Amount</th>
<th>Difference</th>
<th>Difference (as %)</th>
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<tbody>
<tr>
<td>Accessibility fund for students with disabilities</td>
<td>1,051</td>
<td>-</td>
<td>1,051</td>
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<tr>
<td>Research overhead</td>
<td>500</td>
<td>-</td>
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<td>-</td>
<td>1,800</td>
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<tr>
<td>Library acquisitions</td>
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<td>-</td>
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<td>22,670</td>
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<td>Total other</td>
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<td>(364)</td>
<td>74,764</td>
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</tbody>
</table>

| Supplies and expenses                            | 103,550 | 560        | 104,110           | 13.4              |

| Gross expenses                                   | 791,655 | (896)      | 790,759           | 101.6             |
| Cost recoveries and chargeouts                   | (12,034) | (257)      | (12,291)          | (1.6)             |
| Estimated net expenses                           | 779,621 | (1,153)    | 778,468           | 100.0             |
| Estimated income                                 |         |            |                   |                   |
| Excess income over expenses                      |         |            | 778,569           |                   |
|                                                   |         |            |                   | 101               |
2019/20 BUDGET PLANNING

Government Policy and Environmental Planning Parameters:

- The provincial government has announced a 10% reduction to domestic tuition fees from 2018/2019 rates to be applied in 2019/20, and freeze tuition at that level for 2020/21

- International tuition remains unregulated by the province

- No announcement on provincial operating grants. The ministry has verbally communicated that there will not be any reductions to operating grants at this time

- Changes will be made to OSAP obligations in light of Auditor General’s report, however awaiting more technical details from the ministry at this time
2019/20 BUDGET PLANNING

- Peer Ontario Universities are placing greater emphasis on recruitment of international students and increases to international fees

- An enrolment corridor remains in place which constrains domestic undergraduate enrolment growth by capping government grants at 2016/17 levels

- Provincial government priorities of creating efficiencies and reducing red-tape
2019/20 BUDGET PLANNING

U of Waterloo Response to External Factors:

- The 2019/20 domestic fee increases previously approved by the Board will need to be restated as a result of the Provincial government’s announcement to cut fees.

- Consider enrolment planning parameters and the financial implications to changes in the mix of students (e.g. domestic/international; program mix, etc.).

- International tuition increase of 15% applied to first-year students in most programs including recapture of international student recovery. However, most in-program students will see no more than a 5% increase in 2019/20.

- Emphasis on efficient use of resources and cost containment.
2019/20 BUDGET PLANNING

Undergraduate Enrolment:

- Emphasis on Strategic Enrolment Management to achieve student mix and position with the enrolment corridor
- Maintain high 1st to 2nd year student retention rates (93.9%) and to increasing completion rates
2019/20 BUDGET PLANNING

Graduate Enrolment:

- Domestic graduate student intake to achieve graduate targets
- Review of student support provided to research Masters and PhD students
- Variation in tuition increase across programs
2019/20 BUDGET PLANNING

Increase Revenues:

- Maximize grant revenues through achievement of graduate enrolment targets
- Continue to recruit academically strong international students
- Increase tuition where permitted by the provincial policy
- Introduction of new graduate programs

Decrease Expenses:

- Seeking efficiencies/synergies/cost containment
## UNIVERSITY OF WATERLOO
### 2018/19 Operating Expense Budget

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</tr>
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</table>

1. The net increase in salaries and wages is as a result of reallocations of budget from supplies and expenses to salaries and wages.
2. The tuition set aside budget has been adjusted due to prior year spending being higher than estimated at the time of developing the opening 2018/19 budget and for other minor true ups.
3. Of the budget for allocation to faculties, $9m was transferred to faculties in August 2018.
4. The net increase in supplies and expenses is a result of reallocations of budget between different expense categories and other miscellaneous adjustments.
### UNIVERSITY OF WATERLOO
#### 2018/19 Operating Income Budget

**Board of Governors**
**February 5, 2019**

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<td>1,820</td>
</tr>
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1. The majority of the decrease in operating grant is attributed to not reaching the forecasted domestic masters level enrolment. The PhD domestic grant eligible targets were exceeded.
2. The majority of the decrease in tuition is attributed to missing the forecasted undergraduate international enrolment levels by 0.3%.
3. The investment income earned on operational funds has increased throughout 2018/19 consistent with the general upward trend in interest rates in Canada.
4. Miscellaneous income includes application fees, rental income and various other fees such as transcripts, verification letters, etc. The net increase relates to various items, the largest being an increase in application fees from the Ontario Universities Application Centre (OUAC).
TUITION FEE SETTING

