To begin the meeting, the Chair will call Governor’s attention to the wampum belts that have been framed and hung for display in the room, and will invite Elder William Woodworth to speak.

---

### Consent Agenda

**Motion:** To approve or receive for information by consent items 4-6 below.

1. Minutes of the 25 October 2022 Meeting*  
   - **Page:** 5  
   - **Action:** Decision

2. Report of the Vice-President, Academic & Provost  
   a. Sabbatical and Administrative Leaves*  
      - **Page:** 11  
      - **Action:** Decision
   b. Accountability Status Report – Consolidated Undergraduate and Graduate Academic Reviews*
   - **Page:** 17  
   - **Action:** Information

3. Reports from Committees
   a. Audit & Risk Committee*  
      - **Page:** 23  
      - **Action:** Information
   b. Finance & Investment Committee*  
      - **Page:** 25  
      - **Action:** Information
   c. Governance Committee*  
      - **Page:** 27  
      - **Action:** Information
   d. Pension & Benefits Committee*  
      - **Page:** 29  
      - **Action:** Information

### Regular Agenda

1. Business Arising from the Minutes  
   - **Page:**  
   - **Action:** Information

2. Report of the President
   a. General Update  
      - **Page:**  
      - **Action:** Information
   b. Strategic Plan Update: Talent – Panel Discussion
      i. Indigenization of Curriculum and Anti-Racist Pedagogies  
      - **Page:** 31  
      - **Action:** Information
### 9. Reports from Committees

**a. Building & Properties Committee***

*Motion:* That the Board of Governors approve a revised project budget of $50.34 million (previous approval was $45.25 million) for the Waterloo Eye Institute and that the project proceed to final design and tender.

*Motion:* That the Board of Governors approve the Math 4 building constructed using a Construction Management form of contract rather than the previously contemplated Stipulated Price Contract form of agreement.

*Motion:* That the Board of Governors approve the appointment of Diamond Schmitt Architects Inc. (DSAI) as the prime consultants to prepare design and construction documents for a proposed 500-bed undergraduate student residence.

**b. Finance & Investment Committee and Pension & Benefits Committee***

*Motion:* That the Board of Governors approve the Coldwell Banker Richard Ellis (CBRE) Group to provide an open-ended real estate fund (CBRE Global Alpha) for the Registered Pension Plan (RPP), the university endowment fund, and the IQC trust fund.

**c. Finance & Investment Committee***

1. *Motion:* That the Board of Governors approve the amendments to the Statement of Investment Policies and Procedures for the University of Waterloo Endowment as described in the cover item.

2. *Motion:* Recommend that the Board of Governors approve the 2023/24 Tuition Fee changes and Co-op Fee for 23/24.

   1. 22/23 Operating Budget – Update and Planning for 23/24
   2. Tuition Fee Setting including Co-op fee

### 10. Report of the Vice-President, Administration and Finance

**a. Students Services Fee (May 2023)**

*Motion:* To approve the student services fees for all full-time and part-time undergraduate and graduate students effective 1 May 2023.

**b. Campus Housing Fees (Fall 2023)**

*Motion:* To approve campus housing 2023/24 residence fee rates, effective Fall 2023.

10 MINUTE BREAK
<table>
<thead>
<tr>
<th>Time</th>
<th>Item</th>
<th>Notes</th>
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<tbody>
<tr>
<td></td>
<td>a. Co-Op Annual Update (McRae)</td>
<td>Information</td>
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<td></td>
<td>i. 2021 CEE Annual Report</td>
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<tr>
<td>4:00</td>
<td>12. Other Business</td>
<td>Oral</td>
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<td>Input</td>
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<tr>
<td>4:05</td>
<td><strong>CONFIDENTIAL SESSION</strong></td>
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<td><em>Governors, Secretariat, Vice-Presidents, Deans, Technical Staff to attend the Confidential Session</em></td>
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<tr>
<td>4:05</td>
<td>13. Conflict of Interest</td>
<td>Oral</td>
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<td></td>
<td>Declaration</td>
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<td>4:05</td>
<td><strong>Consent Agenda</strong></td>
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<td></td>
<td><strong>Motion:</strong> To approve by consent item 15 below.</td>
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<tr>
<td>(5)</td>
<td>14. Minutes of the 25 October 2022 Meeting*</td>
<td>75</td>
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<tr>
<td></td>
<td></td>
<td>Decision</td>
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<tr>
<td>4:10</td>
<td><strong>Regular Agenda</strong></td>
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<td>4:10</td>
<td>15. Business Arising from the Minutes</td>
<td>Oral</td>
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<td>4:10</td>
<td>16. Report of the President</td>
<td>Oral</td>
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<td>Information</td>
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<td>(15)</td>
<td>17. Reports from Committees</td>
<td>77</td>
</tr>
<tr>
<td></td>
<td>a. Audit and Risk Committee*</td>
<td>Information</td>
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<td></td>
<td>b. Governance Committee*</td>
<td>79</td>
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<td></td>
<td><strong>Motion:</strong> That the Board of Governors appoint new members as described in the cover item.</td>
<td>Decision/</td>
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<td>Information</td>
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<td><strong>Motion:</strong> To appoint members to Committees of the Board of Governors as described in the cover item.</td>
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<td><strong>Motion:</strong> To elect the Chair of the Board of Governors for a three-year term (1 May 2023 to 30 April 2026) as described in the cover item.</td>
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<tr>
<td>4:25</td>
<td>18. Report from the Vice-President, Research and International</td>
<td>Oral</td>
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<tr>
<td>(15)</td>
<td>a. Changing Geopolitical Risks (Students, Research and Partnerships) (Dean)</td>
<td>Information</td>
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<tr>
<td>4:25</td>
<td>19. Other Business</td>
<td>Oral</td>
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<td>Input</td>
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<tr>
<td>4:40</td>
<td>20. Conflict of Interest</td>
<td>Oral</td>
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<td>Declaration</td>
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<td>(5)</td>
<td>21. Minutes of the 25 October 2022 Meeting*</td>
<td>81</td>
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<td></td>
<td>Decision</td>
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<td>4:45</td>
<td>22. Business Arising from the Minutes</td>
<td>Oral</td>
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<td>4:45</td>
<td>23. Reports from Committees</td>
<td>Oral</td>
</tr>
<tr>
<td>(10)</td>
<td>a. Audit &amp; Risk Committee</td>
<td>Information</td>
</tr>
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</table>
## UPCOMING BOARD AND COMMITTEE MEETINGS AND EVENTS

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
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</thead>
<tbody>
<tr>
<td>1 February 2023</td>
<td>Board Education – Quality Assurance Framework (Undergraduate and Graduate) (Rush)</td>
</tr>
<tr>
<td>7 February 2023</td>
<td>Board Meeting</td>
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<tr>
<td>1 March 2023</td>
<td>Board - Waterloo at 100 Paper – Feedback (Goel)</td>
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<tr>
<td>7 March 2023</td>
<td>Board/Senate Education: Funding Environment, SMA, Corridors (Rush)</td>
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<tr>
<td>8 March 2023</td>
<td>Buildings and Properties Committee</td>
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<tr>
<td>9 March 2023</td>
<td>Audit and Risk Committee, Finance and Investment Committee</td>
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<tr>
<td>10 March 2023</td>
<td>Pension and Benefits Committee, Governance Committee</td>
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<tr>
<td>21 March 2023</td>
<td>Strategic Session – Communities – Sustainability Focus (Board and Senate)</td>
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<tr>
<td>4 April 2023</td>
<td>Board Meeting</td>
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<tr>
<td>2 May 2023</td>
<td>Strategic Session – Interdisciplinary Research (Board and Senate)</td>
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<tr>
<td>24 May 2023</td>
<td>Governance Committee Annual Retreat – Workplan/Priority Setting</td>
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<tr>
<td>5 June 2023</td>
<td>Presidents’ Golf Tournament</td>
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<tr>
<td>6 June 2023 (am)</td>
<td>Board Orientation – (Board Governance 101)</td>
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<td>6 June 2023</td>
<td>Board Meeting</td>
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<tr>
<td>6 June 2023</td>
<td>Board Dinner (TBC)</td>
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<tr>
<td>7 June 2023 (am)</td>
<td>Board/Senate Orientation – Institutional Overview/VP Portfolio Updates</td>
</tr>
</tbody>
</table>

*materials attached*
Present: Nyla Ahmad, Michael Ashmore, Peter Barr, Carol Cressman, Jack DeGooyer, Catherine Dong, Michael Eubanks, Teresa Fortney, Murray Gamble, Tony Giovinazzo, Moira Glerum, Vivek Goel, Rob Gorbet, Susan Grant, Nancy Heide, Russell Hiscock, Andre Hladio, Karen Jack (secretary), Dave Jaworsky, Achim Kempf, Sheryl Kennedy, Ellen MacEachen, Mary Robinson, Matthew Schwarze, Jagdeep Singh Bachher, Stephanie Ye-Mowe

Guests: Sheila Ager, Suman Armitage, Sandra Banks, Aubrey Basdeo, Jean Becker, Kathy Becker, Courtney Bremer, Bruce Campbell, Ingrid Cowan, Charmaine Dean, David DeVidi, Nenone Donaldson, Rebecca Elming, Paul Fieguth, Bruce Frayne, Mark Giesbrecht, Diana Goncalves, Mike Grivicic, Sarah Hadley, Michelle Hollis, Lee Hornberger, Dennis Huber, Agata Jagielska, Ross Johnston, Andrea Kelman, Jennifer Kieffer, Brain Laird, Robert Lemieux, Peter Lowe, Nick Manning, Norah McRae, Cathy Newell Kelly, Fayaz Noormohamed, Alice Raynard, Chris Read, Ian Rowlands, James Rush, Daniela Seskar-Hencic, Adrian Simone, Gail Spencer, Kerry Stryker, Brandon Sweet, Mathew Thijssen, Sean Thomas, Nickola Voegelin, Melanie Will, Sarah Willey-Thomas

Regrets: Dominic Barton, Lori Curtis, Cindy Forbes, Lisa Mak, Karen Redman, John Saabas, Naima Samuel, Kevin Strain, Berry Vrbanovic, Dan Weber, Stanley Woo

For this meeting, Jagdeep Bachher (vice-chair) assumed the chair.

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 remarked: the wampum belts presented to the President as part of the Commitment Ceremony on September 22 are to be framed for presentation in the Board room, and at the February 2023 Board meeting an elder will provide the Board with a lesson on the ceremony and the belts to explain their significance and meaning; municipal elections were held on October 24, and Karen Redman and Berry Vrbanovic will continue as governors while Dorothy McCabe will join the Board as mayor-elect of Waterloo; important upcoming events include the National Day of Remembrance and Action on Violence Against Women, as well as celebrations of life for the former dean of engineering Pearl Sullivan and for the former president James Downey.

Members welcomed new governor Mary Robinson, and acknowledgement of the final meeting for Dave Jaworsky, extending thanks for his service on the Board. The chair observed that this is the final meeting for Dennis Huber, who will be retiring at the end of 2022; he is the university’s longest-serving senior administrator having joined in 1986 and serving as Vice-President, Administration & Finance since 2001.

3. AGENDA/ADDITIONAL AGENDA ITEMS
A motion was heard to approve the agenda as presented. Gamble and Fortney. Carried.

Consent Agenda
A motion was heard to approve and/or receive for information by consent items 4-6 as below.

Barr and Gamble.
4. **MINUTES OF THE 7 JUNE 2022 MEETING**
The minutes were approved as presented.

5. **REPORT OF THE VICE-PRESIDENT, ACADEMIC & PROVOST**
The Board approved the sabbatical and administrative leaves and cancellations and received the remainder of the report for information.

6. **REPORTS FROM COMMITTEES**
   a. Executive Committee.
   b. Finance & Investment Committee.
   c. Governance Committee.
   d. Pension & Benefits Committee.

   Reports (a)-(d) were received for information.

   The question was called, and the motion carried

Regular Agenda

7. **BUSINESS ARISING FROM THE MINUTES**
There was no business arising.

8. **REPORT OF THE PRESIDENT**
   a. **Student Presentation – Showcasing Innovation in the Construction Supplies Industry**
   Adrian Simone, a fourth-year civil engineering student, provided a PowerPoint presentation: he is co-founder and CEO of MicroBuild; discussion of his initial interest in civil engineering, and choosing to attend Waterloo due to the focus on the real-world environment as well as the focus on innovation and cooperation between students and faculty; university resources available to him as a student founder to help develop his ideas; overview of MicroBuild and the company’s research and development of innovative construction materials with a focus on net-zero and waste-negative processes; the company’s innovative research has recently received media coverage and a number of national-level awards. Governors discussed: the extent and magnitude of cooperation between faculty and students at Waterloo is a model for other universities; strong support and resources from Velocity, though more support and mentorship for founders could be provided for the business side of the ventures being developed, and work is underway at the University to support commercialization; financing raised to date through pitch competitions.

   b. **General Update**
The president provided a wide-ranging update including: recent international outreach activity and reinforcement of the University’s global collaborations, including looking at alternate models of collaboration; actions toward reconciliation including the recent Commitment Ceremony and the National Day of Truth and Reconciliation; recent on-campus events in response to the murder of student Mahsa Amini at the hands of Tehran’s Guidance Patrol as well as the death of Sarah Inam who lost her life to intimate partner violence, and noting that the events held underscore the importance of speaking out on these issues; in November, the University will participate in the UN Women 16 Days of Activism against Gender-Based Violence; recent Fall convocation ceremonies; Board retreat held in September, which will help to inform the Waterloo at 100 vision paper; recently welcomed Chancellor Barton and the President’s International Advisory Board, with a focus on Waterloo at 100 along with other briefings and visits; Chancellor Barton’s very generous and significant recent donation of $1,000,000 for use in key strategic areas that align with his own personal values; summaries of national and global university rankings, with Waterloo maintaining its position and internal discussions ongoing on the weight that the institution should appropriately place
on rankings given the University’s unique structure and value proposition; a number of initiatives spearheaded by the Council of Ontario Universities, focusing on institutional accountability and financial health; support for challenges specific to international students, including visa processing. Members discussed: like its peer universities, Waterloo is a publicly facing institution that meets head-on with a variety of very challenging societal issues, and it is important for the Board and for individual governors to be able to show public support as issues arise; examples of recent successes and importance of long-term strategies in fostering productive collaborations with other universities; Waterloo needs to reconcile its own strategic goals against the metrics utilized in rankings, as well as aligning its collaborations with like-minded institutions.

c. Strategic Plan Update: Annual Accountability Report
The president spoke to the report and provided a detailed overview of key performance indicators:
- Enrollment, including of students in co-op
- Graduation rates at six years and skills related to employment at two years post-graduation
- Faculty and staff complement/turnover, along with initiatives to attract/retain talent
- Metrics on student learning and work-integrated learning
- Ratings on student experience gleaned from student surveys
- Performance on several key research impact metrics in an environment of declining government research funding
- Entrepreneurship activity and very strong standing among Canadian comparators
- Student wellbeing, satisfaction, and sense of belonging to the University community
- Alumni engagement, and relationship to student engagement
- Metrics on environmental sustainability, accounting for the period of reduced activity overall
- Metrics related to equity, diversity, inclusion, and anti-racism, with work ongoing to foster growth and development in these areas among students, staff, and faculty

Governors discussed and clarified: many of the key indicators and areas of focus for the Strategic Plan are also those where years of effort will be required to elicit sustainable improvements; the importance of (and time/effort required in) developing the processes to obtain the data behind the metrics; for some indicators it is helpful to have international comparators along with U15, though common metrics may not be available nor easily developed; Waterloo’s non-credit offerings, and avenues to potentially recognize these offerings; offering plaudits on faculty and staff retention through the pandemic period, as well as on the recent gift from the Chancellor.

9. REPORT OF THE VICE-PRESIDENT, ACADEMIC & PROVOST
a. Campus Housing Update
Chris Read provided a PowerPoint presentation on the campus housing facility renewal strategy: Waterloo is the largest campus housing operation in Ontario, and second largest in Canada (behind UBC); recent media coverage on student housing challenges across Canada; differences in amenities available for on-campus housing vs. recent purpose-built off-campus private accommodations; research findings show on-campus housing can foster student success; full review of all campus housing stock is underway, with options ranging from maintenance of buildings up to rebuilding residences. Governors discussed: plan to bring forward new housing proposals in 2023, and the University will continue its collaborative relationship with the City and the Region to support these activities; campus housing is non-profit and competitive on price; regarding affordability for graduate students, Jeff Casello has led work in that space in recent years; the City of Waterloo has taken action over several years to provide more student housing within livable neighbourhoods. Governors asked that this topic be kept front-and-center as progress is made over time.

b. Annual Report to the Board from the Sexual Violence Prevention and Response Office
Amanda Cook provided a PowerPoint presentation: this is the fourth annual report since inception of the office; with many students on campus for the first time, there is a relative lack of awareness of services on offer; isolation due to COVID-19 exacerbated impacts of trauma and saw rising rates of
intimate partner violence, and research shows that post-pandemic those rates will continue to be elevated (with the caveat that the data is understood to be underreported); the office has been working to shift from being mostly reactive to a more proactive, prevention-focused space within a trauma-informed, person-centered approach; strong connections to campus partners, and embedding content in established training modules to normalize/foster conversations on these topics; initiation of sexual violence prevention strategy, and engaging with campus to develop that; entering the second review period for Policy 42, with steps initiated by the office including environmental scan, review of best practices, and stakeholder interviews into 2023. Governors discussed: no baseline of data to compare against, and most of those coming to the office for assistance are less interested in filing formal complaints than in obtaining timely and needed supports; a campus climate survey was conducted by the province in 2018, with some findings released in 2019 and 2020, otherwise little other comparative data is available; increased activity in prevention initiatives and these are often embedded in a variety of work the office does; future reports ought to include more detail on adequacy of resourcing as well as the qualitative side of these issues; informal communication channels and cooperation with nearby institutions reflect the geographic mix of student populations and address matters when they arise.

c. Policy 42 Update
Minuted under item 9(b).

d. UW/CUPE 793 Agreement
Rush spoke to the item, noting the Board’s role in ratifying the agreement and that the term of this agreement is synchronized with other similar employee agreements. The total compensation components of the agreement are constrained by Bill 124 and did not provide scope for inclusion of similar improvements as were introduced for other employees in recent years e.g. vision care, compassionate care and bereavement etc., though letters of understanding provide non-monetary items to improve conditions. Work will begin ahead of the 2024 expiry of this agreement with the aim of integrating those items in the other employee agreements into this agreement.

