### OPEN SESSION

**Date:** Monday 18 November 2013  
**Time:** 3:30 p.m.  
**Place:** Needles Hall, Room 3001

#### Consent Agenda

**Motion:** To approve or receive for information by consent items 1-5 below.

1. Minutes of the 21 October 2013 Meeting  
2. Reports from Councils  
   - Graduate & Research  
   - Undergraduate  
3. Report of the President  
   - Recognition and Commendation  
4. Reports from the Faculties  
5. Other Business  
   - Report from the COU Academic Colleague

#### Regular Agenda

3:35  
6. Teaching Presentation: Professor Gordon Stubley, Mechanical & Mechatronics Engineering  
7. Business Arising from the Minutes  
   - University Strategic Plan 2013

3:45  
8. Reports from Committees and Councils  
   - Executive Committee  
   - Nominating Committee for Honorary Degrees  
   - Undergraduate Council

4:15  
9. Report of the President

4:25  
10. Q&A Period with the President

4:55  

5:10  
12. Report of the Vice-President, University Relations  
   - Communications and Public Affairs – Department Name Change

5:20  
13. Report of the Vice-President, University Research

5:30  
14. Other Business  
   - Amendments to Senate Bylaws

5:40  
15. Minutes of the 21 October 2013 Meeting

5:50  
16. Report from the Nominating Committee for Honorary Degrees

### CONFIDENTIAL SESSION

5:55  
17. Minutes of the 21 October 2013 Meeting

5:55  
18. Report from the Nominating Committee for Honorary Degrees


University of Waterloo
SENATE
Minutes of the Monday 21 October 2013 Meeting


Guests: Nello Angerilli, Mario Coniglio, Mahejabeen Ebrahim, Donna Ellis, Jesse McGinnis, Diana Perry, Ellen Réthoré, Erin Sargent-Greenwood, Brandon Sweet, Dave Wallace

Secretariat: Logan Atkinson, Tracy Dietrich


*regrets

Organization of Meeting: Feridun Hamdullahpur, chair of Senate, took the chair, and Logan Atkinson, secretary of Senate, acted as secretary. Atkinson advised that due notice of the meeting had been given, a quorum was present, and the meeting was properly constituted.

OPEN SESSION

Consent Agenda
Senate heard a motion to approve or receive for information by consent items 1-4 below.

1. MINUTES OF THE 16 SEPTEMBER 2013 MEETING
Senate approved the minutes of the meeting as distributed.

2. REPORTS FROM COUNCILS
   Graduate & Research. Senate received the report for information.
   Undergraduate. Senate received the report for information.

3. REPORT OF THE PRESIDENT
   Recognition and Commendation. Senate received the report for information.

4. REPORTS FROM THE FACULTIES
Senate received the reports for information.

Porreca and Frank. Carried.

Senate convened in confidential session.

22 October 2013
Logan Atkinson, Secretary of the University
9. BUSINESS ARISING FROM THE MINUTES

Strategic Plan. Hamdullahpur advised the meeting that the strategic plan will be reconsidered by Senate in November.

10. REPORTS FROM COMMITTEES AND COUNCILS

Executive Committee
- Senate Bylaw 5, A bylaw relating to the selection of members of Senate. On the recommendation of Executive Committee, a proposed amendment to Bylaw 5 was read for the first time.

Graduate & Research Council
- Master of Accounting, Faculty of Arts. Senate heard a motion to approve amendments to the admission requirements and degree requirements for the Master of Accounting program as described in the report.


Undergraduate Council
- Bachelor of Science, Kinesiology (Ergonomics Specialization) (Regular and Co-op), Faculty of Applied Health Sciences. Senate heard a motion to approve the proposed revisions to the Kinesiology Ergonomics Option.

Elliott and Peressini.

There was some discussion about standardization of terminology around specializations and options.

The motion carried.

- Doctor of Pharmacy, Pharmacy (Co-op), Faculty of Science. Senate heard a motion to approve the proposed revisions to the Doctor of Pharmacy plan.

McMahon and Edwards.

There was discussion on the meaning of “symposium” in the description of courses, with the suggestion that the courses are intended to be courses in the nature of seminars. There was some concern expressed about the lack of breadth in the Pharm.D. program, and it was observed that many students in the program have a broad education prior to beginning studies in pharmacy.

The motion carried.

11. REPORT OF THE PRESIDENT

Annual Performance Indicators. Hamdullahpur summarized some of the results emerging from the key performance indicators assembled by Institutional Analysis & Planning. He pointed out indicators having a particular connection to the strategic plan, including those relating to experiential learning and our co-op education program in particular, research-related performance indicators, and some additional information on performance in entrepreneurship activities. Hamdullahpur updated Senate on the international rankings of the university, recently released.

Hamdullahpur highlighted the recent results for the university in the Research InfoSource rankings.
Senate was advised of developments in the context of the strategic mandate agreements submitted to the provincial government, and some comment from authorities on the efficiencies that might be attracted through online education.

At the federal government level, Hamdullahpur referred to the recent Speech from the Throne and its references to support for research.

Hamdullahpur commented on the end of the labour dispute at Citizenship and Immigration Canada. Lavigne confirmed that many students affected by the labour dispute had deferred their admission to a later date.

Slides used in the presentation may be seen at https://uwaterloo.ca/secretariat/sites/ca.secretariat/files/uploads/files/pr_2.pdf

12. Q&A PERIOD WITH THE PRESIDENT
Hamdullahpur answered a number of questions, covering a wide range of topics, including: the possible impact of the recently signed free trade agreement with the European Union for this institution; compliments to Advancement and the Research Office on the success in fundraising; the urge to greater participation by Canadian universities, and this institution in particular, in international scholarly endeavors; the definitions of student and faculty in calculating the student to faculty ratio; the change in the presentation of the data and its content, when compared to years past, and the availability of additional data for use by Senate; ways to improve the student to faculty ratio through hiring more faculty; on the apparent deterioration in the publication record, citations and volumes in publication overall [Dixon agreed to consider the question and report back]; on the potential to further develop the VeloCity idea to increase its benefit to the university; on the drivers for growth in enrolment, including in particular the reputation of the institution; the relationship between research funding as reported in the key performance indicators, and as reported in the Research InfoSource data; the prospects for online education in the context of the university’s strategic plan and maximization of learning opportunities for our students; the method by which employment in the field of study is determined; the high number of new co-op employers, and whether this is related simply to finding additional placements for the increasing number of students involved in co-op; developments in the project to design a strategic enrolment management plan, including the possibility of a limit to the capacity of the co-op program and the possible higher employability of students in some programs as opposed to others.

13. REPORT OF THE VICE-PRESIDENT, ACADEMIC & PROVOST
McBoyle advised that appointment of a new associate provost, human resources will be announced soon, and that a committee has been struck to identify a replacement for outgoing Registrar Ken Lavigne.

University Professor – Changes to Description and Criteria. Senate heard a motion to approve the proposed changes to the description and criteria for university professor.

McBoyle and Porreca.

Porreca suggested that the proposal be amended to leave the appointment of university professor for life, but not to count retirees in the numbers of university professors. It was pointed out that retirees are not currently counted, such that there appears to be no reason to make the proposed changes. McBoyle pointed out that the proposal is intended to simply limit the number of honorary titles carried into retirement. A suggestion was made to create the title University Professor Emeritus as an alternative.
Senate heard a motion to amend the main motion, by allowing the title “university professor” to be
carried into retirement, but to count only active university professors when calculating the ratios.
Porreca and Henderson.

After further discussion on the amending motion and motion, both were withdrawn at the request of
the movers and seconders. The matter will be referred back to Faculty Relations Committee for
further consideration.

14. REPORT OF THE VICE-PRESIDENT, UNIVERSITY RESEARCH

Contracts Research and Industrial Grants – Name Change. Senate received this report for
information. This group will now be called “Research Partnerships.”

Dixon reported on the receipt by faculty member Jennifer Clapp of a Trudeau Fellowship; the
distribution of a white paper originating from SSHRC on open data access to tri-council funded
research; CFI has announced a competition in the amount of $350 million, $21 million of which has
been allocated to the University of Waterloo; the Ontario Research Fund will go forward with round
six of applications, and a separate competition in the social sciences and humanities will be launched
at the same time; the results of NSERC Strategic Project Grants yielding a 25% success rate; Leaders
Opportunity Fund provincial fund saw 13 applications from this university, and 13 funded; the
NSERC Synergy Award won by John McPhee in systems design engineering for his collaboration
with Maplesoft and Toyota Canada.

15. OTHER BUSINESS

Degrees, Diplomas and Certificates [lists of graduands available at the meeting]. Senate heard a
motion to approve the lists of candidates for degrees, diplomas and certificates as recommended by
the faculty councils and the associate provost, graduate studies, and to authorize the chair, the
registrar and the associate provost, graduate studies to add to or change the lists of candidates for
degrees, diplomas and certificates as approved at the meeting on 21 October 2013.

Horton and Lavigne. Carried.

Slides used in the presentation may be seen at

The meeting adjourned at 5:50 p.m.

Logan Atkinson
Secretary of the University
Senate Graduate & Research Council met on 7 October 2013 and agreed to forward the following items to Senate for information. These items are recommended for inclusion in the consent agenda.

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

FOR INFORMATION

CURRICULAR MODIFICATIONS
On behalf of Senate, council approved new courses for the faculty of engineering (electrical and computer engineering) and approved course revisions in the faculties of arts, engineering and science (career success strategies).

RENEWAL OF CENTRES AND INSTITUTES
Centre for Accounting Research and Education
The Centre for Accounting Research and Education (CARE) carries out a variety of important activities, including: promoting excellence in the areas of fundamental and applied accounting; finance research; and accounting and finance education; encourages interdisciplinary research by accounting and finance academics and non-accounting and finance academics, particularly faculty members from other disciplines at the University of Waterloo whose research interests can contribute to the solution of problems of mutual interest; and serves as a focus for fundraising in support of the various activities of the centre.

The centre has 42 members as of fall 2013, and 20 faculty members were supported by CARE from 2008-13 in the form of research stipends, research expense funds, conference travel, and training. Several sub-units have been established under the umbrella of CARE and each provides substantial educational and research funding from donations provided specifically to those sub-units: the CA Learning Centre; the Centre for Accounting Ethics; the CA-SAF Centre for Capital Markets Education; the Deloitte Centre for Tax Education and Research; and the UW Centre for Information Systems Assurance.

Among the important activities of the centre is the Workshop Series, which brings together approximately 25 researchers annually from universities in Canada and the United States. CARE student-focused activities range from the WATCase competition, the Investment Poster Competition/Equity Research Challenge, and providing funds for scholarship. CARE also provides computing support for students, faculty and staff while encouraging interdisciplinary relationships in accounting finance and research.

Recognizing the merits of CARE’s achievements and sound plans for the future, council approved its renewal for a five-year term ending October 2018, on behalf of Senate.

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

SCHOLARSHIPS AND AWARDS
On behalf of Senate, council approved: AECOM Graduate Scholarship in Water Research; Science Domestic Graduate Student Award; amendments to eligibility criteria for the Iris Yuzdepski Memorial Graduate Award.

/Sue Horton  George Dixon
Associate Provost, Graduate Studies  Vice President, University Research
Senate Undergraduate Council met on 8 October 2013 and on behalf of Senate, approved changes to academic plans, new courses, course changes and course inactivations. Council agreed to forward the following items to Senate for information. Council recommends that these items be included in the consent agenda. The items recommended for inclusion in the regular agenda are contained in a separate report.

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

FOR APPROVAL

CALENDAR DATES

1. Motion: To approve the 2014-15 calendar dates as provided in attachment #1.

UNDERGRADUATE ADMISSION REQUIREMENTS

2. Motion: Council recommends approval of the undergraduate admission requirements for 2015 as detailed in attachment #2.

REGULATION CHANGES  [effective September 1, 2014]

Faculty of Environment
Examinations and Standings

3. Motion: To approve changes to the faculty’s standings regulation as below. (Note: new text = bold; deleted text = strikethrough.)

When a course is repeated, both grades will appear on the student's record and will be included in the calculation of the cumulative overall average. If the course is part of the major requirement, both marks will be calculated in the major cumulative average, as well.

Students must petition to repeat a course they have already passed and for which they have achieved credit.

Rationale:
This process will ensure consistency in allowing students to repeat courses for which they have already received credit for. The proposed procedure has been approved by the Registrar’s Office.

4. Motion: To approve changes to the faculty’s regulation for the graduating dean’s honours list as below. (Note: new text = bold; deleted text = strikethrough.)

Students graduating with a cumulative overall average of 83% or higher and who do not have INC, FTC, DNW, or NMR on their record while enrolled in the Faculty of Environment will have the designation Dean's Honours List appear on their graduation diplomas.

Rationale:
This change reflects that a graduating student would not have an INC on their transcript, as this grade would revert to FTC for graduation.

Faculty of Science
Faculty Information and Regulations

5. Motion: To approve changes to the faculty’s information and regulation as below. (Note: new text = underlined; deleted text = strikethrough.)

7
a) Grievance, Petitions, and Re-Assessment

A petition is appropriate if a student seeks relief from normal University or Faculty rules and regulations for reasons beyond their control, e.g., illness or bereavement. Petitions must be presented within six months after the end of the term in which the event(s) took place. When an academic term immediately follows the term in which students seek exemption from regulations, immediate action by students may be necessary to minimize delays in their academic progression.

Rationale: Petitions need to be addressed in a timely manner in order to allow students to continue with their academics in the upcoming terms. Timely submission can be particularly important for students in cohort programs and those in academic terms that immediately follow the term in which the exemption is sought. A protracted petition period might cause some students to stay out of the program for a year and miss the opportunity to advance with their class.

b) First-year Academic Plans (Regular and Co-operative)

Life Sciences and Physical Sciences are two entry points in Science that are used only for first-year students. Life Sciences plans include Biology, Biochemistry, Biomedical Sciences (Regular only), Life Physics, and Psychology. Physical Sciences plans include Chemistry, Earth Sciences, Materials and Nanosciences, Mathematical Physics, Medicinal Chemistry, Physics and Astronomy and Physics. Students will be moved to the academic plan they listed as their Subject of Major Interest on their OUAC application, unless they indicated Psychology. These students stay in Life Sciences for first year because this program is a second year entry level. In 1B, students will file a Plan Modification form to switch into Psychology for 2A. The other entry point plans (Honours Science, Biotechnology/Professional Chartered Accountancy, Biotechnology/Economics, Environmental Science, Science and Aviation, and Science and Business) continue into second year providing academic requirements are met.

Rationale: The wording is being reworked to alleviate confusion for students who ultimately want the BSc Psychology/Science program which starts in 2A.

c) Rules for Students enrolled in Faculty of Science plans

Deferred Standing

Students will have a Deferred Standing (DEF) when: i) They have more than two INC grades; ii) a UR (under review) grade or iii) they are a readmitted student have been readmitted after a failed standing and did not carry a full course load (five lectures) in their readmission term.

Rationale: Deferred Standing should be added so that students who receive this standing understand why it was given. (This will be placed after “Satisfactory Standing” on the page).

d) Academic Standing

The Faculty of Science operates under a "unit-weight" system in which student progress is measured by units successfully completed rather than by years. See "Determination of Level of Study" in the undergraduate studies academic calendar for details.

At the end of each term, the Examinations and Standings Committee of the Faculty of Science determines the academic standing of each student in the Faculty. The grades defined under "General Information" in the undergraduate studies academic calendar are used to make these evaluations. The Registrar then posts academic standings on Quest.

Students, who meet the academic requirements for their plan, will be in Excellent, Good or Satisfactory standing, depending on the plan and their term and overall averages. Failure to meet minimum average requirements for the plan may result in a Conditional or Failed academic standing.
Students with a Conditional standing are strongly advised to meet with their Academic Advisor for plan-specific advice or the Science Student Success Officer (SSSO) for strategies to overcome barriers to academic success. Students with a Conditional standing are normally given only one additional term to attain a satisfactory standing.

Students who academic advisors feel they would benefit from the Foundation Term may choose to enrol voluntarily.

**Excellent, Good or Satisfactory Standing**
A student who meets, or exceeds, the minimum required standards of any Academic Plan will be placed in "Excellent", "Good" or "Satisfactory" standing. Assuming all other program requirements are met, for most programs in Science use the standings as follows:

- **Excellent**: if the cumulative average is \( \geq 80\% \), the standing is "Excellent"
- **Good**: if the cumulative average is \( \geq 70\% \) and < 80\%, the standing is "Good"
- **Satisfactory**: if the cumulative average is \( \geq 60\% \) < 70\%, the standing is "Satisfactory"

Please consult individual program descriptions for exceptions.

**Conditional Standing**
A Students who marginally fails to meet the required standards of any academic plan will be placed in Conditional standing. Students who continue in a non-degree term must regain at least a Satisfactory standing in that program or will subsequently be withdrawn from it. Students are not able to graduate while in Conditional standing.

Students who receive a Conditional standing at the end of their first or second term of study may, in consultation with their Academic advisors with Faculty approval, choose to enrol voluntarily in the Foundation Term.

**Progression Standards for students in 1A or 1B**
A Students in 1A or 1B who are given Conditional standing (i.e. who do not receive a Satisfactory or better standing) are encouraged to meet with the Science Student Success Officer (hereafter referred to as the SSSO) to determine their best course of action.

**Failed**
A 1A/1B Students in 1A or 1B will normally receive an academic standing of "Failed" from the Faculty of Science under the following conditions:

- after failing a minimum of 1.5 units in a single academic term;
- after failing to achieve an overall cumulative average of at least 55% and a cumulative Science average of 55%; or
- if the Associate Dean, Undergraduate Studies, judges that the student is unlikely to profit from further study.

Students receiving this standing have three options:

1. **Foundation Term**: Students will be moved to General Science and must follow a structured term of courses as determined by the SSSO. The course load will be UNIV 101 and either two Science courses, or one Science and one Math course, excluding SCI-labelled or SCBUS courses. Students must obtain a minimum grade of 60% in each lecture and lab. The General requirements, principles, and outcomes of the Foundation term can be found in the Foundation Term section of the undergraduate studies academic calendar.

2. **Science Non-degree Term**: Students who wish to pursue studies in another Faculty must enrol in a Science Non-degree term in preparation for the transfer, which must include UNIV 101.
3. Apply for re-admission to the University of Waterloo after an absence of two consecutive academic terms (eight months).

Required to withdraw - may not continue in Faculty
A Student will normally have an academic standing of "Required to withdraw - may not continue in Faculty" in the following situations:
- not meeting the conditions for re-admission;
- not meeting the average requirements for the Foundation Term.

Unsatisfactory - eligible for Honours Science Non-Major only
A Students, whose overall, major or special major averages do not qualify for Conditional standing, will be moved into Honours Science if they are registered in any of the following programs: Biotechnology/Economics or Biotechnology/Chartered Professional Accountancy, Science and Business, Science and Aviation or Biomedical Sciences who does not qualify for Conditional standing will be moved to Honours Science. The student is required to meet with the SSSO. In a future term, depending on cumulative overall, major or special major averages, the students could be eligible to resume their original Honours plans. Re-admission to a co-operative program is not guaranteed and depends on availability of space and academic averages. For students with averages below the requirements for Honours Science see “Unsatisfactory – eligible for General Science only”.

Unsatisfactory - eligible for General Science only
A When students in an Honours plan who does not qualify for Conditional standing or Honours Science, depending on his or her averages, they may be moved to the General Science program, depending on their averages. The student is required to meet with the SSSO and must carry a reduced course load, which is normally a three or four course maximum, as determined by the SSSO. At least one of these courses must be a Science course and it must be taken with any associated lab if that lab has not already been successfully completed. SCI-labelled courses are not allowed to be the sole Science course during this term. A Student is deemed to be successful in this their subsequent term if both the cumulative Science and overall term averages are at least 55%. In a future term, depending on cumulative Science and overall averages, the students could be eligible to resume his or her their original Honours plan or can continue in General Science. Re-admission to a co-operative program should not be anticipated normally does not occur.

Progression Standards for students in 2A or above
A Students in 2A or above who is are given a Conditional standing (i.e., who does have not received achieved a Satisfactory or better standing) is are encouraged to meet with the SSSO to determine their best course of action.

Unsatisfactory - eligible for Honours Science Non-Major only
A Students, whose overall, major or special major averages do not qualify for Conditional standing, will be moved into Honours Science if they are registered in any of the following programs: Biotechnology/Economics or Biotechnology/Chartered Professional Accountancy, Science and Business, Science and Aviation or Biomedical Sciences who does not qualify for Conditional standing will be moved to Honours Science. The student is required to meet with the SSSO. In a future term, depending on cumulative overall, major or special major averages, the students could be eligible to resume their original Honours plans. Re-admission to a co-operative program is not guaranteed and depends on availability of space and academic averages. For students with averages below the requirements for Honours Science see “Unsatisfactory – eligible for General Science only”. Re-admission to a co-operative program should not be anticipated normally does not occur.
Unsatisfactory - eligible for General Science only

A When students in an Honours plan who does not qualify for Conditional standing or Honours Science, depending on his or her averages, they may be moved to the General Science program, depending on their averages. A Students is are deemed to be successful in this their subsequent term if both the cumulative Science and overall term averages are at least 55%. In a future term, depending on cumulative Science and overall averages, the students may could be eligible to resume his or her their original Honours plan or can continue in General Science. Re-admission to a co-operative program should not be anticipated normally does not occur.

Failed

Students will normally have an academic standing of "Failed" from the Faculty of Science in the following situations:

- after failing a minimum of 1.5 units in a single academic term;
- after failing to achieve an overall cumulative average of at least 55% and a cumulative Science average of 55%; or
- if the Associate Dean, Undergraduate Studies, judges that the a student is unlikely to profit from further study.

Students receiving this standing have two options:

1. Normally Students, in 2A or above who receive their first failed academic standing, may normally apply for re-admission to the University of Waterloo after an absence of two consecutive terms (eight months). A co-op work term immediately following a Failed term standing is not counted towards the two-term absence.

2. If Students, who are already enrolled in courses for the following term at the time of when they receive receiving this standing, the student can either withdraw or be moved to a Science Non-degree term and allowed to finish that term. However, these students will not be eligible to apply for re-admission into any Science degree program any time in the future.

Re-admission following a "Failed" standing

For Students who have had a "Failed" standing, must submit a formal application for re-admission should be submitted to the Science Undergraduate Office two months prior to before the requested term of re-admission. Applicants must include with their application, a statement outlining why they are now likely expect to succeed, along with their application.

Re-admission will come with include the following conditions. Students will be re-admitted into the General Science program and must maintain a 55% cumulative GPA and a 55% Science average. This is determination will be made based on a minimum of five lecture courses that must be taken within a maximum of two terms. Students must complete a minimum of two approved Science lecture courses, plus any related labs where applicable, each term. Successful completion of this term will result in a clearing of failed and below-average course grades up to a maximum of 3.0 units. Cleared grades will be removed from averages but not removed from the student's academic record. If the When conditions are not met, a students will have receive a "Required to withdraw - many not continue in Faculty" standing.

Required to withdraw - may not continue in Faculty

A Students will normally have a standing of "Required to withdraw - may not continue in Faculty" in the following situations:

- Not meeting the conditions for re-admission;
- After failing more than 5.0 cumulative units, regardless of the Science or overall averages;
- Not meeting program/plan average requirements and/or failing 1.5 units or more, in any given term, following a previous "Failed" standing from the Faculty of Science.
Science Non-degree term

Students are normally allowed to enrol in one Science Non-degree term following a "Failed" or a "Required to withdraw - may not continue in Faculty" standing. Students enrolled in such a term are ineligible to return to any Science degree program. Enrolment in a Science Non-degree term is done in consultation with an Academic Services and Admissions Officer and an advisor from the Faculty in which the student is anticipating admission.

e) Repeating Courses

In cases where a failed course is repeated, both all marks will be used in calculating the student's cumulative averages. Normally, no course or its equivalent may be repeated more than once.

A course, or its equivalent, which has already been passed, or its equivalent, will neither not be counted for credit a second time, nor will it counted in any averages.

Normally, failed courses or their equivalents may not be taken a third time. Regardless of previous failed attempts, normally, no course or its equivalent may be taken a third time. The rare exception to take a course a third time is granted via student petition, but the third attempt, if successful, will not count for credit nor towards any averages. The Associate Dean, Undergraduate Studies, in consultation with the appropriate program advisor, will determine the course that must be taken for credit in place of the repeated course. Students normally request this exception in order to take senior level courses in a particular discipline where the repeated course is required as a prerequisite.

Third attempts in previously failed courses or their equivalent are allowed in some plans in Science but not all. Where it is not allowed, the information is outlined in the program/plan section of the undergraduate calendar. Students uncertain of the rules for their program/plan should contact an Undergraduate Advisor before starting a third attempt. Fourth attempts are not allowed.