2/5/2019

Presented by: James W.E. Rush
Vice-President Academic and Provost
TUITION FEE SETTING PROCESS - OVERVIEW

- Information package is compiled (comparative data and provincial policies/framework are reviewed, scenarios compiled by IAP to direct discussion-discussions began Fall 2018)
- Dean’s Group meetings (review the package, consult departments and other units; CECA – co-op fee, BASE fees, and AFIW programs)
- Student association consultations (Provost meeting with Student Association reps, SSAC, USRC, GSRC)
- Completion of rate templates (iterative process with Deans, IAP, Provost’s Office)
- Tuition modelling and budget scenarios by IAP (as related to compliance with MAESD framework and budget forecasts)
TUITION FEE SETTING PROCESS - OVERVIEW

- Provost’s review/decision on rate template proposals
- Review and recommendation by Finance & Investment Committee
- Board of Governor approvals
- Implementation and operationalization of rates by Finance and the Registrar’s Office
INFORMATION CONTEXT FOR PROCESS

- Tuition fee frameworks and government policy.
- Tuition fee changes in prior years.
- Comparative data on peer universities in Canada (U15, COU).
- Application and enrolment trend data.
- International tuition fees at Universities in other countries.
- Currency exchange rate data on top countries from which UW draws.
- Institutional operating costs and inflation rates.
- Additional factors that can't be easily quantified and require input from those that are closest to the academic programming for which rates are being set.
INFORMATION CONTEXT FOR PROCESS

International tuition rates are reviewed annually to reflect...

- The value of a Waterloo degree overall and in specific program areas.
- The demand for Waterloo programs nationally and internationally.
- Alignment of Waterloo’s rates with similar programs offered at other universities within Ontario, nationally and internationally.
- Any changes to provincial policies including those related to the tuition framework, the government funding mechanism, and international student recovery taxes.
- Institutional operating costs including overall inflation and costs associated with provision of student services.
DATA CONTEXT ON UNDERGRADUATE TUITION SETTING

- The primary historical strategy of peer universities has been to maximize domestic fee increases within the jurisdictional regulatory constraints (recently 3% overall annual framework) on these fees.

  *This has been disrupted by MTCU January announcement: -10% 2019/20; 0% 2020/2021*

- International fee increases among peer universities indicate different strategies that range from slight to aggressive increases depending on the academic program area.

- UW has lower international tuition rates than a number of our peer Canadian and international universities for the majority of programs.

- UW international application statistics continue to show very strong growth during periods of fee increases.

- First-year international enrolment intake continues to increase (19% increase in 2018 over 2017).

- Note that comparator information is not always available for all programs.
### International Undergraduate Fees (UW vs. Peers)

#### Tuition Fee Setting

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<tr>
<td>Business</td>
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#### University of Waterloo International Undergraduate Fees

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## INTERNATIONAL UNDERGRADUATE FEES (UW vs. PEERS)

### COMPUTER SCIENCE

INTERNATIONAL UNDERGRADUATE

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# INTERNATIONAL UNDERGRADUATE FEES (UW vs. PEERS)

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### ARTS AND SOCIAL SCIENCES

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## Arts and Social Sciences (Ontario) International Undergraduate

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<td>University of Toronto</td>
<td>$45,690</td>
<td>$49,800</td>
<td>9.0%</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Queen's University</td>
<td>$37,490</td>
<td>$41,614</td>
<td>11.0%</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>University of Ottawa</td>
<td>$27,343</td>
<td>$31,444</td>
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<tr>
<td>University of Waterloo</td>
<td>$26,940</td>
<td>$29,230</td>
<td>8.5%</td>
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<tr>
<td>University of Western Ontario</td>
<td>$26,614</td>
<td>$28,743</td>
<td>8.0%</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>McMaster University</td>
<td>$25,905</td>
<td>$27,977</td>
<td>8.0%</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>York University</td>
<td>$23,664</td>
<td>$26,030</td>
<td>10.0%</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Ryerson University</td>
<td>$23,289</td>
<td>$24,454</td>
<td>5.0%</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Wilfrid Laurier University</td>
<td>$22,956</td>
<td>$24,104</td>
<td>5.0%</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>University of Guelph</td>
<td>$20,840</td>
<td>$22,091</td>
<td>6.0%</td>
<td>10</td>
<td>10</td>
</tr>
</tbody>
</table>
TUITION RATES – INTERNATIONAL STUDENTS ($CAD)*