A motion was heard that the Board of Governors approve the new Agreement between the University of Waterloo and CUPE 793, effective immediately. Gamble and Barr. Carried.

e. UW/UW Staff Association Memorandum of Agreement
Rush recognized the integral role of Dave McDougall, outgoing president of the Staff Association, to bringing this forward, along with Michelle Hollis, Marilyn Thompson, and Lee Hornberger from the University side. The memo includes detail on staff ratification process for the agreement, and the agreement provides clarity on the arrangements and processes pertaining to the relationship, including a provision to regularly re-examine the document.

A motion was heard that the Board of Governors approve the new Memorandum of Agreement between the University of Waterloo Staff Association and the University of Waterloo, effective immediately. Kennedy and Hiscock. Carried.

10. REPORT FROM THE VICE-PRESIDENT, RESEARCH & INTERNATIONAL
a. Annual Research Report to the Board
Dean provided a presentation: key initiatives undertaken supporting focus areas of the strategic plan; proposals for large-scale funding and engagement with community partners, as well as strategically partnering with other institutions on proposals; focus of three University-level institutes on sustainable futures and specifically on climate, energy and water; significant climate change research funding announced, and Waterloo carries a ~30% share of the funding, a major accomplishment; supporting EDII in the research enterprise, with substantial recommendations to come forward; increasing focus and activity to address research security from federal and provincial funding bodies, which dilates funding processes and requires increased effort/robust internal processes to meet
requirements; recent successes in obtaining Canada Research Chairs, particularly from the four
designated groups, with plans on track to meet long-term targets; notable drop in provincial research
funding over the past two years, due to attenuation of matching funding for federal program, though
more recently the funding flows have improved following dialogue with provincial partners; strong
track record in NSERC and CIHR funding, and resumption of human participant research has
rebooted industry-funded research; portal for commercialization and entrepreneurship has been
opened, which is a new and emerging function; cumulative capital raised increased by $600 million
in 2021.

11. REPORT FROM THE VICE-PRESIDENT, UNIVERSITY RELATIONS
   a. Update on Communications and Marketing Strategies
   Banks presented on the strategies: comprehensive tracking/research of institutional reputation, with
Waterloo holding a leading position in many facets versus comparators; objectives in marketing and
communications to support Waterloo’s areas of leadership as well as differentiation, while featuring
diversity and communicating strategically to leaders to maximize impact; major marketing platforms
are brand journalism, brand campaign, and Waterloo Innovation Summit; growth in owned and
earned media, and outperformance of peers in visibility/reach for brand impressions and
engagement; plans for 2023 include the Global Futures 2023 report (formerly Global Impact Report)
with a construct to follow the five futures, showing how Waterloo is addressing challenges in those
key areas; four objectives for the 2022-23 “On It” brand awareness campaign, utilizing a mix of
digital and traditional media and focusing on key leadership audiences (particularly in downtown
Toronto); importance of ensuring measurability of impact; other major projects include (1)
development of inclusive communications guide and launching a new EDI-R communications unit,
(2) improving/supporting internal communications, (3) launching of Waterloo at 100
communications, (4) relaunching Waterloo Innovation Summit in 2023, and (5) hosting the World
Forum on Cooperative Education in June 2023. Governors discussed: mix of media venues for the
target audience aged 18-24, and evidence that the waning effectiveness of digital ads supports a shift
back toward traditional media for some audience segments; potential for the university to fund
research internally, and internal discussions in the coming year around rethinking certain
interdisciplinary research portfolios to be utilized more efficiently; potential for Waterloo to host
other global events focusing on key areas and in key geographies; plan to bring forward launch of
fundraising campaign in 2023.

12. REPORTS FROM COMMITTEES
   a. Audit & Risk Committee
   A motion was heard to reappoint Ernst & Young as the university’s external auditors for the fiscal
year ending 30 April 2023. Hiscock and Gamble. Carried unanimously.

   The remaining items were received for information.

   b. Building & Properties Committee

   Waterloo North Hydro Easement
   A motion was heard that the Board of Governors approve the granting of an easement to Waterloo
North Hydro of approximately 139.77m2 (0.034 acres) required for the replacement of primary
electrical feeders 1 and 2. Gamble and Ashmore. Carried unanimously.

   Innovation Arena, Health Sciences Campus – Tender Award
   Member clarified that while some costs would be fixed, the overall costs of the project may further
increase depending on whether unforeseen items arise. Two motions were heard: that the Board of
Governors approve a $1,790,000 (5%) increase to the project budget, and that the Board of Governors
approve the award of a stipulated-price contract (CCDC2) to Melloul Blamey Construction for
$29,270,000 (excluding HST). Gamble and Barr. Both motions were carried unanimously.
Math 4
Gamble affirmed that work has been done on ‘value engineering’ for this project and the proposed increase is not due to scope creep, though an escalation factor has been included in the revised budget to absorb potential increases. A motion was heard that the Board of Governors approve a revised budget of $110 million for the design and construction of the proposed Math 4 building project. Gamble and MacEachen. Carried unanimously.

c. Finance & Investment Committee

Approval of New Investment Manager
Ashmore spoke to the committee’s discussions and explorations of several venture capital funds over the previous two years, and the committee’s objective to invest and obtain strong returns from the innovation/commercialization ecosystem that the University fosters, with the potential to anchor these funds and raise additional capital to grow the ecosystem. Goel spoke to different approaches taken at different institutions in making similar investments and underlined the historical importance of this investment. Governors affirmed that the investment meets fiduciary requirements/duties.

A motion was heard to approve the Velocity Fund II as an investment manager for the University of Waterloo endowment, subject to confirmation of the completion of additional due diligence and drafting of appropriate agreements by university administration and the Finance & Investment Committee, with said confirmation anticipated to occur subsequent to the 25 October 2022 meeting of the Board of Governors. Ashmore and Kennedy. Carried unanimously.

Approval of Revised Investment Governance Documents
Ashmore provided an overview of the item. A motion was heard to approve the following investment governance documents, included as attachments to the report:

i. Statement of Investment Policies and Procedures – University of Waterloo Endowment
ii. Fund Implementation Procedures – University of Waterloo Endowment
iii. Statement of Investment Policies and Procedures – University of Waterloo IQC Trust Fund
iv. Fund Implementation Procedures – Endowment – University of Waterloo IQC Trust Fund

And to approve the delegation of oversight for the two Fund Implementation Procedure documents to the Finance & Investment Committee, including the responsibility to review and approve any recommended changes in accordance with the terms thereof and the terms of reference of the committee.

Ashmore and Kennedy. Carried unanimously.

Regarding the Student Venture Fund, additional work will be required before investment can be deployed. This item was received for information.

13. OTHER BUSINESS
There was no other business.

The Board convened in confidential session.

13 November 2022

Mike Grivicic
Associate University Secretary
FOR APPROVAL

**Motion:** To approve the following sabbatical and special leaves in accordance with policy 3–Sabbatical and Other Leaves for Faculty Members.

**Background:** The report on Sabbatical and Special Leaves comes to the Board of Governors at each meeting as leave requests occur throughout the year.

Granting of sabbatical and special leaves 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. Application for leave must be made in writing to the Department Chair and approved by the Department Chair, Faculty Dean and the Vice-President, Academic & Provost based on their consistency with the criteria laid out in Policy 3. Application for sabbatical leave should include the faculty member's plans for scholarly activities while on leave.

Sabbatical and special leaves further require the approval of the Board of Governors.

1. **Sabbatical Leaves**

**Faculty of Arts**

**Boritz, J. Efrim**, Accounting and Finance, March 1, 2023 to August 31, 2023 at 85% salary

My research on professional judgment by auditors recently focused on the impact of personality traits, cognitive traits, and expertise on professional skepticism. My sabbatical plans are to complete works in process to bring them to publication and start one new project that was delayed by COVID. It seeks to extend the study of professional skepticism through the use of electroencephalography.

**Statiev, Alexander**, History, March 1, 2023 to August 31, 2023 at 85% salary

I plan to work on my next book project that investigates the development of adventure tourism in the Soviet Union from 1929 to 1991. The book, to be published in a prestigious academic press, will be the first study of this important but little known aspect of the Soviet culture.

**Faculty of Engineering**

**Abukhdeir, Nasser**, Chemical Engineering, July 1, 2023 to December 31, 2023 at 85% salary

My research involves modelling and simulation of multiphase flows. I plan on continuing 1) an applied research project with Sanofi-Pasteur on the design/control of bioreactors, and 2) to develop novel multiscale multiphase models. I expect to complete the main milestones of the industrial collaboration and to publish a research paper on a hybridized multiphase model.

**He, Qi-Ming**, Management Sciences, September 1, 2023 to December 31, 2024 at 100% salary

My areas of research are queueing theory and operations research. I will conduct research, in
collaboration with colleagues in Australia and China, on phase-type distributions, Markov modulated fluid flow (MMFF) processes, and their applications in queueing theory, inventory theory, risk/insurance models, and other stochastic models. I expect to complete two papers and a draft of a research monograph on MMFF processes and their applications.

Hrynyk, Trevor, Civil and Environmental Engineering, March 1, 2023 to August 31, 2023 at 100% salary
My research is focused on performing experiments and developing modelling procedures aimed at assessing the performance of modern concrete infrastructure. I intend to strengthen ongoing research efforts with colleagues at the University of Brescia (Italy) and the University of Liege (Belgium). The joint research work done will form the basis of future joint publications.

Nieva, Patricia, Mechanical and Mechatronics Engineering, May 1, 2023 to April 30, 2024 at 100% salary
I am planning to complete my many outstanding journal papers. I would also like to work on revamping my research that has been slowed down by my heavy administration load. In addition, I am planning to meet with strategic business partners to generate new research opportunities and partnerships in the areas of battery management systems and diagnostic sensing using artificial intelligence.

Zhou, Norman, Mechanical and Mechatronics Engineering, May 1, 2023 to October 31, 2023 at 85% salary
A need has just emerged for me to devote significant portion of my time to help AquaSensing (a UW spin-off) to get off the ground. The company is trying to commercialize a UW nanotechnology invention on the world first and only system on battery-free, maintenance-free IoT water leak detection. My previous UW start-up, SmarterAlloys is doing well and has currently hired over 30 people.

Faculty of Environment

Dow, Christine, Geography and Environmental Management, July 1, 2023 to December 31, 2023 at 85% salary
My goal is further collaboration with glaciologists at Scripps Institution of Oceanography, San Diego. Our aim is to use modelling and geophysics to produce an Antarctica-wide estimate of subglacial hydrology, ice dynamics and ocean interactions. This is a critical piece of work to determine Antarctica’s future contribution to sea level rise and will result in multiple high-impact papers.

Scott, Steffanie, Geography and Environmental Management, March 1, 2023 to August 31, 2023 at 85% salary
I will be spending most of my time in Waterloo completing research for my LITE grant and associated research on land/nature connection and the scholarship of teaching and learning, and preparing a new SSHRC grant application.

Worth, Nancy, Geography and Environmental Management, July 1, 2023 to December 31, 2023 at 85% salary
I will write two papers about freelancers’ experiences of working from home: one on unpaid/invisible work; the other on expectations of job security (based on SSHRC Insight Grant). I will also do analysis/preliminary writing for SSHRC IDG Making a Home in Off Campus Housing. I will also develop a new project on the future of work, meeting with potential partners.

Due to an oversight, these two sabbaticals were not communicated to the Board at the appropriate time; approval by the Board is being sought retroactively.
McLevey, John, Knowledge Integration, January 1, 2023 to June 30, 2023 at 100% salary

I will be working on journal articles related to political polarization, influence operations, and probabilistic models of opinion dynamics and the structure and formation of political belief structures.

Plaisance, Kathryn, Knowledge Integration, January 1, 2023 to June 30, 2023 at 85% salary

My sabbatical aligns with an intensive phase of my SSHRC-funded project, “Engaging Science with Philosophy: Best Practices for Fostering Effective Collaboration”. During my leave, my research team and I will: 1) analyze and write up the results of qualitative interviews with scientists and engineers, and 2) use the interview data to design, administer, and analyze a large survey of STEM researchers.

Faculty of Health

Berbary, Lisbeth, Recreation and Leisure Studies, September 1, 2023 to August 31, 2024 at 90.6% salary

I will work to establish coalitional methodology as decolonizing research practices through traditional writing (both articles, book chapters for edited book), relation building with community organizations, beginning with Black Urban Farmers, and creation of an interactional website for members of my research team, Becoming Coalition, to connect with activist organizations. This will allow us to apply for a SSHRC Insight grant with established partners in early 2024.

Devries-Aboud, Michaela, Kinesiology and Health Sciences, September 1, 2023 to August 31, 2024 at 93.3% salary

My research focuses on how biological sex influences metabolism and the response to exercise. I will complete existing projects, renew my NSERC and submit a CIHR project grant. I plan to visit Dr. Chris Perry (York University) to learn new mitochondrial function and reactive oxygen species generation techniques. I also plan to visit Dr. Emma Allen-Vercoe (University of Guelph) to learn how to conduct gut microbiome analyses. I will also develop a new third year muscle physiology/metabolism course.

Laing, Andrew, Kinesiology and Health Sciences, May 1, 2023 to April 30, 2024 at 90.6% salary

My field of interest is musculoskeletal biomechanics related to human health and injury prevention, and the role that advanced age has on these relationships. I intend to: 1) establish new industrial research partnerships, 2) develop new and extend existing collaborations at national and international levels, and 3) plan/write grant applications and manuscripts.

Morita, Plinio, Public Health Sciences, September 1, 2023 to August 31, 2024 at 85% salary

I plan to spend six months in Europe solidifying research partnerships with the Université de Technologie de Compiégne, the University of Bordeaux, the University of Strathclyde, the University of Algarve and the University of Lappeenranta. During this period, we will collaborate on common publications and towards the submission of an AAL Programme Grant, among other Europe-Canada Hybrid funding grants. I will also be spending 4-6 months across Canada, establishing new partnerships with the University of Alberta, University of Victoria, and Dalhousie University.

Faculty of Mathematics

Diao, Liqun, Statistics and Actuarial Science, May 1, 2023 to October 31, 2023 at 100% salary

I plan to work on three research projects related to developing machine learning algorithms for survival data, missing data and mortality data foresting, respectively. The expected outcomes include one or more research paper submissions from each project. I will mainly stay at Waterloo during my sabbatical except for short trips for academic conferences and brief visits to research collaborators.

Fukasawa, Ricardo, Combinatorics and Optimization, September 1, 2023 to August 31, 2024 at 100%
salary

My research is in integer programming and operations research. My plan is to visit Montreal where I plan to establish new collaborations with researchers in the field. The expectation is that this will be the start of new fruitful collaborations that will lead to research opportunities and opportunities for future HQP as well.

**Lau, Lap Chi**, Computer Science, September 1, 2023 to August 31, 2024 at 85% salary

I plan to develop new directions in spectral graph theory, and to learn and explore new research directions in other areas.

**Liu, Jun**, Applied Mathematics, September 1, 2023 to August 31, 2024 at 100% salary

My area of research is in control theory and dynamical systems, and I am interested in exploring their connections with machine learning. I plan to study the partial differential equations that arise from stochastic optimal control formulation of deep learning. This research has the potential to advance our understanding of deep learning and contribute to the development of improved learning algorithms for practical applications.

**Spirkl, Sophie**, Combinatorics and Optimization, July 1, 2023 to December 31, 2023 at 100% salary

My research is in structural graph theory. I will continue to work here with my students on ongoing projects including dichromatic number, algorithms for forbidden induced subgraphs, treewidth and induced subgraphs, and more. I expect to prove new results and submit them for publication.

**Faculty of Science**

**Chen, Jeff**, Physics and Astronomy, May 1, 2023 to April 30, 2024 at 100% salary

I plan to conduct scholarly activities in the research areas of soft matter theory, polymer physics, and statistical physics; and to continue current international research collaborations.