Rationale: Some students have difficulty with courses in specific areas. It was felt that in some programs, students should be allowed a third and final attempt and that they should receive credit if they are successful. Other programs have clear guidelines stating that failed courses could result in removal from the program/plan and so the discrepancy in rules.

CHANGES TO ACADEMIC PROGRAMS

Faculty of Engineering

Bachelor of Applied Science and Bachelor of Software Engineering Specific Degree Requirements

6. Motion: To change the list of academic decisions for the bachelor of applied science and bachelor of software engineering plans to insert #8, May Not Proceed COOP, and to change the rules of the plan to insert #16, as follows. (Note: new text = underlined; deleted text = strikethrough. Note: the effective date is stated as impacting the students entering in Fall 2013)

Academic Decisions

The possible academic decisions and their effect on the student's progress in the program are as follows:

1. Promoted - proceed to next term. (Normally coded as: EXCL, GOOD, SAT or Promoted, on transcripts).
2. May Continue in 1A, see advisor. Student in a reduced-load term permitted to enrol in one more reduced-load term to complete 1A requirements. (Normally coded as May Continue in 1A, on transcripts).
3. **May Continue in 1A no previous failed terms, see advisor.** This decision is similar to the May Continue in 1A decision above, however, is used in the case of students with a reduced load in their first 1A term in Engineering (and thus the student has zero previous failed terms). *(Coded as May Continue in 1A No Failed Terms, on transcripts).*

4. **(Conditional)** - added to academic decision 1, 2, or 3 to indicate that the student has adequate understanding of the term material to permit continuation, however the failed course(s) must be cleared before graduation. *(Coded as (Conditional) on transcripts).*

5. **Academic Decision Deferred** - student may not proceed until specified conditions are satisfied. *(Coded as Decision Deferred on transcripts).*

6. **Required to Repeat Term** - a failed term academic decision requiring that the student repeat the most recent term. The student must stay out a minimum of two terms except for 1A before repeating. *(Coded as Failed - Required to Repeat Term on transcripts).*

7. **May Not Proceed** - the student may not proceed to the next degree term or take required courses from that term until the academic decision has been changed to **Promoted** or to **Promoted (Conditional)**. *(Coded as May Not Proceed on transcripts).*

8. **May Not Proceed COOP** - the student has 3 (or more) missing (or failed) work-term credits and may not proceed to the next term or take required courses from that term until the decision has been changed to **Promoted** or to **Promoted (Conditional)**.

9. **Required to Withdraw from Engineering** - the student's registration in their program (BASc or BSE) is revoked. Readmission is not possible for four academic terms following the term for which the decision applies. *(Coded as Failed - Withdrawal Required, on transcripts).*

10. **Required to Withdraw after 1A Engineering** - the student's registration in their program (BASc or BSE) is revoked. Application for readmission may be considered for a qualifying readmission program immediately, however the term of entry may vary depending on circumstance. *(Coded as Failed - Withdraw from 1A, on transcripts).*

11. **(Aegrotat)** - added to academic decision 1, 2, 3, or 11; the term result is successful. The student has adequate understanding of the material, but because of illness or other extenuating circumstances, normal evaluation for at least one course was not possible. *(Coded as (Aegrotat) on transcripts).*

12. **Proceed on Probation** - a decision used in exceptional circumstances that allows the student to proceed to the next term. Continued progress in the program is contingent on satisfying conditions which may be prescribed as the terms of probation. *(Coded as Probation on transcripts).*

**Rules**

15. Changes to the set of courses included in the term average which a student is taking in a particular term may be permitted at the discretion of the student's department. Such changes must normally be arranged and approved before the end of the "Drop/Add" period, which is a period of two weeks at the beginning of each term. After this period, only exceptional cases will be considered. Courses not included in the average in any academic term may be dropped at any time prior to four weeks before the date "Final Examinations Begin" for that term as specified in this calendar.

16. Students are expected to maintain a balance between the number of academic terms completed and the number of work-term credit earned. Situations that are defined as out of balance are characterized in the table below. Students in the situations listed below (for example 1 (4) meaning one work-term credit, 4 work term opportunities), that would otherwise earn a decision permitting them to enrol in the next academic term, will receive a term decision of May not Proceed Coop and will be unable to enrol in an academic term until they have completed at least two more work terms. Normally this will require an absence from academic study for one year. During the one year following the academic term with this decision, the student is expected to participate in the Coop Recovery Program and then to find employment that can be treated as (at least) two work terms.
May Not Proceed COOP

Number of Credited COOP courses (minimum number of opportunities)
Current Academic Term (EXCL, GOOD, SAT, Conditional)

<table>
<thead>
<tr>
<th>Stream</th>
<th>2B</th>
<th>3A</th>
<th>3B</th>
<th>4A</th>
<th>4B</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>0(3)</td>
<td>1(4)</td>
<td>2(5)</td>
<td>3(6)</td>
<td>3(6)</td>
</tr>
<tr>
<td>8</td>
<td>Not applicable</td>
<td>0(3)</td>
<td>1(4)</td>
<td>2(5)</td>
<td>3(6)</td>
</tr>
<tr>
<td>4S</td>
<td>0(3)</td>
<td>1(4)</td>
<td>2(5)</td>
<td>3(6)</td>
<td>3(6)</td>
</tr>
<tr>
<td>8S</td>
<td>Not applicable</td>
<td>0(4)</td>
<td>1(4)</td>
<td>3(6)</td>
<td>3(6)</td>
</tr>
</tbody>
</table>

16. 17. Three work-term report credits are required of all BASc and BSE students. A work-term report credit is obtained by achieving a grade of satisfactory or better for a work-term report. No student will be allowed to graduate without having achieved the required three work-term report credits.

Work-term reports are required to be submitted in specific terms, as identified in the table below, and form part of the courses required for the corresponding term. Students enrolled in programs using a DRNA designation for the work-term report will be enrolled in the corresponding WKRPT course for the term listed in the table. Students in programs using the DRNC designation may enrol for a work-term course in a term prior to the one listed in the table; however students who have not earned a credit for the work-term course by the term specified will automatically be enrolled in that course in the specified term. The work-term reports are identified as WKRPT 200, WKRPT 300, and WKRPT 400, respectively, on all transcripts.

Rationale: The faculty is proposing changes to the promotion rules that will cause students in Engineering programs that have missed three work term opportunities to be assigned a promotion decision of “May Not Proceed Coop”. Students with this status are directed to the Coop Recovery term and will require extra time to complete their degree (even before 4B). Students who have missed two work term opportunities will be allowed one extra term after 4B to complete their degree, as described in the revised Rule 16. Updates to calendar files on academic decisions and rules are required as a result of these changes.

Faculty of Mathematics [effective 1 September 2014]

Actuarial Science

7. Motion: To change the admission requirements of the actuarial science plan as follows. (Note: new text = **bold**; deleted text = strikethrough.)

Admission to Actuarial Science requires a major average of at least 70% *and no more than one excluded course*. A student with no major average requires a cumulative average of at least 70% on at least ten non-excluded courses, provided they have no more than one failed courses or excluded course. In addition, MTHEL 131 is an admission requirement for the following plans:

* Honours Actuarial Science
* Honours Actuarial Science/Finance Option
* **Joint Actuarial Science**
* Actuarial Science Minor

Rationale: This change harmonizes the joint actuarial science admission requirements with related plans and follows the departmental requirements on excluded courses.
FOR INFORMATION

Academic Program Review Reports

Anthropology (BA) – Please see Attachment #3

CURRICULAR MODIFICATIONS

Changes to academic plans, new courses, course changes and course inactivations were approved for the faculties of arts (classical studies; peace and conflict studies; legal studies; social development studies); engineering (biomechanics option; complementary studies electives; co-op recovery term; electrical & computer engineering; entrepreneurship; general engineering; mathematics; management engineering; nanotechnology engineering; water resources option); engineering & mathematics (software engineering); environment (knowledge integration; environment & resource studies; international development; environmental studies; geography; planning; environment & business); mathematics (actuarial science; applied mathematics; combinatorics & optimization; computers science; mathematics; mathematics elective; statistics; work term report and co-op courses); and science (chemistry; earth science; medicinal chemistry; physics).

Mario Coniglio
Associate Vice-President, Academic
### Academic Calendar Dates, 2014-2015

The following symbols and abbreviations are used throughout this table:

- **Days of the week:** (M) Monday, (T) Tuesday, (W) Wednesday, (Th) Thursday, (F) Friday, (S) Saturday, (U) Sunday
- **N/A – Not Applicable**

<table>
<thead>
<tr>
<th></th>
<th>Fall 2014</th>
<th>Winter 2015</th>
<th>Spring 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Co-operative Work</td>
<td>Aug. 25 (M)</td>
<td>Jan. 5 (M)</td>
<td>May 4 (M)</td>
</tr>
<tr>
<td>Term Begins *</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lectures Begin</td>
<td>Sept. 8 (M)</td>
<td>Jan. 5 (M)</td>
<td>May 4 (M)</td>
</tr>
<tr>
<td>Reading Week</td>
<td>N/A</td>
<td>Feb. 16-20 (M-F)</td>
<td>N/A</td>
</tr>
<tr>
<td>Make-up Day</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Convocation</td>
<td>Oct. 24, 25 (F,S)</td>
<td>N/A</td>
<td>June 9-13 (T-S)</td>
</tr>
<tr>
<td>Lectures End &amp; Make-up Day</td>
<td>Dec. 1 (M)</td>
<td>Apr. 6 (M)</td>
<td>July 28 (T)</td>
</tr>
<tr>
<td>Pre-Examination Study Days</td>
<td>Dec. 2,3 (T,W,)</td>
<td>Apr. 7-9 (T-Th)</td>
<td>July 29 - Aug. 3 (W-M)</td>
</tr>
<tr>
<td>On-Campus Examinations Begin</td>
<td>Dec. 4 (Th)</td>
<td>Apr. 10 (F)</td>
<td>Aug. 4 (T)</td>
</tr>
<tr>
<td>Online Class Examination Days</td>
<td>Dec. 5,6 (F,S)</td>
<td>Apr. 10,11 (F,S)</td>
<td>Aug. 7,8 (F,S)</td>
</tr>
<tr>
<td>On-Campus Examinations End</td>
<td>Dec. 19 (F)</td>
<td>Apr. 25 (S)</td>
<td>Aug. 15 (S)</td>
</tr>
<tr>
<td>Co-operative Work Term Ends *</td>
<td>Dec. 19 (F)</td>
<td>May 1 (F)</td>
<td>Aug. 28 (F)</td>
</tr>
<tr>
<td>Teaching days</td>
<td>60</td>
<td>60</td>
<td>60</td>
</tr>
<tr>
<td>Pre examination study days</td>
<td>2</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>Examination days</td>
<td>14</td>
<td>14</td>
<td>11</td>
</tr>
</tbody>
</table>

* Co-op work terms are expected to be 16 weeks in duration. Actual start and end dates may vary depending on employer or student requirements in consultation with CEC.
GUIDELINES FOR DETERMINING ACADEMIC CALENDAR DATES

The following are principles and guidelines either formally agreed upon by Senate or adopted as common practice in determining the dates for the academic year.

• That the practice of setting dates for each academic year continues to be an annual exercise.

• That there be no fewer than 12 examination days in the Fall and Winter Terms, and 11 examination days in the Spring Term

• That there be no fewer than 2 study days (excluding Saturday, Sunday and holidays) between the end of classes and the beginning of examinations and the university will attempt to schedule a maximum of 5 study days when possible (including Saturday, Sunday and holidays)

• That there be no fewer than 60 teaching days in a term. A clear rationale for fewer than 60 teaching days must be communicated to Senate at the time calendar dates are approved.

• That attention be given to balancing the number of meets in courses. Where an imbalance may occur because of holidays (eg, 11 Fridays and 13 Mondays), the last day of classes may use the class schedule for a different day in order to balance the number of meets across all courses.

• That Fall Term classes in September begin on the Monday following the Labour Day Holiday

• That in the Fall Term no examinations be scheduled beyond December 22

• That the start date for Winter Term be January 3 when that date falls on a Monday, Tuesday or Wednesday. Otherwise the start date is the first Monday following January 3. In the event of Monday, January 3 being a declared holiday the term would begin January 4.

• That the 5-day Winter Reading Week occurs in all Faculties and must begin on the third Monday in February in keeping with an informal agreement with Wilfrid Laurier University and University of Guelph

• The start date for Spring Term is normally May 1, 2 or 3 when these dates fall on a Monday, Tuesday, or Wednesday. Otherwise the start date is the first Monday following May 3

• In calculating teaching days in a term, Saturdays, Sundays and statutory or University holidays are excluded. In calculating examination days, Saturdays which fall within the period are included, whereas Sundays and statutory or university holidays are excluded. One exception to the above, approved by Undergraduate Operations Committee is that normally examinations will not be scheduled on the Saturday which follows Good Friday when that day falls within the examination schedule.

• Grades due dates for on-campus courses are normally scheduled seven days from the date of the final examination. Grades for courses without a scheduled final examination are normally due 14 days after the start of examinations. Grades for Distance Education courses are due on the last date of the grades submission period.

Prepared by:
K.A. Lavigne, Registrar
October 20, 2009 (replaces October 11, 2005)
Ontario Secondary School Applicants presenting the Ontario High School Curriculum

Ontario secondary school (OSS) students who will be completing the Ontario high school curriculum must present the Ontario Secondary School Diploma (OSSD) including a minimum of six grade 12 U or M courses. These courses must include all required courses as specified for each program.

An overall average of 80% on the best six grade 12 courses including the required courses is normally the minimum for consideration. Higher averages are required for admission to programs in which the demand for places by qualified applicants exceeds the number of places available. The actual minimum averages required for these programs are determined each year on the basis of the number and qualifications of applicants and the number of available spaces.

In some programs, applicants may be considered for early conditional admission based on factors that include their grade 11 academic record, their grade 12 record to date, and other factors noted under "Other Documentation" in the chart.

The University reserves the right to withdraw conditional offers of admission if the applicant fails to meet the requirements specified above or any specific conditions stated on the offer of admission.
Admission Requirements and Recommendations for Year One Programs 2015

<table>
<thead>
<tr>
<th>Faculty/Program</th>
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<th>Recommendations</th>
<th>Other Documentation</th>
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<td><strong>Undergraduate first-year entry programs:</strong></td>
<td>All required courses are OSS Grade 12 U courses unless otherwise specified and must be included in the required set of 6. Required courses are included in the calculation of the admission average. <strong>Programs requiring prior university studies:</strong> Requirements are as listed.</td>
<td><strong>Undergraduate first-year entry programs:</strong> Courses listed are OSS Grade 12 U courses unless otherwise specified and are <strong>not required for admission</strong> but are recommended because students may find this preparation useful during their university studies. <strong>Programs requiring prior university studies:</strong> Recommendations are as listed.</td>
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### Applied Health Sciences

**All Programs**

All programs require six Grade 12 U or M courses including specified courses.

**Health Promotion**

- Regular and Co-op
  - Any Grade 12 U
  - English
  - A final grade of at least 75% is normally required.
  - Additional U or M courses for a total of six.

Those not admitted to the co-op program are automatically considered for the corresponding regular program. Limited admission to co-op is also available in Year Two. The first co-op work term begins in Year Two.

**Health Studies**

- Regular and Co-op
  - Biology
  - Chemistry
  - A final grade of at least 70% is normally required in each of the above required courses.
  - Additional U or M courses for a total of six

- Advanced Functions
- English (ENG4U)

For students considering the Pre-Health Professions Specialization:
- Advanced Functions
- English (ENG4U)
- Physics

Special consideration is given on the basis of strength in Biology and Chemistry. Those not admitted to the co-op program are automatically considered for the corresponding regular program. The first co-op work term begins in Year Two.

**Kinesiology**

- Regular and Co-op
  - Advanced Functions
  - Chemistry
  - One of Biology or Physics
  - A final grade of at least 70% is normally required in each of the above required courses.
  - Additional U or M courses for a total of six

Admission Information Form (AIF) is required.

Special consideration is given on the basis of strength in Advanced Functions, Chemistry, and Biology or Physics.

Those not admitted to the co-op program are automatically considered for the corresponding regular program. The first co-op work term begins in Year Two.

**Recreation and Leisure Studies**

- Regular and Co-op
  - Any Grade 12 U
  - English
  - A final grade of at least 70% is normally required.
  - Additional U or M courses for a total of six

For all students: from Arts, Business Studies, Canadian and World Studies, Classical Studies, French as a Second Language, Interdisciplinary Studies, International Language, or Social Sciences and Humanities courses.

For students considering the Therapeutic Recreation program:
- Biology or Exercise Science

For students considering the Recreation and Business program:
- Grade 12 M Principles of Financial Accounting

Applicants should be aware that, although this is a social science program, courses in research methods and statistics are included in the curriculum. Writing skills are important. Involvement in extracurricular activities is an important factor in admission decisions.

Those not admitted to the co-op program are automatically considered for the corresponding regular program. Limited admission to co-op is also available in Year Two. The first co-op work term begins in Year Two.
### Arts

**Arts (All Programs)**

All programs require six Grade 12 U or M courses including a Grade 12 U English.

**Honours Arts Regular**

For Social Science programs such as Anthropology; Economics; Political Science; Psychology; Sexuality, Marriage, and Family Studies; Social Development Studies; or Sociology:
- Mathematics of Data Management

Admission Information Form (AIF) is strongly recommended.

Entry to General or Honours major programs, including departmental co-op, occurs following Year One, and is based on academic performance in Year One in relevant courses in the prospective major. Honours Arts Regular is offered through the University of Waterloo, Renison University College, and St. Jerome's University.

**Arts and Business Regular and Co-op**

In addition to the requirement for all Arts programs specified above, a final grade of at least 70% in any Grade 12 U English is required.

For Economics: Calculus and Vectors is also recommended; however, students may decide to take an introductory calculus course in first year to acquire additional background.

Admission Information Form (AIF) is strongly recommended.

Selection of the Honours major which is to be combined with Arts and Business occurs following Year One and is based on academic performance in the prospective major in Year One. Honours Arts and Business is offered through the University of Waterloo, Renison University College, and St. Jerome's University. Those not admitted to the Co-op program are automatically considered for the corresponding Regular program.

**Global Business and Digital Arts Regular**

In addition to the requirement for all Arts programs specified above, a final grade of at least 75% in any Grade 12 U English is required.

- Mathematics of Data Management is strongly recommended

Admission Information Form (AIF) is strongly recommended.

**Social Development Studies Regular Renison University College**

In addition to the requirement for all Arts programs specified above, a final grade of at least 70% in any Grade 12 U English is required.

- Mathematics of Data Management

Admission Information Form (AIF) is strongly recommended.
### Admission Requirements and Recommendations for Year One Programs 2015

<table>
<thead>
<tr>
<th>Faculty/Program</th>
<th>Requirements</th>
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</thead>
<tbody>
<tr>
<td><strong>Arts (Continued)</strong></td>
<td><strong>Undergraduate first-year entry programs</strong>: All required courses are OSS Grade 12 U courses unless otherwise specified and must be included in the required set of 6. Required courses are included in the calculation of the admission average. Programs requiring prior university studies: Requirements are as listed.</td>
<td><strong>Undergraduate first-year entry programs</strong>: Courses listed are OSS Grade 12 U courses unless otherwise specified and are not required for admission but are recommended because students may find this preparation useful during their university studies. Programs requiring prior university studies: Recommendations are as listed.</td>
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<td></td>
</tr>
</tbody>
</table>

**Arts**

- Any Grade 12 U English. A final grade of at least 75% is required.
- Advanced Functions
- Calculus and Vectors
  A final grade of at least 75% is normally required in each of the math courses listed above.
- Three other U or M courses

**Arts and Mathematics**

- Advanced Functions
- Calculus and Vectors
- Any Grade 12 U English. A final grade of at least 75% is required.
- One other Grade 12 U course
- Two other U or M courses

- Grade 12 M Principles of Financial Accounting
- Grade 12 U Mathematics of Data Management

**Computing and Financial Management Co-op**

- Advanced Functions
- Calculus and Vectors
- Any Grade 12 U English. A final grade of at least 75% is required.
- One other Grade 12 U course
- Two other U or M courses

- Grade 11 U Introduction to Computer Science
- Grade 12 M Principles of Financial Accounting

**Accounting and Financial Management Co-op**

- Grade 12 M Principles of Financial Accounting
- Grade 12 U Mathematics of Data Management

Admission Information Form (AIF) is required. Accounting and Financial Management Admissions Assignment (AFMAA) is required.

Admission is based on secondary school or any post-secondary school achievement, the results of the AFMAA, and the Admission Information Form.

In addition to a strong academic background, other factors considered in the admission process include performance in contests such as the Euclid Mathematics Contest and the Canadian Computing Competition, the number and variety of courses taken, involvement in extracurricular activities in the school and/or the community, and teacher recommendations.

Those not offered admission to Computing and Financial Management may be considered for alternative programs in the Faculty of Mathematics.
### Admission Requirements and Recommendations for Year One Programs 2015

<table>
<thead>
<tr>
<th>Faculty/Program</th>
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</thead>
<tbody>
<tr>
<td><strong>Engineering (Co-op)</strong></td>
<td></td>
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</tr>
<tr>
<td>Architecture Co-op</td>
<td>Undergraduate first-year entry programs: All required courses are OSS Grade 12 U courses unless otherwise specified and must be included in the required set of 6. Required courses are included in the calculation of the admission average. Programs requiring prior university studies: Requirements are as listed.</td>
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</tr>
<tr>
<td><strong>Biomedical</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| Chemical | • Advanced Functions  
• Calculus and Vectors  
• Chemistry  
• English (ENG4U)  
• Physics  
A final grade of at least 70% is normally required in each of these courses.  
• One other U or M course | • Grade 11 or 12 M Art courses  
• Independent arts studies  
• Creative and cultural studies such as visual arts and history | Interview  
English précis-writing exercise  
Portfolio  
Admission Information Form (AIF) is required. | Applicants are selected for the interview on the basis of grade 11 marks and any interim or final OSS grade 12 marks available at the time interview selection occurs. Those selected for an interview are expected to come to the University. Admission is based on the results of the interview, the portfolio, the English précis-writing exercise, and secondary school achievement. |
| Civil | | | | |
| Computer | | | | |
| Electrical | | | | |
| Environmental | | | | |
| Geological | | | | |
| Management | | | | |
| Mechanical | | | | |
| Mechatronics | | | | |
| Nanotechnology | | | | |
| Systems Design Co-op | | | | |
| **Software Engineering Co-op** | | | | |
| **Engineering and Mathematics** | | | | |
| **Chemical** | | | | |
| Computer | | | | |
| Electrical | | | | |
| Environmental | | | | |
| Geological | | | | |
| Management | | | | |
| Mechanical | | | | |
| Mechatronics | | | | |
| Nanotechnology | | | | |
| Systems Design Co-op | | | | |
| **Software Engineering Co-op** | | | | |
| **Engineering and Mathematics** | | | | |

- Applicants are selected for the interview on the basis of grade 11 marks and any interim or final OSS grade 12 marks available at the time interview selection occurs. Those selected for an interview are expected to come to the University. Admission is based on the results of the interview, the portfolio, the English précis-writing exercise, and secondary school achievement.

In addition to a strong academic background, other factors which will be considered in the admissions process include involvement in extracurricular activities in school and/or in the community; evidence of an interest in engineering; and strong performance in mathematics, science, or engineering-related competitions.