<table>
<thead>
<tr>
<th>CANADA</th>
<th>ARTS</th>
<th>SCIENCE</th>
<th>MATHEMATICS</th>
<th>ENGINEERING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waterloo</td>
<td>$28,000</td>
<td>$29,000</td>
<td>$30,000</td>
<td>$41,000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AUSTRALIA</th>
<th>ARTS</th>
<th>SCIENCE</th>
<th>MATHEMATICS</th>
<th>ENGINEERING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australian National University</td>
<td>$40,000</td>
<td>$42,000</td>
<td>$42,000</td>
<td>$44,000</td>
</tr>
<tr>
<td>University of Melbourne</td>
<td>$25,000</td>
<td>$36,000</td>
<td>$31,000</td>
<td>$34,000</td>
</tr>
<tr>
<td>University of Sydney</td>
<td>$36,000</td>
<td>$43,000</td>
<td>$43,000</td>
<td>$43,000</td>
</tr>
<tr>
<td>Monash University</td>
<td>$29,000</td>
<td>$37,000</td>
<td>$37,000</td>
<td>$39,000</td>
</tr>
<tr>
<td>University of Adelaide</td>
<td>$31,000</td>
<td>$35,000</td>
<td>$35,000</td>
<td>$41,000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>UNITED KINGDOM</th>
<th>ARTS</th>
<th>SCIENCE</th>
<th>MATHEMATICS</th>
<th>ENGINEERING</th>
</tr>
</thead>
<tbody>
<tr>
<td>University of Warwick</td>
<td>$32,000</td>
<td>$40,000</td>
<td>$40,000</td>
<td>$40,000</td>
</tr>
<tr>
<td>University of Birmingham</td>
<td>$27,000</td>
<td>$35,000</td>
<td>$27,000</td>
<td>$35,000</td>
</tr>
<tr>
<td>University of Cambridge</td>
<td>$33,000</td>
<td>$51,000</td>
<td>$37,000</td>
<td>$51,000</td>
</tr>
<tr>
<td>University of Aberdeen</td>
<td>$25,000</td>
<td>$32,000</td>
<td>$32,000</td>
<td>$32,000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>UNITED STATES OF AMERICA</th>
<th>ARTS</th>
<th>SCIENCE</th>
<th>MATHEMATICS</th>
<th>ENGINEERING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arizona State University</td>
<td>$38,000</td>
<td>$38,000</td>
<td>$38,000</td>
<td>$38,000</td>
</tr>
<tr>
<td>Oregon State University</td>
<td>$32,000</td>
<td>$32,000</td>
<td>$32,000</td>
<td>$33,000</td>
</tr>
<tr>
<td>University of California, Riverside</td>
<td>$52,000</td>
<td>$52,000</td>
<td>$52,000</td>
<td>$52,000</td>
</tr>
</tbody>
</table>

* Annual rates based on the assumption of Fall 2018 tuition fees and 2 terms of study, with the exception of Oregon State University and University of California, Riverside, who follow a quarterly academic year with 3 terms of study.
GROWTH IN INTERNATIONAL APPLICATIONS

- Growth in international applications continues to be strong during periods of fee increases.
First year international enrolment continues to increase (19% increase in 2018 over 2017).
SUMMARY OF TUITION FEE ACTIONS (DOMESTIC)

- Domestic Undergraduate and Graduate tuition rates have historically been set > a year in advance of implementation.

- MTCU has provided guidance that all domestic Undergraduate and Graduate tuition rates are to be reduced by 10% effective September 2019 for the 2019/2020 period compared to existing 2018/2019 rates, and further domestic tuition rates are to be changed by 0% in 2020/2021 compared to 2019/2020.

- Thus, Board is asked to approve the following actions:
  - Retract the 2019/20 domestic tuition rates previously approved at the February 6, 2018 Board of Governors meeting
  - As of September 2019, reduce the current 2018/19 domestic tuition rates by 10% for the 2019/20 year
  - Maintain the tuition domestic rates at the 2019/20 levels so that the tuition rates remain unchanged (0%) in 2020/21
SUMMARY OF TUITION FEE INCREASES (INTERNATIONAL)

- International Undergraduate and Graduate tuition rates have historically been set a few months in advance of implementation (February approval/May implementation).