**Edwards, David**, Pharmacy, January 1, 2024 to June 30, 2024 and January 1, 2025 to June 30, 2025 at 100% salary

I will continue to explore opportunities for future research related to my areas of expertise and interest in pharmacokinetics, drug metabolism, educational accreditation, health workforce planning, and pharmacy practice research. I will also participate in workshops, courses, and other training opportunities that will enhance my abilities as an educator.

**Forrest, Jamie**, Physics and Astronomy, September 1, 2023 to August 31, 2024 at 100% salary

I will continue the study and characterization of polymer stable glasses. To help further develop our understanding of glass and stable glasses, I plan to visit other labs, in particular, my collaborator Thomas Salez in Bordeaux to work on theoretical approaches to glasses and Iain McKenzie at Triumf to develop plans for future Beta NMR experiments.

**Ha, Bae-Yeun**, Physics and Astronomy, September 1, 2023 to August 31, 2024 at 93.3% salary

I work in the areas of theoretical biophysics and soft matter. I plan on visiting my collaborators in Korea for about two months during the requested leave: Prof. C. Hyeon and Dr. Y. Jung. I expect to nurture our partnership and will focus on investigating the computational and physical models of chromosome organization proposed in my NSERC application (2022-2027).

**Hileeto, Denise**, Optometry and Vision Science, September 1, 2023 to August 31, 2024 at 100% salary

I plan to finalize the extensive amount of preliminary data I have gathered on the histopathologic characteristics of myopia mechanisms, keratoconus, and limbal stem cell deficiency and their impact on prognosis and treatment. I will continue my local and international collaborative work with the
research teams in our university and the University of Valladolid in Spain on the ongoing projects on keratoconus, limbal stem cells, and metronomic tumor microenvironment guided anti-cancer therapy mechanisms.

Katzenback, Barbara, Biology, May 1, 2023 to April 30, 2024 at 85% salary  
My research investigates host-pathogen interactions in aquatic vertebrates. I aim to: 1) establish research procedures for live pathogen challenge experiments in the new WATER pathogen challenge facilities; 2) learn new research techniques; and 3) expand new research areas. The expected outcomes are refined pathogen challenge protocols and expanded research capabilities.

Mann, Robert, Physics and Astronomy, September 1, 2023 to August 31, 2024 at 100% salary  
I plan to spend my sabbatical working on experimental tests of Relativistic Quantum Information with collaborators in the United Kingdom and on theoretical aspects of this subject with collaborators in Austria and Australia. I will also take this time to complete a book I am working on.

Wong, William, Pharmacy, May 1, 2023 to April 30, 2024 at 94% salary  
I plan to further develop my research skills in the area of health economics and simulation modeling by enrolling in courses hosted by international scientific organizations. I will develop viral hepatitis prevalence back-calculation models for use in prevalence prediction and economic evaluation. I also plan to expand the evaluation study for the impact of CAR T-cell therapy on health utilities in eligible patients with lymphoma.

2. Sabbatical Cancellations

Faculty of Arts

Stillar, Glenn, Communication Arts, January 1, 2023 to June 30, 2023 at 85% salary

Faculty of Engineering

Lam, Patrick, Electrical and Computer Engineering, July 1, 2023 to December 31, 2023 at 85% salary

Faculty of Math

Zhu, Yeying, Statistics and Actuarial Science, January 1, 2023 to December 31, 2023 at 85% salary

3. Administrative Leaves

Faculty of Science

Edwards, David, Pharmacy, April 1, 2023 to July 31, 2023 at 100% salary

I will continue to explore opportunities for future research related to my areas of expertise and interest in pharmacokinetics, drug metabolism, educational accreditation, health workforce planning, and pharmacy practice research. I will also participate in workshops, courses, and other training opportunities that will enhance my abilities as an educator.
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BACKGROUND

Cyclical Program Reviews

In 2010, the Ontario University Council on Quality Assurance (the Quality Council) was established as an organization at arm’s length from both the Provincial Government and Ontario Universities to oversee the quality of all degree and diploma programs at Ontario Universities. As part of this oversight process, each university establishes an Institutional Quality Assurance Process (IQAP) setting out its own processes for approving and reviewing such programs, subject to the rules established by the Quality Council’s Quality Assurance Framework (QAF).

The Vice-President Academic is responsible for overseeing, upholding and maintaining the intellectual quality of the University’s academic programming. They delegate oversight of the IQAP process to the Associate Vice-President, Academic (AVPA) and Associate Vice-President, Graduate Studies and Postdoctoral Affairs (AVPGSPA). The day-to-day operation of this cyclical review process, approval of new programs, and tracking of major modifications are supported by the Quality Assurance (QA) Office, a unit currently comprising 1.5 FTE staff housed in the AVPA Office. (The QA Office is undergoing a restructuring, as described below.)

All degree and graduate diplomas are required to undergo an academic program review at least once in eight years. During this process those involved in delivery of the program conduct a thorough evaluation of the program and its delivery, including consultations with students and alumni, and write an extensive “self-study.” Every program must meet appropriate Undergraduate or Graduate Degree Level Expectations, so the self-study must include a “mapping” between these expectations and the elements of the curriculum that ensure graduates meet them. They also must illustrate that the faculty involved in delivery of the programs have sufficient research expertise for the program to be academically credible, to report on progress towards important strategic priorities of the University such as equity and diversity, and so on.

For degree programs, external experts in the relevant field receive and review the program’s self-study. These experts conduct a site visit to meet with people involved in the program (instructors, graduate supervisors, students, administrators and staff, librarians) to gather additional information that will allow them to assess the program’s strengths, weaknesses, challenges and opportunities. Note: since March 2020 the site visits have been virtual. We anticipate a return to in-person site visits in 2023. The site visitors then write a report that contains advice and recommendations.

The University’s IQAP has processes to ensure due consideration of the advice and recommendations received.
The program produces a response the external reviewers’ recommendations that includes an action plan with timelines for recommendations that are adopted and a justification for not adopting recommendations. The relevant Faculty Dean(s) also write a response to the recommendations that considers the response of the program, especially insofar as action plans involve resource commitments for which the Dean is responsible. (In practice, the program and Dean(s) are often in communication as the responses are developed.)

- These responses are summarized in a Final Assessment Report (FAR). The FAR is vetted and must be approved by either the Senate Undergraduate Council (SUC) or the Senate Graduate and Research Council (SGRC) on behalf of the University Senate, and the approved reports passed on to the Senate for information. These bodies look for reasonable action plans for accepted recommendations and clear rationales when a recommendation is rejected (often with alternative approaches to achieving the same goal motivating the recommendation).

- Subsequently, a Two-Year Progress Report is prepared by the program. It is subject to a similar approval process at SUC or SGRC.

The Quality Council requires an annual report both to it and to the University’s Board of Governors on the results of academic reviews of existing programs (i.e., a list of the Final Assessment Reports and Two-Year Progress reports received by Senate).

**Approvals of New Programs**

We will be brief in this report about the process for new degree program approval, as there are no new programs that were approved by Senate in the reporting period. The process for approving a new program is a complicated one, as is clear from this flow chart. The process in its entirety requires internal vetting both with respect to the academic (and societal) value of the proposed program and with respect to its financial viability and the opportunity costs entailed by offering it (i.e., considering what we cannot do instead). New programs are also subject to Ministry approval.

Most relevantly for present purposes, new program proposals are also subject to Quality Council processes for their academic approval. A program brief is prepared and receives appropriate approvals and support at departmental and Faculty levels, a site visit takes place, recommendations are duly considered by the departments and deans involved, and the proposal proceeds to SUC or SGRC. If appropriate, these bodies make a recommendation to Senate, which must grant formal approval to the launch of the program.

Each year, the Quality Council requires a report to it and the University’s Board of Governors of what new degree programs have been approved.

**Approved Major Modifications**

A “major modification” is a substantive change to an existing program. The Quality Council has specified criteria that distinguish major from minor modifications, and also the degree of change that goes beyond a major modification into the launch of a whole new program. The results are not always intuitive, and the Quality Assurance Office often advises programs about where their proposed changes fall on this spectrum.
The Quality Council also requires an annual report of approved major modifications.

**The three required reports are below.**

**Academic Program Reviews**

The following are **Final Assessment Reports** that were received by Senate during the September 2021 – August 2022 reporting period:

- French Studies (BA, MA, PhD, Minor, UG Diplomas)
- Earth Sciences (BSc, Minor, MSc, PhD) and Environmental Science (BSc)
- Human Resources Management (Minor/Diploma)
- Spanish (BA, Minor), Latin American Literatures and Cultures (Minor), Spanish/English Translation (Minor, Diploma)
- Medieval Studies (BA, Minor)
- Speech Communication (BA, Minor) and Digital Arts Communication (Minor)
- Business Administration and Mathematics Double Degree (BBA/BMath)
- Kinesiology (BSc, MSc, PhD, Minors)
- Taxation (MTax, Graduate Diploma)
- Peace and Conflict Studies (BA, Minor, Diploma, MPACS)

All approved **Final Assessment Reports** are published on the Academic Program Reviews website, as required by the Quality Council.

The following are the **Two-Year Progress Reports** that were received by Senate during the September 2021–August 2022 reporting period:

- Accounting (MAcc, PhD)
- Quantum Information Collaborative (MASc, MMath, MSc, PhD)
- Applied Math (MMath, PhD)
- Environment and Business (BES, MEB), Sustainability Management (MES), Economic Development and Innovation (MEDI)
- International Development (BES) and Master of Development Practice (MDP)
- Mathematics/Business Administration, Mathematics/Chartered Professional Accountancy, Mathematics/Financial Analysis and Risk Management (BMath)
- Mathematical Studies (BMath)
- Philosophy (BA, MA, PhD)
- Classical Studies (BA, Minors)
- English Language and Literatures (BA, MA, PhD)
- Architectural Studies (BAS), Master of Architecture (MArch)
- Nanotechnology Collaborative Program (MSc, MASc, PhD)
- Biology (BSc, MSc, PhD)
- Global Governance (MA)
- Theological Studies (MTS)
All approved Two-Year Progress Reports are published on the Academic Program Reviews website, as required by the Quality Council.

New Programs
There were no New Program Proposals received by Senate during the September 2021 – August 2022 reporting period.

Major Modifications
The annual report of Major Modifications to existing undergraduate and graduate programs was submitted to the Quality Council in July 2022. The list includes over 55 entries, the Quality Council does not require this report to be a public document. It primarily consists of changes designed to maintain currency of curriculum in changing fields, to meet changing demand from students or employers (e.g., by facilitating combining programs), and in response to recommendations from external reviewers.

THE EVOLUTION OF QUALITY ASSURANCE AND QUALITY IMPROVEMENT

The AVPs acknowledge that to date the cyclical review process has faced administrative challenges. As noted, the process is a large and complex operation administered by a small unit; the potential sources of delay in the process are many. In some instances, the development of the self-study is not prioritized by the programs, resulting in the cyclical review process falling behind schedule at its outset. Sometimes information the programs need to complete parts of the self-study does not arrive on schedule. Processes within the QA office – reviewing the draft self-study, compiling CVs, and selecting external reviewers – often compete for attention from the AVPs. Perhaps most challenging has been the administration of the review, assessment and approvals of these reports through the governance bodies, where long delays have been observed. As a result, reviews were often behind schedule or approved only years after self-studies were completed.

Considerable progress has been made on this in the past three or four years, but substantive work remains to be done, including considering steps that can be taken to streamline processes and address pain points. For instance, if AVP capacity slows the process, the University should consider whether there are some steps that do not require AVP attention (e.g., some are handled by suitably qualified professional staff at other universities).

The AVPs also consider Waterloo’s program review processes and outcomes as underutilized resources. The data and reflections contained in the self-study have tremendous value in articulating the strengths of Waterloo’s academic programming, experiential learning, and research, illustrating the value of our programs for current students and providing a foundation for attracting prospective students. Moreover, currently the University responds to recommendations from external experts program-by-program, but investigating the recommendations included in all the FARs over time can identify themes and patterns useful to Faculties and the University.
These facts combine with other factors to make a restructuring of the QA Office and its processes an important step for the University:

- The QA Office should lead an effort to shift the perception of the cyclical review processes so they are regarded as an opportunity to:
  - Document and celebrate programs’ ongoing success and accomplishments;
  - Receive input from external experts to accelerate the evolution of the programs, realizing short- and long-term goals through a continuous improvement process.
- The QA Office can coordinate a process ensuring that expertise from partner units is made available in an appropriate and timely way to those conducting self-studies so the review process can accelerate progress towards the University’s strategic goals. As examples:
  - Discussions are underway with Cooperative and Experiential Education, Faculty representatives at the Undergraduate and Graduate Operations Committees, and the QA Office about making use of the abundant information available in CEE to support curriculum design and renewal
  - The Centre for Teaching Excellence has hired expertise in Indigenous Knowledges and Anti-Racist Pedagogies in order that this expertise be available to all units on campus in their efforts to decolonize their curricula and to advance equity in the classroom. The cyclical review process is an important mechanism for providing access to that expertise to programs.
- The University is moving towards offering many new sorts of credit and non-credit credentials, beyond traditional degrees and diplomas. While these are not required to be part of the cyclical review, the Quality Council and the Ministry both require that the University specify in its IQAP how these new credentials will be approved and their quality ensured and enhanced over time. QA is the obvious unit for housing expertise about approval and quality assurance for such programming

During 2021-22, with the support of the Vice-President, Academic and Provost, the AVPA, AVPGSPA and the Quality Assurance Office undertook a process to redesign the Quality Assurance Office to facilitate progress on these goals. The result is a plan to be implemented in early 2023 that involves hiring additional staff with new sorts of expertise into the unit. Some benefits of the plan will be:

- Ensuring that the cyclical review processes are conceived as opportunities for improvement, not bureaucratic exercises. A name change may be part of the process.
- Creating research capacity within the unit.
- Streamlining processes for efficiency and effectiveness.
- Creating capacity, as appropriate, for mechanisms that may be put in place for development and review of alternative credentials.
- Creating standardized modes of collaboration with relevant units to support units in their efforts to continue to improve their offerings

David DeVidi
Associate Vice-President, Academic

Jeff Casello
Associate Vice-President, Graduate Studies and Postdoctoral Affairs
This report is submitted following the committee’s meeting of 19 January 2023 and is recommended for inclusion in the regular agenda.

FOR INFORMATION

1. GENERAL OVERSIGHT
In addition to the committee’s annual responsibilities under the committee work plan, the committee receives regular updates from management on issues of interest and importance to the committee. During the reporting period, committee received reports on areas of risk and risk management strategies.

Russell Hiscock
Chair

swt
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This report is submitted following the committee’s meeting of 19 January 2023. This report is recommended for inclusion in the consent agenda.

FOR INFORMATION

1. General Oversight

Update on 2022-23 Operating Budget. The committee received an update from the Vice-President, Academic & Provost on performance against the 2022-23 operating budget to date (see Attachment #1 to this report), and preliminary planning for the 2023-24 operating budget.

Update – Velocity Fund II. The University and the investment fund are working together toward the placement of the funds, with engagement from both finance and legal staff and periodic reporting to the committee.

Update – Student Venture Fund. The Student Venture Fund (SVF) is a for credit experiential education program run by the School of Accounting and Finance that provides students with hands on training in venture capital investing. The University and the Finance & Investment Committee recognize the exciting opportunities for investment and experiential learning available through SVF. In alignment with the nature of the SVF, a budget request for this opportunity can be considered through the University’s operating budget processes. The University will also review opportunities for additional donated funds for the SVF, and, over the longer term, will research if SVF activities could be replicated for additional investments.

Endowment Giving and Donor Perspectives. The committee welcomed a presentation from the vice-president, advancement, who provided an educational presentation on donor perspectives as they pertain to endowment giving. This is congruent with the committee’s mandate “…to exercise general oversight over the financial affairs of the University” and with the committee’s fiduciary responsibility for the stewardship of the University endowment.

Michael Ashmore
Chair

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FOR INFORMATION

1. Development of Board Mandate, Board Position Descriptions, and Framework for Board Renewal/Succession Planning

The University has engaged with an external governance consultant to assist in the development of several new Board policy documents to support modernized and best-in-class board governance. These draft policies include a Board mandate as well as position descriptions for a variety of Board roles. The committee will continue to engage with the consultant toward the development of recommendations to the Board of Governors.

The consultant has also drafted a forward-looking, holistic, and formalized approach to board succession planning and renewal, with consideration of leading practice. Following initial engagement with the committee on this topic, the consultant will continue developing a recommended approach for the committee’s consideration.

2. Draft Revisions to Committee Resolutions/Terms of Reference

As an outcome of the Governance Review and fostered by the annual meeting of the chairs of the Finance & Investment Committee, the Pension & Benefits Committee, and the Pension Investment Committee, those chairs undertook to review and suggest amendments to the resolutions/terms of reference for those committees. This collaborative exercise yielded several recommended amendments: increasing delegation of Board authority to the committees; fostering more efficient interaction and communication between the committees; harmonizing the voting practices between the committees; formally enunciating the mutual recognition of due diligence for investments, to reduce duplication of efforts among the committees; and overall harmonization of common language in the governance documents.

Following an initial review by the Governance Committee, the draft revisions will be brought to the respective committees for input and discussion.

24 January 2023

Cindy Forbes
Chair
This report is submitted following the committee’s meetings of 18 November 2022, 9 December 2022, and 20 January 2023 for inclusion in the consent agenda.