Those not offered admission to their first-choice program may be considered for other engineering programs that they specify on the Admission Information Form.
<table>
<thead>
<tr>
<th>Faculty/Program</th>
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<td>Undergraduate first-year entry programs:</td>
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<td>Undergraduate first-year entry programs: Courses listed are OSS Grade 12 U courses unless otherwise specified and are not required for admission.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Programs requiring prior university studies: Requirements are as listed.</td>
<td>Programs requiring prior university studies: Recommendations are as listed.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environment and Business Co-op</td>
<td>• Any Grade 12 U English. A final grade of at least 70% is normally required. • Five other U or M courses</td>
<td>• One Grade 12 U Mathematics • One Grade 12 U Science • Grade 12 M Principles of Financial Accounting • Analysing Current Economics Issues (where offered)</td>
<td>Admission Information Form (AIF)</td>
<td>Those not admitted to Honours Environment and Business Co-op are automatically considered for Honours Geography and Environmental Management. The first co-op work term begins in Year Two.</td>
</tr>
<tr>
<td>Environment and Resource Studies Regular and Co-op</td>
<td>• Any Grade 12 U English. A final grade of at least 70% is normally required. • Five other U or M courses</td>
<td>At least one Grade 12 U or M course from each of • Canadian and World Studies or Social Sciences and Humanities or the Arts • Mathematics or Science</td>
<td>Admission Information Form (AIF)</td>
<td>In accordance with the trans-disciplinary nature of ERS, we value flexibility and breadth of learning and experience. Those not admitted to the co-op program are automatically considered for the corresponding regular program. Limited admission to co-op is also available in Year Two. The first co-op work term begins in Year Two.</td>
</tr>
<tr>
<td>Geography and Aviation Regular</td>
<td>• Any Grade 12 U English. A final grade of at least 70% is normally required. • A Grade 12 U Mathematics. A final grade of at least 70% is required. • Four other U or M courses</td>
<td>• One or more Grade 12 U or M Geography courses are strongly recommended. • A second Grade 12 U Mathematics • Earth and Space Science</td>
<td>Admission Information Form (AIF) Program Briefing Session Transport Canada Category 1 Medical Certification</td>
<td>Those not admitted to Honours Geography and Aviation are automatically considered for Honours Geomatics Regular.</td>
</tr>
<tr>
<td>Geography and Environmental Management Regular and Co-op</td>
<td>• Any Grade 12 U English. A final grade of at least 70% is normally required. • Five other U or M courses</td>
<td>• One or more Grade 12 U or M Geography courses are strongly recommended. • A Grade 12 U Mathematics • Earth and Space Science</td>
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<td><strong>Environment (cont’d)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Geomatics</td>
<td>• Any Grade 12 U English. A final grade of at least 70% is normally required.</td>
<td>• A second Grade 12 U Mathematics</td>
<td>Admission Information Form (AIF)</td>
<td>Those not admitted to the co-op program are automatically considered for the corresponding regular program. Limited admission to co-op is also available in Year Two.</td>
</tr>
<tr>
<td></td>
<td>• A Grade 12 U Mathematics. A final grade of at least 70% is required.</td>
<td>• Grade 11 U Introduction to Computer Science is highly recommended.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Four other U or M courses</td>
<td>• Grade 12 U Computer Science would be an asset.</td>
<td></td>
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</tr>
<tr>
<td>International Development Regular</td>
<td>• Any Grade 12 U English. A final grade of at least 70% is normally required.</td>
<td>• At least one Grade 12 U Science or Mathematics course</td>
<td>Admission Information Form (AIF)</td>
<td></td>
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<tr>
<td></td>
<td>• Five other U or M courses</td>
<td>• At least one Grade 12 U course in a second language</td>
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<tr>
<td>Knowledge Integration Regular</td>
<td>• Any Grade 12 U English. A final grade of at least 75% is normally required.</td>
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<td>Admission Information Form (AIF)</td>
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<td></td>
<td>• Any Grade 12 U Science. A final grade of at least 75% is normally required.</td>
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<td>• Any Grade 12 U Mathematics. A final grade of at least 75% is normally required.</td>
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<td></td>
<td>• Three other U or M courses</td>
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<tr>
<td>Planning Co-op</td>
<td>• Any Grade 12 U English. A final grade of at least 75% is required.</td>
<td>Grade 12 U or M courses from the following:</td>
<td>Admission Information Form (AIF)</td>
<td>The first co-op work term begins in Year Two.</td>
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<td></td>
<td>• Five other U or M courses</td>
<td>• Canadian and World Studies</td>
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<td>• Mathematics</td>
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<td></td>
<td>• Science, preferably Biology or Earth and Space Science</td>
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## Admission Requirements and Recommendations for Year One Programs 2015

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<td>Undergraduate first-year entry programs:</td>
<td>All required courses are OSS Grade 12 U courses unless otherwise specified and must be included in the required set of 6. Required courses are included in the calculation of the admission average.</td>
<td>Undergraduate first-year entry programs: Courses listed are OSS Grade 12 U courses unless otherwise specified and are not required for admission but are recommended because students may find this preparation useful during their university studies. Programs requiring prior university studies: Requirements are as listed.</td>
<td>Information which is used in addition to course requirements is detailed below when applicable. The appropriate information will be requested when an application is acknowledged.</td>
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<tr>
<td>Mathematics</td>
<td>- Advanced Functions</td>
<td>Admission Information Form (AIF) which includes a teacher reference. The AIF is required for Math/Accounting, Math/Business Admin., Math/Financial Analysis and Risk Mgmt, Business Admin/Math, Double Degree/Business Admin/Computer Science Double Degree. For all other programs, the AIF is strongly recommended, especially for co-op programs.</td>
<td>All Mathematics programs are offered through the University of Waterloo and St. Jerome's University. The decision to register at St. Jerome's occurs after admission. In addition to a strong academic background, other factors considered in the admissions process include performance in contests such as the Euclid Mathematics Contest and the Canadian Computing Competition, the number and variety of courses taken, involvement in extracurricular activities in the school and/or the community, and teacher recommendations. Those not offered admission to their first choice program will be considered for other Mathematics programs. The Faculty administers the English Language for Academic Studies and Mathematics. For those applying to Bioinformatics, Computer Science, Business Administration and Computer Science Double Degree, the Euclid Contest to demonstrate that they have sufficient mathematical background. For those applying to Bioinformatics, Computer Science, Business Administration and Computer Science Double Degree, the Canadian Computing Competition is recommended.</td>
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<tr>
<td>Computer Science Regular and Co-op Mathematics Regular and Co-op Mathematics/Chartered Professional Accountancy Co-op Mathematics/Chartered Professional Accountancy Co-op Agriculture and Food Science Double Degree Co-op Biology and Agricultural Science Double Degree Co-op Business Administration and Economics Double Degree Co-op Business Administration and Computer Science Double Degree Co-op Bioinformatics Regular and Co-op</td>
<td>- Calculus and Vectors</td>
<td>Applicants to all programs in Mathematics:</td>
<td>Admission to the Mathematics/Teaching Co-op program occurs in Year Two after successful completion of Year One in either Honours Co-op Computer Science or Honours Co-op Mathematics. Honours Business Administration and Mathematics Co-op is a double degree program offered jointly by Wilfrid Laurier University and Waterloo leading to BBA and BMath degrees. Honours Business Administration and Computer Science Co-op is a double degree program offered jointly by Wilfrid Laurier University and Waterloo leading to BBA and BCS degrees.</td>
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<tr>
<td>- Advanced Functions</td>
<td>- Grade 11 U Introduction to Computer Science</td>
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<tr>
<td>- Calculus and Vectors</td>
<td>- Grade 12 M Principles of Financial Accounting</td>
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<tr>
<td>- Any Grade 12 U English</td>
<td>- One of Biology or Physics</td>
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<tr>
<td>- One other U or M course.</td>
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<tr>
<td>Biotechnology/Chartered Professional Accountancy Co-op</td>
<td>Undergraduate first-year entry programs: All required courses are OSS Grade 12 U courses unless otherwise specified and must be included in the required set of 6. Required courses are included in the calculation of the admission average. Programs requiring prior university studies: Requirements are as listed.</td>
<td>Undergraduate first-year entry programs: Courses listed are OSS Grade 12 U courses unless otherwise specified and are not required for admission but are recommended because students may find this preparation useful during their university studies. Programs requiring prior university studies: Recommendations are as listed.</td>
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<tr>
<td>Science</td>
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<tr>
<td>Biotechnology/Economics Co-op</td>
<td>Six Grade 12 U or M courses including</td>
<td>• Biology</td>
<td>Admission Information Form (AIF) is strongly recommended.</td>
<td>Where an entry program is available in both co-op and regular, those not admitted to co-op are automatically considered for the corresponding regular program.</td>
</tr>
<tr>
<td>Honours Science Regular</td>
<td>• Any Grade 12 U English.</td>
<td>• Chemistry</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environmental Science</td>
<td>• Advanced Functions</td>
<td>• Grade 12 M Principles of Financial Accounting</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Science</td>
<td>Calculus and Vectors A final grade of at least 70% is normally required in each of these courses.</td>
<td>• Physics</td>
<td></td>
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<tr>
<td>Life Sciences</td>
<td>Two of</td>
<td>• Chemistry</td>
<td>Admission Information Form (AIF) is strongly recommended.</td>
<td>Where an entry program is available in both co-op and regular, those not admitted to co-op are automatically considered for the corresponding regular program.</td>
</tr>
<tr>
<td>Regular and Co-op</td>
<td>• Biology</td>
<td>• Chemistry</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical Sciences</td>
<td>• Chemistry</td>
<td>• Earth Space Science</td>
<td>Program Briefing Session.</td>
<td>In some programs, limited admission to co-op is possible in Year Two.</td>
</tr>
<tr>
<td>Regular and Co-op</td>
<td>• Earth and Space Science</td>
<td>• Mathematics of Data Management</td>
<td>Transport Canada Category 1 Medical Certification</td>
<td></td>
</tr>
<tr>
<td>Science and Aviation</td>
<td>• Physics</td>
<td>• Chemistry</td>
<td>Admission Information Form (AIF) is strongly recommended.</td>
<td>The first co-op work term begins in Year Two for all Faculty of Science students.</td>
</tr>
<tr>
<td>Regular</td>
<td>One additional U or M course.</td>
<td>• Earth and Space Science</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Science and Business Regular and Co-op (All specializations)</td>
<td>• Chemistry</td>
<td>• Physics</td>
<td>Program Briefing Session.</td>
<td></td>
</tr>
<tr>
<td>Optometry Regular</td>
<td>Successful completion of at least three full years of university-level science with specific course requirements.</td>
<td>• Grade 12 M International Business Fundamentals</td>
<td>Admission Information Form (AIF) is strongly recommended.</td>
<td>Please refer to the School of Optometry website regarding required and recommended university-level courses.</td>
</tr>
</tbody>
</table>
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<td><strong>Undergraduate first-year entry programs:</strong>&lt;br&gt; All required courses are OSS Grade 12 U courses unless otherwise specified and must be included in the required set of 6. Required courses are included in the calculation of the admission average. <strong>Programs requiring prior university studies:</strong> Requirements are as listed.</td>
<td>Undergraduate first-year entry programs: Courses listed are OSS Grade 12 U courses unless otherwise specified and are not required for admission but are recommended because students may find this preparation useful during their university studies. <strong>Programs requiring prior university studies:</strong> Recommendations are as listed.</td>
<td>Information which is used in addition to course requirements is detailed below when applicable. The appropriate information will be requested when an application is acknowledged.</td>
<td></td>
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<tr>
<td><strong>Pharmacy Co-op</strong></td>
<td>Successful completion of at least two full years of university-level science with specific course requirements.</td>
<td>- Pharmacy Admission Information Form&lt;br&gt;- Letter of Reference Form&lt;br&gt;- Interview&lt;br&gt;- Reading Comprehension/Writing Test</td>
<td>Please refer to the School of Pharmacy website regarding admission averages and required university-level courses. Secondary School applicants applying to Honours Science or Honours Life Sciences may also be considered for conditional admission to Pharmacy. Refer to School of Pharmacy website regarding requirements.</td>
<td></td>
</tr>
<tr>
<td><strong>Independent Studies</strong></td>
<td>Successful completion of at least one full year of university undergraduate with an overall university average of C (65%) or a minimum two years of community college studies with an overall average of B (75%) and a minimum of 70% in Grade 12 U English (or equivalent) is required.</td>
<td>Autobiographical Letter&lt;br&gt;Interview&lt;br&gt;Letters of Reference</td>
<td>Applicatnts should be capable of doing university-level work on their own and should be planning studies that can be done at the University of Waterloo.</td>
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<tr>
<td><strong>Social Work</strong></td>
<td>Successful completion of either a three-year or a four-year undergraduate university degree with a B average and at least 6.0 units in the social sciences, including 10 specified courses from the Renison curriculum or their equivalents.</td>
<td>Letter of reference and personal statement which demonstrates sufficient practical experience and personal suitability are required.</td>
<td>Please refer to the Social Work website regarding required university-level courses.</td>
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Final Assessment Report of the Review of the Anthropology Program (BA) September 2013

Review process
The Department of Anthropology and its programs were reviewed in 1987 and in 2004; the temporary merger of Anthropology with Classical Studies between 1997 and 2001 apparently pre-empted an evaluation during that time. The review team for the 2004 evaluation made five recommendations:

1. The Department should focus on areas of strength;
2. The Department should work to define and develop areas of strength;
3. The Department should define replacement and additional positions with respect to areas of strategic strength, in addition to more traditional sub-disciplinary and geographic concerns;
4. The Department should reduce its first-year course offerings or rely more on sessional instructors to cover course offerings at this level in order to free faculty members to develop and sustain upper-year specialty offerings;
5. The Department should be assured of replacements for upcoming retirements and should be provided with the resources to hire an additional archaeologist.

All five recommendations have been addressed except for the suggestion that another archaeologist should be hired.

The present self-study was written by the two tenured faculty members and the administrative assistant. The other three regular faculty members, who have been at the University of Waterloo for less than three years, could contribute relatively little to a self-study that was intended to examine the previous seven years. However, the entire faculty complement, including the adjunct faculty members, was consulted on numerous occasions. Students in the program were consulted formally and informally. Formal consultations involved an online survey.

The site visit was conducted October 25-26, 2012; the review team’s report was received November 20, 2012. The Department’s response, including an implementation plan, was received March 27, 2013. The Dean’s approval of the response and implementation plan was received July 9, 2013.

Members of the Department carefully reviewed the external reviewers’ report and fully accepted their recommendations. The Department has met twice to plan and begin the process of implementing the suggested changes. Meetings are planned with the Dean of Arts and the Associate Dean of Arts, Undergraduate Studies and a full-day curriculum planning retreat was held April 17, 2013.
Characteristics of the program

Historical overview
The first anthropologist was hired in 1965 as a member of what became the Department of Sociology and Anthropology. Since then the size of the Department has fluctuated periodically.

In 1977, Anthropology became a separate Department and by 1980 it had reached a high of eight full-time faculty members but, by 1996, the Department was reduced to 2.5 members, due to departures, death, and the Special Early retirement Plan (SERP). A merger with Classical Studies, which also had lost a disproportionate number of faculty members to SERP, allowed both Departments to re-develop their programs. In 2001, when the faculty complement of Anthropology was back up to 4.5, the union between Anthropology and Classical Studies was dissolved at Classical Studies’ request and since then the Department of Anthropology has once again functioned independently. By the beginning of 2010/11, the Department was back to eight faculty members but later in the year, three members retired, two definite-term appointees left to other Universities, and a tenured faculty member was seconded to another Department within the University. Some of these losses have been made up by new hires and as of July 2012 the Department had a complement of six members.

The review team was particularly impressed by the program’s continued efforts to deliver a dynamic and engaging program relevant to student needs and interests. This is particularly laudable given the major and recent challenges the program has faced. Nonetheless the review team quickly identified the exhaustion felt by all faculty members as they carry a very heavy teaching and service load in addition to a high level of one on one student contact. They admired the Department’s commitment to using this difficult combination of circumstances as an opportunity for reflection, revitalization and revisioning.

Within the 39 Anthropology departments in Canadian universities, UW’s Department of Anthropology is one of the smaller. There are 10 universities with Anthropology departments with a faculty complement between four and six. UW’s Department of Anthropology is of similar size to that of Brandon, Mount Allison, New Brunswick, Regina and Windsor.

Even though the Department of Anthropology at UW has only six members it shares the Faculty of Arts’ critical need for additional space. In particular, Anthropology lacks adequate space for student and faculty interaction outside of the classroom, and the teaching laboratories are straining to accommodate student demand for hands-on learning opportunities. The reviewers noted that none of the research space had any access to natural light and that some of the research spaces were little more than large closets.

The size of the faculty complement and the space restrictions are major concerns of the Department of Anthropology.

Program objectives
Humans and their use of technology (past and present), their place in nature, in culture, and in society, are the foundations of research and expertise in the Department of Anthropology. With this in mind, the Department’s objective is that its students, at the point of graduating, will demonstrate knowledge of
the diversity of the human condition around the world, historically and today, and will demonstrate an awareness of the techniques of research design and field methods used in – Cultural Anthropology, Archaeological Anthropology, and Biological Anthropology.

**Academic programs offered**

The Department offers the following plans:

- Three-year General BA
- Four-year General BA
- Honours BA (regular and co-op)
- Honours BA Anthropology/Arts and Business (regular and co-op)
- Joint Honours BA with another Honours Department
- Minor

All degrees in Anthropology require a core set of five courses, including two introductory courses; three second-year courses in Cultural, Archaeological, and Biological Anthropology; and a third-year course in anthropological theory.

**Students**

The Department of Anthropology, like most Faculty of Arts’ programs at UW, is a second-year entry program. First-year students are accepted to the Faculty of Arts and apply for a major at the end of their first year.

Over the past few years, on average 12 students annually enter Anthropology in year two as majors; 10 in the regular program and two in co-op. The lowest enrollment of six students occurred in 2007 and the highest of 20 students in 2010. The majority of these students enter UW with high school grades in the 80 to 89% range. The majority of these students are female, ranging from a low of 65% in 2010/11 to a high of 92% in 2008/09.

The total headcount of full-time and part-time students enrolled in Anthropology showed a decline from 150 to 114 between 2004/05 and 2008/09 followed by a small increase in 2009/10 to 108, and then a 31% increase to 138 in 2010/11.

Between spring 2004 and winter 2011 inclusive, the Department taught 51 different courses to a total of 12,077 enrolled UW students. During this period the Department offered:

- three 100-level courses with an average class size of 121 students;
- eight 200-level courses with an average class size of 42 students;
- twenty four 300-level courses with an average class size of 22 students;
- sixteen 400-level courses with an average class size of eight students.

Over the period spring 2004 to winter term 2011 inclusive, 76 students form UW Anthropology took courses in Anthropology at Wilfrid Laurier University (WLU).
The Department regularly provides international experiences for students through study abroad short-term courses, archaeological field schools, and primate field research experiences. Since 1998, the Department has regularly offered a course to visit and study archaeological sites and museums in the Mediterranean. The Department also facilitates student and faculty research in Greece and the Aegean region through its membership in two foreign schools in Greece.

In fall 2011, the Department inaugurated a series of professionalization workshops for students to address explicitly issues and skills that too often are left to student to acquire informally. The program was well received and will be expanded in 2013/14 and offered in both the fall and winter terms.

Service teaching is an important aspect of Anthropology’s goals to instill an anthropological awareness to students from disciplines across campus. Approximately 1,200 students from departments other than Anthropology annually take Anthropology courses. Between 2007/08 and 2010/11 inclusive, only 12% of the student course registrations in Anthropology were from Anthropology majors. Only German with 6% and Philosophy with 4% have lower percentages.

Anthropology has both an independent departmental co-op option for Honours students, as well as the Arts and Business co-op option. Relatively few students in Anthropology participate in the co-op program. For the period 2004 to 2011 inclusive, the headcount percentage Anthropology majors enrolled in co-op ranged from 9% to 14%. Prior to 2009, the percentage was stable at 9% to 10%. In 2009/10, and 2010/11, the percentage jumped to approximately 14%. In spring 2012, unofficial departmental records indicate that there were six students enrolled in Anthropology co-op and one in Anthropology/Arts and Business co-op. There are a number of reasons for the generally low number of Anthropology students in the co-op program programs: the lack of spring term course offerings; the need for faculty members to be at their field sites in the Spring/Summer; and the lack of positions that are directly related to Anthropology.

Students are pleased with their experiences in the Department of Anthropology. Students appreciate the three-field approach (cultural, archaeological, and biological) to Anthropology which is the hallmark of the Department. “Being able to draw on different fields is useful for understanding and looking at topics within the field you are most interested in.” They recognize the value of the interactions that are possible in a small department and feel that they have a good relationship with the faculty members. “The strength of the Waterloo Anthropology Department is the passion of the instructors. The professors are dedicated to the students and are always available for help.” “I like that the Department is fairly small. It makes it easier to get to know fellow students and professors and gives it a ‘community feel’.”

The students expressed some concerns, in particular about the lack of course selection, and availability of resources. Several note that there is a need for more faculty members in order to offer a greater array of courses. “More professors need to be hired, and therefore more courses. Anthropology at UW is definitely in need of more courses.” The students do recognize that part of the problem has been the turnover in faculty members, and the lack of permanent faculty members during the transition. “This past year or so, the changes in professors, and in the courses offered have been difficult.”
The survey responses likewise suggest a generally quite positive view of the Department by the students, but with some decrease in ratings between 2004 and 2012. The written comments suggest that the students perceive this to be a result of the loss of faculty members and the high turnover. However, the Department views this as a matter of some concern, and one which it intends to address in the near future. The lowest ratings, and the area in which there has been the greatest change, is in the question on the variety of courses offered by the Department. On a scale of one to nine, only about 7.5% of students said the variety was excellent, and approximately 60% of students rated the Department below five in this area. Fortunately, this is an issue that the Department has begun to address, with an array of new courses being offered next year, and the promise of still more as new faculty members settle in and begin to develop in their areas of expertise. However, the small number of faculty members and the need to ensure that all required courses and prerequisites are taught every year mean that many of the new courses can be taught only every second or third year.

Having once attracted students, the Department of Anthropology does a good job of retaining them. Over the period of this review, only two students who entered as majors in year two withdrew from the program in year three.

Of the cohorts of regular Anthropology students from 2002/03 to 2005/06 inclusive, 65% graduated with an Anthropology degree while 92% graduated from UW with a degree. Of the seven co-op students in the same cohorts, 71% graduated with an Anthropology degree while 80% graduated from UW.

A total of 107 students graduated with an Anthropology degree over the period 2005 to 2011 inclusive. Of the 107 students only five were co-op students. The quality of students graduating with an Anthropology degree appears to be improving, as measured by the percentage of graduates on the Dean’s Honours List. Dean’s Honours List students have to obtain a final course average of 83% or higher. In 2005, 16.7% (4/24) of the students graduated on the Dean’s Honours List. This fell to a low of 7.1% (1/14) in 2009, but in 2011, 38.9% (7/18) were eligible for this honour.

A sizable proportion of Anthropology graduates choose to go on the post-graduate studies in such subject areas as Anthropology, Library Sciences, Museum Studies, Communications, Landscape Architecture, Development Studies, Journalism and Geography to name a few. Other careers that attract Anthropology majors include teaching, government, and museum work.

**Faculty**

As of July 1, 2012, the Department of Anthropology consisted of six members; one professor; one associate professor; three tenure-track assistant professors; and one definite-term lecturer. In addition there are seven adjunct faculty members who contribute to the intellectual environment of the Department. The Department has gone through a difficult transition since 2009 because of retirements but should be in for a relatively stable time going forward since no retirements expected in the near future.

The normal teaching load in the Department has been five courses. This is higher than other Social Science Departments and is also higher than several Humanities’/Languages’ Departments.
The faculty members of Anthropology have maintained teaching evaluation scores that are at or above the average in the Faculty of Arts. Between September 2004 and December 2011 inclusive, the average across all 7,854 courses in the Faculty of Arts was 4.19 (median 4.25) out of five; while the average of all 118 Anthropology course offerings in that same period was 4.27 (median 4.23). In the large introductory courses of 100 or more students, the Anthropology Department instructors’ course evaluations averages (mean/median 4.04/4.07) exceed the Faculty averages (3.97/4.04).

There was concern in the 100-level courses with enrollment between 30 and 99, where the Anthropology median and average were both 3.89, considerably below the Faculty of Arts median and average in this category of 4.25 and 4.21 respectively. It turns out that of the six courses in the category, four were taught by two definite-term spousal hires and two by different sessional instructors. These particular sessionals were not rehired after they taught these courses, at least in part due to their poor course evaluations, and the two spousal hires left the University.

Two faculty members have been present for the full period of the review. One faculty member arrived in 2010, two arrived in 2011, and another in 2012. This group while at UW has published, over the time of the review: one book; 12 book chapters; 12 refereed journal articles; one refereed conference proceedings; three technical reports; nine other publications; and 66 conference presentations.

In addition faculty members have been active as editors, co-editors, or on the editorial board of such journals as *Anthropologica, Semiotic Inquiry, Quaternary International* (thematic issue). Furthermore, faculty members have acted as reviewers for 25 different journals and University Presses; SSHRC; NSF; and the Israel Science Foundation.

**Recommendations for improvement and program responses**

The review team saw a strong unit with excellent potential that nonetheless suffers from trying to do too much, spreading itself too thin, and subsequently risking the loss of this potential. Due to a history of changing faculty circumstances, the review team found that there is no comprehensive logic or consistency to the current curriculum and suggests a major overhaul. Thus a series of changes are recommended to the Anthropology program that amount to a comprehensive restructuring of the teaching and learning curriculum and “narrative clarity”. Plans to begin with a long term strategic planning exercise to develop a forward thinking academic plan are commended. As part of that exercise the review team made 15 recommendations:

**Curriculum**

**Recommendation 1:** That course offerings at different year levels be streamlined to reflect the Public Issues Anthropology focus as outlined in the proposal brief of the University of Waterloo Masters in Public Issues in Anthropology (October 2012). The review team feels that this will create a more coherent package of courses that moves from the first to the fourth year in a consistent, comprehensive and progressive fashion. Bringing the Public Issues theme into the undergraduate curriculum will allow coverage of many of the important foundational themes and topics of anthropology from a fresh,
coherent, and distinctive perspective built on the teaching and research strengths of the faculty. Finally, it will help highlight Anthropology’s relevance for today’s society.