- Thus, Board is asked to approve the following related to International Tuition Rates proposed for May 2019/2020
  - Undergraduate programs unless otherwise stated below: 15.0% (year 1); 5% (upper years)
    - Computer Science (including BBA/Computer Science Double Degree), 62.1% (year 1); 5% (upper years)*
    - AFM, Biotech/CPA, CFM, Math/CPA, 5.0% (all years)
  - Research Master & PhD programs 3.0%
  - Specifically identified Master and Diploma programs 3.0% - 15.0%
This report is submitted following the committee’s meeting of 18 January 2019. Motions for approval were recommended by the committee.

FOR APPROVAL

1. Math 4 Project

Motion: That the Board of Governors approve in principle the development of the Math 4 building project to be located in the “L” parking lot with an estimated budget of $50 million. This will permit the University to proceed with selecting/recommending an architectural firm assuming the design-bid-build process is deployed or alternatively to commence development of a design-build specification package.

Background:
This new, state-of-the-art mathematics building will host research institutes in vital fields such as fintech, data science, and cryptography. Specifically, the building will accommodate Combinatorics and Optimization, Mathematics Business and Financial Technology as well as the Centre for Education in Mathematics and Computing which plays a key role in the Faculty’s outreach program. It will enrich student experience by creating new social and collaboration spaces. It will feature classrooms and collision spaces to encourage interaction and collaboration among our faculty, students, staff, and external partners. It will accelerate leading-edge math and computer science research as well as foster a culture of innovation and collaboration. By creating a vibrant and singular environment, the new building will help Mathematics attract more of the world’s top math and computer science talent.

To be located strategically at the west end of “L” parking lot, north of Math 3 and east of B.C. Matthews Hall, this two-phase project will be located in an area designated in the Campus Master Plan for Academic/Mixed Uses. At approximately 120,000 gross square feet, the building will feature prominently onto Ring Road to provide the Faculty of Mathematics with a highly visible presence next to the North Gateway. The building will likely be 5 storeys and feature a series of overhead links connecting it to Math 3 through the Energy Research Centre.

The project would be executed through either the design-bid-build or the design-build process. The preliminary budget ($000s) including net HST for Phase 1 is estimated at $50 million:

<table>
<thead>
<tr>
<th></th>
<th>Design-bid-build</th>
<th>Design-build</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction</td>
<td>$36,000</td>
<td>$40,700</td>
</tr>
<tr>
<td>Overhead Links</td>
<td>1,500</td>
<td>included in construction</td>
</tr>
<tr>
<td>Contingency</td>
<td>3,750</td>
<td>3,750</td>
</tr>
<tr>
<td>Professional Fees (8%)</td>
<td>3,400</td>
<td>included in construction</td>
</tr>
<tr>
<td>Design-Build Package</td>
<td>na</td>
<td>200</td>
</tr>
<tr>
<td>Disbursements</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Furniture/Furnishings</td>
<td>1,700</td>
<td>1,700</td>
</tr>
<tr>
<td>Network Connectivity</td>
<td>200</td>
<td>200</td>
</tr>
<tr>
<td>Audio Visual</td>
<td>850</td>
<td>850</td>
</tr>
<tr>
<td>Permits &amp; Development Charges</td>
<td>2,500</td>
<td>2,500</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$50,000</strong></td>
<td><strong>$50,000</strong></td>
</tr>
</tbody>
</table>
Once a determination is made on whether to pursue the design-bid-build or the design-build approach, the Board of Governors’ support of this recommendation will allow the University to proceed with either developing a design-build specification package ($200k) or alternatively advertising for an architectural firm under the design-bid-build process and recommending that firm to Board of Governors.

The Faculty of Mathematics has positioned this project as one of its key fund-raising priorities and has committed the required operating funds together with $10m from central funds to ensure that 50% of the funding is in place prior to developing the tendering documents. The Faculty has committed to fully fund the project within 7-8 years.

2. Easement Request by the City of Kitchener

Motion: That the Board of Governors approve the granting of a 1,300 square meters easement to the City of Kitchener for the construction of the Iron Horse Trail Extension along the north and west boundary of the Health Sciences Campus.

Background:
In December 2018, the City of Kitchener approached the University to request an easement to permit the construction and operation of a public trail along a portion of the north and west property boundary of the Health Sciences Campus. The easement would be located within the municipal setback requirements for the site. The approximate area of the proposed easement is 1,300 square meters (0.3 acres).

The City of Kitchener has agreed to be responsible for the construction, maintenance, operation and liability insurance related to the trail. In addition, the City is responsible to comply with the Ministry of the Environment’s Certificate of Property Use 3261-7K7P3Q.