FOR INFORMATION

1. Pension Fund Investment Reporting
   The committee received a report from Pension Investment Committee (PIC) re: total fund and investment manager performance for the third quarter of 2022. The fund returned -0.47% (gross of fees) for the quarter, which was ahead of the benchmark by 0.63%. The fund also outperformed the benchmark for the one-year period but not the four- and ten-year periods. PIC had also met with the fund’s three active global equities investment managers: Walter Scott, Fiera/Mirova, and RBC/PH&N. Walter Scott and Mirova were behind the benchmark for the quarter. For the one year period, Walter Scott returned -15.79% (-3.13% vs. benchmark), RBC/PH&N returned -18.05% (-4.28% vs. benchmark), and Mirova returned -22.16% (-8.39% vs. benchmark). Beyond performance, the committee reviewed material events at the firms; investment processes; drivers of performance; portfolio turnover; change of personnel, impact of and responses to inflationary pressures, the shifting pandemic, and other macro events affecting markets and changes and risks in the outlook; and policies and processes related to ESG, approach to climate risk and transition, and their proxy voting record.

2. Progress On Green Shield Canada Implementation
   The committee received reports of the Green Shield Canada (GSC) implementation to administer the Extended Health, and Dental (EHD) benefits, providing information to support the GSC implementation, including details on aspects that differ from current administrative arrangements. The committee continued to make several decisions to address the differences between Canada Life and GSC, identified by the transition analysis. Those plan members impacted by these decisions are to be sent letters informing them, with the first batch of letters having been sent the first week of January 2023. A second transition analysis was performed in November 2022 and no new items were identified. Member ID cards and Welcome Kits were released in early December 2022 but the travel information was missing so GSC reissued Member ID cards and Welcome Kits in mid December 2022 at no additional charge. On January 1, 2023, the official change in benefit plan provider to GSC successfully occurred. The committee is currently investigating specific concerns raised by plan members with GSC since the change.

3. Benefits Coverage For In Vitro Fertilization
   The committee received a report from the IVF Working Group who was tasked with a fact-finding exercise regarding benefits coverage supporting plan members with family aspirations, and to examine the prospective implications to expand provision of coverage for reproductive procedures that extend beyond the current scope. The report provided a summary of the current legislative and market context, the Ontario Fertility Program, administrative considerations for the university, and potential options for expansion of benefits offered. The committee also received a report on the legal advice sought by the University of Waterloo which found that the provision of IVF as currently covered by the University’s benefit plan is not discriminatory under the Ontario Human Rights Code. Based on the reports provided, the committee decided to adopt an active watching brief to monitor for changes that will allow for future action. At the 20 January 2023 meeting, the committee heard that Bill C-32, which amends the Income Tax Act to broaden tax recognition under the Medical Expense Tax Credit to cover expenses incurred by individuals who, in order to become a parent, rely on surrogate, embryo donation, or sperm or ova (“gamete”) donation, received royal ascent on 15 December 2022. The committee is investigating with GSC what is or will be offered in order to address the new legislation.
4. **Funding Policy & Guideline for the Registered Pension Plan**
The committee approved the Funding Policy & Guideline for the Registered Pension Plan at the 18 November 2022 meeting. Its purpose is to establish a formal framework to achieve the Plan’s funding requirements subject to the provisions of the Plan Text and Applicable Laws. Prior to approval by the committee the Funding Policy & Guidelines had been reviewed by the Finance & Investment Committee (F&I), Pension Investment Committee (PIC) and the President. It will be living document to be reviewed at least every three years, and typically in a year when the actuarial valuation will be filed.

5. **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. With adjustment for the 2.53% increase in the AIW, the maximum annual pension per year of pensionable service that can be paid under the registered pension plan will be $3,506.67 and the maximum annual contribution will be $22,672, for 2023. In compliance with the Board’s decision effective 1 January 2021, the hard dollar cap in the RPP was automatically adjusted by one-third of the percentage increase in the AIW from ~$3,461 to $4,000, effective 1 January 2023.

6. **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 2023 based on one year of inflation. The incremental annual cost of the increase is estimated at $151,900. Retiree life insurance coverage was increased to $6,300, based on the calculation of inflation in the past year with rounding to the nearest $100 increment of benefit.

7. **Annual Actuarial Valuation**
The committee reviewed the actuarial valuation results for the Registered Pension Plan and Payroll Pension Plan as at 1 January 2023, including the demographic and economic actuarial assumptions and impact of adjusting these assumptions. These results are utilized for planning and funding purposes. The university most recently filed a valuation with the provincial regulator in 2022, and there is no regulatory requirement to file again before 2025. The committee has discussed the merits of not filing the valuation with the regulator this year, and this is expected to be recommended to the Board of Governors meeting in April.

8. **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 pension plan and takes the information into account when making decisions on matters including plan design, funding and administration.

As part of the general oversight function exercised by the committee, the committee has devoted attention to following issues: the funded status of pension plan and the annual report on benefits utilization.

/\twk

Peter Barr
Chair
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2020-2025 Strategic Plan Thematic Spotlights on Talent  

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2020-2025 Strategic Plan Thematic Spotlights on Talent

This Report focuses on briefings compiled on specific initiatives that were spotlighted at the January 10th discussion with Governors and Senators on the strategic plan thematic area of Developing Talent for a Complex Future. That January 10th discussion aimed to support a broader effort for governance engagement with the university’s current strategic plan, based on the three principal themes: (1) Developing Talent for a Complex Future, (2) Strengthening Sustainable & Diverse Communities, and (3) Advancing Research for Global Impact. At our Board meeting on February 7, we build on the January 10th discussion with panel presentations featuring students, faculty, and staff who are directly implementing and/or benefiting from the work to advance Indigenizing the Curriculum and Anti-Racist Pedagogies as covered in this report (page 7). At subsequent Board meetings we will address the Communities and Research themes.

The Talent theme of our strategic plan has four goals. The goals being addressed by each initiative are indicated at the top of each brief.

The Talent theme’s goals are:

**Developing Talent for a Complex Future**

**T1** Educate global citizens for the future of work and learning to thrive in an age of rapid change by putting learners at the center of everything we do.

**T2** Enhance graduate and post-doctoral studies by emphasizing the unique attributes of the University of Waterloo and our talented and diverse graduate student community.

**T3** Continue to lead the world in co-operative education and support the workforce of the future through fully integrated academic and experiential learning opportunities.

**T4** Establish a unique Waterloo approach to support learning at various stages of individuals’ professional lives.

This paper spotlights the strategic direction and progress of three initiatives in this theme: the Teaching Innovation Incubator, Indigenizing the Curriculum and Anti-Racist Pedagogies, and the Digital Learning Strategy.
1. The Teaching Innovation Incubator (TII)

The University of Waterloo does not currently have, but needs, a means to develop and try out bold new approaches to teaching and learning. This is essential if we are going to be ready for the students of the future and the world in which they will live. At the time of the development of the current 2020-2025 strategic plan, an issue paper on Undergraduate Learning was prepared with the central recommendation to create a teaching and learning incubator. After more discussion about implementation of the 2020-2025 Strat Plan, it was decided by senior leadership (including Deans Council) that we would accept this recommendation in 2021. Last year at Senate and BOG, there was a report on the early thinking about what shape the Teaching Innovation Incubator (TII) should have to meet the university's needs. Elements of what was envisioned include that the Incubator should: capitalize on the creativity and expertise of the people already at Waterloo (faculty, students, and staff) instead of hiring incubator staff to do the thinking for us; that it will need suitable physical space to be effective; that it should be a place for experimentation and evaluation of ideas, and we must recognize that not all bold ideas work out. This update is progress report on current implementation.

A Two-Pronged Strategy

When the decision was made to launch a teaching incubator, there was considerable excitement and buzz. There were also questions about what, exactly, it would be and do. Hoping to not lose momentum, we implemented a phased approach that would allow us to pilot the TII immediately while also developing a longer-term strategy for permanent application. At the same time as a Project Planning Team was tasked with developing the long-term plans for the TII, we launched the Beta TII, which would start incubating and testing some innovative ideas right away. In addition to maintaining momentum and doing good work, the Beta Incubator is a way to learn additional lessons about the permanent structure and processes of the TII.

Prong 1: Beta TII

The Projects

In 2022, the Beta TII operated without dedicated staff: two staff from Centre for Teaching Excellence moved things along off the sides of their desks. The Planning Team (described below) has devised an intake process for the TII as one of its central tasks. In year one the selection of projects for the Beta TII was much more ad hoc, made by senior leadership based on which projects have been “ready to go.” To match the availability of support, the three projects currently running in Beta TII began a few months apart and are in different stages of progress. They are described in corresponding degrees of detail.

Project 1: The Wicked Problems Courses Project is an idea that started with the Associate Deans, Graduate and Graduate Studies and Postdoctoral Affairs. The idea is to capitalize on the cutting-edge research knowledge distributed across campus in our PhD
students who are often researching the same problem from very different perspectives. A Wicked Problem is often defined as one that must be simultaneously considered from multiple perspectives if progress is to be made. Bringing together PhD students from different disciplines to develop courses based on their PhD research should result in exceptional, interesting, interdisciplinary courses. The project idea is that the University will provide that support (important professional development for the grad students), that the courses will be developed and offered to upper-year undergraduates from across campus, and that the course will be offered in a “flipped” format so that the online portions of the course can be re-used in future course offerings.

This is a three-year project. The first course involved six PhD students, one from each Faculty, and focuses on Climate Change. The team of graduate students have received training on interdisciplinary course design from the Centre for Teaching Excellence, and support from the Centre for Extended Learning and Instructional Technologies and Media Services in preparation for developing the online parts of the course. It will be offered to undergrads from all over campus in Winter 2023 (each Faculty has an allocation of spots), and an enrollment of about 40 is expected. Year two will involve: (a) an evaluation report on Year 1, due in early spring; (b) development of a second course on a different Wicked Problem, during Spring and Fall, to be ready for offer in Winter 2024; (c) a second offering of the first course with a different set of graduate student instructors.

**Project 2: The Sustainability Thinking as a Learning Outcome Project** is headed jointly by the Sustainability Office and faculty members from at least two Faculties. One current challenge facing undergraduate students is that certain degree programs have a full roster of required courses, so students don't have the capacity to take an additional course especially on sustainability. The goal of this project is to consider ways to ensure that Waterloo students graduate understanding the essential features of sustainability thinking when they are in programs that are not focused in that area and that are already very full of course requirements of other sorts (so adding in an extra required course is not an option). This is a two-year project has launched recently and will call on expertise from all Faculties (including, for instance, the Associate Deans but also academic program leaders) and many administrative units, including Co-op and Experiential Education, the Centre for Teaching Excellence, and the Registrar.

**Project 3: The Student Led Individually Created Courses Project (SLICC)** is in a developmental phase. SLICCs can be a valuable learning experience that teach students much more than the content of a course, as they must plan, propose, carry out, reflect and evaluate their learning experience. Such opportunities are available at some schools (University of Edinburgh is the best-known example) and there have been small-scale experiments with SLICCs in various Faculties at Waterloo. The goal of the project is to examine the feasibility of opening this opportunity to more students on campus (for instance, interdisciplinary teams of students). While the project team is still being put together, success will require involving both tenure stream and teaching stream faculty members, academic leaders in programs, Associate Deans, and others at the Undergraduate Operations Committee, and staff in a variety of support units such as the Registrar’s Office, Centre for Teaching Excellence, and others still TBD.
The Lessons

As we had hoped, we learned (and confirmed) some significant things while working on these projects:

It takes a cross-functional team to develop an innovative idea, because the people with the initial idea won’t know everything they need to know. For example, the Wicked Problems project is led by the Associate Deans, Grad, and from the start the need to involve the Centre for Teaching Excellence and the Centre for Extended Learning was clear. But determining how to offer the course also required consultations with the Registrar’s Office. Determining how to offer it successfully required consultations with the Associate Deans Undergraduate. Determining how to devise an appropriate agreement for the course’s many authors required consultations with the Centre for Extended Learning and Legal and Immigration Services.

As TII projects evolve, they will uncover procedural tangles that were invisible until we tried something new. Leaving this type of innovation for individuals to try to maneuver in the face of red tape and outdated rules almost guarantees failure, not to mention frustration.

Prong 2: TII Planning Project

The TII Project Team includes representatives from both teaching stream and tenure stream faculty members, representatives from academic support units, and graduate and undergraduate students. The Team is charged with gathering information then making informed recommendations on a whole range of issues around the long-term plans for the TII: What exactly will it do? How are projects selected? What sort of space does it need? Etc. The Team has been gathering information from two main sources:

Environmental Scan
The Team did an extensive environmental scan of local, national, and international initiatives at other schools that might be classified as Teaching Incubators. In addition to researching written materials, the scan involved several Teams/Zoom interviews and a few site visits. A few of the key lessons are:

- Many such units rely on a single charismatic individual for their success, which sometimes makes their success fleeting
- Many such units are less ambitious, in the sense of focusing on improvements to individual courses for individual instructors. Support for this is a role that the Centre for Teaching Excellence already plays at Waterloo. Units at some other schools are much more focused on Scholarship of Teaching and Learning than the TII is imagined to be
- Successful teaching innovation units have appropriate space ... space where people with like interests can be brought together to find like-minded educational innovators and work through project ideas together; teaching spaces where ideas can be tried out; attractive space that is welcoming and that students, staff and faculty are all happy to be in.
- It is important to match staffing models to the number, size, and phase in the life cycle of projects that will be underway at any time. The number of staff varies considerably in the different units we looked at, and some units that seem to be struggling are under-
None seems to have implemented Waterloo’s proposed approach of a smaller incubator staff that draws on the expertise that already exists on campus to be part of project teams.

- No other incubator reviewed had multi-year innovation projects that were meant to challenge institutional systems or inspire interdisciplinary teaching and learning initiatives as part of its remit.

Consultations
The Team is nearing completion of an extensive round of in-person consultations (with both undergraduate and graduate students, with Chairs, Directors of Centres and Institutes, Teaching Fellows, key staff in academic support units (e.g., Cooperative and Experiential Education, the Centre for Teaching Excellence, Information Systems and Technology, Human Resources, Graduate Studies and Postdoctoral Affairs, Waterloo International, the Writing and Communication Centre, the Student Support Office, Institutional Analysis and Planning, the Secretariat, Space Planning, Accessibility, the office of Equity, Diversity, Inclusion and Anti-Racism, and the Library). There was also a campus-wide online survey to gather information from those not consulted directly.

Of course, an extensive consultation is intended to help the committee recommend an Incubator that Waterloo faculty, students, and staff will participate in by asking people what they want instead of telling them what they need. Admittedly, some found the process frustrating because they wanted to react to a more determinate proposal than to be asked “early stage” questions. But the most frequent form of responses during consultations has been “this is an awesome idea ... have you thought about this?”

The Team is now processing and synthesizing the results of our consultations, so stating “lessons learned” is still based on impressions. But some valuable and frequently heard comments are:

- **Leadership in some Faculties suspect that the degree of involvement in Incubator projects will vary depending on Faculty finances and resulting local capacity to develop innovative ideas internally.** On the other hand, some see the Incubator as a mechanism that promotes equity between Faculties, and most everyone recognizes its value for supporting cross-Faculty initiatives.

- **The degree of the Incubator’s success will depend on messaging.**
  - The point is not that there is no innovation happening in teaching at Waterloo. The people at the heart of these innovations told us that the work developing these innovations was hard, somewhat lonely, and frustrating because they were often blazing their own trail through institutional red tape without any sort of map. Our messaging should not suggest that there are not good ideas already bubbling at Waterloo, or that they never get implemented. Instead, we need to emphasize the role of the TII in bringing together the appropriate resources and systems to support the development of innovative ideas and increasing the likelihood of implementing the good ones.
  - Maybe the name “Teaching Innovation Incubator” and the rhetoric of “transformative ideas” will scare away people with good ideas that could make a big but local impact. We don’t want people to be concerned that their idea is “not big enough.”
• We heard repeatedly that to be maximally useful the TII should have the capacity to temporarily bend or circumvent rules as an idea is tried out. If the idea works out, we’ll then know how to rewrite the rules for the future.

• We need to guard the interests of the people willing to take part in these experiments (as well as the institution). Faculty and staff are more likely to take part if they know that they will be recognized and valued for having had a good idea that was tested (but didn’t work out) instead of being frowned on for a failure. (Many bold ideas are sure to fail ... that’s part of what it means to be bold). And if students agree to be part of an experimental approach to something, safeguards need to be in place to ensure that they benefit sufficiently, whether the idea is one the University adopts long-term.