In more practical terms, the suite of new courses will have to develop with an eye to faculty workload and a projected two to three year rotation of course offerings. Further it should be “rolled out” over a three to four-year period to accommodate the needs of current majors and to allow faculty sufficient time to design and develop the new curriculum for the Department. The combination of circumstances around significant changes in the faculty complement provides an excellent opportunity to revision the curriculum in line with the focus and direction of the Masters program.

**Recommendation 2:** That ANTH 101 and ANTH 102 be merged at the first-year level into one introductory level course that would provide a broad based introduction to anthropology and act as a springboard into the 200 level “Principles of…” offerings. The second year curriculum would then be composed of foundation courses in each of the three areas of program specialization where students will have the opportunity to experience the breadth and depth of each field and hone in on their particular interests. The thematic focus of third and fourth year level courses would build on the second year offerings, with particular attention to the defining theme of Public Issues Anthropology. This will be accomplished through the development of a suite of upper level courses that integrate thematic and real world concerns in each of the three core areas.

**Recommendation 3:** The review concurs with the students’ suggestion to change the title and description of “Design of Anthropological Inquiry” (ANTH 300) to reflect its function as a methodologies course and to make it a required course for majors in Anthropology.

**Recommendation 4:** The review team recommends looking further into the possibility of cross-listing courses with other programs such as Geography so that students (particularly in the biological and archaeology streams) have greater access to training in, for example, GIS, and be able to count these courses as Anthropology credits towards their degrees.

**Recommendation 5:** The review team also recommends that a statement of learning objectives be mandatory for each course. This is especially important given the three fields focus of the Department. Each course should include a short description of what students can expect to learn and how this will contribute to their overall educational experience in Anthropology.

**Program response to reviewer recommendations 1-5**

The Department accepts the reviewers’ recommendation that the timing is ideal for a significant revision of the undergraduate curriculum due to recent and substantial changes in the faculty complement. The changes should be implemented over three to four years in order to allow faculty, as well as current majors, time to adjust to the new curriculum that will modernize the curriculum of the Anthropology Department, integrate it more fully with the aims and mission of the University of Waterloo, and create a sustainable array of courses in both the undergraduate and graduate programs of the Department.

Not all of the specific details of this comprehensive revision of the curriculum have been articulated, but the following general points are relevant to the planned changes:
a. The Department reaffirms its commitment to an integrated three-field approach to anthropology, incorporating cultural anthropology, archaeological anthropology, and biological anthropology. This broad approach incorporates a diachronic perspective on human society and integrates the cultural and biological aspects of humanity, thus offering students a powerful framework for understanding our world.

b. The Department intends to incorporate the themes and perspectives from its MA in Public Issues Anthropology into the undergraduate program where feasible and appropriate.

c. The revised curriculum will assume a four-course teaching load for full-time faculty members, beginning with the fall 2013 term. While five courses were manageable when the Department had only an undergraduate program, the additional time needed to supervise graduate students, as well as the desire to raise the research profile of the Department, necessitates this change.

d. The Department seeks to enhance the experiential learning opportunities for students.

The specific changes to the curriculum that are envisioned are the following:

e. The Department unanimously accepts the reviewers’ recommendation to merge ANTH 101 and ANTH 102 into a single introductory level course that would provide an introduction to all four fields of North American Anthropology.

f. The second year offerings will be reorganized, with three “Principles of” core required courses in each of the three areas of anthropology covered by the Department (cultural, biological, and archaeological anthropology).

The merging of ANTH 101 and 102 and the streamlining of the 200 level courses will also allow the current system of prerequisites to be redesigned so that students proceed through the course offerings in the three fields in a rational way.

g. Additional second year courses may be offered, particularly in areas that appeal to a broader audience of students. These courses would count toward the major credits, but would not substitute for the three core second year courses.

h. Third year courses will focus on an array of more specialized topics, illustrating various aspects of the three fields, and offering students area studies or more focused topical studies in anthropology.

i. Fourth year courses will consist of smaller seminar-style courses intended to introduce students to more professional approaches to anthropological topics and take advantage of the research specialties of the faculty.

j. The number of courses required for an Anthropology major will be reduced from the current 20 to 18 or 19 courses.

k. The current structure of the Anthropology minor, 3-year and 4-year general major and 4-year honours major requires the same core of 5 courses, with little differentiation other than a
requirement to take more courses for the four year degrees and to maintain a higher average for the
honours degree. Requirements will be revised to further differentiate the honours and non-honours
degrees, and determine eligibility for enrollment in the senior honours thesis program.

I. Each of the currently offered courses will be critically assessed. Some will remain, with new titles
and updated course descriptions in some cases. Others will be cancelled in order to make room for
newer courses that will provide students with a more up-to-date and appropriate education in
anthropology.

**Resources needed**
Funding for a departmental retreat, to facilitate extended discussion and planning not possible in the
shorter work-day meetings. This retreat was held in April 2013, using funding from the Dean of Arts’
office.

A revised curriculum, fully incorporating a three-field approach, requires that the Department finally be
fully staffed, with at least two faculty members in both Biological Anthropology and Archaeology, and a
minimum of three to four faculty in Cultural Anthropology. This will require filling a current position
vacancy — see further discussion below.

**Schedule for implementation**
In order to accommodate the needs of current students, this will be a long-term process, gradually
phasing in the changes beginning in fall 2014. The Department is currently preparing the initial changes
for submission to UGAG.

**Faculty Complement**
The review team noted that one of the key recommendations of the 2004 External Review of the
Department of Anthropology was to hire an Archaeological Anthropologist which, to date, has not
transpired. With, at best, one tenured faculty member (currently on reduced course load as Associate
Dean of Arts and Computing) and two adjunct/sessional faculty members, the current Archeological
Anthropology is insufficient, especially given the Public Issues theme and the growing cultural resources
management industry in Ontario and the rest of Canada.

**Recommendation 6:** An Archaeologist should be added to the Anthropology complement of full-time
faculty. In order to maintain the integrity of a comprehensive Archaeology stream in the program, the
review team strongly recommends that the Archaeology position be filled as soon as possible.

Social-Cultural Anthropology represents the core of most Anthropology departments and programs.
The indefinite secondment of a tenured Social-Cultural member of the Department of Anthropology to
the Department of Political Science poses a serious problem. This represents another major loss of
academic expertise and of teaching and service resources to the Department and puts additional strain
on an already over-stretched faculty.

**Recommendation 7:** The review team *strongly* supports an additional hire in the area of Socio-Cultural
Anthropology.
Recommendation 8: The review team supports the renewal or replacement, ideally with a permanent position of the Definite Term instructor position which expires in 2014.

Program response to reviewer recommendations 6-8
The Department fully accepts the reviewers’ three recommendations dealing with faculty complement: (1) “In order to maintain the integrity of a comprehensive Archaeology stream in the program, the Department strongly recommends that the Archaeology position be filled as soon as possible.”; (2) The current vacancy in the area of Socio-Cultural Anthropology should be filled and (3) “the Definite Term instructor position that expires in 2014 must be renewed or replaced, ideally with a permanent position.”

Archaeological Anthropologist: With only one tenured or tenure-track Archaeological Anthropologist since 1996, the Department has been able to maintain archaeology as one of the three anthropological sub-disciplines by the extensive and ongoing use of sessional lecturers.

The Department has now been given permission to seek a new faculty member specializing in the archaeology of Ontario. The hiring of an Archaeological Anthropologist will offer opportunities to contribute to the direct needs of the Anthropology program (undergraduate and graduate) and to some of the broader needs and priorities of the Faculty of Arts and the University of Waterloo as a whole. These opportunities include experiential education for students, taking advantage of digital archaeology/heritage management with the hiring of a suitable individual who could contribute to other Arts programs with significant digital components, such as the GBDA and MDEI, and attracting positive public and media attention to the Faculty of Arts and university by allowing visits to excavations. This aspect of the new archaeologist’s research will also support the Master of Arts in Public Issues Anthropology program.

Return or replacement of seconded cultural anthropologist: The cultural anthropology sub-discipline is currently understaffed due to a secondment (two instead of three tenure-stream faculty) and demographically unbalanced (the two current faculty members are both untenured). The plan of the former Dean of Arts was that the secondment would be reviewed after two years (i.e., in the summer of 2013). This review should take place, with the purpose of addressing the vacancy in the Cultural Anthropology area as soon as possible.

Renew or replace the Definite Term instructor position that expires in 2014: For the past ten years the Department has been able to offer its programs only with the assistance of at least one full-time definite term appointment. The current appointment ends in August, 2014. Loss of that position would jeopardize the Department’s ability to change its course load to a level comparable to that of the rest of the Faculty of Arts.

The Department has now been given permission to hire an additional Cultural Anthropologist specializing in the anthropology of religion, as a joint appointment with Religious Studies.
**Resources needed**

Growth and revitalization of both the undergraduate and graduate programs require that the Department receive approval for new faculty positions in Cultural Anthropology and Archaeology in order to provide a balanced three-field program in Anthropology and to expand experiential learning opportunities in the field of Archaeology.

The Department has recently received permission to advertise for two new positions, an archaeologist and a cultural anthropologist specializing in religion. The latter position is a joint hire with the Religious Studies program, and they require that the individual specialize in the study of Islam in Asia, outside of the Middle East. The chosen candidate will teach one course Religious studies each year. With the Department’s increasing focus on east Asia through the research specializations of Professors Liu and Hoeppe, this focus is appropriate for the Department and will reinforce an area of departmental expertise. The archaeologist must have a research program in southern Ontario or one that can be transferred to this area. This will enable the Department to expand locally available experiential learning opportunities in Cultural Resource Management and archaeology to many more students than it can currently accommodate.

**Schedule for implementation**

Clarification of the Cultural Anthropology position is expected within the current calendar year.

The advertisements for positions in Archaeology and Anthropology of Religion have now been posted, and the Department intends that both positions will be filled beginning 1 July 2014.

**Reduction in course load**

Anthropology currently has one of the highest teaching loads in the Faculty of Arts, with Department faculty members teaching five courses per year. This leaves precious little time for the pursuit of a successful research program and is quite frankly unsustainable. It carries a significant risk to the research productivity and grantsmanship of the unit, especially for those junior faculty members approaching tenure. Remember that with such a small Department everyone is already over-burdened with service responsibilities. The review team feels this will lead to faculty burn out and diminish the quality of the educational experience for the students. Reducing the work load is an urgent priority.

**Recommendation 9:** The review team recommends that the course load be immediately reduced from five to four.

**Recommendation 10:** The review team recommends that the tradition of faculty members offering independent reading courses to student be rethought and probably tightly regulated.

A redesigned curriculum should do away with the need for both of the above burdens.
**Program response to reviewer recommendations 9, 10**

The Department unanimously accepts the reviewer’s recommendation to reduce the course load from five to four courses immediately, considering this a necessary step to sustain the faculty’s research productivity and their capacity to obtain funding, avoid burnout, and maintain the quality of our students’ educational experience. Reduction of the teaching load was considered during curriculum redesign process in light of the core and elective courses required to be taught by a small number of Anthropology faculty. Therefore beginning in Fall 2013 the Department has moved to a four course teaching load for faculty. In addition, the Department is eliminating some of the reading courses in the revised curriculum, and faculty are encouraged to direct students to appropriate regular courses in most cases, rather than taking on reading courses for undergraduate students.

**Resources needed**

Additional faculty complement (see above).

**Schedule for implementation**

The Department has reduced the teaching loads to four courses for the junior tenure-track faculty for Fall 2013. At the request of the Dean, the chair’s load was reduced to three courses in Fall 2012.

**Co-op program**

It is the review team’s understanding that the Faculty of Arts participates in co-operative education in two ways. Students can access co-op through the departmental program. Currently six departments in the Faculty have these, including Anthropology, which has currently only one participating student. Second, students can access co-op via the Arts and Business program with a Major in Anthropology. The first option is clearly less successful due to difficulties with job placements, the differences in the work term vs. academic cycle, and structural limitations of the program. Anthropology is simply not a good fit with the highly structured Co-op program.

**Recommendation 11:** The review team recommends that the Anthropology Department abandon the attempt to run on a three-term cycle and instead offer courses in fall and winter, reserving summer for faculty research activities and experiential learning opportunities for students.

**Recommendation 12:** The review team recommends that Anthropology discontinue the departmental co-op program in favour of a combination of the Arts and Business co-op option plus a greater emphasis on the kind of innovative international and experiential opportunities that are more appropriate and more relevant for Anthropology students. These include field schools in all three core areas, volunteer programs and internships with public and private sector organizations, as well as, for example, NSERC Undergraduate Summer Research Assistant positions. In this way the Department could embrace experiential learning opportunities that complement but do not compete with the co-op program.

**Program response to reviewer recommendations 11, 12**

The Department agrees with the reviewers’ assessment that the Anthropology Co-op program be discontinued. The Co-op program is currently not a good fit with the curriculum, structure (course sequencing, scheduling), and time constraints of the Anthropology Department, and it has not attracted
very many students. The Co-op program requires that students work for some fall and winter terms. Due to the small size of the department, the required courses in Anthropology are taught primarily during these terms, so it is difficult for students to meet their degree requirements. Furthermore, the job placements available through the Co-op program are often not related to a career in Anthropology. Our students have richer opportunities through experiences such as field schools, volunteer positions, and internships, both abroad and locally. The Arts and Business Co-op program is more flexible and can serve the students who are interested in both Co-op and a major in Anthropology. Thus, the Department will continue to support students’ participation in the Arts and Business Co-op program.

**Resources needed** - None.

**Schedule for Implementation**
No additional students will be accepted into the Anthropology (departmental) co-op program, which will be inactivated when the current students complete their degrees.

**Distance (online) education**
At present, only one adjunct faculty member teaches courses in Distance (Online) Education (DE). Although the review team recognizes the importance placed on DE and other technologically-enhanced forms of education at the University of Waterloo, it argues that due to the heavy workload already being borne by faculty members and the extensive commitment of resources required to both design, update, teach and monitor DE courses, that Departmental energies would be best spent developing their strategic approach to initiatives in experiential learning. While the review team is not suggesting that it be eliminated outright, it should only be continued if new resources are dedicated to making the new first year Introduction to Anthropology available in DE format.

**Recommendation 13:** The review team recommends that Distance Education be moved down the list of curriculum development and delivery priorities of the Department.

**Program response to reviewer recommendation 13**
The Department agrees with this recommendation. DE should be continued only if new resources are provided. The current DE courses (ANTH 101 / 102) are out-of-date; however, the Department lacks the resources to revise these courses. If new resources are made available for DE, a single new ANTH 100-level introduction to anthropology course will be created (Recommendation 2).

**Resources needed**
If future online courses are to be offered, sessional funding is needed to release faculty to prepare and administer the courses.

**Schedule for implementation**
The current ANTH 101 and ANTH 102 online courses have been inactivated.

**Space**
Space is an issue. There is no dedicated meeting space for faculty members and some of the research spaces are very cramped.
**Recommendation 14:** The review team recommends that the following space be made available:
- a dedicated Anthropology seminar room
- a dedicated Anthropology lounge or meeting space for collaborative engagement
- an expansion of the tiny space dedicated to the undergraduate students
- the allocation of at least one and ideally two additional “bays” of two windowed offices and two interior spaces like those already in possession of the Department to accommodate and provide natural light working conditions for existing adjunct and sessional staff, and for the new hires recommended above

**Program response to reviewer recommendation 14**

The reviewers strongly recommended the creation of both an Anthropology seminar room and a lounge or meeting space, as well as expansion of undergraduate student (Anth Society) space. They also recommend the provision of “at least one” additional bay of office space. The Department unanimously agrees that such space would be an important asset to the department, and especially the provision of some common meeting space for faculty. However, the Department considers the most pressing space issue is the provision of adequate office and laboratory space for the new faculty hires.

**Resources needed**

Funding is required to reconfigure the structure of the current student lounge and adjacent small office. The Department needs to retain its current space, and potentially acquire additional laboratory space for the new archaeologist when hired.

**Schedule for Implementation**

Work on the student lounge could potentially be done in spring 2014 if funding were available. Other changes will need to be addressed as additional faculty are hired.

**Staff**

**Recommendation 15:** The review team recommends that with the upcoming retirement of the administrative assistant that she be replaced and that the replacement should overlap with the present administrative assistant for a period of no less than one month to ensure full transmission of the knowledge needed to keep things running smoothly.

**Program response to reviewer recommendation 15**

The current Department Administrative Assistant is expected to retire December 31, 2013 and it is imperative that she be replaced, preferably by November 2013, in order to achieve the continued smooth running of the Department into 2014.

**Resources needed**

Permission is required to begin evaluating the duties and assigned rating of the administrative assistant, and to advertise the position.

**Schedule for implementation**

This process was begin in late summer 2013.
Recognition and Commendation
The Pierre Elliott Trudeau Foundation recently announced four new fellows including Jennifer Clapp, professor of environment and resource studies. Professor Clapp conducts research that looks at the effect of global trade, financial markets and investment on world hunger and the environment. She is Canada research chair in global food security and sustainability. Trudeau fellows receive $225,000 over three years. The fellowships are lifetime appointments. “Guaranteeing food security for the world’s citizens is a critical challenge as we move into the future with a growing population and uncertain climate. This challenge is of dual importance to Canadians who not only rely on a sustainable food system for their health, but who are important players in global food production,” said André Roy, dean of the Faculty of Environment. “We are thrilled that Professor Clapp’s transformative research on food security, governance and environmental sustainability is being supported by the Trudeau Foundation.” A pioneer in the academic field of global political economy and environment, Professor Clapp takes an interdisciplinary approach to her research, and aims to raise international awareness about the ways in which global economic trends are interconnected with food and environmental outcomes. “My research combines insights from political science, international relations, economics, environmental studies and food studies,” she said. “A significant aspect of my work is providing policy recommendations that will help to improve global governance arrangements to better ensure both environmental sustainability and improved access to nutritious food, especially in the world’s poorest countries. The Trudeau fellowship will help me enormously in advancing my work.” [17 October 2013 Daily Bulletin]

A community wellbeing initiative has received a 2013 Impact Award at this year’s Community Indicators Consortium (CIC) Impact Summit in Chicago. The City of Guelph and the Canadian Index of Wellbeing (CIW), housed at the University of Waterloo, were selected by the CIC leadership to receive the award, which celebrates projects that demonstrate the power of indicators to drive positive community change. Bryan Smale, director of the CIW, based in the Faculty of Applied Health Sciences, said, “Our work with the City of Guelph demonstrates the impact of the Canadian Index of Wellbeing in contributing to meaningful change in individual and community wellbeing, so we are extremely pleased to be recognized with the CIC Impact Award.” The 2013 Impact Award was formally presented to Guelph City Council at its meeting on 28 October. [18 October 2013 Daily Bulletin]
FOR INFORMATION

APPOINTMENTS

Adjunct Appointments

Undergraduate Instruction

BRAYHAM, Angela, Lecturer, Department of Recreation and Leisure Studies, September 1, 2013 to December 31, 2013.

BURNS, Robert, Lecturer, Department of Kinesiology, July 1, 2013 to June 30, 2014.

Postdoctoral Fellow to Research Appointment

KENNEDY, Ashleigh, Department of Kinesiology, July 1, 2013 to August 31, 2016.

Graduate Student to Part-time Lecturer Appointments

GRiffin, Tom, Department of Recreation and Leisure Studies, January 1, 2014 to April 30, 2014.

MAINLAND, Mike, Department of Recreation and Leisure Studies, January 1, 2014 to April 30, 2014.

TORABIAN, Pooneh, Department of Recreation and Leisure Studies, January 1, 2014 to April 30, 2014.

WILSON, Austin, Department of Recreation and Leisure Studies, September 1, 2013 to December 31, 2013.

Susan J. Elliott
Dean, Applied Health Sciences
FOR INFORMATION

A. APPOINTMENTS

Adjunct Appointments

KOUMARIANOS, Myrto, Lecturer, Department of Drama and Speech Communication, September 1, 2013 to December 31, 2013.

PEROS, Rosemary, Lecturer, Department of Economics, January 1, 2014 to April 30, 2014.

STETTNER, Shannon, Lecturer, Women’s Studies, January 1, 2014 to April 30, 2014.

Adjunct Appointment – Date Change

RUMPF, Britta, Lecturer, Department of Germanic and Slavic, from September 1, 2013 to April 30, 2014 to October 7, 2013 to April 30, 2014.

Adjunct Reappointments

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

BRIGGS, Catherine, Assistant Professor, Department of History, January 1, 2014 to April 30, 2014.

CAMPBELL, Patricia, Lecturer, Department of Religious Studies, January 1, 2014 to April 30, 2014.

CARVER, Matthew, Lecturer, Department of Fine Arts, January 1, 2014 to April 30, 2014.

CYR, Dylan, Lecturer, Department of History, January 1, 2014 to April 30, 2014.

DONOVAN, Anne-Marie, Lecturer, Department of Drama and Speech Communication, January 1, 2014 to April 30, 2014.

EVERINGHAM, Scott, Lecturer, Department of Fine Arts, January 1, 2014 to April 30, 2014.

FATIMA, Nafeez, Lecturer, Department of Economics, January 1, 2014 to April 30, 2014.

GEORGE, Ryan, Lecturer, Department of Economics, January 1, 2014 to April 30, 2014.

HILL, Heather, Lecturer, Department of Drama and Speech Communication, January 1, 2014 to April 30, 2014.

KHOLODI, Amir-Shahram, Lecturer, Department of History, January 1, 2014 to April 30, 2014.

KOTCHEKA, Kalpesh, Lecturer, Department of Economics, January 1, 2014 to April 30, 2014.
KUMASE, Wokia, Lecturer, Department of Economics, January 1, 2014 to April 30, 2014.

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

LIAQAT, Zara, Lecturer, Department of Economics, January 1, 2014 to April 30, 2014.

MCCAULEY, Eva, Lecturer, Department of Fine Arts, January 1, 2014 to April 30, 2014.

MCGOWAN, Katharine, Lecturer, Department of Fine Arts, January 1, 2014 to April 30, 2014.

MORTON, Janet, Lecturer, Department of Fine Arts, January 1, 2014 to April 30, 2014.

ROTH, Wendy, Lecturer, Department of Economics, January 1, 2014 to April 30, 2014.

SCHWEITZER, David, Assistant Professor, Department of History, January 1, 2014 to April 30, 2014.

SIEBEL-ACHENBACH, Sebastian, Assistant Professor, Department of History, January 1, 2014 to April 30, 2014.

SIMARD-SMITH, Paul, Lecturer, Department of Philosophy, September 1, 2013 to December 31, 2013.

SLETHAUG, Gordon, Lecturer, Department of Drama and Speech Communications, January 1, 2014 to April 30, 2014.

Miscellaneous (research, consultations, etc.)

BURT, Sandra, Associate Professor, Department of Political Science, January 1, 2014 to December 31, 2016.

EKBLAD, Andrew, Assistant Professor, Department of Psychology, September 1, 2013 to August 31, 2014.

LE CORRE, Mathieu, Assistant Professor, Department of Psychology, July 1, 2013 to June 30, 2016.

Staff to Faculty Appointment

GLOVER, Adam, Lecturer, Department of Fine Arts, January 1, 2014 to April 30, 2014.

Graduate Student to Part-Time Lecturer Appointments

CHENIER, Allson, Department of Sociology and Legal Studies, January 1, 2014 to April 30, 2014.

EVEN, Coleen, Department of French Studies, October 1, 2013 to December 31, 2013.

GHAFFARIAN, Sara, Department of Germanic and Slavic Studies, September 1, 2013 to September 30, 2013.

SHAKESPEARE, David, Department of English Language and Literature, September 1, 2013 to December 31, 2013.
TIMOSHENKO, Lev, School of Accounting and Finance, September 1, 2013 to December 31, 2013.

Cross Appointment
CLAPP, Jennifer, Professor, Department of Environment and Resource Studies to the Department of Political Science, September 1, 2013 to August 31, 2018.

B. SABBATICAL LEAVES
For Approval by the Board of Governors
COOPER, Andrew, Professor, Department of Political Science, January 1, 2014 to June 30, 2014, 85% salary.

KLASSEN, Ken, Professor, School of Accounting & Finance, March 1, 2014 to February 28, 2015, full salary.

KROEKER, Greta, Associate Professor, Department of History, January 1, 2014 to June 30, 2014, 85% salary.