There are some design details relating to the trail that need to be resolved including the grading and landscaping impacts along the northern sections particularly where it is adjacent to the glazed section of the Pharmacy building as well as the architectural retaining wall. The area next to the glazed areas of the Pharmacy building deserve specific attention since those windows provide natural light and views into the two large lecture halls. In the event a future overhead link across King Street is constructed, the University reserves the right to require the City of Kitchener to eliminate and restore the east-west section of the trail and the corresponding easement.

FOR INFORMATION

3. General Oversight
The committee reviewed and accepted for information:
- the capital financing commitments associated with capital projects, and advises that these commitments fall within the University of Waterloo’s board-approved debt policy
- the work plan of the committee
- the terms of reference of the committee
- university real estate holdings
- university compliance with all building codes, fire codes, safety regulations and statutory and regulatory provisions, as appropriate, in its building and properties program; no exceptions were reported.

Martha George
Chair
This report is submitted following the committee’s meeting of 17 January 2019 as well as a subsequent email poll to confirm the impact of the new domestic tuition framework announced by the provincial government on the day of the meeting. This report is recommended for inclusion in the regular agenda.

The Vice-President, Academic & Provost will make a presentation on the recommended tuition changes at the Board of Governors meeting, on behalf of the committee.

RECOMMENDATION

1. Recommended Tuition Fee Changes

Motion: That the Board of Governors approve the following tuition fee changes for 2019/20 and 2020/21:

1. Domestic Undergraduate and Graduate Students
   - 2019/20
     i. Retract the 2019/20 domestic tuition rates previously approved at the February 6, 2018 Board of Governors meeting
     ii. As of September 2019, reduce the current 2018/19 domestic tuition rates by 10% for the 2019/20 year
   - 2020/21
     i. Maintain the tuition domestic rates at the 2019/20 levels so that the tuition rates remain unchanged (0% in 2020/21)

2. International Undergraduate and Graduate Students
   - 2019/20 Undergraduate Students
     i. Year 1 undergraduate programs other than Computer Science +15.0%
     ii. Upper year undergraduate programs + 5.0%
   - 2019/20 Graduate Students
     i. Research Masters & PhD programs + 3.0%
     ii. Specifically identified Master and Diploma programs + 3.0%-15.0%

3. International 2019/20 Undergraduate Year 1 Computer Science* + 62.1%
   (including BBA/CS double degree option)
   (* exceeds the Board of Governors’ 2000 Guideline limit of 15%)

And that the Board of Governors concurrently approve a one-time exception to the established cap guidelines for tuition rate increases to allow for the proposed one-time increase to the international undergraduate year 1 computer science tuition fees, as described in Attachment #1 of this report.

The major tuition categories identified in Attachment #2 “Recommended Tuition Fee Increases 2019/20 and 2020/21” schedule provides examples for a range of programs.

Rationale: On 17 January 2019, the Minister of Training, Colleges and Universities (MTCU) announced upcoming changes to tuition rates, ancillary fees, and the Ontario Student Assistance Program (OSAP). Although only high level information was provided at that time, the Minister indicated that (a) domestic tuition fees shall be reduced by 10% from their current levels as of September 2019, (b) a 0% domestic tuition fee adjustment will be in effect for the 2020/21 year, (c) that students would be permitted to opt-out of certain “non-essential” ancillary fees, and (d) a host of changes will be made to OSAP. Collectively, Ontario universities are seeking further
clarifications from MTCU regarding a number of technical aspects as well as specific implementation guidelines pertaining to these changes. As details become known, the University may be required to modify some specific elements of the domestic tuition calculations and will ensure that the Board of Governors is duly advised.

MTCU currently requires universities to provide domestic tuition fees two academic years in advance in order to support the administration of OSAP.

It is the University of Waterloo’s practice is to establish international fees annually. International fees are not regulated by MTCU and are developed based on the university’s offering of a very high quality of education, competitive market rates, market demand for each program, and the MTCU imposed $750/student International Student Recovery and the $75/student Grant-in-lieu of Taxes for undergraduate and master students.

The recommended 62.1% increase for the first year international undergraduate computer science program reflects Waterloo’s competitive position in the marketplace – while for domestic students the university currently charges the highest tuition fees in Canada for its computer science program, in contrast the university’s international tuition fees for the same program rank seventh among Canadian programs. The recommendation will also align computer science tuition fees with those of the university’s comparable software engineering program. The recommended increase exceeds the 15% maximum increase as established by the tuition cap guideline approved by the Board of Governors in February 2000. The current 2018/19 term tuition fee of $15,823 would increase to $25,653 in 2019/20, matching the international tuition fees for the software engineering program. Upper-year students will continue to be subject to a 5% increase over the previous year.