Plans for 2023

• The Team began the analysis of the consultation responses in November 2022
• The Team’s report, including recommendations for the structure of the Incubator, should be completed in early Spring 2023
• The Beta TII will hire/second a dedicated staff person to support Beta TII projects during 2023-24 fiscal year. The three current projects will continue into their second year, and two more projects will be launched (by a project still tbd, but probably one that will remain somewhat ad hoc until the permanent incubator is launched, with a formal intake process, next year)
• The permanent TII currently has a target launch date of January 2024, probably in temporary space

2. Indigenizing the Curriculum and Anti-Racist Pedagogies

Supporting Resource Development and Building Capacity – Stories from the Faculties Embracing Indigenization

The Indigenous Knowledges and Anti-Racist Pedagogies (IK-AR) team in the Centre for Teaching Excellence (CTE) is an important recent addition (1 hire in Nov 2021 and 3 in Sept 2022). The work of this team has been steadily increasing as they support faculty in creating discipline-specific resources, introducing flexible curricula that stimulate reflective practices, and building capacity and competencies that address global challenges and opportunities specific to Indigenization. A key strength at the University of Waterloo came very clearly in September of 2022 with executive endorsement and commitment to Indigenization, which coincided with growth in the Indigenous community of Indigenous staff in support units. CTE’s new educational developer hires and the new Manager of Indigenous Initiatives in the Faculty of Science bring both energy and capacity to support the work of Indigenization on campus. Added to these strengths, amongst the staff and faculty at UW there is a strong willingness and desire that has created a pent-up demand for Indigenization work within various departments.
Our first activity as a team was to each share our personal visions for Indigenization work with one another and so support each other in achieving what each of us most wants to see accomplished. We are finding new ways to work together as both an Indigenous staff group and with settler allies to remove barriers to collaboration and interdisciplinarity to find the places where integration of knowledges might occur.

**Snapshots of STEM Projects in 2022**

The School of Pharmacy initiated a pilot project with CTE to Indigenize their full four-year curriculum. Working with leadership, staff, and faculty within the School over the last year, we have co-designed a new course for Pharmacy in Culturally Safe Patient Care that addresses cultural safety from both Indigenous and Anti-Racist positions to prepare students for the diverse work placements, co-ops and career opportunities within the healthcare sector. CTE’s new Educational Developer in Indigenous Anti-Racism came on board in September, and through her experience in curriculum in UBC’s Centre for Excellence in Indigenous Health, Nahannee Schuitemaker is now leading a year-long project to co-create the course materials in a flipped design. CTE’s educational developers are working both with the Centre for Extended Learning for the online module design and within the Pharmacy classrooms to support faculty in piloting the material.

Faculty of Science: Madison Hill, as an Educational Developer, Indigenous Knowledges approaches the work from her own position as a graduate from the Faculty of Environment (York University) and work within regional conservation. Within her first three months Madison designed the content for the first proto-type module on Traditional Ecological Knowledge (TEK) as a foundational teaching in the Faculty of Science. Working with Savannah Sloat, Science’s Indigenous Initiatives manager, Savannah offered a land-based pedagogy teaching through the Program Area Leads program run through the EDI-R office. The aims for the online and in-person components are to expand educational experiences and teachings around land-based approaches to learning within the Science and Environment Faculties. Madison, Savannah and Jessica have joined a large federally funded proposal where Indigenous faculty members, Knowledge Keepers and allies are building out a space on campus for land-based experiences throughout 2023 and 2024.

Faculties of Environment and Engineering are leading a STEM community of practice in building faculty members’ capacity through the creation of a resource hub with the support of Jessica Rumboldt, also an Educational Developer, Indigenous Knowledges hired in late September. These two Developers immediately joined the existing STEM Community of Practice (CoP) on Indigenization. The CoP had secured a seed grant for Indigenous resource development in 2019, and as Jessica and Madison arrived, they began helping to strategize and define the first steps for gathering resources to support teaching and learning efforts of these fields. A full environmental scan of existing resources is underway as the faculty create the online infrastructure for this hub, including where best to locate it for the various disciplines accessing its content. The hub’s launch is set for 2024.

Jessica has also been busy creating a series of facilitated teachings co-designed with Engineering’s Elder-in-Residence, William Woodsworth. The design of the workshops prepares
any interested staff, students and/or faculty attending circle with their elder with specific protocols and principles of learning found within the Haudenosaunee cultures.

**Faculty of Mathematics:** Jessica has also begun developing a set of Indigenous practice principles in Mathematics for faculty to begin considering how learning outcomes and Indigenous principles of learning are aligned. Like the project with Elder Bill in Engineering, the Mathematics project engages instructors in discussions around the relational aspects of Indigenous Knowledge and provides opportunities to experience Indigenous teaching in circles which can be used to set environments for learning within classrooms. These decolonizing efforts within Mathematics and Engineering work differently than resource hubs by helping to establish relational understanding and showcases the depth and scope of the work possible beyond curricular content.

All these projects also funnel into the larger strategic plan to build content across disciplines to complement a foundational course for all students in Indigenous History, Culture, and Worldview.

**Scope, Demand, and Impact of Indigenous Collaborations**

**Scope:** Faculty are currently most seeking resources that respond to the TRC’s calls to action to build stronger relationships with our local Indigenous communities and community organizations. Each of the Indigenous staff is collaborating with faculty on building the necessary infrastructure for resources, protocols, and curriculum by sharing approaches and knowledge. The goal of the team is to build relationships and offer flexible models (both online content and in-person support) that showcase the process of a curriculum project, how to design and build resource hubs in collaboration with faculty groups, and how to implement resources and activities through our support within classrooms. These models will provide reference points for other departments to consider how to consider indigenization in their own disciplines.

**Demand:** Current demand for support is coming primarily from STEM and health science programs. For example, of the 81 consultations with individuals between January 2022 – April 2022 with CTE's Senior Educational Developer, approximately 40 were in STEM disciplines, 25 in Health-related disciplines and the social sciences, and the balance were in the Arts and AFIW.

**Impact:** The current STEM work has the potential of impacting up to approximately 22,000 undergraduate and 800 STEM faculty. As we develop and implement a comprehensive intake process, more data on reach will become available. An impact story on our work with Pharmacy appeared in CTE’s annual report and more stories will be shared over time.

**Building Understanding around Indigenizing Work**

Indigenous content and approaches to teaching and learning are new for many at the University of Waterloo. Our work focuses on building understanding with our collaborators and settler allies about key elements of the work and how we do it.
Time-Intensive: Indigenization work takes the time it takes and cannot be rushed. For example, one foundational element to this work is relationship-building. Building relationships between faculty and educational developers takes time. Building relationships with discipline-specific traditional knowledge keepers and learning from different elders from various nations requires time and flexibility. Building knowledge and confidence also takes time. For instance, the School of Pharmacy had a pre-existing hub of resources to supply faculty with material necessary to Indigenize, but uptake of these resources and implementation of them proved nominal and sporadic. Through the pilot in Pharmacy, we found a strong indicator for success in the uptake of the work: consistent Indigenous support over time. Faculty require time to discuss, adjust, co-design and pilot the materials with support from Indigenous staff due to the complexity and newness of the subject matter and approaches.

Limited-Resources: The pace of the work means one of our challenges is striking a balance between responding to requests while setting reasonable expectations. Our team has limited human resources and many more faculty to support: capacity building will take time. We are grateful for our Indigenous Elders providing their own teachings and Indigenous colleagues across student services and within facilities who collaborate in this work.

3. Digital Learning Strategy

Directly addressing Goal T1

The Vision

The goal of a Digital Learning Strategy is to transform learning by ensuring flexible, equitable pathways to student success, and further the institutional mission by providing a shared vision for digital learning across the whole of the institution and aligning resources with initiatives. Transformation in teaching and learning – a primary component of the institution’s mission – will lead the way in inspiring broader digital transformation across the University of Waterloo, including research, governance, and administration.

Waterloo has long been a Canadian leader in distance and online education and is proud of its title as Canada’s most innovative university. The University can, if it chooses to strategically draw on its resources and align its focus, establish itself as a leader in the evolving area of digital teaching and learning, which is much broader than traditional online education. Better use of digital means of instruction will enhance the student experience for all students regardless of mode of learning or location.

The Need

The University currently has no comprehensive strategic framework to guide the development of digital instruction and program design, the selection of digital teaching and learning tools and support for the learning experience, instead relying on historic practices, ad hoc planning, and disparate standards. The UW strategic plan, with our past accomplishments in digital teaching and learning, and our recent extensive experience with digital education necessitated by our
response to the pandemic all underscore that it is timely and important for Waterloo to develop an explicit digital learning strategy (DLS), to become more efficient and effective and better serve student success and to be more resilient in the face of future challenges.

The pandemic is a watershed moment. To remain viable and successful, all universities must be willing to reimagine themselves and foster a lifelong relationship with learners in the face of emerging societal changes and expectations. Learners at all stages of life are seeking more accessible and flexible opportunities tailored to their needs, and timely access to programs that help them not only enter the workforce but remain viable and progress within it. The value and ROI of degree structures is being questioned, and both traditional and non-traditional institutions are stepping in to fill those needs. Community and residency will remain a key component of our character; therefore, we must define and deliberately exploit the value of residency, while extending our brand and disciplinary strengths globally just as we also expand the use of digital tools effectively to enhance experience.

**The Value**

The DLS is critical to the T1 Goal stated above, supporting learner-centered approaches and student success by providing flexible pathways, and countless other opportunities to enhance learning, such as the blended/flipped courses supported by the Blended Learning Initiative.

The DLS plays an invaluable role in achieving strategies T2, T3, and T4, including supporting lifelong learning, helping expand and support opportunities for grad student skill development and Graduate Work Integrated Learning, helping facilitate interdisciplinary programs, and supporting internationalization by increasing the global reach of our institution as well as the diversity of both learner and instructor voices in the classroom.

The Digital Learning Strategy will better position us for future disruption regardless of type, making us more resilient and make us more efficient by aligning projects and investments with one another and with strategic goals.

**Plans for 2023**

The team has completed initial consultations and is working on a report of its findings, focusing on actionable recommendations. Because teaching and learning is so integral to the University, the Digital Learning Strategy impact many areas, all of which require input into the final plan. Therefore, the Working Group is currently working to socialize and refine the Strategic Directions and Recommendations that have been drafted and ensuring alignment with other lenses of the University Strategic Plan.

The Digital Learning Strategy recommendations will fall into short-, medium- and long-term timelines. Many will reinforce initiatives already underway, such as defining modes of learning, digital learning minimum requirements, and Educational Technology governance processes. These will form the immediate foundations for more ongoing substantive, longer-term initiatives, and changes.
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For Decision

Per its terms of reference, the committee recommends to the Board of Governors the following items for decision.

1. Optometry – Budget Increase

Motion: That the Board of Governors approve a revised project budget of $50.34 million (previous approval was $45.25 million) for the Waterloo Eye Institute and that the project proceed to final design and tender.

Background: Beginning in July 2019, the School of Optometry & Vision Science worked with a design team from FYi doctors to reimagine the patient care pathway. Leveraging their expertise in practice design, the team worked with faculty and staff to develop improvements which reflected contemporary practice, clinical education, and training. The clinic modernization plan includes expanded optical services, and state-of-the-art biomedical sciences infrastructure with a goal to provide seamless integration for the continuum of eye and vision care.

A Request for Services Qualifications was publicly advertised on Merx which led to the approval by the Board of Governors on 6 April 2021, based on the Building & Properties Committee’s recommendation, to appoint HOK architects as prime consultant. At the same meeting, the Board of Governors approved, based on the B&P Committee’s recommendation, an estimated budget of $45.25 million based on preliminary designs and a Class D construction estimate where proceeding to tender was conditional on securing funding for 50% of the project costs and developing a plan to raise the balance.

The updated project budget ($000s) including net HST (3.41%) is:

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<th>Description</th>
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<td>Fees to develop schematic design</td>
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<td>Disbursements</td>
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<td>Other Fees (Geotech, survey, locates, etc.)</td>
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<td>Commissioning</td>
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<tr>
<td>Total</td>
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</table>
Note 1: construction prices remain volatile; we continue to monitor market trends.

To date, the School of Optometry & Vision Science has raised ~$18 million, has committed $2.5 million of its existing internal resources, and the University has committed $6.5 million from operating funds for a total of $27 million which exceeds the requirement for a minimum of 50% of funds committed to proceed to final design and tender. The balance will be funded by a combination of fund-raising and incremental revenue generation over the next 8 years which is backstopped with a funding short-fall commitment from the Dean of Science.

2. Math 4 Building – Updated Recommendation

**Motion:** That the Board of Governors approve the Math 4 building be constructed using a Construction Management form of contract rather than the previously contemplated Stipulated Price Contract form of agreement.

**Background:** At its 25 October 2022 meeting, the Board of Governors approved the recommendation from the B&P Committee to construct the proposed Math 4 building with a total revised project budget of $110 million.

At its 1 June 2021, the Board of Governors approved the recommendation from the B&P Committee to appoint Moriyama & Teshima Architects as prime consultants for the project.

During the initial phases of the design, both the design team and the independent cost consultant identified the rapid and volatile price increases being experienced within the construction industry. In order to address this situation, multiple cost estimates have been undertaken following an extensive value engineering exercise. The total building floor area remains unchanged at approximately 140,000 gross square feet. The recommended $110 million budget is based on 35% design development completion and assumes a Q3 2023 tender award which includes a 10% escalation contingency between August 2022 and Q3 2023.

The project currently has financial commitments totaling $75 million: (a) the Faculty of Mathematics has transferred $57.5 million to the project’s capital account, and (b) the Provost has committed $17.5 million of institutional funding toward the project. The Faculty of Mathematics has made this project a priority in its ongoing fundraising activities. Any funding shortfalls related to the remaining $35 million will be funded by the Faculty over a 7-8 year period following building completion.

**Building Specifics:**

At approximately 140,000 gross square feet, the proposed building is planned to be 5 storeys including a mechanical penthouse at level 5 and is designed to seamlessly connect the Math & Computer Building with the Davis Centre while maintaining the integrity of the existing outdoor quad.

This new, state-of-the-art 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 extensive outreach program. The building is designed to support enriched student experience by creating new social and collaboration spaces. It features classrooms and collision spaces to encourage interaction and collaboration among 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 building will support the Faculty attract more of the world’s top math and computer science talent.
Budget Specifics:

The revised budget estimate has increased $20 million or 22% (including net HST):

<table>
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<tr>
<th></th>
<th>Jan 2021 Estimate</th>
<th>August 2022 Estimate</th>
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<td>Construction</td>
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</tr>
<tr>
<td>Furniture &amp; Furnishings</td>
<td>2,500</td>
<td>2,150</td>
</tr>
<tr>
<td>AV/Network/Security</td>
<td>1,250</td>
<td>1,550</td>
</tr>
<tr>
<td>Permits &amp; Development Charge</td>
<td>3,000</td>
<td>3,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$90,000</strong></td>
<td><strong>$110,000</strong></td>
</tr>
</tbody>
</table>

($643/sf) ($786/sf) approx. increase of 22%

3. New Residence – Consultation Fees

**Motion 1:** That the Board of Governors approve the appointment of Diamond Schmitt Architects Inc. (DSAI) as the prime consultants to prepare design and construction documents for a proposed 500-bed undergraduate student residence.

**Motion 2:** That the Board of Governors approve the site location for the proposed building on Parking Lot A.

**Background:** Initial estimates for this project are in the order of $90 million +. Considering current economic and construction market volatility, hiring DSAI and confirming the site location will enable the consultant team to advance the design to better inform cost estimates on the total project scope prior to seeking financial approval.

Background – Connection to Campus Housing’s Facilities Strategy:

- The University of Waterloo currently has 5,774 residence beds and approximately 7,104 beds in total when the university colleges are included. Most of the residence buildings require substantial re-investments to remain operable and desirable for students long term.
- The University’s Campus Housing department recently completed a comprehensive Campus Housing Facilities Strategy to guide the residence renewal plans that will provide an enhanced student experience through a mixed-year living model. Research has shown benefits come from students living in residence, and the combination of more upper-year undergraduates and greater interest in learning in the living environment presents a compelling opportunity for the University to stress the value that comes from in-person experiences.
- To meet the demand for University operated residence accommodations that support a positive student experience, additional residence space is needed. This will allow for renewal of existing facilities and ensure the University can continue to honour the first-year residence guarantee, which is a key recruitment tool.
  - Although there has been a substantial increase in purpose-built off-campus student housing in Waterloo in recent years, the University is well positioned to compete based on the focus to enhance learning and development.
Background – Building and Site Selection:

- The UW Campus Masterplan identifies Parking Lot A as a “potential development” site and further describes this area as contemplated expansion sites for “Mixed-Use” development.
- In alignment with the Campus Housing Facilities Strategy, 4 potential site locations were considered, and Lot A was identified as the preferred option for this project to utilize unoccupied sites, optimize proximity to complementary buildings and amenities, and to enhance the student experience for both residents and non-residents by leveraging a high-traffic location (gateway).
- The proposed residence building is being designed to meet net neutral design guidelines and the recommended location for the building on the north/east side of Parking lot A also creates opportunities to explore alternative energy sources, further supporting the University’s Net Zero carbon targets.
- The proposed residence building will be designed to connect to a future academic building within the south campus gateway. The new building will accommodate a connection to the existing pedestrian bridge over University Avenue, and will propose a pedestrian bridge over the LRT tracks to the Claudette Millar Hall residence.

Background – Consultant Selection:

- On 28 June 2022, the University issued a Request for Proposal for Consultant Services on MERX (public tendering site) inviting firms with appropriate experience and qualifications to make a submission. In total 7 submissions were received, and 3 firms were shortlisted for an interview.
- The President’s Advisory Committee on Design (PACOD) interviewed the 3 teams on 29 August 2022, and ranked Diamond Schmitt Architects Inc (DSAI) as the top candidate.
- DSAI were awarded an initial design contract to complete a Site Study, Programming, Conceptual Design, and a Class D Estimate for the project.
- The UW project team is seeking approval to appoint DSAI as the prime consultants beyond this initial concept phase.
- DSAI’s proposed consulting fees are competitive with a percentage fee proposal of 3.950–4.499% (based on a percentage of the final cost of construction excl. HST).