THAGARD, Paul, Professor, Department of Philosophy, July 1, 2014 to December 31, 2014, 85% salary.

Douglas M. Peers
Dean, Arts
A. APPOINTMENTS

Definite-term Appointment

SHELLEY, Cameron, Lecturer, Department of Systems Design Engineering, September 1, 2013 – August 31, 2016. PhD University of Waterloo 1999; MA University of Waterloo 1994; MMath University of Waterloo 1992; BSc McMaster University 1990. Dr. Shelley has been appointed lecturer in the Centre for Society, Technology and Values (CSTV). He brings a strong background in philosophy and science, an excellent fit to the teaching in CSTV, which explores the interaction between Society and Information Technology, Biotechnology, Cities and Design.

Visiting Appointments

CHOTVISUT, Yada, Scholar, Department of Chemical Engineering, September 12, 2013 – December 17, 2013.

ELTAHER, Mohamed, Scholar, Department of Mechanical & Mechatronics Engineering, January 1, 2014 – June 30, 2014.

JAKSUVEJ, Jiradee, Scholar, Department of Chemical Engineering, September 12, 2013 – December 17, 2013.

JIANG, Xinsheng, Scholar, Department of Mechanical & Mechatronics Engineering, December 1, 2013 – November 30, 2014.

KAYALI, Yusuf, Scholar, Department of Mechanical & Mechatronics Engineering, June 15, 2014 – September 15, 2014.

KHODABAKSHI, Farzad, Scholar, Department of Mechanical & Mechatronics Engineering, October 1, 2013 – March 31, 2014.

KIRDAR, Yalcin, Scholar, Department of Management Sciences, October 17, 2013 – January 17, 2014.


LIU, Guihua, Scholar, Department of Chemical Engineering, September 20, 2013 – March 31, 2014.

LUMMAETEE, Kanjana, Scholar, Department of Chemical Engineering, September 12, 2013 – December 17, 2013.
MATALLANAS, Eduardo, Scholar, Department of Systems Design Engineering, February 1, 2014 – Mary 31, 2014.

QIN, Jiang, Scholar, Department of Mechanical & Mechatronics Engineering, September 1, 2013 – February 28, 2015.

REN, Ju, Scholar, Department of Electrical & Computer Engineering, September 1, 2013 – August 31, 2015.

SAENGFAI, Tanachchaporn, Scholar, Department of Chemical Engineering, November 1, 2013 – April 30, 2014.

SHI, Jin, Scholar, Department of Chemical Engineering, September 1, 2013 – August 31, 2015.

TABYANG, Wisitsak, Scholar, Department of Civil & Environmental Engineering, September 1, 2013 – March 30, 2014.

VALENCIA MARQUEZ, Darinel, Scholar, Department of Chemical Engineering, January 1, 2014 – June 30, 2014.

ZENG, Zhi, Scholar, Department of Mechanical & Mechatronics Engineering, March 1, 2014 – February 18, 2015.

ZHANG, Guangjun, Scholar, Department of Mechanical & Mechatronics Engineering, September 24, 2013 – September 23, 2014.


ZHOU, Dong-Ying, Scholar, Department of Electrical & Computer Engineering, September 1, 2013 – August 31, 2014.

Adjunct Appointments

BARTOSIK, Michal, Lecturer, School of Architecture, September 1, 2013 – December 31, 2013.

MUSSON, Brian, Lecturer, School of Architecture, September 1, 2013 – December 31, 2013.

TAYLOR, Victoria, Assistant Professor, School of Architecture, September 1, 2013 – December 31, 2013.

VANDEN BOSCH, Nancy, Lecturer, Dean of Engineering Office, Conrad Business, Entrepreneurship and Technology Centre, September 1, 2013 – August 31, 2014.

YEKRANGIAN, Delnaz, Assistant Professor, School of Architecture, September 1, 2013 – December 31, 2013.
Graduate Supervision

BERRY, Daniel, Professor, Department of Systems Design Engineering, September 1, 2013 – December 31, 2013.

Graduate Supervision and Research

EL-HAG, Ayman, Associate Professor, Department of Electrical & Computer Engineering, October 1, 2013 – September 30, 2016.

KOZDRAS, Mark, Professor, Department of Mechanical & Mechatronics Engineering, November 1, 2013 – December 31, 2016.

SABRY, Ramin, Professor, Department of Electrical & Computer Engineering, October 1, 2013 – September 30, 2016.

Adjunct Reappointments

Instruction


JACKSON, Tim, Lecturer, Dean of Engineering Office, Conrad Business, Entrepreneurship and Technology Centre, September 1, 2013 – August 31, 2014.

SPREMULI, Matthew, Assistant Professor, School of Architecture, September 1, 2013 – December 31, 2013.

Graduate Supervision and Research

EL-FOULY, Tarek, Assistant Professor, Department of Electrical & Computer Engineering, April 1, 2014 – March 31, 2017.

PLUMTREE, Alan, Professor, Department of Mechanical & Mechatronics Engineering, September 1, 2013 – August 31, 2016.

Research

DERBENTSEVA, Natalia, Assistant Professor, Department of Management Sciences, September 1, 2013 – August 31, 2016.

Cross Appointment

DALZIEL, Margaret, Professor, Dean of Engineering Office, Conrad Business, Entrepreneurship and Technology Centre to Department of Management Sciences, September 1, 2013 – August 31, 2016.

Graduate Student to Part-time Lecturer Appointments

CHEN, Wei Ting (Scott), Department of Electrical & Computer Engineering, September 1, 2013 – December 31, 2013.

FINKLE, Andrew, Department of Chemical Engineering, September 1, 2013 – December 31, 2013.

SHAFFI HASSANABADI, Mahyar, Department of Civil & Environmental Engineering, September 1, 2013 – December 31, 2103.
B. ADMINISTRATIVE APPOINTMENTS

ROE, Peter, Director, Exchange Program, Engineering Undergraduate Office, October 1, 2013 – September 30, 2014.

THISTLE, John, Coordinator, MEng Program, Department of Electrical & Computer Engineering, September 1, 2013 – August 31, 2016.


ADMINISTRATIVE REAPPOINTMENTS
JAYARAM, Shesha, Director, High Voltage Lab, Department of Electrical & Computer Engineering, May 1, 2013 – April 30, 2016.

MANSOUR, Raafat, Director, Center for Integrated RF Engineering, Department of Electrical & Computer Engineering, May 1, 2013 – April 30, 2016.


C. RESIGNATION
HU, Anming, Definite-term Research Assistant Professor, Department of Mechanical & Mechatronics Engineering, effective November 4, 2013.

Pearl Sullivan
Dean, Engineering
A. APPOINTMENTS
   Adjunct Appointments
   Instruction
   HUEBNER, James, Lecturer, School of Planning, September 1, 2013 to December 31, 2013.

   SOUTH, George, Lecturer, School of Planning, September 1, 2013 to December 31, 2013.

   Graduate Supervision
   CALDWELL, Wayne, Professor, School of Planning, October 1, 2013 to September 30, 2016.

   GRUBER, Stephan, Associate Professor, Department of Geography and Environmental Management, August 1, 2013 to July 31, 2016.

   Cross Appointments
   ARMITAGE, Derek, Associate Professor, Department of Environment and Resource Studies to the School of Environment, Enterprise and Development, September 1, 2013 to August 30, 2016.

   GIBSON, Robert, Professor, Department of Environment and Resource Studies to the School of Planning, July 1 2013 to June 30 2016.

   [Signature]

   André Roy
   Dean, Environment
A. APPOINTMENTS

Visiting Appointment

Adjunct Appointment
Research
ANAND, Madhur, Professor, Dept. of Applied Mathematics, September 1, 2013 – August 31, 2016.

Adjunct Reappointments
Instruction
CHEN, Helen, Lecturer, David R. Cheriton School of Computer Science, September 1, 2013 – December 31, 2013.

Research


CHIU, Grace, Associate Professor, Dept. of Statistics and Actuarial Science, October 1, 2013 – September 30, 2016.

HE, Meng, Assistant Professor, David R. Cheriton School of Computer Science, September 1, 2013 – June 30, 2016.


RENAUD, Jean-Francois, Assistant Professor, Dept. of Statistics and Actuarial Science, September 1, 2013 – August 31, 2016.

SIMPSON, Bruce, Professor, David R. Cheriton School of Computer Science, June 1, 2013 – May 31, 2016.


B. ADMINISTRATIVE APPOINTMENT

ADMINISTRATIVE REAPPOINTMENTS
GUENIN, Bertrand, Associate Chair, Undergraduate Studies, Dept. of Combinatorics and Optimization, July 1, 2014 – June 30, 2015.


Ian P. Goulden
Dean, Mathematics
University of Waterloo
REPORT OF THE DEAN OF SCIENCE TO SENATE
November 18, 2013

FOR INFORMATION

A. APPOINTMENTS
    Probationary-term Reappointments
    CHANG, Feng, Assistant Professor, School of Pharmacy, July 1, 2014 to June 30, 2017. [B.Sc.Ph., University of Toronto (1998); Doctor of Pharmacy, Ohio State University (2004).]

    GRINDROD, Kelly, Assistant Professor, School of Pharmacy, July 1, 2014 to June 30, 2017. [B.Sc.Ph., University of Alberta (2003); Doctor of Pharmacy, University of British Columbia (2007).]

    Definite-term Appointment
    RICHARD, Cynthia, Clinical Lecturer, School of Pharmacy, September 9, 2013 to September 8, 2018. [B.Sc.Ph., Dalhousie University (2001); Ph.D., Dalhousie University (2006).] Dr. Richard completed postdoctoral training in health and nutrition in 2009 at the University of Guelph. She will assume the leadership for the development of the courses and laboratories that comprise the professional practice component of the undergraduate pharmacy curriculum.

    Definite-term Appointment – Date Change
    ARAVENA, Ramon, Research Professor, Department of Earth and Environmental Sciences, change from July 1, 2013 to June 30, 2014 to July 1, 2013 to June 30, 2016.

    Visiting Appointment
    LIN, Shih-Yuin, Associate Professor, Department of Physics and Astronomy, August 1, 2014 to July 31, 2015.

    Adjunct Appointments
    Graduate Supervision
    MELNIK, Roderick, Professor, Department of Physics and Astronomy, September 1, 2013 to August 31, 2016.

    TAYLOR, William, Professor, Department of Earth and Environmental Sciences, October 1, 2013 to September 30, 2016.

    Graduate Supervision and Research
    LEHNER, Luis R., Assistant Professor, Department of Physics and Astronomy, September 1, 2013 to August 31, 2018.

    Adjunct Reappointments
    Graduate Supervision
    BULLEN, Thomas D., Professor, Department of Earth and Environmental Sciences, October 1, 2012 to September 30, 2015.

    JOSEPHY, P. David, Professor, Department of Chemistry, September 1, 2013 to August 31, 2016.
Graduate Supervision and Research

WILSON, Christopher C., Associate Professor, Department of Biology, December 1, 2013 to November 30, 2016.

ZHAO, Yingming, Assistant Professor, Department of Biology, December 1, 2013 to November 30, 2016.

Other

BRUBACHER, Lewis J., Associate Professor, Department of Chemistry, September 1, 2013 to August 31, 2016.

Cross Reappointments

JONES, Lyndon, Professor, School of Optometry and Vision Science to the Department of Chemistry, September 1, 2013 to August 31, 2016.

LU, Qing-Bin, Professor, Department of Physics and Astronomy to the Department of Chemistry, September 1, 2013 to August 31, 2016.

MARTIN, James, Associate Professor, Department of Physics and Astronomy to the Department of Chemistry, September 1, 2013 to August 31, 2016.

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

WARNER, Barry G., Professor, Department of Earth and Environmental Sciences to the Department of Biology, May 1, 2013 to April 30, 2016.

Postdoctoral Fellow to Part-time Lecturer Reappointment

BOHLOULI-ZANJANI, Parisa, Department of Physics and Astronomy, September 1, 2013 to December 31, 2013.

B. ADMINISTRATIVE APPOINTMENT

IDZIAK, Stefan, Associate Dean, Special Projects, Faculty of Science, September 1, 2013 to August 31, 2016.

C. SABBATICAL LEAVE – DATE CHANGE

For Approval by the Board of Governors

BIZHEVA, Kostadinka, Associate Professor, Department of Physics and Astronomy, change from September 1, 2013 to February 28, 2014 to January 1, 2014 to June 30, 2014, 100% salary.

T.B. McMahon
Dean, Science
FOR INFORMATION

Council of Ontario Universities
Report from the Academic Colleague
The academic colleagues have met twice so far this academic year: first a September 13 orientation, and then a full meeting on October 31. The October meeting was preceded by a banquet at which COU awarded the David C. Smith award to Dalton McGuinty. Mr. McGuinty’s acceptance speech focused on encouraging student entrepreneurship, but he did not mention existing programs like our own VeloCity or Conrad Centre.

The major issue facing COU is the provincial government’s proposed “differentiation” of universities. The original idea was to categorize universities into teaching-oriented universities and research-oriented universities, and to make undergraduate education less expensive at teaching-oriented universities. After most universities called foul on that approach, the Ministry of Training, Colleges and Universities (MTCU) now proposes to use the ministry’s levers to focus universities on “what they do best,” according to their own plans, instead of dividing universities into tranches. This approach is already unofficially in place: for example, there are twenty-five graduate programs MTCU has not yet approved, largely because the ministry does not believe that these programs are consistent with the university strengths.

The process has been chaotic, particularly since Glen Murray, the minister who originated the Strategic Mandate Agreement process (by which universities were to identify priorities), was replaced in November of 2012, and John Milloy (MPP for Kitchener Centre) was a caretaker minister until the new minister, Brad Duguid, was named in February of 2013.

MTCU currently proposes (http://www.tcu.gov.on.ca/pepg/publications/Differentiation_PolicyFramework.pdf) that universities supply new Strategic Mandate Agreements to the ministry. In part based on these SMAs and existing strategic plans, they will start to evaluate us on new metrics. If all universities are evaluated on the same metrics, this pushes against differentiation; perhaps, each university will have its own metrics. Performance on these metrics may influence our share of new ministry funding and also our success in keeping current funding: it will not only apply to new money. The ministry plans to have a final plan by mid-November. University documents like strategic plans are highly significant in this environment.

At lunch on October 31, in which both executive heads and academic colleagues participated (with our provost replacing the president), Allan Rock asked the representative from MTCU how much the current project is political versus substantive, particularly in context of the minority Liberal government at Queen’s Park. The answer was, “both.” The ministry would like to make substantial changes to the university sector, but the minister would also like to bolster the current minority government by making visible progress on reorganizing a major part of the broader public sector.

A couple of other COU projects merit mention:
* COU’s Ontario Universities Online project (which is headed by Waterloo’s Cathy Kelly) is the university sector’s response to MTCU’s desire to expand online learning opportunities. MTCU hasn’t been as forthcoming with their plans as would be helpful, but COU is bringing universities together where possible.
* COU has created a new website, Accessible Campus (http://www.accessiblecampus.ca/). It gives
resources for a host of topics having to do with accessibility: requirements, best practices, and more. A
specific focus of the website is on mental health, but the website in general is excellent.

Finally, the academic colleagues are changing how we interact with council as a whole. It has been
custom for colleagues to create discussion papers, which are presented at lunch meetings with executive
heads. However, these papers have taken a lot of effort to write and have been largely unread. In
December we will be discussing changing to producing newspaper editorial-size articles for wider
distribution than just in council.

Dan Brown
Academic Colleague
Council of Ontario Universities
The Senate Executive Committee met on 4 November 2013 and agreed to forward the following item to Senate for decision.

FOR DECISION

University Strategic Plan 2013
Senator Executive Committee advises Senate that, at its meeting of 18 November and in connection with item 6.a. (University Strategic Plan 2013) in the Regular Agenda, the following motion will be proposed:

RESOLVED that Senate endorse that version of the strategic plan approved by the Board of Governors of the university at its meeting of 28 August 2013.

Logan Atkinson
Secretary of the University
A DISTINGUISHED PAST — A DISTINCTIVE FUTURE
A DISTINGUISHED PAST—
A DISTINCTIVE FUTURE

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A distinctive FUTURE

The world beckons. For a fast-evolving globe, where the pace of emerging challenges often outstrips available answers, conventional approaches to higher education, innovation and discovery are no longer enough.

Answering that call requires a bold and unconventional approach — one that combines deep knowledge, extraordinary research, broad-based experience and academic excellence. It requires interdisciplinary approaches and a single-minded and forward-looking focus on advancing knowledge and meeting society’s needs.

Without hesitation, the University of Waterloo accepts this challenge.

Waterloo is the right institution at the right time. Waterloo’s Strategic Plan charts a distinctive course for an institution defined by our distinguished past. It builds on the traditions of excellence established by our founders, with a clear view of where energy and resources must be focused in order to achieve our full potential as a world leader in higher education. It will be anchored by an accountability framework that measures and monitors progress towards our ambitious but achievable goals.

Over the next five years, building on foundational strengths and propelled by the promises outlined in this strategic plan, we will answer the call of society and emerge as one of the world’s top innovation universities.

This plan is the collective vision of our campus community and partners, based on consultations and feedback from hundreds of our students, faculty, staff, alumni and stakeholders. This is our strategic plan, and we each have a vital role to play in its ultimate success.

FERIDUN HAMDULLAHPU
President and Vice-Chancellor, University of Waterloo
Over the next five years, this institution’s foundational strengths will serve as a springboard, propelling Waterloo towards a single goal:

**TO BE RECOGNIZED AS ONE OF THE TOP INNOVATION UNIVERSITIES IN THE WORLD.**

Waterloo will do this by focusing energy and allocating resources into areas that will set this institution apart, ensure the best experience for students and serve as a model for the future of higher education. **Experiential education for all in a uniquely entrepreneurial university environment**, where faculty and students engage in **transformational research**. Waterloo will build this dynamic future on a foundation of **excellent academic programming, global prominence, vibrant student experience, robust employer-staff relationship** and a **sound value system**.
A distinguished
PAST

The University of Waterloo was founded in the aspirational era following the Second World War, a time when the world was rapidly rebuilding and racing to create a new and better future. New industries and technologies were emerging, with space seen as the new frontier.

A UNIQUE APPROACH TO HIGHER EDUCATION
Sophisticated practical skills were urgently needed, and Waterloo’s unique approach to higher education was seen as the solution to this growing societal need. The mission was to educate graduates with impeccable academic knowledge and the ability to fast track into employment, a skill derived from work terms in their chosen field. Co-operative education started in 1957 in engineering, then spread to science and mathematics, and subsequently to all other Faculties.

A CULTURE OF INNOVATION AND CONNECTION
Springing from Waterloo’s unique history is a strong culture of innovation and a can-do attitude in its students, faculty and staff. A tradition of incorporating relevance and applicability into teaching and research programs is inspired by Waterloo’s longstanding commitment to meet the intellectual and practical challenges that arise from societal change. A strong track record of engagement with industry — evolving from co-op and continuing through its research programs — fosters an innovative and entrepreneurial culture.

AT THE HEART OF A TECHNOLOGY REVOLUTION
Recognizing the value of early computers as a teaching and research tool, Waterloo was an early adopter of the technology, and on the vanguard of the information age. Starting in the 1960s, information technology innovations flourished at the university, including WATFOR and WATFIV, early FORTRAN compilers that revolutionized efficient compilation and put Waterloo’s computer science program on the international map. From there, Waterloo developed globally recognized high-technology expertise, which fuelled significant economic spin-offs. The growth of many start-up companies helped earn the region around the university a reputation as the “Silicon Valley of the North.”

SERVING A FAST-CHANGING SOCIETY
A singularly powerful and long-standing principle of the University of Waterloo is to anticipate the needs of society and respond effectively as challenges arise. This principle was a key motivator behind both the founding of this institution and its early commitment to creative thought, applied knowledge and experiential learning. Waterloo looks to the future with energy, enthusiasm and commitment to its core strengths, while identifying key new areas of discovery, innovation and application that will further elevate its reputation as a research powerhouse offering superior quality education.
Charting a course for GROWTH

Responding to the challenges of rapidly changing social, environmental and economic conditions, the university has embarked on a comprehensive strategic planning process in order to identify new opportunities to serve society as effectively as possible, further advancing its reputation for excellence, innovation and relevance.

STAYING TRUE TO THE MISSION

Waterloo’s mission is charted in the University of Waterloo Act as “the pursuit of learning through scholarship, teaching and research within a spirit of free enquiry and expression.” Over the last several years, the university has been guided in this mission by the Sixth Decade Plan, formulated in 2006. At the midway juncture, a review of its goals and objectives was undertaken in the light of changing world conditions. The Mid-cycle Review involved a series of wide-ranging consultations with key stakeholder groups — students, faculty, staff, alumni, donors and selected community leaders.

The review highlighted priorities for the next five years that build on the university’s foundational pillars: academic excellence, research excellence and impact, co-operative education, graduate studies, internationalization and entrepreneurship.
MID-CYCLE REVIEW CONSULTATIONS INCLUDED:

40 MEETINGS
with over 60
groups of students,
faculty, staff, alumni and
community leaders

ONLINE SURVEY
2449 RESPONSES

1199 » undergraduate students
288  » graduate students
228  » faculty
346  » staff
88   » alumni
300  » undeclared role

75 stakeholder group representatives
Waterloo’s distinct ADVANTAGE

Profound change — occurring at breakneck speed — is a defining characteristic of this era.

Institutions that aspire to greatness must eagerly embrace change. In the future, successful universities will be defined by the ability to meet emerging challenges. In this regard, Waterloo will add to its record of success by mobilizing its strengths — research and scholarship and purposeful in-depth teaching and learning — in new ways and with a clear and accurate understanding of the world.

Relevance is defined in global terms, not regional or national. Impact is measured against higher standards not just of academic learning, but also of contribution to society’s well-being. This is where Waterloo excels and will continue to do so with unwavering commitment.

Over the next five years, this institution’s foundational strengths will serve as a springboard, propelling Waterloo towards a single goal: to be recognized as one of the top innovation universities in the world.
Over the next five years, inspired by our culture of innovation, WATERLOO WILL

» Transform education and economies with experiential learning for all

» Build its reputation as a uniquely entrepreneurial university

» Change lives and advance industries through high-impact, highly-relevant research
EXPERIENTIAL EDUCATION FOR ALL

GOAL

Be the world-leading university in co-op education and other forms of experiential and work-integrated learning

Whether enhanced by research opportunities or real-world experience, Waterloo is proof that higher education can’t — and shouldn’t — be constrained by classroom walls. As the pioneer and the world’s leading provider of post-secondary co-operative education, Waterloo has long recognized that learning is stronger when knowledge is tried and tested. Experience-based learning produces graduates that are uniquely employable — ready to not just fill jobs, but to lead.

OVER THE NEXT FIVE YEARS

Waterloo will take co-operative education to the next level, making experiential education an integral part of the way all students learn. Embracing new and emerging technologies, Waterloo’s unique brand of education will reshape lifelong learning for students on and beyond its campuses. Recognizing the value of broad experiences in a global economy, Waterloo will increase opportunities for international work-terms, exchanges and research opportunities.

BACKGROUND

Co-operative education programs at Waterloo have undoubtedly been one of the most powerful incentives that draw students to the university. In blending alternating intervals of academic learning on campus with periods of experiential learning as an employee, the student is given a full and relevant educational experience. The graduating co-op student thus has a comprehensive understanding of how an organization works and what it requires of an employee, which proves to be a valuable attribute in acquiring employment upon graduation.

WORLD-READY GRADUATES

As a truly global institution, Waterloo offers a wide range of international learning opportunities and experiences, and educates graduates who are at home in a culturally diverse environment and knowledgeable about its attributes.

THE FUTURE OF CO-OPERATIVE EDUCATION

Waterloo can rightfully boast the largest co-op education program of any university in the world. The university intends to widen the learning experience to include work-related activities, wherever the activity offers a genuine learning experience of a work situation. Included in this type of experiential learning will be entrepreneurial pursuits, clinical internships and practicums required in programs such as psychology, social work and optometry; and community service and fieldwork activities which expose the student to the practical application of academic theory.
PRIMARY OBJECTIVES

» Educate outstanding and world-ready graduates whose skills are in high demand globally

» Enlarge the resource base of professionally credentialized and/or discipline-relevant employers

» Achieve a closer integration of research opportunities and co-op work terms

» Expand experiential learning to include service-based activities and international programs

SUPPORTING ACTIONS

» Enhancing the interaction between the university and the co-op employer base

» Integrating more effectively the outcome of a student's work term into the student's academic program

» Increasing opportunities for students' first work terms

» Increasing awareness of the value of co-op and other forms of experiential learning among potential students, employers and external audiences

» Increasing the number of research-oriented work terms

» Expanding and supporting work term opportunities internationally

» Expanding the employer recognition (appreciation) program

» Improving opportunities for co-op employers and students to have input into the co-op process

» Developing professional skills courses to benefit non-co-op undergraduate students

» Using alumni networks to expand co-op work term opportunities

» Creating an organizational framework to promote, develop, implement and manage the use of experiential learning

» Creating student mobility programs that utilize the best universities and practices in the world in support of academic exchange, international service learning, field programs and international co-op placements
A UNIQUELY ENTREPRENEURIAL UNIVERSITY

GOAL
Solidify Waterloo’s global leadership in all forms of entrepreneurship education and practice

Entrepreneurship at Waterloo isn’t business as usual — extending from its classrooms to global communities, from research labs to innovative startups, it’s a spirit defined by a burning desire to make things better. Entrepreneurial spirit is part of Waterloo’s DNA, from long-standing intellectual property policy that ensures creators retain control of their ideas to the networks of support and mentorship that enable the commercialization of socially relevant research. Waterloo embraces entrepreneurial approaches in teaching, learning and scholarship — educating, inspiring and employing people who lead change.