James Schlegel
Chair
International Undergraduate Computer Science First-Year Tuition Increase in Excess of Board of Governors Cap

1. **Annual Caps.** The Board of Governors established cap guidelines\(^1\) for tuition rate increases as part of the report of the working group on Tuition-Fee Guidelines. The annual caps are as follows:

<table>
<thead>
<tr>
<th>Program Type</th>
<th>Maximum Real Increase for Any Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regulated undergraduate and professional programs</td>
<td>10%</td>
</tr>
<tr>
<td><strong>Deregulated undergraduate and professional programs(^2)</strong></td>
<td>15%</td>
</tr>
<tr>
<td>Graduate doctoral and research masters programs</td>
<td>10%</td>
</tr>
<tr>
<td>Other masters programs</td>
<td>15%</td>
</tr>
</tbody>
</table>

2. **Request.** It is requested that the Board of Governors approve a one-time increase to international undergraduate first year term fees in excess of this previously imposed cap of 15% maximum increase for the following programs:

- Computer Science/Data Science
- Business Administration (Laurier) and Computer Science (Waterloo) Double Degree (BBA/CS Double Degree)

The one-time proposed increase is as follows:

<table>
<thead>
<tr>
<th></th>
<th>Term Fee 2018-2019</th>
<th>Tuition Rate Increase (Proposed)</th>
<th>Term Fee 2019-2020</th>
<th>Annualized Fee 2019-2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>First-Year Tuition</td>
<td>$15,823</td>
<td>62.1%</td>
<td>$25,653</td>
<td>$51,306</td>
</tr>
</tbody>
</table>

If approved, the proposed increase will be applied in Spring Term 2019 to first-year (1A and 1B) students. Upper year students will be subject to 5% increase over the previous year fee. Thus, it will take 5 years for this one-time 62.1% increase to flow through to all students.

3. **Rationale for Request**
   a. **Market Comparison.** In recognition of the quality and reputation of the Computer Science program, the University of Waterloo charges the highest domestic tuition fee for Computer Science relative to peer Canadian Universities.

\[^2\] Computer Science/Data Science and BBA/CS Double Degree are considered deregulated undergraduate professional programs.
By contrast, the University of Waterloo charges only the 7th highest Computer Science international tuition fee relative to its peer Canadian Universities (less than University of Toronto, University of British Columbia (UBC), Queen’s University, McGill University, University of Ottawa, and McMaster University).

In 2018/2019, the annual undergraduate Computer Science international tuition charged by the University of Waterloo was $31,646 which is $19,854 less than University of Toronto and $12,326 less than UBC. This differential has been growing in recent years. Since the University of Waterloo is recognized as a top-tier institution for prospective international students entering Computer Science programs, it is important to set the undergraduate Computer Science international tuition rates in line with other top-tier Canadian institutions.

### Alignment of Programs and Fees within University of Waterloo
Software Engineering and Computer Science share many common foundations in programming, with first-year course overlap in algebra and calculus at the University of Waterloo. It can also be noted that often Computer Science is integrated with the Faculty of Engineering at other institutions. Given the similarity of these two programs, there should be closer alignment in tuition fees. Software Engineering international undergraduate term fees at the University of Waterloo in 2018/19 were $22,307 ($44,614 annual fee) versus...
Computer Science international undergraduate 2018/19 term fees of $15,823 ($31,646 annual fee). The similarity between these two programs suggest the undergraduate Computer Science program is undervalued. The requested one-time first year fee increase for undergraduate international Computer Science tuition will align to the fee charged for undergraduate international Software Engineering.

c. **Cumulative Impact on Revenue**
The following table illustrates the 5-year forecasted revenue impact of the request to increase first-year undergraduate international Computer Science tuition fee by 62.1%. The scenario used as a comparator shows revenue under the assumption that international Computer Science fees will increase at the same rate as all other international undergraduate programs in 2019/2020. For this illustration, it is assumed that 2019/2020 enrolment projection continues with no growth for 5 years in order to highlight the tuition increase impact. Although the revenue difference between scenarios in 2019/2020 is small at $2.0M, this grows significantly by 2023/2024 to $13.1M as the initial first-year increase flows through to upper years over the 5 years.

The 5 year cumulative revenue differential between 15% first year / 5% upper years tuition rate increases and applying the one-time 62.1% increase in 2019 then continuing with 15% first year / 5% upper years is forecasted to be $38M.