FOR INFORMATION

1. 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;
- university real estate holdings;
- the work plan for next fiscal year; orientation/briefing requirements.

/ar

Murray Gamble
Chair
This report is submitted following the committee’s meetings of 19 January 2023 (F&I) and 18 November 2022 (P&B). This report is recommended for inclusion in the regular agenda.

RECOMMENDATION

1. Approval of New Investment Managers/Mandates – Endowment, IQC Trust, Pension Plan

Motion: That the Board of Governors approve the Coldwell Banker Richard Ellis (CBRE) Group to provide an open-ended real estate fund (CBRE Global Alpha) for the Registered Pension Plan (RPP), the university endowment fund, and the IQC trust fund.

Rationale: In Spring 2022 the Pension Investment Committee (PIC) launched an investment manager search for the pension fund with a focus on real estate investment. A comprehensive search exercise was supported by Aon as investment consultant to the RPP, with due diligence conducted on different strategies and fund-types, and specific consideration given to ESG integration within the investment process. PIC ultimately recommended CBRE, recognizing the manager as top-tier in their class with excellent investment track record.

In accordance with its terms of reference, PIC has approved adding an investment in the CBRE Global Alpha Fund, an open-ended real estate fund (3% of the total pension fund assets) to the RPP pending the approval of CBRE by the Board. This represents approximately $64 million as of December 31, 2022. The asset mix range for real estate investments in the RPP’s Statement of Investment Policies and Procedures (SIPP) is 5% - 15% with a benchmark of 10%. In the real estate investment category, the pension currently owns a listed real estate product, the XRE iShares REIT, which comprises approximately 2.9% of pension investment assets as of December 31, 2022. It is expected that the commitment to the CBRE fund would be drawn down within twelve months of finalizing an investment agreement.

Following convention, the new investment manager which had initially been recommended by PIC for the pension fund was forwarded to the Finance & Investment Committee; the latter group relied on the due diligence of PIC in making its own recommendation to the Board for approval of the manager and fund for each of the endowment and the IQC trust fund. This continues the practices of building a common and diversified pool of investment managers/mandates that can be available for all these funds.

Michael Ashmore
Chair, Finance & Investment Committee

Peter Barr
Chair, Pension & Benefits Committee
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This report is submitted following the committee’s meeting of 19 January 2023. 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. Amendments to Statement of Investment Policies and Procedures - University of Waterloo Endowment

Motion: That the Board of Governors approve the amendments to the Statement of Investment Policies and Procedures for the University of Waterloo Endowment, as described in Attachment #1 to this report.

Rationale: The proposed amendments to the endowment SIPP will add venture capital in the asset mix (section 12) with a permitted range of 0% - 5% and a proposed benchmark portfolio percentage of 0%. Finance staff have inquired with the Canadian Venture Capital Association to ascertain relevant benchmark indices to inform a future update of the benchmark portfolio percentage and benchmark index; the benchmark weighting will remain at zero for performance measurement purposes until the appropriate benchmark (from CVCA or otherwise) is identified.

In addition to amendments pertaining to venture capital, other amendments have also been included to (1) remove the benchmark index for cash which is not required with a benchmark portfolio of 0%, (2) removal of Section 21, Liquidity, as liquidity is already addressed in Section 10, and (3) cleanup of duplicate language and other minor editorial amendments.

2. Recommended Tuition Fee Changes, and Recommended Co-op Fee – 2023/24

Motion: That the Board of Governors approve the 2023/24 tuition fee changes and the 2023/24 co-op fee, as described in Attachment #2 to this report.

Rationale: See Attachment #2 to this report.

Michael Ashmore
Chair
Statement of Investment Policies and Procedures

University of Waterloo Endowment

Effective: <insert effective date>

APPROVED on this <insert Board approval date>

Replaces previous version which was last revised and effective on November 1, 2020
October 25, 2022
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Introduction

1) Purpose and Scope of Policy

This Statement of Investment Policies and Procedures (the “SIPP”) provides the framework for the investment of the assets for the University of Waterloo Endowment Fund (“Fund”).

To provide investment income within acceptable risk tolerances, it is necessary to strive for sufficient/appropriate real investment returns on the Fund assets over medium- and long-term periods. The investment philosophy, policies and procedures adopted in this document will assist in the achievement of this goal in a prudent and effective manner.

This document has been developed taking into account factors such as:

i. The nature of the Fund’s spending requirements;
ii. Historical and expected capital market returns; and
iii. The benefits of investment diversification.

The Finance & Investment Committee shall annually review and either confirm or recommend amendments to this Policy to the Board who may amend this Policy. The University of Waterloo (the “University”) will provide any amended copy of this Policy to the Investment Managers.

2) Administration

The University is the legal owner of the Fund and is therefore responsible for all matters relating to the administration, interpretation and application of the Fund. University shall exercise the care, diligence and skill in the administration and investment of the Fund that a person of ordinary prudence would exercise. Such persons must further use all knowledge and skill that they possess or ought to possess.

Investment Principles

3) General Guidelines

The investments of the Fund must comply with the requirements and restrictions imposed by the applicable legislation.

4) Objective of the Fund

The objective of the Fund is to provide an annual revenue stream in perpetuity to fund specific activities of the University and to preserve its purchasing power.
5) **Investment Objectives**

Return objectives for the Fund are established taking into consideration factors including: earning a rate of return sufficient to meet the annual expendable obligations, earning a rate of return sufficient to maintain the purchasing power of the endowed capital, investment horizon of the Fund, historical and expected capital market returns, volatility of different asset classes, financial implications of Environmental, Social and Governance ("ESG") factors, benefits of investment diversification, and the University’s risk tolerance with respect to the Fund.

6) **Portfolio Return Objectives**

The return objectives of the Fund are:

i. Earn a minimum rate of return, after investment expenses, of CPI\(^1\) + 3% over four-year moving periods.

ii. Achieve a minimum absolute rate of return, after investment expenses, which exceeds the benchmark return by 0.25% over four-year moving periods.

7) **Expected Volatility**

The volatility of the assets of the Fund is directly related to its asset mix. The Benchmark Portfolio in Section 13 has been constructed with the expected returns and related risks in mind. Provided the Fund’s investment structure stays within the permitted ranges for each asset class, the volatility of the Fund’s returns should be similar to that of the Benchmark Portfolio.

8) **Equity Returns/Risk**

While the level of equity exposure drives much of the risk level of the Fund assets, equities are expected to outperform fixed income over the long-term. Therefore, the investment strategy will include appropriate exposure to equities as part of providing the long-term risk adjusted returns necessary to fund the spending requirements of the Fund.

9) **Diversification**

Diversification is intended to expose the Fund to opportunities to reduce investment concentration risk. The Fund will pursue diversification by asset class and geography in its asset mix and by investment style in the selection of its Investment Managers.

To facilitate diversification, a diversified Investment Manager structure has been

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\(^1\) CPI source: Bank of Canada CPIX
adopted for the Fund consisting of several managers. This structure has been adopted, as it is believed that the different investment mandates will result in increased diversification, while reducing the ‘manager risk’ effect for the Fund.

10) Liquidity

The investment strategy should provide sufficient liquidity to meet the Fund’s financial obligations, while ensuring the Fund does not contain excessive cash or low yielding liquid assets. Provided the liquidity requirements of the Fund are met, the Fund may consider investing a portion of the Fund in illiquid assets, where such investment has the potential of enhanced returns, in part, due to the illiquidity premium.

11) Currency Hedging

Currency movements relative to the Canadian dollar are not expected to have a significant impact over the long term. The Fund policy is to not hedge currency at the total fund level. Over shorter periods, currency movements may increase volatility and currency hedging may be employed by Investment Managers where expressly permitted.

12) Asset Mix

The Fund will be invested in a broad range of assets with the goal of meeting or exceeding return expectations and mitigating investment risks. The following benchmark portfolio (“Benchmark Portfolio”) is representative of the long-term asset mix policy for the Fund.

At all times, the market value of the individual asset classes will be within the minimum and maximum aggregate investment limits as listed:

<table>
<thead>
<tr>
<th>Assets</th>
<th>Minimum %</th>
<th>Maximum %</th>
<th>Benchmark Portfolio %</th>
<th>Benchmark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>FTSE Canada 91-Day T-Bill Index</td>
</tr>
<tr>
<td>Fixed Income</td>
<td>20</td>
<td>40</td>
<td>30</td>
<td>FTSE Canada Universe Overall Bond Index</td>
</tr>
<tr>
<td>Total Fixed Income</td>
<td>20</td>
<td>40</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Canadian Equity</td>
<td>0</td>
<td>20</td>
<td>10</td>
<td>S&amp;P/TSX Composite Index</td>
</tr>
<tr>
<td>Asset Class</td>
<td>Weight</td>
<td>Weight</td>
<td>Weight</td>
<td>MSCI ACWI (CAD)</td>
</tr>
<tr>
<td>------------------</td>
<td>--------</td>
<td>--------</td>
<td>--------</td>
<td>-----------------</td>
</tr>
<tr>
<td>Global Equity</td>
<td>50</td>
<td>70</td>
<td>60</td>
<td></td>
</tr>
<tr>
<td>Venture Capital</td>
<td>0</td>
<td>5</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td><strong>Total Equity</strong></td>
<td><strong>60</strong></td>
<td><strong>75</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

For the purpose of the total asset mix described above, the Investment Managers’ asset class pooled funds are deemed to be 100% invested, even though these funds may contain a portion held in cash and cash equivalent instruments.

13) Rebalancing

At all times, the market value of the individual asset classes will be within the minimum and maximum aggregate investment limits prescribed in Section 12 (Asset Mix) but may deviate from the benchmark portfolio.

14) Responsible Investing

Consistent with its obligation to act in the best interest of the Fund, the University chooses investments and Investment Managers that it believes will deliver superior financial performance over the long term. In this regard, when selecting Investment Managers or direct investments, the University considers criteria that include: the Investment Manager’s business and staff; historical performance; and the consideration of environmental, social and governance ("ESG") factors in the investment process, including climate change risks and opportunities, which may have a financial impact on the investments, as well as the Investment Manager’s Responsible Investment Policy. The adoption of sound ESG practices is intended to reduce financial risk over all time periods and offer enhanced long-term value to the Fund.

The Fund’s ESG practices are further detailed in the University of Waterloo Responsible Investment Policy.

15) Permitted Investments

In general, and subject to the restrictions in this document, the Investment Manager may invest in any of the following asset classes and in any of the investment instruments listed.

a) Cash and Short-Term Investments

Cash on hand, demand deposits, treasury bills, short-term notes and bankers’ acceptances, commercial paper, term deposits and guaranteed investment certificates having a term of less than or equal to one year.
b) Fixed Income
Bonds, debentures, or other debt instruments of corporations, Canadian Governments, Government agencies, or guaranteed by Governments, supranationals, federal real return bonds, mortgage-backed securities, mortgages, asset-backed securities, non-convertible preferred shares, term deposits, guaranteed investment certificates, insurance contracts, private placements and bonds where capital, interest or both are linked to increases in the cost-of-living (i.e. real return bonds).

c) Equities
Common shares, preferred shares, American Depository Receipts, Global Depository Receipts, rights, warrants, installment receipts, index units, income trust units and securities convertible into common shares.

d) Derivatives
Derivatives are a type of financial contract which can be traded on an exchange or over the counter for which the value is dependent on an underlying asset, group of assets or a benchmark; common derivatives include futures contracts, forwards, options and swaps. The pooled funds in which the Fund invests may invest directly in derivatives to create synthetic exposures, or for hedging purposes, if their objectives and strategies permit, and if the exposure to derivatives is subject to limits based on the intended use and strategies for derivatives and the risks associated with them. Derivatives may also be used to hedge currency and provide downside protection. Derivatives may not be used for speculative trading or to create a portfolio with leverage. Investment funds that invest in derivatives must comply with all applicable law and must be invested and managed in accordance with regulatory derivatives best practices.

e) Infrastructure
Listed, direct or indirect investments in the debt or equity securities of infrastructure entities including the transportation, energy, utilities, telecommunications, and social infrastructure sectors.

f) Real Estate
REITs, direct or indirect investments in the debt or equity securities of real property assets including industrial, office, retail, multi-residential, agriculture and timberland properties.

g) Pooled Funds
Investments in open-ended or closed-ended pooled funds provided that the assets of such funds are permissible investments under the SIPP. While the SIPP is intended to guide the management of the assets, it is recognized that, where pooled funds are held, there may be instances where there is a conflict between the SIPP and the investment policy of a pooled fund. In that case, the pooled fund policy shall dominate, subject to the compliance reporting procedures outlined in Section 3 of the Fund Implementation Procedures. However, the Investment Manager is expected to advise the University in the event of any material discrepancies between the above guidelines and the pooled fund’s own investment guidelines. In addition, the Investment Manager will ensure that the University has received a copy of the most recent version of the pooled fund policy and of any amendments made to the pooled fund policy.

16) Minimum Quality Requirements
   a) Quality Standards
   Within the investment restrictions for individual portfolios, all portfolios should hold a prudently diversified exposure to the intended market.
   i. The minimum quality standard for individual bonds and debentures is ‘BBB’ or equivalent as rated by at least two Recognized Bond Rating Agencies, at the time of purchase. Where an investment in the portfolio is downgraded below a ‘BBB’ rating, the following steps will be taken:
      • The Investment Manager will notify the University of the downgrade by telephone at the earliest possible opportunity;
      • Within ten business days of the downgrade, the Investment Manager will advise the University in writing of the course of action taken or to be taken by the Investment Manager, and its rationale; and
      • Immediately upon downgrade, the Investment Manager will place the asset on a Watch List subject to monthly review by the Investment Manager with the University until such time as the security matures, is sold or until it is upgraded to a level consistent with the purchase quality standards as expressed in the guidelines mentioned above.
   ii. In cases in which the Recognized Bond Agencies do not agree on the credit rating, the bond will be classified according to the methodology used by FTSE Canada, which states:
      • If two agencies rate a security, use the lower of the two ratings;
      • If three agencies rate a security, use the middle of the three ratings; or
      • If all four rate a security, use the middle of the three lowest ratings.
   
   b) Rating Agencies
   For the purposes of the SIPP, the following rating agencies shall be considered to be
Recognized Bond Rating Agencies:

i. Dominion Bond Rating Agency;

ii. Standard and Poor’s;

iii. Moody’s Investors Services,

iv. Fitch Ratings

17) Maximum Quantity Requirements

a) Total Fund Level

The Fund shall not, directly or indirectly, lend or invest moneys of the Fund to or in any one person, any associated persons or any affiliated corporations if:

i. 10% or more of the total market value of the Fund’s assets has already been lent or invested in total to, or in, the person, the associated persons or the affiliated corporations; or

ii. 10% or more of the total market value of the Fund’s assets would be lent or invested in total to, or in, the person, the associated persons or the affiliated corporations as a result of the loan or investment.

iii. Holdings issued by the Government of Canada and its agencies are exempt from the above mentioned 10% limitation.

The Fund shall not directly or indirectly, invest the moneys of the Fund in the securities of a corporation to which are attached more than 20% of the votes that may be cast to elect the directors of the corporation.

b) Fixed Income

i. Maximum 15% of the market value of the Canadian fixed income securities shall be invested in BBB bonds or debentures

ii. Maximum 10% of the actively managed fixed income portfolio may be invested in debt denominated in US currency, including debt issued by the US Government, its agencies and instrumentalities. No other foreign currency debt will be purchased.

c) Equities

No one equity holding shall represent more than 10% of the total market value of the Investment Manager’s portfolio.

18) Investment Manager Compliance

Investment Managers must be compliant with this Policy, the Fund’s Fund Implementation Procedures and the University’s Responsible Investment Policy.
The Investment Managers shall not make investments in asset categories other than those explicitly permitted in this Policy, unless the University first consents in writing.

19) Securities and Cash Lending

The Investment Managers and custodian may participate in securities lending programs for the purpose of generating revenue.

Such loans must be secured by cash and/or readily marketable government bonds, treasury bills and/or letters of credit, discount notes, banker’s acceptances of Canadian chartered banks or high quality, liquid equities. The amount of collateral taken for securities lending should reflect OSFI standards and best practices in local markets. This market value relationship must be calculated at least daily.

Investment Managers and custodians participating in securities lending will make available the terms and conditions of any securities lending program(s) with the University.

20) Short Selling

Short selling and/or pair trading are not permitted.

21) Liquidity

Investments should be liquid enough so that they can be sold in a reasonable period of time. The investments should be valued at least monthly and selected to ensure sufficient liquidity to meet transaction needs.

22) Borrowing

The Fund shall not borrow money, except to cover short-term contingency and the borrowing is for a period that does not exceed ninety days.