OVER THE NEXT FIVE YEARS
Waterloo will lead Canada’s innovation agenda and aspire to be recognized as a uniquely entrepreneurial university. This institution will enable national and international conversations as host of an international leadership summit and increase opportunities for entrepreneurial learning and activity. Waterloo’s innovative approaches to technology, social innovation and social entrepreneurship will create recognizable impact — fuelling economic growth and improving the human condition.

BACKGROUND
Innovation in teaching, research and scholarship, and experiential learning — best exemplified by co-op education — are longstanding pillars of this institution. Together they have underpinned Waterloo’s distinctive success in entrepreneurial pursuits. Waterloo is uniquely placed among universities to address the growing societal need for both commercial and non-commercial knowledge discovery and entrepreneurial output.

ENTREPRENEURIAL APPROACHES TO EDUCATION
Entrepreneurship is promoted both in academic programs and in practice at Waterloo. The university offers a unique graduate degree in the subject through the Conrad Business, Entrepreneurship and Technology Centre. The centre also manages a rapidly growing Enterprise Co-op program combining academic student and entrepreneurship work terms, which has seen a 10-fold increase in undergraduate demand in the last three years. At the undergraduate level, Waterloo takes an unconventional approach to Business education by linking it to specific disciplines as in degree programs including: Arts and Business, Environment and Business, Computer Science and Business Administration, Recreation and Business and Science and Business. The latest addition to these binary degrees is Recreation and Sports Business. Waterloo’s co-op program is perhaps the most fruitful educational format for new practical
knowledge and product development, as work term opportunities allow students to observe and participate in innovation in the marketplace or laboratory.

AN ENTREPRENEURIAL ECOSYSTEM
Waterloo has created a vibrant ecosystem of entrepreneurship within the university. Entrepreneurial practices are encouraged and range from start-ups devised by student innovators, to radical knowledge discovery in the fields of quantum computing and nanotechnology that promise new applications in the industrial arena. Student entrepreneurship, which has tended to focus on software development, is nurtured in the living-learning environment of VeloCity, and operationalized in the start-up space at VeloCity Garage. For students, faculty and staff ready to bring their innovation to market, the University of Waterloo Commercialization Office (WatCo) can assist in developing patents and identifying sources of venture capital. The new Accelerator Centre at Waterloo’s Stratford Campus provides mentorship, educational programs and support services to local start-up companies in the field of technical and digital media. In addition to its leadership in promoting technological innovation, Waterloo is also a catalyst for social innovation and social entrepreneurship through the Waterloo Institute for Social Innovation and Resilience, the Waterloo Institute for Complexity and Innovation and its partnership with the Centre for International Governance Innovation.

CREATOR-OWNED INTELLECTUAL PROPERTY POLICY
Intellectual property and commercialized innovations originating from students, faculty or staff remain the property of the innovator and not the university. This policy, which is not typical of the academic world, has proven to be a key factor in the vibrant growth of entrepreneurship at Waterloo. Waterloo’s enduring search for innovation and relevance has produced a culture of entrepreneurship. This unique culture now promises to become a truly defining characteristic of Waterloo’s future profile.

PRIMARY OBJECTIVES
» Enhance student opportunities to participate in entrepreneurial activities
» Build relationships and generate opportunities with the regional entrepreneurial community
» Advance commercialization and other forms of utilization of leading-edge entrepreneurial research and intellectual property
» Promote innovation and entrepreneurship that spans a wide range of needs, including social, political, health, environmental and technological
» Make entrepreneurship a key element of the Waterloo brand

SUPPORTING ACTIONS
» Increasing the number of students who participate in entrepreneurial work opportunities as part of experiential learning
» Supporting entrepreneurial activities leading to start-up company creation
» Facilitating student, faculty and staff entrepreneurship in a broad range of fields, including social entrepreneurship (not-for-profit)
» Encouraging, supporting and promoting student, faculty and staff entrepreneurship
» Encouraging research into entrepreneurship
» Developing learning opportunities to address entrepreneurship in relevant courses
» Strengthening entrepreneurship linkages with co-op education
» Promoting awareness of Waterloo’s leadership in entrepreneurship externally
» Leveraging the entrepreneurial skills of alumni
TRANSFORMATIONAL RESEARCH

GOAL

Increase the worldwide impact and recognition of University of Waterloo research

Starting at the undergraduate level research at Waterloo is ignited by a shared passion for discovery and action. Curiosity becomes a quest to answer existing and emerging global challenges. Experience shows that learning is enhanced when it includes research, and that strong researchers have the tools to be talented teachers. Waterloo researchers redefine what is known about the world around us. They shed new light on the mysteries of the universe through deep and fundamental research.

OVER THE NEXT FIVE YEARS

Waterloo will expand research opportunities for undergraduate and graduate students, including through research-focused work terms. Waterloo will allocate current resources and align future resources to support areas of research where we have the greatest potential for world leadership, including quantum science, water and aging.

BACKGROUND

Landmark research — addressing major challenges that arise from the interaction of social, economic, scientific, technological, health and policy issues — calls for input and collaboration from the finest scholars. Waterloo has built a reputation for excellence in research across all six of its Faculties and in many disciplines.

MATHEMATICS AND SCIENCE LEADERSHIP

For example, the university’s renown in the fields of computer science, discrete mathematics, cryptography and biostatistics has emerged from the Faculty of Mathematics. The Faculty of Science is recognized for prominence in the natural sciences including ecotoxicology, aquatic biology, analytical and materials chemistry, earth sciences, condensed matter physics and astronomy; as well as in the applied sciences including neuroscience, ocular pathology, technology and optics and drug delivery within the Schools of Optometry and Pharmacy.

ENGINEERING AND APPLIED HEALTH SCIENCES

In the Faculty of Engineering, more than 1,000 industry and government partners support leading-edge research in information and communications technologies, automotive, sensors and intelligent infrastructure, water treatment, biomedical devices and biotechnology, nano- and micro-technologies, energy, design, modeling and systems optimization.
The **Faculty of Applied Health Sciences** is a global leader in the development of strategies that improve well-being through advanced research in chronic disease prevention and management, healthy active aging, youth health, public health policy and practice, nutrition and human movement.

**ARTS A RESEARCH LEADER**

Waterloo’s **Faculty of Arts** is changing the landscape of social sciences and humanities research by harnessing new technologies and methodologies to traditional modes of analysis. This will generate new insights into the human condition in areas including finance and accounting, clinical and social psychology, digital media, science and technology studies, languages, literatures and culture, international governance and public policy.

**ENVIRONMENT SETS NEW STANDARDS**

Within the **Faculty of Environment**, interdisciplinary groups collaborate with other Faculties to solve climate change, water, energy, food systems, ecological restoration and urban planning issues through science and policy. The Faculty’s new teaching and research initiatives in green entrepreneurship and corporate social responsibility are setting a new agenda for social entrepreneurship and innovation.

**SIX STRONG FACULTIES, STRONGER TOGETHER**

Pressing and emerging global challenges will increasingly be addressed through collaboration across disciplines. Waterloo will continue to support and nurture the interdisciplinary culture that fuels its globally recognized research institutes.

**QUANTUM SCIENCE AND NANOTECHNOLOGY**

The Institute for Quantum Computing (IQC) brings together internationally recognized researchers from mathematics, science and engineering to discover and develop methods to understand and control the quantum world leading to the development of revolutionary technologies. Researchers from science and engineering come together in the Waterloo Institute for Nanotechnology (WIN), where they undertake groundbreaking research into the observation and manipulation of matter at the atomic scale to further scientific understanding, and to devise applications that will lead to new materials and devices in such fields as biomaterials, medicine and electronics.
WATER, DIGITAL MEDIA AND AGING

More than 125 Waterloo researchers from many disciplines collaborate in the Water Institute (WI), engaging in research both scientific and management-related to ensure the sustainability of global water resources. The Games Institute is leading interdisciplinary research into game-related interactions and technologies, as well as to improve understanding of social and behavioural ramifications of gaming. And the new Research Institute for Aging (RIA) will draw on the expertise of researchers, educators, caregivers, seniors and families in order to build an inclusive knowledge base to support the development of innovative and relevant educational and training programs.

Building on this foundation of excellence, Waterloo’s research capabilities will continue to thrive, fuelling this institution’s growth. Basic, foundational research of the highest calibre will continue to be undertaken by faculty and students. Research activities and output will continue to be integrated into both co-op and non-co-op programs. Research and scholarship will continue to be a driving force for Waterloo’s professoriate.

The original knowledge created within Waterloo will achieve even greater relevance as it is promoted and disseminated throughout an industrial and business community urgently seeking innovative concepts to commercialize. This longstanding Waterloo tradition will be the pillar that will ensure this institution’s future as a leader in research productivity, application and commercialization.

PRIMARY OBJECTIVES

» Be recognized internationally for excellence and innovation in education, research and scholarship
» Enable conditions which support research excellence and impact
» Identify and seize opportunities to lead in new/emerging areas
» Increase interdisciplinary and transdisciplinary research at the global, national and local scale
» Strengthen the relationship between research and teaching at the undergraduate level
» Build wider awareness and understanding of Waterloo’s research productivity and impact
» Seek global awareness of Waterloo’s research and teaching expertise

SUPPORTING ACTIONS

» Attracting and retaining premier level scholars, researchers and staff
» Fostering a supportive environment for research by facilitating access to funding resources, information, space and facilities
» Providing strategic expertise to maximize research grant success
» Diversifying funding resources beyond Tri-Council sources
» Encouraging research networks which build on partnerships with internationally recognized universities
» Providing and facilitating opportunities for interdisciplinary and transdisciplinary research
» Providing opportunities for undergraduate students to engage in research across all disciplines
» Building further exemplary international research networks of elite institutions and individuals that utilize the intellectual and physical assets of the institution
» Celebrating the research successes of students, faculty, staff and alumni
» Pursuing prestigious national and international awards for faculty
» Creating a new marketing and communications initiative to build profile for the wide and varied accomplishments of the Waterloo research community
» Continuing to be an effective pipeline for high-quality research to meet the needs of business, industry, government and civil society
Building on a

FOUNDATION OF EXCELLENCE

Waterloo has already distinguished itself in these important areas of existing strength, which will be further enhanced through this strategic plan:

» Outstanding academic programming
» Global prominence and internationalization
» Vibrant student experience
» Robust employer-staff relationship
» Sound value system
OUTSTANDING ACADEMIC PROGRAMMING

GOALS

A. Offer leading-edge, dynamic academic programs
B. Be a leading provider of technology-enabled learning opportunities

A shared passion for learning and discovery brings some of the world’s top students and scholars to Waterloo. They are drawn by a foundational commitment to top-quality academic programming, which is emboldened by an innovative and dynamic approach to learning that is uniquely Waterloo’s. Top students and faculty expect the best from Waterloo’s academic programs and supports. Waterloo will continue to deliver.

OVER THE NEXT FIVE YEARS

Academic programming at Waterloo will evolve and grow, supported by faculty who engage and inspire through their teaching and research. Waterloo will set an ambitious agenda to lead in the implementation and use of new and emerging technologies. Waterloo will be a leader in developing and employing such technologies to enhance learning, to reshape the traditional classroom and to expand the impact and reach of Waterloo programs on its campuses, and beyond.

BACKGROUND

Meeting consistently high standards, Waterloo’s academic programs are one of the university’s pillars of strength. Both at the university and at its Federated University (St. Jerome’s) and Affiliated University Colleges (Conrad Grebel, Renison and St. Paul’s), faculty members are engaged in teaching, research and the delivery of unique programs. This is a direct result of the university’s policy of hiring the very best faculty and staff, and providing an environment that will allow the university to reach its full potential. With a foundation of excellent faculty and strong academic programs, along with the opportunity to engage in experiential learning, Waterloo’s undergraduate programs are in high demand and attract students of the highest calibre. Forty-two per cent of all students entering undergraduate programs at the university have a high school average mark of 90% or higher.

Waterloo has thus created an educational environment in which research, scholarship and learning are inseparable at both undergraduate and graduate levels, and where relevance, innovation, creativity and application are concepts that drive the academic agenda.
Program development

Partnership is one of Waterloo’s methods of ensuring the highest quality of graduate research programs. The university has partnered with selected international universities to develop dual degree doctorate (co-tutelle) programs in the fields of chemistry, physics, nanotechnology, earth sciences and several branches of engineering. The Perimeter Institute has also partnered with the university to offer a Master’s level program in research training through its Perimeter Scholars International. Based in Waterloo, the institute is an independent, non-profit science research organization, renowned worldwide for groundbreaking work in the field of foundational theoretical physics.

Waterloo continuously develops new programs to address new knowledge demands that arise from societal change. Recent introductions include Master’s degrees in climate change, public issues anthropology, sustainability management, digital experience innovation and mathematics for teachers. A new PhD program in pharmacy will begin in 2013. Many of these new graduate degrees are offered in an online format to enable access for professionals working in their fields, wherever they are geographically located.

Technology-enabled delivery systems for learning

The use of new technologies for program delivery offers an enormous opportunity to reach wider educational markets both across Canada and around the world, and to deliver programs to graduates and professionals where they live and work. Waterloo can make a significant societal contribution by bringing the benefits of outstanding academic programs to those in far-flung locations, and at the same time achieve a wider awareness nationally and globally of the university’s role as a provider of quality education.

Technology-enabled learning is a concept that Waterloo embraced many years ago for its distance-learning programs, first through the use of cassettes and now through emerging technologies and the internet. The university provides online courses that assist on-campus students with scheduling or job-related time conflicts, and allow off-campus and distant students to pursue the course requirements necessary for graduation. Several graduate degrees are offered fully online and more are planned, in part to meet the needs of working professionals. The university also provides credential courses to meet certain professional accreditation requirements and skills tailored to specific career needs.
OUTSTANDING ACADEMIC PROGRAMMING CONTINUED

PRIMARY OBJECTIVES

A Program development
» Educate graduates uniquely prepared to address the challenges and opportunities of the 21st century
» Enhance Waterloo’s excellence in academic programs
» Ensure teaching quality of the highest international standard
» Assign a higher value to recognizing and rewarding high-quality teaching
» Seek global awareness of Waterloo’s research and teaching expertise

SUPPORTING ACTIONS

A Program development
» Increasing the number of top level undergraduate and graduate students from national and international sources
» Increasing the value of teaching quality and adopting a teaching-learning charter that captures Waterloo’s commitment to teaching and learning
» Encouraging faculty members to integrate their research and the process of research into course activities
» Regularly collecting input from students on ways to improve the learning experience
» Ensuring that graduate students at Waterloo are supervised and mentored by the highest calibre of research personnel
» Strengthening excellence in teaching skills at Waterloo for both graduate students and faculty
» Articulating assessable learning outcomes and designing meaningful assessment methods for all academic courses and programs
» Ensuring that graduate programs include components that address professional and transferable skills
» Improving classroom design and supporting technology-enabled learning to optimize the learning experience
» Acknowledging the changing balance between teaching and research as faculty members progress, and reflecting this in resource planning

B Technology-enabled delivery systems for learning
» Expand Waterloo’s footprint in the online-learning market
» Provide leading-edge, technology-enabled learning opportunities

B Technology-enabled delivery systems for learning
» Increasing the number of online courses and degree programs
» Employing the most innovative methods of course delivery and new learning technologies
» Identifying external academic or skills needs and developing relevant new programs for online delivery to meet those needs
» Making wider use of online course materials, including, for example, Massive Open Online Courses (MOOCs), corporate training modules and professional development courses
» Creating and facilitating strategic partnerships in online learning provincially, nationally and internationally
» Increasing the use of mobile technologies in and out of the classroom for learning and support services
» Expanding the appropriate use of technologies to enhance classroom learning experience
GLOBAL PROMINENCE AND INTERNATIONALIZATION

GOAL
Become one of the most internationalized universities in Canada

Broad impact requires broad understanding and outlook. As a university committed to improving the world and to educating graduates ready to lead in a global economy, Waterloo maintains an enviable and expanding network of international research and industry partnerships, alumni connections, learning opportunities, work placements and field programs. Research and learning are enhanced by the contributions of international students and faculty who offer diversity of experience and insight vital to the pursuit of knowledge and discovery. Waterloo is a place the world turns to for answers to its most pressing questions.

OVER THE NEXT FIVE YEARS
Waterloo will offer more opportunities for international exchange, service learning, field programs and co-op employment. The university will grow its global research network and be recognized internationally for excellence in education, research and scholarship. Waterloo will embrace global viewpoints and experience, attracting a diverse and growing group of the best and brightest international students and faculty to its campuses.

BACKGROUND
Internationalization includes a wide range of information, activities, policies and strategies, which give teaching, research and service functions an international dimension at the university. Waterloo graduates are at home in a culturally diverse environment and knowledgeable about its attributes.

CONNECTED TO THE WORLD
International connectivity offers major benefits in terms of professional, research and employment linkages, as well as in social networking to improve cultural understanding and diversity. Waterloo actively promotes outbound academic and research mobility through co-op opportunities, exchange programs and research collaboration; and promotes inbound mobility by foreign students and researchers participating in Waterloo programs and research. Currently, 11 per cent of undergraduate students are international, predominantly from China, India, Pakistan and South Korea. Graduate programs in global governance are offered by the Balsillie School of International Affairs, through a collaborative format drawing together scholars, students and policy-makers focused on finding solutions to pressing issues.
ENHANCED INTERNATIONAL PRESENCE

Enlarging and enhancing Waterloo’s presence in the international arena is a priority for the university. This will be achieved by providing academic services of the highest order, attracting the best and brightest faculty, students and research graduates from around the world, and partnering with international institutions of high reputation — such as existing partnerships with Tsinghua University, University of Hong Kong, National University of Singapore, University of Queensland, École Polytechnique, Technische Universität Muenchen, ETH Zurich and Universidade de São Paulo. Raising Waterloo’s international profile will heighten its prestige and ranking on the global stage.

PRIMARY OBJECTIVES

» Be recognized internationally for excellence and innovation in education, research and scholarship

» Educate globally literate and world-ready graduates

SUPPORTING ACTIONS

» Creating student mobility programs that utilize the best universities and practices in the world in support of academic exchange, international service learning, field programs and international co-op placements

» Enhancing whenever appropriate, the international content and approach of degree programs

» Building further exemplary international research networks of elite institutions and individuals that utilize the intellectual and physical assets of the institution

» Attracting a diverse group of the best and the brightest international students to Waterloo’s campuses through the provision of an outstanding student experience, academically and socially
VIBRANT STUDENT EXPERIENCE

GOAL
Ensure that students have an engaging, purposeful and relevant experience

With a global reputation for excellence and some of the highest entrance averages in the nation, Waterloo attracts the world’s best, brightest and most motivated students, offering them the opportunity to become something more. Students are inspired in an environment of imagination, innovation and interdisciplinary endeavours. The confluence of remarkable classroom, campus and community experience at Waterloo transforms excellent students into extraordinary alumni uniquely equipped to contribute to society and lead change.

OVER THE NEXT FIVE YEARS
Waterloo will enrich the student experience with a student-focused approach to services. The university will expand the range of experiences, programs and supports designed to develop student potential, and build a stronger sense of community connection for students both on and off campus.

BACKGROUND
Students come to Waterloo for high-quality education and, in the case of co-op, for relevant work experience. But they also study, use a wide range of campus facilities and engage socially with others. For many students, the university campus is their “home base” for several years. It is also where faculty and staff interact with students and each other as they go about their daily business.

A SPIRIT OF COMMUNITY AND CONNECTION
The educational component of a student’s life on campus will be vibrant and fulfilling, supported by “down-time” activities that are rich, rewarding and diverse. Waterloo should not be left behind after graduation, but rather remembered with gratitude, fondness and pride, as a place where graduates would be happy for their own sons and daughters to be educated.

Waterloo’s Federated University (St. Jerome’s) and Affiliated University Colleges (Conrad Grebel, Renison and St. Paul’s), have been remarkably successful in promoting a sense of well-being for students by creating a spirit of fellowship among their residents, nurturing faculty-student engagement and giving students many leadership opportunities to thrive as responsible and compassionate citizens here and around the globe.
A NETWORK OF SUPPORT AND OPPORTUNITY

Waterloo created the Student Success Office and Counselling Services to address the need for emotional and academic support for students. Organizations, including the Organizational and Human Development office, offer valuable student leadership opportunities which should be recognized and expanded as crucial to the development of future leaders.

Student organizations on campus can provide a sense of community for like minds. The university will continue to work to create an encompassing sense of community that engages all those on campus, including faculty and staff.

For students, the years at Waterloo should provide both an excellent education and an enriching experience of campus life, enabling each student to reach her or his potential in the fullest sense.

PRIMARY OBJECTIVES

» Deliver excellent student services through an integrated student-focused approach

» Provide enabling experiences, programs and supports, including student leadership development opportunities, in order to develop student potential

» Develop strong partnerships within and between academic and non-academic units to enhance the positive student experience

» Build a community of communities by providing an environment where students, faculty and staff can connect

» Deepen the connections between students and the City of Waterloo community

SUPPORTING ACTIONS

» Incorporating mentorship of students into curricular and co-curricular programs wherever possible

» Creating a strong virtual environment so students always feel connected to Waterloo, wherever they are physically located

» Enabling an IT environment that facilitates student interaction and improves student life

» Providing the means for students to interact across different programs

» Integrating and optimizing processes, communications and systems to support student success

» Encouraging collaborative, multidisciplinary projects in undergraduate coursework to enhance learning and teamwork skills

» Enhancing research, study and social space

» Improving support services for students who live off-campus

» Enhancing the physical appearance of the campus to be more attractive and people-centric
ROBUST EMPLOYER-STAFF RELATIONSHIP

GOAL

Be an exemplary employer

The success of this institution’s programs, research and students hinges on a superior complement of high-functioning staff. As an institution that expects outstanding results from all of its people, Waterloo aspires to be an employer of choice, and a place where opportunity and experience inspire deep institutional pride and professional satisfaction. Enabling top performance from staff members, who achieve their full potential, professionally and personally, is key to Waterloo’s mission as an institution of higher learning.

OVER THE NEXT FIVE YEARS

Waterloo will offer new opportunities for staff to grow professionally, with investments in development and leadership training and an enhanced focus on succession planning. Waterloo will become an international employer of choice for talented, motivated individuals whose support and engagement will ensure the institution’s continued successes. In support of achieving our priorities, Waterloo will measure performance against external standards for global excellence, and ensure rigorous management to attain these benchmarks.

BACKGROUND

The effectiveness of the research agenda, program delivery and administrative functions of Waterloo relies upon a superior complement of staff. In this regard, the University of Waterloo has worked diligently in many ways to be an exemplary employer and an employer of choice. The university will continue to provide challenging career opportunities for its staff and encourage its staff to develop higher-level skills through ongoing training and professional development.

PRIMARY OBJECTIVES

» Be a destination of choice for superior individuals seeking employment
» Enable staff to fulfill their potential in a career at the university

SUPPORTING ACTIONS

» Attracting and retaining the highest quality candidates
» Providing staff with opportunities to acquire new competencies
» Encouraging a more diverse work experience for staff through trial periods of different roles, responsibilities and positions
» Supporting mentoring skills training for managers
» Continuing to be competitive in the job market
» Having the employment attributes of the university judged against an external standard for excellence
» Encouraging Faculties and academic support units to undertake succession planning for key leadership position
PROMOTING A SOUND VALUE SYSTEM

GOALS
A Enhance the well-being of students, faculty and staff
B Promote integrity as a core value of the campus community
C Provide an equitable and inclusive environment for students, faculty and staff

As an international leader and standard-bearer in higher education, Waterloo is unshakeable in its commitment to integrity, equity, diversity and a balanced life for students, faculty and staff. Without these core values, the university cannot fulfill its mission as a leading institution of higher learning.