4. **Special Considerations and Issues re: Business Administration and Computer Science Double Degree Program with Wilfrid Laurier University**

University of Waterloo (UW) and Wilfrid Laurier University (WLU) have an agreement to equally share the domestic equivalent revenue from both domestic and international fee paying students registered in the double degree programs. Historically, WLU have aligned BBA/CS Double Degree program fees with the UW fees.

Discussion with WLU counterparts have been initiated surrounding the request for a significant one-time increase. However, WLU conducts its tuition rate increase process later in the year than UW. Thus at this time, it is unclear as to whether WLU will approve the application of the same 62.1% increase to first year tuition for international undergraduate BBA/CS Double Degree program fees.

Under the circumstance in which WLU does not align 2019/2020 first-year international BBA/CS Double Degree program fees with UW, a risk arises that some portion of international students could choose to register with WLU instead of UW and continue to receive the same double degree, resulting in lost revenue for UW.

Factors reducing this risk are that international student enrollment in the BBA/CS Double Degree program represents less than 3% of total international student enrollment in Computer Science programs. In the event that WLU does not align its international BBA/CS Double Degree rate, the agreement between UW and WLU stipulates that the two institutions will share the domestic equivalent revenue from both domestic and international fee paying students registered in the double degree programs. This would effectively result in a portion of the revenue stream collected by WLU continuing to be transferred to UW.
### 1. Graduate Plans, Effective Spring for International Students

<table>
<thead>
<tr>
<th></th>
<th>Domestic* [1, 2, 3]</th>
<th>International [1, 2, 3]</th>
<th>Domestic [1, 2, 3]</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>All Years</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| All Master research graduate plans | -10%  
Graduate Master of Science tuition per term | $2,254 | $7,042 | $2,254 |
| Example:              |                     |                        |                   |
| All PhD research graduate plans | -10%  
Graduate PhD of Science tuition per term | $2,254 | $6,972 | $2,254 |
| Example:              |                     |                        |                   |

### 2. Special Graduate Plans, Effective Spring for International Students

<table>
<thead>
<tr>
<th></th>
<th>Domestic* [1, 2, 3]</th>
<th>International [1, 2, 3]</th>
<th>Domestic [1, 2, 3]</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>All Years</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Examples:</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| Master of Architecture | -10%  
Tuition range per term | $1,381 - $2,762 | $5,754 - $11,508 | $1,381 - $2,762 |
| Master of Engineering |                     |                        |                   |
| Example:              |                     |                        |                   |
| Master of Management Sciences | -10%  
Tuition range per term course | $584 - $3,947 | $668 - $4,723 | $584 - $3,947 |
| Master of Taxation    |                     |                        |                   |
| Example:              |                     |                        |                   |
| Master of Public Health | -10%  
Tuition per term | $2,254 | $8,216 - $8,490 | $2,254 |
| Master of Climate Change |                     |                        |                   |

### 3. Special Graduate Plans, Effective Fall for International Students

<table>
<thead>
<tr>
<th></th>
<th>Domestic* [1, 2, 3]</th>
<th>International [1, 2, 3]</th>
<th>Domestic [1, 2, 3]</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>All Years</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Examples:</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| Master of Business, Entrepreneurship and Technology | -10%  
Tuition range per term | $2,416 - $11,817 | $4,928 - $18,453 | $2,416 - $11,817 |
| Master of Public Service |                     |                        |                   |
| Example:              |                     |                        |                   |
| Master of Environment and Business | -10%  
Tuition range per term course | $1,085 - $3,272 | $1,266 - $3,817 | $1,085 - $3,272 |

### 4. Special Graduate Plan, Effective Winter for International Students

<table>
<thead>
<tr>
<th></th>
<th>Domestic* [1, 2, 3]</th>
<th>International [1, 2, 3]</th>
<th>Domestic [1, 2, 3]</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>All Years</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| Master of Accounting  | -10%  
Tuition per term | $7,114 | $17,982 | $7,114 |

---

*Rates effective Fall 2019. Rates for Spring 2019 will remain at the current 2018/19 rate subject to further direction from MTCU.  
**Applicable to students in all years of study.
5. Undergraduate "Deregulated" Plans