23) Monitoring

Compliance with this Policy, together with relevant risk metrics, will be monitored quarterly including:

i. Achievement of the total return objective
ii. Liquidity requirements
iii. Asset mix limits
iv. Credit quality requirements
v. Single issuer limits
vi. Investment Manager Performance and related ESG integration
General Provisions

24) Conflicts of Interest

a) Responsibilities

This standard, which is consistent with University Policy 69 (Conflict of Interest), applies to the University and the members of the University, as well as to all agents employed by them, in the execution of their responsibilities (the “Affected Persons”). An “agent” is defined to mean a company, organization, association or individual, as well as its employees who are retained by the University to provide specific services with respect to the investment, administration and management of the assets of the Fund.

b) Disclosure

In the execution of their duties, the Affected Persons shall disclose any material conflict of interest relating to them, or any material ownership of securities, which could impair their ability to render unbiased advice, or to make unbiased decisions, affecting the administration of the Fund assets.

Further, it is expected that no Affected Person shall make any personal financial gain (direct or indirect) because of his or her fiduciary position. However, normal and reasonable fees and expenses incurred in the discharge of their responsibilities are permitted if documented and approved by the University.

No Affected Person shall accept a gift or gratuity or other personal favour, other than one of nominal value, from a person with whom they deal in the course of performance of his or her duties and responsibilities for the Fund.

It is incumbent on any Affected Person who believes that he or she may have a conflict of interest, or who is aware of any conflict of interest, to disclose full details of the situation to the attention of the University immediately. The University, in turn, will decide what action is appropriate under the circumstances but, at a minimum, will table the matter at the next regular meeting of the F&I Committee.

No Affected Person who has or is required to make a disclosure as contemplated in this Policy shall participate in any discussion, decision or vote relating to any proposed investment or transaction in respect of which he or she has made or is required to make disclosure.

25) Voting Rights

The voting rights acquired through the investments held by the Fund are delegated to the Investment Managers of the securities. Investment Managers are expected to exercise all voting rights related to investments held by the Fund in the interests of
the University. Investment Managers shall report their voting activities to the University on a quarterly basis documenting how they voted as well as how ESG factors were included in the rationale for the voting decision.

26 Valuations of Investments Not Regularly Traded

The following principles will apply for the valuation of investments that are not traded regularly:

a) Equities

Average of bid-and-ask prices from two major investment dealers, at least once every month.

b) Fixed Income

Same as for equities.

c) Real Assets

The fair value of infrastructure and real estate investments is determined by the general partner or the pooled fund Investment Manager based on industry standards which may include consideration of previous transaction prices, discounted cash flow, and the valuations of other comparable publicly traded investments. Limited partnerships and pooled funds will be audited annually by a qualified independent third party appointed by the fund’s general partner or Investment Manager.

27 Related Party Transactions

The University, on behalf of the Fund, may not enter into a transaction with a related party unless:

i. The transaction is made for the operation or administration of the Fund under terms and conditions that are not less favourable to the Fund than market terms and conditions and such transaction does not involve the making of loans to, or investments in, the related party; or

ii. The combined value of all transactions with the same related party is nominal or the transaction(s) is immaterial to the Fund.

For the purposes of this section, only the market value of the combined assets of the Fund shall be used as the criteria to determine whether a transaction is nominal or immaterial to the Fund. Transactions less than 0.5% of the combined market value of the assets of the Fund are considered nominal.

In addition, the prohibition to entering into transactions with a related party does not apply to investments:
i. In securities issued or fully guaranteed by the Government of Canada, the government of a province, or an agency of either one of them;

ii. In a fund composed of mortgage-backed securities that are fully guaranteed by the Government of Canada, the government of a province, or an agency of either one of them;

iii. In a fund that replicates the composition of a widely recognized index of a broad class of securities traded at a marketplace; and

iv. That involve the purchase of a contract or agreement in respect of which the return is based on performance of a widely recognized index of a broad class of securities traded at a marketplace.

A “related party” in respect of the Fund means:

i. A person who is the administrator of the Fund including any officer, director or employee of the administrator. It also includes the Managers and their employees, a union representing employees of the employer, a spouse or child of the persons named previously, or a corporation that is directly or indirectly controlled by the persons named previously, among others.

ii. An officer, director or employee of one of the administrators of the Fund;

iii. A person responsible for holding or investing the assets of the Fund, or any officer, director or employee thereof;

iv. An association or union representing employees of the University, or an officer or employee thereof;

v. The spouse or child of any person referred to in any of paragraphs (i) to (iv);

vi. An affiliate of the University;

vii. A corporation that is directly or indirectly controlled by a person referred to in any of paragraphs (i) to (vi); and/or

viii. An entity in which a person referred to in paragraph (i) or (ii), or the spouse or a child of such a person, has a substantial investment.
1. **Recommended Tuition Rate Increases 2023/24**

The Ministry of Colleges and Universities (MCU) has not yet released the provincial tuition framework for the 2023/24 fiscal year. In the absence of the provincial tuition framework for 2023/24, the University is recommending that the Board of Governors provide approval to take up to the maximum permitted by the provincial tuition framework, should a framework be released that permits domestic tuition rate increases in 2023/24.

Institutions were given the flexibility to increase tuition fees for domestic out of province students in 2021/22 and 2022/23. The University plans to implement domestic out of province tuition increases for the first time in 2023/24 as the signaling from the province is that this will be a continuing separate tuition category included in the tuition framework. As such, the University is recommending that tuition rates for domestic out of province students increase by up to the maximum permitted by the provincial tuition framework.

Once the 2023/24 provincial tuition framework has been released, changes implemented will be brought to the Board of Governors for information at the next scheduled meeting.

International tuition fees are not regulated by the MCU tuition fee framework. The University’s practice is to set international fees annually. Multiple factors are considered when international tuition rate increase decisions are made, including the value of the Waterloo degree, student demand, and comparisons between Waterloo degrees and those offered by peer institutions.

The tuition rate increases recommended for approval for the 2023/24 academic year are as follows:

<table>
<thead>
<tr>
<th></th>
<th>DOMESTIC ONTARIO</th>
<th>DOMESTIC OUT OF PROVINCE</th>
<th>INTERNATIONAL</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Undergraduate</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Year 1, all programs</td>
<td>Up to Maximum Permitted by Provincial Tuition Framework</td>
<td>Up to Maximum Permitted by Provincial Tuition Framework</td>
<td>5.0% - 10.0%</td>
</tr>
<tr>
<td>Upper years, all programs</td>
<td></td>
<td></td>
<td>5.0%</td>
</tr>
<tr>
<td><strong>Graduate</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Research PhD programs</td>
<td>Up to Maximum Permitted by Provincial Tuition Framework</td>
<td>Up to Maximum Permitted by Provincial Tuition Framework</td>
<td>0.0%</td>
</tr>
<tr>
<td>Research/Coursework Master programs</td>
<td></td>
<td></td>
<td>0.0%</td>
</tr>
<tr>
<td>Coursework MEng/MMSc</td>
<td>Up to Maximum Permitted by Provincial Tuition Framework</td>
<td>Up to Maximum Permitted by Provincial Tuition Framework</td>
<td>5.0%</td>
</tr>
<tr>
<td>On-campus Professional Programs [1]</td>
<td></td>
<td></td>
<td>5.0%</td>
</tr>
<tr>
<td>Online Professional Programs [2]</td>
<td></td>
<td></td>
<td>5.0%</td>
</tr>
</tbody>
</table>

[1] Exceptions: Master of Quantitative Finance - 15.0% (international students only)
     Master of Taxation - 3.0% (international students only)
[2] Exception: Master of Mathematics for Teachers – Up to Maximum permitted by provincial framework (all students)
[3] Domestic Ontario and Domestic Out of Province Graduate Research PhD programs and Research/ Coursework Masters programs rate increases to be equivalent
See the attached schedules with recommended tuition rate increases and fees for 2023/24 for specific undergraduate and graduate programs for domestic Ontario, domestic out of province and international students.

Tuition fees for international undergraduate and Master programs include an amount to offset the MCU $750/student International Student Recovery (ISR) and the $75/student Grant-in-lieu of Taxes reduction.

2. **Recommended Co-op Fee 2023/24**

The Co-op Fee assessed to undergraduate students registered in co-operative education programs or to graduate students during a co-op term in selected programs is recommended to increase 1.5% from $745/term to $756/term effective spring term 2023.
### Recommended Tuition Rate Increases and Fees for 2023/24

<table>
<thead>
<tr>
<th>UNDERGRADUATE PROGRAMS</th>
<th>DOMESTIC ONTARIO</th>
<th>DOMESTIC OUT OF PROVINCE</th>
<th>INTERNATIONAL</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Tuition Group</strong></td>
<td><strong>First-Year Increase over Previous Fiscal Year</strong></td>
<td><strong>First-Year Tuition Fee Per Term</strong></td>
<td><strong>First-Year Increase over Previous Fiscal Year</strong></td>
</tr>
<tr>
<td>ARTS</td>
<td>$7,519 + Increase</td>
<td>$7,519 + Increase</td>
<td></td>
</tr>
<tr>
<td>■ AFM/CFM/Math CA/Biotech CA/SFM</td>
<td></td>
<td>$7,519 + Increase</td>
<td></td>
</tr>
<tr>
<td>■ Arts (1)</td>
<td>$3,064 + Increase</td>
<td>$3,064 + Increase</td>
<td>10.0%</td>
</tr>
<tr>
<td>■ GBDA</td>
<td>$5,683 + Increase</td>
<td>$5,683 + Increase</td>
<td>5.0%</td>
</tr>
<tr>
<td>ENGINEERING</td>
<td>$6,985 + Increase</td>
<td>$6,985 + Increase</td>
<td>5.0%</td>
</tr>
<tr>
<td>■ Engineering</td>
<td>$6,985 + Increase</td>
<td>$6,985 + Increase</td>
<td>5.0%</td>
</tr>
<tr>
<td>■ Software Engineering</td>
<td>$4,570 + Increase</td>
<td>$4,570 + Increase</td>
<td>5.0%</td>
</tr>
<tr>
<td>■ Architecture</td>
<td>$3,064 + Increase</td>
<td>$3,064 + Increase</td>
<td>5.0%</td>
</tr>
<tr>
<td>ENVIRONMENT</td>
<td>Up to Maximum Permitted by Provincial Tuition Framework</td>
<td>Up to Maximum Permitted by Provincial Tuition Framework</td>
<td></td>
</tr>
<tr>
<td>■ Environment (2)</td>
<td>$3,064 + Increase</td>
<td>$3,064 + Increase</td>
<td>5.0%</td>
</tr>
<tr>
<td>HEALTH</td>
<td>Up to Maximum Permitted by Provincial Tuition Framework</td>
<td>Up to Maximum Permitted by Provincial Tuition Framework</td>
<td></td>
</tr>
<tr>
<td>■ Health (3)</td>
<td>$3,064 + Increase</td>
<td>$3,064 + Increase</td>
<td>5.0%</td>
</tr>
<tr>
<td>MATHEMATICS</td>
<td>$6,435 + Increase</td>
<td>$6,435 + Increase</td>
<td>5.0%</td>
</tr>
<tr>
<td>■ Computer Science/Data Science</td>
<td>$6,435 + Increase</td>
<td>$6,435 + Increase</td>
<td>5.0%</td>
</tr>
<tr>
<td>■ Mathematics (2)</td>
<td>$3,064 + Increase</td>
<td>$3,064 + Increase</td>
<td>10.0%</td>
</tr>
<tr>
<td>■ FARM</td>
<td>$4,783 + Increase</td>
<td>$4,783 + Increase</td>
<td>10.0%</td>
</tr>
<tr>
<td>■ BBA/Math Double-Degree</td>
<td>$4,272 + Increase</td>
<td>$4,272 + Increase</td>
<td>10.0%</td>
</tr>
<tr>
<td>■ BBA/CS Double-Degree</td>
<td>$6,435 + Increase</td>
<td>$6,435 + Increase</td>
<td>5.0%</td>
</tr>
<tr>
<td>SCIENCE</td>
<td>Up to Maximum Permitted by Provincial Tuition Framework</td>
<td>Up to Maximum Permitted by Provincial Tuition Framework</td>
<td></td>
</tr>
<tr>
<td>■ Science (2)</td>
<td>$3,064 + Increase</td>
<td>$3,064 + Increase</td>
<td>5.0%</td>
</tr>
<tr>
<td>■ Pharmacy</td>
<td>$8,515 + Increase</td>
<td>$8,515 + Increase</td>
<td>5.0%</td>
</tr>
<tr>
<td>■ Optometry (3)</td>
<td>$7,185 + Increase</td>
<td>$7,185 + Increase</td>
<td>5.0%</td>
</tr>
</tbody>
</table>

* Tuition reflected is the full-time maximum. Students in co-operative education programs are assessed an additional co-op fee in a specified number of terms based on program.

Annual increases will take effect once during the fiscal year; term of increase (spring, fall, winter) varies by program.

*Regulated programs are one tuition group, which include domestic enrolment to Arts, Mathematics, Science, Health, and Environment regular and co-op streams.

Tuition reflected for AFM/CFM/Math CA/Biotech CA/SFM is the upper year (2A+) fee. Students in these programs pay first-year (1A/1B) fees for the faculty in which they are enrolled.

In addition to tuition, a fee of $450 is charged to Optometry students in the fall and winter terms, which is not reflected in the per term tuition fee stated here.
### Schedule 2

#### RECOMMENDED TUITION RATE INCREASES AND FEES FOR 2023/24

<table>
<thead>
<tr>
<th>GRADUATE PROGRAMS</th>
<th>DOMESTIC ONTARIO</th>
<th>DOMESTIC OUT OF PROVINCE</th>
<th>INTERNATIONAL</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Tuition Group</strong></td>
<td><strong>Increase over Previous Fiscal Year</strong></td>
<td><strong>Tuition Fee Per Term</strong></td>
<td><strong>Increase over Previous Fiscal Year</strong></td>
</tr>
<tr>
<td><strong>Research PhD</strong></td>
<td>Up to Maximum Permitted by Provincial Tuition Framework</td>
<td>$2,254 + Increase</td>
<td>Up to Maximum Permitted by Provincial Tuition Framework</td>
</tr>
<tr>
<td><strong>Research/Coursework Masters</strong></td>
<td>$2,254 + Increase</td>
<td>$2,254 + Increase</td>
<td>0.0%</td>
</tr>
<tr>
<td><strong>Coursework MEng/MMSc</strong></td>
<td>$2,762 + Increase</td>
<td>$2,762 + Increase</td>
<td>5.0%</td>
</tr>
<tr>
<td><strong>On-campus Professional Programs</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Arts</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Master of Taxation</td>
<td>$2,767 + Increase</td>
<td>$2,767 + Increase</td>
<td>3.0%</td>
</tr>
<tr>
<td>Master of Accounting</td>
<td>$7,114 + Increase</td>
<td>$7,114 + Increase</td>
<td>5.0%</td>
</tr>
<tr>
<td>Master of Public Service</td>
<td>$5,588 + Increase</td>
<td>$5,588 + Increase</td>
<td>5.0%</td>
</tr>
<tr>
<td><strong>Engineering</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Master of Architecture</td>
<td>$2,634 + Increase</td>
<td>$2,634 + Increase</td>
<td>5.0%</td>
</tr>
<tr>
<td>Master of Business, Entrepreneurship and Technology</td>
<td>$11,418 + Increase</td>
<td>$11,418 + Increase</td>
<td>5.0%</td>
</tr>
<tr>
<td>Graduate Diploma in Data Analytics</td>
<td>$3,947 + Increase</td>
<td>$3,947 + Increase</td>
<td>5.0%</td>
</tr>
<tr>
<td>Graduate Diploma in Business and Entrepreneurship</td>
<td>$1,381 + Increase</td>
<td>$1,381 + Increase</td>
<td>5.0%</td>
</tr>
<tr>
<td><strong>Science</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Master of Pharmacy in Advanced Pharmacy Practice</td>
<td>$4,439 + Increase</td>
<td>$4,439 + Increase</td>
<td>5.0%</td>
</tr>
<tr>
<td>Master of Peace and Conflict Studies (CGU)</td>
<td>$2,254 + Increase</td>
<td>$2,254 + Increase</td>
<td>5.0%</td>
</tr>
<tr>
<td>Master of Theological Studies (CGU)</td>
<td>$584 + Increase</td>
<td>$584 + Increase</td>
<td>5.0%</td>
</tr>
<tr>
<td><strong>Online Professional Programs</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Arts</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Master of Digital Experience Innovation</td>
<td>$5,372 + Increase</td>
<td>$5,372 + Increase</td>
<td>5.0%</td>
</tr>
<tr>
<td>Master of Management Sciences - Management of Technology</td>
<td>$3,452 + Increase</td>
<td>$3,452 + Increase</td>
<td>5.0%</td>
</tr>
<tr>
<td>Master of Electric Power Engineering</td>
<td>$3,452 + Increase</td>
<td>$3,452 + Increase</td>
<td>5.0%</td>
</tr>
<tr>
<td><strong>Environment</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Master of Environment and Business</td>
<td>$3,272 + Increase</td>
<td>$3,272 + Increase</td>
<td>5.0%</td>
</tr>
<tr>
<td>Master of Planning</td>
<td>$1,127 + Increase</td>
<td>$1,127 + Increase</td>
<td>5.0%</td>
</tr>
<tr>
<td>Graduate Diploma in Planning</td>
<td>$1,127 + Increase</td>
<td>$1,127 + Increase</td>
<td>5.0%</td>
</tr>
<tr>
<td>Graduate Diploma in Climate Risk Management</td>
<td>$1,127 + Increase</td>
<td>$1,127 + Increase</td>
<td>5.0%</td>
</tr>
<tr>
<td><strong>Health</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Master of Health Informatics</td>
<td>$2,254 + Increase</td>
<td>$2,254 + Increase</td>
<td>5.0%</td>
</tr>
<tr>
<td>Master of Public Health</td>
<td>$2,254 + Increase</td>
<td>$2,254 + Increase</td>
<td>5.0%</td>
</tr>
<tr>
<td>Master of Health Evaluation</td>
<td>$2,254 + Increase</td>
<td>$2,254 + Increase</td>
<td>5.0%</td>
</tr>
<tr>
<td><strong>Mathematics</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Master of Mathematics for Teachers</td>
<td>$1,085 + Increase</td>
<td>$1,085 + Increase</td>
<td>Domestic Rate Equivalent</td>
</tr>
<tr>
<td>Master of Social Work (REN/HEALTH)</td>
<td>Domestic Rate Equivalent</td>
<td>$1,085 + Increase</td>
<td></td>
</tr>
</tbody>
</table>

*Annual increases will take effect once during the fiscal year, term of increase (spring, fall, winter) varies by program.