OVER THE NEXT FIVE YEARS
Waterloo will expand its efforts to ensure integrity is a core value instilled in every student, faculty member and staff member. The university will seek new and better ways to support mental and physical well-being, promote school pride and support equity and diversity, enabling the ongoing success of all members of the campus community.

BACKGROUND
A Balanced life: Modern life makes many competing demands on an individual’s time. The responsibility of caring for a sick child or elderly parent, for example, at the same time as addressing work requirements can lead to stress-related problems. Extended periods of work overload can also trigger health problems. Fulfilling one’s responsibilities at work, home and in the community requires effective time management practices.

WORK-LIFE BALANCE
It is in the university’s best interests to assist students, faculty and staff, as far as possible, to maintain an appropriate balance between work demands and those beyond the purview of the university. This approach will help to minimize problems of stress-related illness and absenteeism, and to enhance the university’s ability to attract and retain quality faculty and staff.
ENHANCING SHARED CAMPUS SPACES
In the case of on-campus students, very many of their academic and non-academic activities occur in the confines of university buildings, accommodation and recreational facilities. To enhance the overall experience of learning and living at Waterloo, the university will make every effort to provide additional space to allow greater social interaction and mentorship opportunities, and foster a greater sense of school spirit and pride. Support in dealing with stress is one of the functions of the Student Success Office, Health Services and Counselling Services.

Integrity: Integrity includes the concepts of honesty, trust, respect, fairness and responsibility. Academic excellence without personal integrity is of little value to an employer, and ultimately proves a major detriment in the career development of a student, faculty or staff member. The university is known for creating the leaders for the future, and nowhere are honour, respect, reliability and accountability called for more than at the highest level of decision-making. Waterloo’s professoriate and staff are held to the highest standards of conduct, and its administration is committed to open, responsible and fair governance.

INTEGRITY IN ALL AREAS
Waterloo seeks to develop integrity at every level of the institution, and in 2008 created an Academic Integrity Office, whose initial focus was to partner with student groups, Faculties and staff to provide information and education so that new students understand expectations related to integrity for their academic work. Integrity has now been widened to be a core value for all aspects of university-related life of students, faculty and staff.

Embracing equity and diversity
Waterloo is committed to supporting equity and diversity. It does this through its AccessAbility office, which provides support for students, faculty and staff with disabilities, the Principles of Inclusivity sessions offered by the office of Organizational and Human Development, and the University Diversity Advisory Committee (UDAC), which addresses diversity in its many forms. In addition, the Status of Women and Equity Committee (SWEC) — based in the Faculty Association — focuses on matters related to the status of women and broader equity issues among faculty.
PRIMARY OBJECTIVES

A Balanced life
» Develop a strong, vibrant integrated community
» Assist students, faculty and staff in achieving appropriate work-life balance
» Foster student success through engaging and relevant university-based experiences

B Integrity
» Deepen and broaden the university’s approach to integrity

C Equity and diversity
» Develop a supportive campus community that proactively articulates, promotes and effects change to achieve equity for students, faculty and staff through policies, programs and practice

SUPPORTING ACTIONS

A Balanced life
» Providing diverse, integrated and targeted services to address the mental and physical well-being of students, faculty and staff
» Creating an environment where students, faculty and staff collaborate in support of one other
» Developing activities to promote school pride
» Encouraging Faculties to devise activities that foster student-faculty fellowship
» Developing non-academic activities sought by diverse student communities
» Increasing the availability of on-campus student accommodation
» Promoting and adopting flexible work arrangements where such arrangements are consistent with operational needs
» Improving communication within the campus community

B Integrity
» Determining ways to recognize and celebrate behaviour that exemplifies integrity
» Enhancing the existing online tutorial on academic integrity, combined with discipline-specific case studies as a milestone for all incoming undergraduate and graduate students
» Exploring the idea of a student-led honour code, to be implemented by student associations with support from administration

C Equity and diversity
» Setting up an Equity Office and hiring a Director of Equity
» Developing and enhancing relevant policies, taking into consideration input from student, faculty and staff stakeholders, including the AccessAbility office, UDAC and SWEC
» Enhancing awareness, understanding, respect, support and celebration of equity and diversity among students, faculty and staff
» Meeting accessibility standards in new buildings and in those being renovated
» Meeting accessibility standards, as outlined in the Accessibility for Ontarians with Disabilities Act (AODA), across print and digital communications platforms
Why Waterloo?

UNIQUELY QUALIFIED TO ANSWER THE WORLD’S CALL

As the world seeks answers, the University of Waterloo stands uniquely ready to respond. This institution will rise to be recognized as one of the world’s top innovation universities, on the strength of six world class Faculties, made even stronger through interdisciplinary collaboration, an enviable network of business and industry connections and a track record of innovation and excellence.
A track record of **INNOVATION and EXCELLENCE**

Waterloo’s contributions to higher education, global prosperity and the betterment of society are many. The Mid-cycle Review identified and solidified Waterloo’s ongoing excellence in several key areas:

> Producing **outstanding and employment-ready graduates** as an outcome of world-renowned **co-op programs**, which blend academic learning with work experience. These programs act as a bridge between Waterloo and the world outside, underscoring relevance as one of the university’s foundational principles. Academic knowledge, job readiness and confidence keep Waterloo graduates in high demand with employers.

This array of employers provides Waterloo students with a more diverse and stimulating range of workplace experiences than is available anywhere else.

> **Entrepreneurial successes** achieved by students, faculty and staff. All of Waterloo’s past and potential entrepreneurs benefit from the university’s **intellectual property (IP) policy**, whereby ideas or products commercialized by students, faculty or staff members belong solely to the creator. Entrepreneurial enterprises are further supported by strong connections between Waterloo research and industry.

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**ENTREPRENEURIAL IMPACT**

**Faculty startups:**
- Certicom
- Maplesoft
- OpenText
- Teledyne DALSA

**Alumni startups:**
- BlackBerry®
- Desire2Learn
- Public History Inc.

**VeloCity startup success:**
- 45 companies
- 250+ jobs
- $90M+ in investment capital

*as of April 2013*
**Ongoing innovation and entrepreneurship.** Innovative and creative approaches to research, teaching and learning are sought from — and achieved by — Waterloo’s faculty and staff, and inspired in its students. For example, to support a growing number of students interested in entrepreneurship, the university in 2008 established **VeloCity, a living-learning community of like-minded entrepreneurial students.** At VeloCity, students have access to the latest technologies and are mentored by a network of entrepreneurial experts. In 2010, VeloCity Garage was set up to provide students and alumni with access to free space and expert mentoring to assist in advancing successful start-ups. In 2012, the VeloCity Campus program began to expand entrepreneurial programs and mentorship to the broader student community.

**Excellence in research.** Research and scholarship will continue to be a driving force for Waterloo’s professoriate. According to Research Infosource, Waterloo has been Canada’s **top ranked comprehensive research university for five consecutive years.** As one of Canada’s 15 research-intensive universities, Waterloo has **34 Senate-approved centres or institutes of research** crossing many disciplines.

These research ventures are underpinned by a distinguished professoriate whose reputation draws top-level graduates from around the world.

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**A GLOBAL UNIVERSITY**

- 30 per cent international graduate students
- 11 per cent international undergraduate students
- Waterloo students come from **90+** countries
- 350+ educational and research agreements with institutions in **60** countries
- Co-op opportunities in **90** countries
- 700 international co-op opportunities each year

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**EMPLOYMENT-READY GRADUATES**

**Co-op 2013:**
- 17,500 students
- 3,000 employers

**A decade of growth:**
- 139,000 undergraduate students enrolled in **140+** co-op programs over the past 10 years
Persistently seeking out the cutting edge of discovery, Waterloo is poised once again to lead the world in the revolutionary fields of quantum computing and nanotechnology, which have the potential to transform the world as we know it — from how we share and store information, to the ways we diagnose and treat disease. The recently opened Mike & Ophelia Lazaridis Quantum-Nano Centre is home to the Institute for Quantum Computing (IQC) and the Waterloo Institute for Nanotechnology (WIN), which attract some of the finest minds in these fields.

Applying Waterloo’s customary forward-looking vision to respond to key educational advances by incorporating innovation, relevance and value in curriculum development and delivery. This includes technology-enabled learning, allowing a growing number of courses to be accessible online to a broad set of learners in Ontario and beyond. A pioneer in distance education going back to 1968, Waterloo is now one of the largest institutions of online learning in Ontario.

A major grant is allowing the Conrad Business, Entrepreneurship and Technology Centre to use advanced learning technology systems to create and deliver a unique Virtual Incubation Program to support the development of local, Canadian and international entrepreneurs.

The ability to attract highly qualified students and a research-oriented professoriate from around the world brings an international dimension to Waterloo’s student body, to its research endeavours and to its connectivity. This international dimension includes collaboration with global business enterprises, governmental agencies and other major academic institutions. It also accounts for the university’s involvement in social and environmental issues in Canada and in countries around the world.
Little wonder that for 21 consecutive years Maclean’s magazine has named the University of Waterloo Canada’s most innovative university; and for 14 of the past 21 years has named this institution most likely to produce “the leaders of tomorrow.” The university is proud of its many successes.
Poised for ACTION

Waterloo has much to be proud of. Built by entrepreneurs, the University of Waterloo is a place where innovation has impact.

No ivory tower, this is an institution uniquely connected to the world, and committed to making it better — by fuelling prosperity and improving the human condition. This is a place of constant forward motion.

A magnet for the best and brightest from around the world, Waterloo converts the strong into the extraordinary — students who graduate ready to lead in their careers, faculty who inspire through world-class teaching, and world-changing research ignited by the spirit of entrepreneurship.

A young institution, Waterloo swiftly outpaced its national and global peers to rise through the ranks of higher education. Unconventional from the start, Waterloo forges new paths, redefining higher education as relevant and meaningful.

Already a world leader in research that creates new understanding of quantum science, water and aging, Waterloo aspires to even greater success.

The University of Waterloo Strategic Plan will create a differentiated university for the province and the country, one that offers a unique experiential learning experience for every student; one that focuses on entrepreneurship to create new companies, new jobs, even new industries; one that manages for global excellence; one that will be a world leader in select and pivotal areas of research with strong research foundations throughout.

This plan reflects pride in all Waterloo has accomplished and aspirations for what can be achieved. Over the next five years, on the collective strength of its stakeholders, Waterloo can and will lead Canada’s innovation agenda, redefining higher education for this country and the world.

Waterloo will answer the world’s call.
The Senate Executive Committee met on 4 November 2013 and agreed to forward the following item to Senate for information.

FOR INFORMATION

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December Meeting of Senate
Although there currently appears to be insufficient agenda to warrant a December meeting, the committee will hold its December meeting date and advises Senate to do likewise. The secretary will advise the Executive Committee within a week of its December meeting whether a meeting is warranted and Senate will be so advised. [Process instituted by the Executive Committee in November 2006.]

The Senate Executive Committee met on 7 October 2013 and agreed to forward the following item to Senate for first reading (21 October) and second reading (18 November).

FOR SECOND READING

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

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

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

Feridun Hamdullahpur
President
Senate Bylaw 5

A bylaw relating to the selection of members of the Senate

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

CHIEF RETURNING OFFICER

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

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

ELECTIONS

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

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

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

**CAMPAIGNING/VOTER ELIGIBILITY**

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

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

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

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

**BY-ELECTIONS**

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

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

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

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

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

**ALUMNI REPRESENTATION**

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

*Approved by Senate June 15, 1972.*
*Revised by Senate January 15, 1973.*
*Revised by Senate April 16, 1973.*
*Revised by Senate June 16, 1975.*
*Revised by Senate in two readings September - October 1975.*
*Revised by Senate in two readings November -December 1982.*
*Revised by Senate in two readings January - February 1983.*
*Revised by Senate in two readings December 1984 - January 1985.*
*Revised by Senate in two readings December 1989 - January 1990.*
*Revised by Senate in two readings October - November 1990.*
*Revised by Senate in two readings November - December 1991.*
*Revised by Senate September 1995.*
*Revised by Senate in one reading September 1999.*

[1] See the UW Act, section 25, for instances when graduating students may be exempt.
The Senate Nominating Committee for Honorary Degrees met on 15 October 2013 and agreed to forward the following items to Senate for approval. These items are recommended for inclusion in the regular agenda. [Further information is available from the secretary, ext. 38990].

FOR APPROVAL

AMENDMENTS TO GUIDELINES FOR THE AWARDING OF HONORARY DEGREES

1. **Motion:** To approve the amendments to the guidelines for the awarding of honorary degrees, as described in attachment 1.

   **Rationale:** The amended guidelines make several important and incremental improvements, including: extending the authority to nominate individuals for honorary degrees to the federated university and affiliated university colleges; clarifying the required quorum of the committee and the required support for nominations to proceed to Senate; requiring a letter of support from the provost for Doctor of Laws nominations; defining common terms in the guidelines; and myriad stylistic amendments to harmonize and clarify the existing language in the guidelines.

AMENDMENTS TO TERMS OF REFERENCE

2. **Motion:** To approve the amendments to the terms of reference for the Senate Nominating Committee for Honorary Degrees, as described in attachment 2.

   **Rationale:** With the previous approval of the terms of reference for the President's Advisory Committee on Convocation Speakers, the amendments would align the terms of reference between the two committees and mitigate confusion as to each committee’s respective responsibilities.

/Feridun Hamdullahpur
Chair
University of Waterloo
Guidelines for the Awarding of Honorary Degrees

In these Guidelines, the following terms shall have the following meanings:

“committee” shall mean the Senate Nominating Committee for Honorary Degrees at the university.

“FUAC” shall mean, collectively, the federated university and affiliated colleges of the University of Waterloo, and each federated university or affiliated college shall be referred to as “a FUAC institution.”

“university” shall mean the University of Waterloo.

Honorary Degrees Awarded
The University of Waterloo confers the following honorary degrees, honoris causa:

- For scholarly/professional achievement: DEng (Doctor of Engineering), DES (Doctor of Environmental Studies), DLitt (Doctor of Letters), DSc (Doctor of Science), DD (Doctor of Divinity), DMath (Doctor of Mathematics). These degrees are normally awarded to persons of international stature who have made outstanding contributions to their discipline, to the development of their profession, or who have pioneered or revolutionized a field.

- For service to society: LLD (Doctor of Laws) This degree is awarded for outstanding contributions to the enrichment of society, development of some aspect of Canadian society, or its role on the international scene, or to someone who has brought honour to Canada on the world stage.

Purpose
An honorary degree is the highest honour conferred by the university. Through the conferring of honorary degrees, the University of Waterloo seeks to recognize outstanding achievement, whether academic or through service to society.

Selection Guidelines
The Senate Nominating Committee for Honorary Degrees (the “committee”) will review each nominee in terms of whether he or she personifies the core values of the relevant faculty and/or the university, and exemplifies the personal and professional characteristics to which we wish our students to aspire. People thus recognized should be such as to provide example and inspiration to University of Waterloo students and graduates of the university. Decisions taken by the committee will seek to reflect the diverse social and cultural character of Canada as well as the academic diversity embodied in the university itself.

The range of achievement considered by the committee is broad, and includes such fields as research, scholarship, the arts, business, and professional and voluntary service, including exceptional service or significant contribution to the university, the community, nation, or the world. The committee seeks especially to honour those whose contributions have not yet been widely recognized.
It is not essential required that nominees that a candidate have a direct connection with the university, but there should be a compelling reason why this particular university should confer its highest honour on an individual at a particular time.

Serving politicians, either Canadian or foreign, are not excluded from consideration for honorary degrees. Sensitive, however, to the perception of government influence on institutional autonomy and academic freedom, the committee will look for evidence in nominees of: exceptional service or leadership over an extended period in public life; general (as distinct from partisan) esteem; and a strong reason why the University of Waterloo in particular should confer the honour.

Individuals holding “adjunct” adjunct appointments are not excluded from consideration.

**Exclusions**
Active or newly retired members of the university faculty or staff will not normally be considered for honorary degrees. Where an exception is made, it should be for achievement or service beyond the university.

**In Absentia**
Normally, honorary degrees are not awarded posthumously or in absentia.

**Nomination Package**
All nominations must be submitted in writing; the nomination package should normally include:

For honorary degrees other than the LLD, the nomination package should normally include:

- a nomination letter (2-3 pages) from a member of the university or a FUAC institution, supported signed by one or more faculty members internal to the university or a FUAC institution, none of whom need be a member of the faculty of FUAC institution that reviews the nomination prior to its submission to the committee (see Procedure below);
- a clear statement (up to 300 words) stating the reasons why the nominee should be honoured by the University of Waterloo university at this time. This statement should provide a brief overview of the outstanding achievements/contributions this individual the nominee has made that have led to the nomination and why it is believed that UW this university in particular should consider conferring an honorary degree on this individual;
- a letter in support of the nomination signed by the dean of the faculty supporting the nomination or by the appropriate president or principal of the FUAC institution out of which the nomination emerges;
- a current curriculum vitae, including current mailing and email addresses;
- links to online information, or other attachments, or any other appropriate materials such as news articles, literature, etc., that would help in the committee’s evaluation of the nomination.

For the LLD, the nomination package should normally include:

- a nomination letter (2-3 pages) signed by at least two members of the university or any FUAC institution;
- a clear statement (up to 300 words) of the reasons why the nominee should be honoured by the university at this time. This statement should provide a brief overview of the outstanding achievements/contributions the nominee has made that have led to the nomination and why it is believed that this university in particular should consider conferring the LLD on the nominee;
• a letter in support of the nomination signed by the vice-president, academic & provost of the university;
• a current curriculum vitae for the nominee, including current mailing and email addresses; and
• links to online information, or other attachments, or any other appropriate materials such as news articles, literature, etc., that would help in the committee’s evaluation of the nomination.

Because of the need for strict confidentiality, nominators should not seek letters of support or reference from individuals external to the university and FUAC. However, prior to signing the letter in support of the nomination, the vice-president, academic & provost, the dean of the relevant faculty, or the president or principal of a FUAC institution (as the case may be) shall use best efforts to consult with their colleagues to achieve as broad a perspective as possible on the suitability of the nominee to be honoured by this university. The committee may contact the nominators should it require further information to make an evaluation.

Completed nomination packages should be sent to the Secretary of the Senate Nominating Committee for Honorary Degrees, c/o Secretariats, NH 3060. All information received by the committee is held in confidence.

If possible, and as deemed appropriate, nominators are encouraged to organize supplementary events within the nominating faculty or the university to complement the convocation activities (such as a special lecture by the honorary degree recipient).

Considerations
Since almost all candidates for honorary degrees will be distinguished people in one way or another, it is the task of the committee to investigate and judge their relative merits and make preferential choices. While there are not specific criteria against which to assess nominees for honorary degrees, there are certain questions which will guide the committee in its deliberations:

• In what ways is this candidate’s nominee’s achievement truly outstanding?
• In what ways has scholarship, a profession, or some significant segment of society benefitted by this contribution?
• Will this person’s achievement be seen to be important and exemplary to the students who will graduate at that convocation?
• Has this person been sufficiently recognized already by other honours and awards?
• Has this person been appropriately recognized by the field or profession in which he/she is said to excel?
• Why is it appropriate for the University of Waterloo to honour this person at this time?
• Does this candidate help Waterloo achieve the goal of reflecting, in the honours it bestows, the diversity of Canadian society or the academic diversity of the university?

Procedure
Honorary degrees are approved by Senate on recommendation of the committee, consisting of four ex-officio members: the president (chair); vice-president, academic & provost; associate provost; graduate studies; and chair, Honorary Member of the University Committee (a staff member); and the following members appointed by the Senate: one faculty member from each faculty; one faculty member representing the university colleges; two undergraduate students and one graduate student; and one alumnus/a. The registrar attends as observer. The committee accepts nominations from faculty committees, individual members of the university community and others, and will take an active role in generating nominations. The committee shall consist of the following members:
• five ex-officio members: the president (chair); vice-president, academic & provost; vice-president, advancement; associate provost, graduate studies; and chair, Honorary Member of the University Committee (a staff member); and
• the following members appointed by Senate: one faculty member from each faculty; one faculty member representing the federated university and affiliated university colleges; two undergraduate students and one graduate student; and one alumnus/a.

All nominations recommendations for DEng, DES, DLitt, DSc, and DMath and DD must be first considered by the pertinent faculty committee or committee of a FUAC institution, and supported in writing by the dean of the faculty, or president/principal of a FUAC institution, as appropriate. Nominations for the DD will be first considered by one or more of the university colleges, and supported in writing by the president/principal of the pertinent college. Nominations for the LLD may be made directly to the Senate Nominating Committee for Honorary Degrees. (Note: Nominations for the LLD submitted directly to the committee will be forwarded to the pertinent faculty for information prior to being considered by the committee.) must be supported in writing by the vice-president, academic & provost, but otherwise will be made directly to the committee.

The committee will meet periodically to consider nominations. While quorum for the conduct of ordinary business of the committee is a majority of its membership, the quorum for approving nominees for recommendation to Senate shall be two-thirds of the membership. Only candidates nominees who have the support of at least two-thirds of the members of the committee present at the meeting will be approved for forwarding to Senate. The committee may, where it chooses, defer consideration of candidates pending further information. Mindful that committee discussions are confidential, in the event that a candidate is not approved for inclusion in the pool (i.e., not forwarded to Senate), a brief note will be sent to the nominators, copied to the appropriate dean or to the appropriate president or principal of a FUAC institution, indicating why a nomination was not successful.

Once approved by Senate, candidates are added to the "pool" of potential honorary degree recipients, to be chosen by the committee as convocations roll round in advance of each convocation. Choice of convocation speakers will be left to the president who shall normally consult with the Senate Nominating Committee for Honorary Degrees and the dean of the relevant faculty. Normally, not more than two one honorary degrees will be conferred at any convocation ceremony.

Choice of convocation speakers will be left to the president, acting with the advice and support of the President’s Advisory Committee on Convocation Speakers. Nominees chosen to receive an honorary degree at any particular convocation ceremony may be asked to deliver the convocation address, but this is not required.

Approved at Senate:
March 22, 1999
April 17, 2006
June 21, 2010
November 18, 2013
Note: new text shown in **bold**, delete text in strikeout.

******************

**Honorary Degrees Committee - Terms of Reference**

1. To consider and make recommendations to Senate for inclusion in a 'pool' of candidates for honorary degrees those candidates who meet the established criteria. To select from the pool of approved names, the individuals to receive degrees at any particular convocation, and to approach these individuals. **Note:** The name of an individual recommended for an honorary degree is to be removed from the pool if no degree has been awarded to that person within a period of four years.

2. *To consider and make recommendations to Senate for the conferring of the title "Distinguished Professor Emeritus" on those candidates who meet the established criteria. Senate will then forward the recommendation(s) to the Board of Governors for approval.*

3. *To consider and make recommendations to Senate for the conferring of the title "Honorary Member of the University" on those candidates who meet the established criteria. Nominations will be forwarded to the Senate Committee from the Honorary Member of the University Committee. The Senate Committee will also be responsible for appointing members to the Honorary Member of the University Committee.*

Membership and Frequency of Meetings:

1. the president of the university, chair
2. the vice-president, academic & provost
3. the vice-president, advancement
4. the associate provost, graduate studies
5. the chair of the Honorary Member of the University Committee
6. one faculty member of Senate from the federated university and affiliated colleges
7. one elected faculty member of Senate from each faculty of the university
8. two members of Senate from the elected undergraduate student members
9. one member of Senate from the elected graduate student members
10. one member of Senate from among the alumni members

The committee will normally meet not more often than four times per year.

*Amended by Senate, January 15, 1996.*
*Amended by Senate, February 22, 2010.*
*Amended by Senate, November 19, 2012.*
*Amended by Senate, November 18, 2013.*
Senate Undergraduate Council met on 8 October 2013 and agreed to forward the following items to Senate for approval. Council recommends that these items be included in the regular agenda. Items recommended for inclusion in the consent agenda are contained within a separate report.

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

FOR APPROVAL

CHANGES TO ACADEMIC PLANS [effective 1 September 2014]

Faculty of Engineering
Software Engineering, Option in Entrepreneurship

1. Motion: To approve the creation of the option in entrepreneurship in the software engineering plan
(Note: new text = bold; deleted text = strikethrough.)

Introduction

Overview

The option in entrepreneurship gives University of Waterloo engineering students an opportunity to pursue an innovative curriculum focused on two themes of entrepreneurship; venture creation and corporate entrepreneurship. While it is common to associate entrepreneurship with venture creation, increasingly there is demand for students who can act as 'entrepreneurs within organizations', sometimes referred to as corporate entrepreneurs, or intrapreneurs. Both aspects of entrepreneurship are critical to Canada's competitiveness in global markets.