<table>
<thead>
<tr>
<th>Program</th>
<th>Domestic* [1, 2, 3]</th>
<th>International [1, 2, 3, 4]</th>
<th>Domestic [1, 2, 3]</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>All years</td>
<td>Year 1</td>
<td>Upper Years</td>
</tr>
<tr>
<td>Architecture</td>
<td>-10% 15% 5% 0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Engineering, including Nanotechnology &amp; Software Engineering</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mathematics/Business Administration, Double Degree</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mathematics, Financial Analysis &amp; Risk Management</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Optometry</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tuition range per term</td>
<td>$4,272 - $7,685</td>
<td>$18,196 - $27,901</td>
<td>$15,560 - $25,518</td>
</tr>
<tr>
<td>Example:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Engineering</td>
<td>$6,984</td>
<td>$25,653</td>
<td>$20,696 - $23,422</td>
</tr>
<tr>
<td>Computer Science</td>
<td>-10% 62.1% 5% 0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Computer Science/Business Administration, Double Degree</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tuition per term</td>
<td>$6,435</td>
<td>$25,653</td>
<td>$15,560 - $16,614</td>
</tr>
<tr>
<td>Global Business &amp; Digital Arts</td>
<td>-10% 15% 5% 0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tuition per term</td>
<td>$5,683</td>
<td>$18,685</td>
<td>$15,761 - $17,060</td>
</tr>
<tr>
<td>Pharmacy</td>
<td>-10% 15% 5% 0%</td>
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</tr>
<tr>
<td>Tuition per term</td>
<td>$8,514</td>
<td>$30,720</td>
<td>$26,268 - $28,049</td>
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<tr>
<td>Accountancy and Financial Management (AFM)</td>
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</tr>
<tr>
<td>Biotechnology/Chartered Professional Accountancy (CPA)</td>
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<td></td>
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</tr>
<tr>
<td>Computing and Financial Management (CFM)</td>
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<tr>
<td>Mathematics/Chartered Professional Accountancy (CPA)</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Tuition per term 2A &amp; B, 3A &amp; B, 4A &amp; B</td>
<td>$7,518</td>
<td>N/A</td>
<td>$19,584</td>
</tr>
<tr>
<td>All other undergraduate plans not specifically listed</td>
<td>N/A</td>
<td>15% 5%</td>
<td>N/A</td>
</tr>
<tr>
<td>Example:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tuition, Environment international per term</td>
<td>N/A</td>
<td>$16,884</td>
<td>$14,372 - $15,416</td>
</tr>
<tr>
<td>Tuition, Arts &amp; AHS international per term</td>
<td>N/A</td>
<td>$16,807</td>
<td>$14,372 - $15,346</td>
</tr>
<tr>
<td>Tuition, Science international per term</td>
<td>N/A</td>
<td>$17,573</td>
<td>$15,028 - $16,045</td>
</tr>
<tr>
<td>Tuition, Mathematics international per term</td>
<td>N/A</td>
<td>$18,196</td>
<td>$15,560 - $16,614</td>
</tr>
</tbody>
</table>

6. Undergraduate "Regulated" Plans

<table>
<thead>
<tr>
<th>Program</th>
<th>Domestic* [1, 2, 3]</th>
<th>International [1, 2, 3, 4]</th>
<th>Domestic [1, 2, 3]</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>All years</td>
<td>Year 1</td>
<td>Upper Years</td>
</tr>
<tr>
<td>All other undergraduate plans not specifically listed</td>
<td>-10% N/A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Example:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tuition, All faculties</td>
<td>$3,064</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

7. Undergraduate Plan

<table>
<thead>
<tr>
<th>Program</th>
<th>Domestic* [1, 3]</th>
<th>International [1, 3]</th>
<th>Domestic [1, 3]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting Diploma Program</td>
<td>-10% 15% 0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tuition per term course</td>
<td>$1,778</td>
<td>$4,496</td>
<td>$1,778</td>
</tr>
</tbody>
</table>

*Rates effective Fall 2019. Rates for Spring 2019 will remain at the current 2018/19 rate subject to further direction from MTCU.*
Notes to the Recommended Tuition Fee Increases:

[1] Plus applicable incidental fees.
[2] Plus co-op fees and work report marking fees where applicable.
[3] All tuition amounts are for a four-month term and are the maximums that can be charged in any term.
[4] Undergraduate international tuition students in upper years will be assessed a maximum increase of 5% over the previous year's tuition.
[5] The international tuition increases for 2020/21 will be presented at a future Board of Governors meeting.
[6] Actual tuition assessed may be slightly different due to rounding.

Background Notes:

1. The Board of Governors has the power (as given in the University of Waterloo Act) to set tuition fees at any level it wishes. In practical terms, that power is constrained by the provincial government, as they will deduct from its grant funding any tuition charges in excess of the amount stipulated in the tuition framework. The rates presented are calculated using the framework announced January 17, 2019.

Subject to the approval of the Board of Governors