[1] only offered in full-time format. Tuition stated reflects full-time fee.
[2] only offered in part-time format. Tuition stated reflects part-time fee.
[3] charged on a per-course basis. Tuition stated reflects per course fee.
[4] MMT is a single rate program, charging the same tuition for domestic and international students.
[5] Domestic Ontario and Domestic Out of Province Graduate Research PhD programs and Research/ Coursework Masters programs rate increases to be equivalent.
### UNIVERSITY OF WATERLOO

**2022/23 Operating Income Budget (in thousands)**

Board of Governors  
February 7, 2023

<table>
<thead>
<tr>
<th>INCOME</th>
<th>Estimated 2022/23</th>
<th>Increase / (Decrease)</th>
<th>Estimated 2022/23</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>As at April 5, 2022</td>
<td></td>
<td>As at February 7, 2023</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>INCOME</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operating Grant</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enrolment</td>
<td>162,703</td>
<td>(25,280)</td>
<td>137,423</td>
<td>Note 1</td>
</tr>
<tr>
<td>SMA3 Performance Outcomes</td>
<td>87,920</td>
<td>25,280</td>
<td>113,200</td>
<td>Note 1</td>
</tr>
<tr>
<td>Special Purpose</td>
<td>5,605</td>
<td>(55)</td>
<td>5,550</td>
<td></td>
</tr>
<tr>
<td>International Student Recovery</td>
<td>(5,600)</td>
<td>200</td>
<td>(5,400)</td>
<td></td>
</tr>
<tr>
<td>Transfers to AFIW</td>
<td>(13,190)</td>
<td>(30)</td>
<td>(13,220)</td>
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</tr>
<tr>
<td></td>
<td>237,438</td>
<td>115</td>
<td>237,553</td>
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<tr>
<td>Tuition</td>
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</tr>
<tr>
<td>Domestic - Undergraduate</td>
<td>233,900</td>
<td>6,300</td>
<td>240,200</td>
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</tr>
<tr>
<td>Domestic - Graduate</td>
<td>28,400</td>
<td>(900)</td>
<td>27,500</td>
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<tr>
<td>International - Undergraduate</td>
<td>263,900</td>
<td>(15,500)</td>
<td>248,400</td>
<td>Note 3</td>
</tr>
<tr>
<td>International - Graduate</td>
<td>54,100</td>
<td>3,000</td>
<td>57,100</td>
<td>Note 4</td>
</tr>
<tr>
<td>Transfers to AFIW</td>
<td>(21,340)</td>
<td>550</td>
<td>(20,790)</td>
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</tr>
<tr>
<td></td>
<td>558,960</td>
<td>(6,550)</td>
<td>552,410</td>
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<tr>
<td>Other Revenue</td>
<td></td>
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<tr>
<td>Co-op Recovery</td>
<td>25,700</td>
<td>600</td>
<td>26,300</td>
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<tr>
<td>Student Services Fees</td>
<td>15,320</td>
<td>(350)</td>
<td>14,970</td>
<td></td>
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<tr>
<td>Interest</td>
<td>10,600</td>
<td>17,400</td>
<td>28,000</td>
<td>Note 5</td>
</tr>
<tr>
<td>Services to AFIW</td>
<td>4,050</td>
<td>(60)</td>
<td>3,990</td>
<td></td>
</tr>
<tr>
<td>Miscellaneous Income</td>
<td>9,670</td>
<td>-</td>
<td>9,670</td>
<td>Note 6</td>
</tr>
<tr>
<td></td>
<td>65,340</td>
<td>17,590</td>
<td>82,930</td>
<td></td>
</tr>
<tr>
<td>Total Income</td>
<td>861,738</td>
<td>11,155</td>
<td>872,893</td>
<td></td>
</tr>
<tr>
<td>Note</td>
<td>Description</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>------</td>
<td>-------------</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Note 1</td>
<td>The shift between Enrolment and SMA3 Performance Outcomes is due to the Ministry of Colleges and Universities (MCU) providing clarification of the funding envelopes for 2022-23.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Note 2</td>
<td>The increase in Domestic Undergraduate tuition is due to new students exceeding forecast.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Note 3</td>
<td>The decrease in International Undergraduate tuition is due to new students intake below forecast. This has been further impacted by student graduations accelerating beyond expected in the forecast.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Note 4</td>
<td>The increase in International Graduate tuition is due to new students in Master’s exceeding forecast.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Note 5</td>
<td>The investment income earned on operational funds is based on current and forecasted cash management and investment plans. The increase is due to the impact on general interest rates of the significant increases Bank of Canada has made in interest rates throughout calendar year 2022.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Note 6</td>
<td>Miscellaneous income includes application fees, rental income and various other fees such as transcripts, verification letters, etc.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### UNIVERSITY OF WATERLOO

**2022/23 Operating Expense Budget (in thousands)**

**Board of Governors**

**February 7, 2023**

<table>
<thead>
<tr>
<th></th>
<th>Estimated 2022/23 As at April 5, 2022</th>
<th>Increase / (Decrease)</th>
<th>Estimated 2022/23 As at February 7, 2023</th>
<th>Notes</th>
</tr>
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<tbody>
<tr>
<td><strong>EXPENSES</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Salary and Wages</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current salaries and wages</td>
<td>510,577</td>
<td>7,600</td>
<td>518,177</td>
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<tr>
<td>Current benefits</td>
<td>125,460</td>
<td>800</td>
<td>126,260</td>
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<tr>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>636,037</td>
<td>8,400</td>
<td>644,437</td>
<td>Note 1</td>
</tr>
<tr>
<td>Non Salary Expenses - Strategic and Priority Spending</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student Support</td>
<td>75,967</td>
<td>-</td>
<td>75,967</td>
<td>Note 2</td>
</tr>
<tr>
<td>University Fund</td>
<td>43,100</td>
<td>-</td>
<td>43,100</td>
<td>Note 3</td>
</tr>
<tr>
<td>Capital Project Fund</td>
<td>3,300</td>
<td>1,000</td>
<td>4,300</td>
<td>Note 4</td>
</tr>
<tr>
<td>Deferred Maintenance Fund</td>
<td>-</td>
<td>6,000</td>
<td>6,000</td>
<td>Note 5</td>
</tr>
<tr>
<td></td>
<td>122,367</td>
<td>7,000</td>
<td>129,367</td>
<td></td>
</tr>
<tr>
<td>Non-Salary Expenses - Other</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Insurance</td>
<td>3,250</td>
<td>-</td>
<td>3,250</td>
<td></td>
</tr>
<tr>
<td>Municipal taxes</td>
<td>3,050</td>
<td>-</td>
<td>3,050</td>
<td></td>
</tr>
<tr>
<td>Utilities</td>
<td>22,925</td>
<td>-</td>
<td>22,925</td>
<td></td>
</tr>
<tr>
<td>Other non-salary expenses</td>
<td>92,526</td>
<td>(5,725)</td>
<td>86,801</td>
<td>Note 6</td>
</tr>
<tr>
<td>Total other - before budget reduction</td>
<td>121,751</td>
<td>(5,725)</td>
<td>116,026</td>
<td></td>
</tr>
<tr>
<td>Budget reduction</td>
<td>(5,300)</td>
<td>-</td>
<td>(5,300)</td>
<td></td>
</tr>
<tr>
<td>Total other - after budget reduction</td>
<td>116,451</td>
<td>(5,725)</td>
<td>110,726</td>
<td></td>
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<tr>
<td></td>
<td>874,855</td>
<td>9,675</td>
<td>884,530</td>
<td></td>
</tr>
<tr>
<td>Gross expenses</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(11,900)</td>
<td>-</td>
<td>(11,900)</td>
<td>Note 7</td>
</tr>
<tr>
<td>Estimated net expenses</td>
<td>862,955</td>
<td>9,675</td>
<td>872,630</td>
<td></td>
</tr>
<tr>
<td>Estimated income</td>
<td>861,738</td>
<td></td>
<td>872,893</td>
<td></td>
</tr>
<tr>
<td>Surplus (Unfunded deficit)</td>
<td>(1,217)</td>
<td></td>
<td>263</td>
<td></td>
</tr>
</tbody>
</table>
Note 1: The budget increase mainly reflects a reallocation from non-salary budget to update for in-year deployments of available budgets to support new positions and to provide more funding for TA positions.

Note 2: Student Support includes Tuition Set Aside (TSA), as well as undergraduate and graduate support in the form of scholarships, bursaries and awards. The TSA amount (approximately $26 million) is calculated based on a formula mandated by the Ministry of Colleges and Universities and it is to be used for needs based student support programs.

Note 3: The University Fund is used strategically for funding the University's strategic priorities and managing risk.

Note 4: The Capital Project Fund budget supports central funding of capital projects. Other support for capital projects includes other central operating funds, faculty funding, donations and other sources.

Note 5: The Deferred Maintenance Fund supports central funding of deferred maintenance projects. Other support for deferred maintenance includes other central operating funds, faculty funding, grants and donations.

Note 6: Other non-salary budget reflects the budget for a variety of non-salary expenses of the Faculties and Academic Support Units including investments in capital and enterprise software, and expenses in professional services, maintenance and supplies. Faculties and Administrative Support Units determine use of this budget based on operational requirements. The decrease reflects a reallocation of budget to salaries.

Note 7: Chargeouts and cost recoveries primarily include recoveries from Ancillary Enterprises (Housing, Food Services, Print & Retail Solutions, Watcard and Parking) for space charges and administrative support.
FOR APPROVAL

Undergraduate and Graduate Student Services Fees

Recommendation to approve changes to the compulsory Student Services fees assessed and collected from all full-time and part-time graduate and undergraduate students each term, effective Spring 2023. Part-time rates are assessed at 30% of the full-time rates provided below.

<table>
<thead>
<tr>
<th></th>
<th>Undergraduate (full-time)</th>
<th>Graduate (full-time)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Current</td>
<td>Proposed</td>
</tr>
<tr>
<td>Wellness</td>
<td>$55.14</td>
<td>$57.38</td>
</tr>
<tr>
<td>Student Success Office</td>
<td>$17.18</td>
<td>$18.86</td>
</tr>
<tr>
<td>Writing Centre</td>
<td>$2.27</td>
<td>$2.58</td>
</tr>
<tr>
<td>Athletics &amp; Recreational Services</td>
<td>$100.48</td>
<td>$113.55</td>
</tr>
<tr>
<td>Centre for Career Action</td>
<td>$21.21</td>
<td>$17.16</td>
</tr>
<tr>
<td>Student Buildings</td>
<td>$6.69</td>
<td>$12.77</td>
</tr>
<tr>
<td>Total</td>
<td>$202.97</td>
<td>$222.30</td>
</tr>
</tbody>
</table>

- The fees are developed in accordance with the Student Services Protocol approved by the Board of Governors in April 1994.
- Most members on the Student Services Advisory Committee are students.
- Fees are based on the actual expenses, within approved budgets, from the most recently completed year end (i.e. fees for 2023/24 are based on expenses incurred in 2021/22). Increases in fees from the prior year reflect increased expenses related to the return to in-person activities during 2021/22.

Jacinda Reitsma
Vice-President, Administration & Finance
FOR APPROVAL

Campus Housing Fees

Recommendation that the Board of Governors approve the campus housing 2023/24 residence fee rates, effective Fall 2023.

As an ancillary operation, Campus Housing must be financially sustainable day-to-day and over the long term by covering capital renewal and debt payments. A 4.0% increase in residence fees is proposed for the 2023/2024 academic year. The proposed increase is comparable to the proposed residence fee increases for comparable Ontario universities, and it comes after five years of Waterloo having the lowest year-to-year increase among the same peer institutions.

The proposed rate increase has considered numerous factors including current financial climate, impact of inflation, reasonability and pricing, upcoming capital projects, future occupancy projections, growing services expectations, and the surrounding student housing market. Residence rates must cover current expenses and provide the resources to catch up on our revitalization strategy not only to address the regular wear and tear of our aging buildings, but also to improve accessibility, allow us to offer better student-focused services and wellness activities and Residence Life programs that are designed intentionally to support students along their academic journey.

Jacinda Reitsma
Vice-President, Administration & Finance
# Campus Housing
## 2023/24 Residence Fees

**Student Villages**
(includes Village 1, Ron Eydt Village & Mackenzie King Village)

<table>
<thead>
<tr>
<th>Student Villages (Two-term fee)</th>
<th>2022/23</th>
<th>2023/24</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>6,831</td>
<td>7,104</td>
<td>4.0</td>
<td>888</td>
</tr>
<tr>
<td>Interconnecting</td>
<td>6,520</td>
<td>6,780</td>
<td>4.0</td>
<td>848</td>
</tr>
<tr>
<td>Double</td>
<td>6,128</td>
<td>6,373</td>
<td>4.0</td>
<td>787</td>
</tr>
<tr>
<td>Triple</td>
<td>4,902</td>
<td>5,098</td>
<td>4.0</td>
<td>638</td>
</tr>
<tr>
<td>Quad</td>
<td>3,983</td>
<td>4,142</td>
<td>4.0</td>
<td>518</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>8,155</td>
<td>8,481</td>
<td>4.0</td>
<td>1,061</td>
</tr>
</tbody>
</table>

**UW Place**

<table>
<thead>
<tr>
<th>UW Place (Two-term fee)</th>
<th>2022/23</th>
<th>2023/24</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>Single Room (2-bedroom suite style)</td>
<td>7,367</td>
<td>7,662</td>
<td>4.0</td>
<td>958</td>
</tr>
<tr>
<td>Single Room (3 or 4-bedroom suite style)</td>
<td>6,974</td>
<td>7,254</td>
<td>4.0</td>
<td>907</td>
</tr>
<tr>
<td>Double Room</td>
<td>6,436</td>
<td>6,693</td>
<td>4.0</td>
<td>837</td>
</tr>
<tr>
<td>Triple Room</td>
<td>5,149</td>
<td>5,355</td>
<td>4.0</td>
<td>670</td>
</tr>
<tr>
<td>Quad Room</td>
<td>4,183</td>
<td>4,350</td>
<td>4.0</td>
<td>544</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>7,493</td>
<td>7,793</td>
<td>4.0</td>
<td>975</td>
</tr>
<tr>
<td>Claudette Millar Hall - Double Room</td>
<td>7,141</td>
<td>7,426</td>
<td>4.0</td>
<td>929</td>
</tr>
<tr>
<td>Claudette Millar Hall - Triple Room</td>
<td>5,714</td>
<td>5,943</td>
<td>4.0</td>
<td>743</td>
</tr>
<tr>
<td>Claudette Millar Hall - Quad Room</td>
<td>4,842</td>
<td>4,828</td>
<td>4.0</td>
<td>604</td>
</tr>
</tbody>
</table>

**Columbia Lake Village**

<table>
<thead>
<tr>
<th>Columbia Lake Village (Two-term fee)</th>
<th>2022/23</th>
<th>2023/24</th>
<th>Increase</th>
<th>Monthly</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single room (4-bedroom townhouse)</td>
<td>6,514</td>
<td>6,775</td>
<td>4.0</td>
<td>847</td>
</tr>
<tr>
<td><strong>Minota Hagey</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Single Grad Residence</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Columbia Lake Village (One-term fee)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single room</td>
<td>3,561</td>
<td>3,704</td>
<td>4.0</td>
<td>926</td>
</tr>
</tbody>
</table>

**Columbia Lake Village**

<table>
<thead>
<tr>
<th>Columbia Lake Village (One-term fee)</th>
<th>2022/23</th>
<th>2023/24</th>
<th>Increase</th>
<th>Monthly</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single room (2-bedroom townhouse)</td>
<td>3,256</td>
<td>3,386</td>
<td>4.0</td>
<td>847</td>
</tr>
</tbody>
</table>

**Columbia Lake Village**

<table>
<thead>
<tr>
<th>Columbia Lake Village (Townhouse style – Monthly Rent)</th>
<th>2022/23</th>
<th>2023/24</th>
<th>Increase</th>
<th>Monthly</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-bedroom townhouse</td>
<td>1,322</td>
<td>1,355</td>
<td>2.5</td>
<td>1,355</td>
</tr>
</tbody>
</table>