The option in entrepreneurship is designed for students with a passion for entrepreneurship, who wish to leverage their technical background with the business skills required to move ideas from concept to commercial success. It is built upon a uniquely Waterloo approach to entrepreneurship education that recognizes the need to couple academic and experiential learning to develop an individual's entrepreneurial capabilities. This is achieved through a combination of co-operative or capstone project educational experiences and academic content tailored to the entrepreneur's stage of development. As the largest co-op education university in Canada, Engineering and the University of Waterloo are positioned to become a world leader in entrepreneurship development.

Option Objectives
• be able to create and grow new entrepreneurial businesses
• understand the process of commercializing new technologies
• manage the introduction and growth of new business opportunities within existing organizations

Specific Requirements

Academic Courses. All of the following courses
• ECON 220 (currently a List C complementary studies course)
• One complementary studies course from List B
• BET 300, 320 and 400
• One technical course in an area related to your entrepreneurial experience approve by the Option Co-ordinator.

Entrepreneurial Experience. The entrepreneurial experience component of the option can be earned using either of two paths. Both paths include the experiential component as well as a planning
and execution course component.

1. **Venture Creation Emphasis.** In this track students demonstrate the experience by earning credit for an E-coop term, *Engineering Entrepreneurship Milestone*, and BET 310.

2. **Corporate Entrepreneurship Emphasis.** For this track students demonstrate the experience through their capstone design project BET 410A/410B plus a pair of the following: (CHE 482/483 or CIVE 400/401 or ECE 498A/498B or ENVE 430/431 or GENE 403/404 or GEOE 400/401 or MSCI 401/402 or ME 481/482 or MTE 481/482 or NE 408/409 or SE 490/491 or SYDE 461/462

**Rationale:** Due to university and faculty initiatives a new option is proposed, Option in Entrepreneurship, which was developed by the Conrad Centre. This new option will give engineering students an opportunity to pursue an innovative curriculum focussed on two themes of entrepreneurship; venture creation and corporate entrepreneurship.

**Computer Engineering and Electrical Engineering**

2. **Motion:** To approve changes to the computer engineering and electrical engineering plan as shown. (Note: new text = underline; deleted text = strikethrough.)

The field of electrical and computer engineering is multidisciplinary and based on foundations in science, mathematics, and computing—both hardware and software. Reflecting this diversity, the Department of Electrical and Computer Engineering (ECE) offers these two broad programs but is also a major partner in offering three more specialized programs, in Mechatronics Engineering, Nanotechnology Engineering, and Software Engineering. The Computer Engineering and Electrical Engineering programs, described here, span the field in slightly different ways to give students a deep base of core knowledge with the ability to specialize in one or more target areas. Students completing either program should gain the breadth of understanding necessary for lifelong learning in any area of electrical and computer engineering regardless of their choice of specialization in upper-year electives.

ECE identifies ten overlapping target areas in the discipline as listed below.

1. Communications, modulation and coding, multimedia, wireless.
2. Networks, mobility, distributed computing.
3. Energy distribution, motors/generators, power electronics, energy marketing.
4. Control, automation, robotics, mechatronics.
5. Digital architectures, embedded computers, formal specification and design.
6. Analog or digital devices, circuits, VLSI, micro-/nano-fabrication methods.
7. Microwave (radio frequency) or photonic devices and systems.
8. Signal processing, computational intelligence, soft computing.
10. Software engineering, requirements specification, software architectures, verification.

Common elements of mathematics, science, and computing permeate these areas and tie them together with a concentration on engineering science (analysis) and engineering design (synthesis). All students in both programs receive a core knowledge of the ten areas. Computer Engineering puts relatively more emphasis on digital hardware, software systems, and networks. Electrical Engineering puts relatively more emphasis on microwave/photonic systems, devices/fabrication, and power. Students who decide to specialize in a target area not emphasized in their program may need to take an extra course. However, the programs are also structured to make it easy to transfer from one to the other if the student develops interests for which this would be the best path.
The programs have elective choices in a wide array of nontechnical fields, in technical areas both inside and outside of ECE, and in science. Engineered systems based on electronics or embedded computers are especially pervasive across most areas of society and it is increasingly important for students to be able to integrate their technical abilities with other requirements. Teamwork and interdisciplinary collaboration are common. The programs place a significant emphasis on communication skills, design, and engineering professionalism. Broad minded and deeply trained students of computer or electrical engineering will make important contributions over the next several decades as the world addresses potential issues such as environmental quality, energy supply, better health care, etc.

ECE administers the Computer Engineering and Electrical Engineering programs and houses committees and staff supporting curriculum development, program operation, and student advisement. Help and information are available by contacting the ECE Undergraduate Office or browsing the ECE website.

**Academic Curricula**

The programs described here are new for students entering in 2011 or beyond. Students who entered one of these programs before 2011 should follow the appropriate prior calendar for the curriculum and course descriptions of their core program. However, see the note at the end of this section regarding the Option in Software Engineering.

The programs involve a prescribed course load in each term along with some academic milestones which must be completed at or before specified times. Laboratory meets are compulsory where they form part of a course. Approval from ECE is required for all changes from the specified programs. Permission to carry more than the normal load in any term is at the discretion of ECE and is dependent on both the student's previous term average and their cumulative average.

There are six co-operative work terms and the normal rules of The Co-operative Education System apply, as further described in the Engineering Work Terms section. With permission and coordination through the ECE Undergraduate Office, it is possible to create eight-month co-operative work terms by rearranging the term sequence.

The promotion criteria used to determine progression through the program, in either Computer Engineering or Electrical Engineering, are as described in the Engineering Examinations and Promotions section. These include term-average requirements, course-grade requirements, and milestone requirements.

The table below outlines the content of the eight academic terms and six co-operative work terms. The ordering of the terms is as described in the Study/Work Sequence section. The superscripts 8 and 4S are for information specific to Stream 8 and Stream 4S, respectively. For academic terms, the average scheduled hours per week are indicated in the columns C for class (LEC or SEM), T for tutorial (TUT), and L for laboratory (LAB or PRJ). Most laboratories are either open or scheduled every second or third week. In each of the three terms 2B, 3A, and 3B, there are two program-specific required courses labelled as CE for Computer Engineering or EE for Electrical Engineering. Students may take courses from the other program and some count as Technical Elective choices (see below).

**Notes**

1. There are a total of eleven elective courses. Five are technical electives, four are complementary studies electives, and two are natural science electives. Normally, students take two technical electives in 4A, three technical electives in 4B, and the others (complementary studies,
natural science) in the remaining elective slots between 2B and 4B. Students may deviate from this order but must take at least the specified number of courses in each term. Electives vary in the number and type of scheduled hours per week.

2. Students in the Option in Biomechanics or the Option in Mechatronics must choose a compatible topic for their design project sequence in ECE 498A, 498B. See the option description or option coordinator for details.

3. Special topics courses (ECE 493) are offered as resources and faculty interests permit. Students should consult the ECE Undergraduate Office or ECE website for upcoming topics. Some offerings may have laboratory meets.

4. The "Electrical and Computer Engineering Practice" courses (ECE 100A/B, 200A/B, 300A/B, 400A/B) have pass/fail requirements and deadlines for successful completion. The "Work-term Report" courses (WKRPT201, 301, 401) have minimal-grade requirements and deadlines for successful completion. (Courses with deadlines for successful completion are described as type DRNC [see Rule 11] in the promotion rules.)

5. Courses with deadlines for successful completion and other milestones are shown in the terms where they are normally completed. Due dates are more fully described in the Milestones and Deadlines section below.

6. The courses labelled ECE 105 and ECE 106 may be offered as PHYS courses rather than ECE courses.

7. Students can enroll in the sequence ECE 498A-498B, or the sequence GENE 403-404, in their 4A-4B terms. Combinations such as ECE 498A-GENE404 are not allowed.

Key:
n/a translates to "not applicable"

<table>
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<tr>
<th>Term</th>
<th>CE or EE</th>
<th>Course/Milestone</th>
<th>Title and Notes</th>
<th>Cls</th>
<th>Tut</th>
<th>Lab</th>
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<td>Co-operative Work Term</td>
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Term | CE or EE | Course/ Milestone | Title and Notes | Cls | Tut | Lab
--- | --- | --- | --- | --- | --- | ---
Fall<sup>4S</sup>, Winter<sup>8</sup> | n/a | Professional Development Elective (one of PD 3, 4, 5, 6, 7, 8, 9) | | |

**Academic Term 4A Spring**

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**Work Term Fall**

n/a | COOP 6 | Co-operative Work Term |

**Academic Term 4B Winter**

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**Elective Courses**

**Complementary Studies Electives**

Students are required to complete four complementary studies elective (CSE) courses to satisfy the Complementary Studies Requirements for Engineering Students. These are in addition to those courses which are part of the core program and contain complementary studies material, such as ECE 290, ECE 390, the Professional Development (PD) sequence, and the ECE Practice sequence. The four CSE courses are to be chosen according to the following constraints.

- Two courses from List C – Humanities and Social Sciences Courses
- Two courses from any of List A – Impact Courses, List C, or List D – Other Permissible Complementary Studies Courses

Students may take up to one technique course (i.e., learning a skill or language) as part of List D. If participating in an exchange program, students may instead take up to two courses in the language of the exchange destination as part of List D. Technique courses need ECE approval to be considered as complementary studies electives.

**Natural Science Electives**

Students are required to complete two natural science elective (NSE) courses. The two NSE courses must be primarily concerned with natural science and are in addition to the science components of the core programs, such as CHE 102, ECE 105 and 106. Students may use the two NSE courses to broaden their understanding of the scientific basis for engineering or to add depth in their chosen
target area of specialization. A student must select at least one from List 1 and at most one from List 2.

In addition, a student may arrange with their program advisor permission to take other natural science intensive courses, which meet the minimum natural science requirement, at another university during a coop work term.

**List 1: Natural Science Intensive Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>BIOL 130 and 130L</td>
<td>Introductory Cell Biology</td>
</tr>
<tr>
<td>BIOL 240 and 240L</td>
<td>Fundamentals of Microbiology</td>
</tr>
<tr>
<td>BIOL 273 and 273L</td>
<td>Principles of Human Physiology 1</td>
</tr>
<tr>
<td>CHEM 123 and 123L</td>
<td>Chemical Reactions, Equilibria and Kinetics</td>
</tr>
<tr>
<td>CHEM 237 and 237L</td>
<td>Introductory Biochemistry</td>
</tr>
<tr>
<td>CHEM 262 and 262L</td>
<td>Organic Chemistry for Engineering and Bioinformatics Students</td>
</tr>
<tr>
<td>*ECE 209</td>
<td>Electronic and Electrical Properties of Materials</td>
</tr>
<tr>
<td>*Note that ECE 209 cannot count as an NSE for Electrical Engineering students</td>
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<tr>
<td>ENVS 200</td>
<td>Field Ecology</td>
</tr>
<tr>
<td>NE 122</td>
<td>Organic Chemistry for Nanotechnology Engineers</td>
</tr>
<tr>
<td>PHYS 233</td>
<td>Introduction to Quantum Mechanics</td>
</tr>
<tr>
<td>PHYS 256</td>
<td>Geometrical and Physical Optics</td>
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<td>PHYS 358</td>
<td>Thermal Physics</td>
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**List 2: Natural Science Courses**

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<tr>
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<td>Introductory Zoology</td>
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<td>BIOL 112</td>
<td>Introductory Biology 2</td>
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<td>BIOL 130</td>
<td>Introductory Cell Biology</td>
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<tr>
<td>BIOL 150</td>
<td>Organismal and Evolutionary Ecology</td>
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<tr>
<td>BIOL 165</td>
<td>Diversity of Life</td>
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<td>BIOL 211</td>
<td>Introductory Vertebrate Zoology</td>
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<tr>
<td>BIOL 240</td>
<td>Fundamentals of Microbiology</td>
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<tr>
<td>BIOL 241</td>
<td>Introduction to Applied Microbiology</td>
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<tr>
<td>BIOL 273</td>
<td>Principles of Human Physiology 1</td>
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<td>CHE 161</td>
<td>Engineering Biology</td>
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<tr>
<td>CHEM 120</td>
<td>Physical and Chemical Properties of Matter</td>
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<td>CHEM 123</td>
<td>Chemical Reactions, Equilibria and Kinetics</td>
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<table>
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<th>Course</th>
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<tr>
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<td>Fundamentals of Microbiology</td>
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<td>BIOL 273 and 273L</td>
<td>Principles of Human Physiology 1</td>
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<tr>
<td>CHEM 123 and 123L</td>
<td>Chemical Reactions, Equilibria and Kinetics</td>
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<p>| *ECE 209 | Electronic and Electrical Properties of Materials |
| *Note that ECE 209 cannot count as an NSE for Electrical Engineering students |</p>
<table>
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<td>CHEM 209</td>
<td>Introductory Spectroscopy and Structure</td>
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<tr>
<td>CHEM 217</td>
<td>Chemical Bonding</td>
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<tr>
<td>CHEM 237</td>
<td>Introductory Biochemistry</td>
</tr>
<tr>
<td>CHEM 254</td>
<td>Introductory Chemical Thermodynamics</td>
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<td>CHEM 262</td>
<td>Organic Chemistry for Engineering and Bioinformatics Students</td>
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<td>CHEM 266</td>
<td>Basic Organic Chemistry 1</td>
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<td>CHEM 356</td>
<td>Introductory Quantum Mechanics</td>
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<td>CHEM 404</td>
<td>Physicochemical Aspects of Natural Waters</td>
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<td>Statics and Solid Mechanics 1</td>
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<td>Introductory Earth Sciences</td>
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<td>Introductory Environmental Sciences</td>
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<td>EARTH 123</td>
<td>Introductory Hydrology</td>
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<td>EARTH 153</td>
<td>Earth Engineering</td>
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<td>EARTH 205</td>
<td>Introduction to Atmospheric Science</td>
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<td>EARTH 221</td>
<td>Geochemistry 1</td>
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<td>EARTH 270</td>
<td>Disasters and Natural Hazards</td>
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<td>EARTH 281</td>
<td>Geological Impacts on Human Health</td>
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<td>EARTH 361</td>
<td>Atmospheric Motions and Physics</td>
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<td>EARTH 444</td>
<td>Applied Wetland Science</td>
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<td>ENVE 127</td>
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<td>Environmental Chemistry</td>
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<td>ENVE 276</td>
<td>Environmental Biology and Biotechnology</td>
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<td>Classical Mechanics and Special Relativity</td>
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<td>Introduction to Biophysics</td>
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<td>Condensed Matter Physics</td>
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<td>PHYS 375</td>
<td>Astrophysics 2 — Stars and Galaxies</td>
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<td>PHYS 380</td>
<td>Molecular and Cellular Biophysics</td>
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<td>SCI 238</td>
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**Technical Electives**

Students are required to complete five technical elective (TE) courses, normally taken during the fourth year. Up to two of these may be technical courses from other programs, which must have significant components of both engineering science and engineering design to be allowed. Further information is available from the ECE Undergraduate Office or ECE website. Some courses of
interest may require prerequisite knowledge that is not part of the core program in Computer Engineering or Electrical Engineering. Students may require extra courses or may need to seek enrollment approval from the course professor if the prerequisite knowledge was acquired by other means.

The slate of TE courses offered by ECE for the 4A and 4B terms is under revision. There may be courses added and changes made to the content, term of offering, or meet times from what is listed below. Further information is available from the ECE Undergraduate Office or ECE website.

The following TE courses are normally offered for the Spring (4A) term.

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<td>ECE 418</td>
<td>Communications Networks</td>
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<td>Communication System Security</td>
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<td>Distributed Computing</td>
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<td>Design and Applications of Power Electronic Converters</td>
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<tr>
<td>ECE 416</td>
<td>Higher Level Network Protocols</td>
<td>3</td>
<td>1</td>
<td>1.5</td>
</tr>
<tr>
<td>ECE 417</td>
<td>Image Processing</td>
<td>3</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>ECE 423</td>
<td>Embedded Computer Systems</td>
<td>3</td>
<td>1</td>
<td>1.5</td>
</tr>
<tr>
<td>ECE 433</td>
<td>Semiconductor Device Technology Fabrication Technologies for Micro and Nano Devices</td>
<td>3</td>
<td>1</td>
<td>1.5</td>
</tr>
<tr>
<td>ECE 444</td>
<td>Integrated Analog Electronics</td>
<td>3</td>
<td>1</td>
<td>1.5</td>
</tr>
<tr>
<td>ECE 457B</td>
<td>Fundamentals of Computational Intelligence</td>
<td>3</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>ECE 459</td>
<td>Programming for Performance</td>
<td>3</td>
<td>1</td>
<td>1.5</td>
</tr>
<tr>
<td>ECE 464</td>
<td>High Voltage Engineering and Power System Protection</td>
<td>3</td>
<td>1</td>
<td>1.5</td>
</tr>
<tr>
<td>ECE 467</td>
<td>Power System Analysis, Operations and Markets</td>
<td>3</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>ECE 474</td>
<td>Radio and Wireless Systems</td>
<td>3</td>
<td>1</td>
<td>1.5</td>
</tr>
<tr>
<td>ECE 477</td>
<td>Photonic Devices and Systems</td>
<td>3</td>
<td>1</td>
<td>1.5</td>
</tr>
<tr>
<td>ECE 488</td>
<td>Multivariable Control Systems</td>
<td>3</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>ECE 493</td>
<td>Special Topics in Electrical and Computer Engineering (see Note 3)</td>
<td>3</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

The following project elective is offered every term. Students may take it at most once in the program as a TE course.
The following courses are offered for the core program in Electrical Engineering but are considered TE courses for Computer Engineering. Students of Computer Engineering may use at most two of these courses as TE courses.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Cls</th>
<th>Tut</th>
<th>Lab</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECE 331</td>
<td>Electronic Devices</td>
<td>3</td>
<td>1</td>
<td>1.5</td>
</tr>
<tr>
<td>ECE 361</td>
<td>Power Systems and Components</td>
<td>3</td>
<td>1</td>
<td>1.5</td>
</tr>
<tr>
<td>ECE 375</td>
<td>Electromagnetic Fields and Waves</td>
<td>3</td>
<td>1</td>
<td>1.5</td>
</tr>
</tbody>
</table>

The following courses are offered for the core program in Computer Engineering but are considered TE courses for Electrical Engineering. Students of Electrical Engineering may use at most two of these courses as TE courses.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Cls</th>
<th>Tut</th>
<th>Lab</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECE 254</td>
<td>Operating Systems and Systems</td>
<td>3</td>
<td>1</td>
<td>1.5</td>
</tr>
<tr>
<td>ECE 327</td>
<td>Digital Hardware Systems</td>
<td>3</td>
<td>1</td>
<td>1.5</td>
</tr>
<tr>
<td>ECE 351</td>
<td>Compilers</td>
<td>3</td>
<td>1</td>
<td>1.5</td>
</tr>
<tr>
<td>ECE 356</td>
<td>Database Systems</td>
<td>3</td>
<td>1</td>
<td>1.5</td>
</tr>
<tr>
<td>ECE 358</td>
<td>Computer Networks</td>
<td>3</td>
<td>1</td>
<td>1.5</td>
</tr>
</tbody>
</table>

Milestones and Deadlines

ECE 100A/B, 200A/B, 300A/B, 400A/B

Each of these "ECE Practice" courses has pass/fail requirements and must be successfully completed by the end of the academic term following the one having the scheduled meets as shown in the program table above. (Specifically, students are not allowed to enroll in any academic term beyond 1B without the credit for ECE100A, beyond 2A without the credit for ECE 100B, beyond 2B without the credit for ECE 200A, beyond 3A without the credit for ECE 200B, beyond 3B without the credit for ECE 300A, or beyond 4A without the credit for ECE 300B.)

Technical Presentation Milestone

Normally students are not allowed to enrol in any academic term beyond 3B until the technical presentation milestone is completed. This milestone is intended to be completed when students successfully deliver a short technical presentation during their 2B term. If unsuccessful, a second attempt is allowed during the 3A term. If still unsuccessful, students must pass a course or workshop that focuses on presentation skills (e.g., a Department approved speech-communications course or an external workshop, such as Toastmasters, with requirements approved by the Department; students
should contact their program advisor). Students can use the pre-approved course or workshop to clear the technical presentation milestone; alternatively, if the course in question is eligible as a Complementary Studies Elective (CSE), students may choose to use the course as a List D CSE, but must then clear the technical presentation milestone by successfully delivering a presentation during their 3B (or, in exceptional circumstances 4A) term.

**English Language Proficiency**

Details are as described in the English Language Proficiency Requirement section. Students must achieve this milestone before entering any academic term beyond 2A.

**WKRPT 201, 301, 401**

For each of these "Work-term Report" courses, the student writes a technical report based on their work-term experience and submits it for grading in the academic term which follows the work term. More details are found in the course descriptions for WKRPT 201, 301, and 401; in the Engineering Examinations and Promotions section; and from the ECE Undergraduate Office or ECE website. The reports are normally submitted in the academic terms following the 3rd, 4th, and 5th work terms, as shown in the program table below, but students have flexibility to move each report by one work term earlier or later in the program. The following table shows the possible submission terms for each report. The normal term of submission is shown in bold. Students are not allowed to enroll in any academic term beyond the last possible submission term (shown in italics) without credit for the corresponding work-report course.

<table>
<thead>
<tr>
<th>Work-term Experience</th>
<th>Stream-4S Submission</th>
<th>Stream-8 Submission</th>
</tr>
</thead>
<tbody>
<tr>
<td>WKRPT 201</td>
<td>2nd, 3rd, 4th</td>
<td>2A, 2B, 3A</td>
</tr>
<tr>
<td>WKRPT 301</td>
<td>3rd, 4th, 5th</td>
<td>2B, 3A, 3B</td>
</tr>
<tr>
<td>WKRPT 401</td>
<td>4th, 5th, 6th</td>
<td>3A, 3B, 4B</td>
</tr>
</tbody>
</table>

**Workplace Hazardous Materials**

Details are as described in the WHMIS Requirements section. Students must take Workplace Hazardous Materials Information System (WHMIS) training in order to participate in the laboratory for ECE 140 during the 1A term. Students must achieve this milestone in order to remain enrolled in 1A or to enroll in any academic term beyond 1A.

**Available Options**

The normal programs in Computer Engineering and Electrical Engineering, shown above, have been designed to offer a well-balanced and rewarding education. Students wishing to further enrich their studies may elect to take any option (or minor or joint degree) for which they meet the eligibility requirements. See the section on Engineering Interdisciplinary Alternatives for further information. These will typically require extra courses and/or constrain the choice of elective courses. When taking courses from a different program, the student may need to do extra work to compensate for a different background preparation. Time beyond the normal program duration may be necessary due to the extra requirements and constraints on space or scheduling. Consult the ECE Undergraduate Office or ECE website for more information and planning assistance.
Computer Option for Electrical Engineering Students

Electrical Engineering students share much of their core program with Computer Engineering students. The Computer Option allows Electrical Engineering students to enhance their study of software and embedded systems and specialize in areas normally associated with Computer Engineering. The option consists of eleven courses: three extra, six already part of the core program for Electrical Engineering, and two fourth-year technical electives. Successful completion of these courses results in a special designation on the student's transcript. For the designation to appear on the transcript, the student must achieve an average of at least 60% in the eleven option courses and a grade of at least 50% in each of the courses in the option. To enroll in this option, a student needs to have a cumulative average of at least 80% at the end of 2A.

The following nine courses are required (any course marked * can count towards the option or as a technical elective, but not both):

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Core or extra</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECE 103</td>
<td>Discrete Mathematics</td>
<td>core</td>
</tr>
<tr>
<td>ECE 124</td>
<td>Digital Circuits and Systems</td>
<td>core</td>
</tr>
<tr>
<td>ECE 155</td>
<td>Engineering Design with Embedded Systems</td>
<td>core</td>
</tr>
<tr>
<td>ECE 222</td>
<td>Digital Computers</td>
<td>core</td>
</tr>
<tr>
<td>ECE 224</td>
<td>Embedded Microprocessor Systems</td>
<td>core</td>
</tr>
<tr>
<td>ECE 250</td>
<td>Algorithms and Data Structures</td>
<td>core</td>
</tr>
<tr>
<td>*ECE 254</td>
<td>Operating Systems and Systems Programming</td>
<td>extra (available in 2B)</td>
</tr>
<tr>
<td>*ECE 351 or</td>
<td>Compilers</td>
<td>extra (available in 3A)</td>
</tr>
<tr>
<td>*ECE 327</td>
<td>Digital Hardware Systems</td>
<td>extra (available in 3A)</td>
</tr>
<tr>
<td>*ECE 356 or</td>
<td>Database Systems</td>
<td>extra (available in 3B)</td>
</tr>
<tr>
<td>*ECE 358</td>
<td>Computer Networks</td>
<td>extra (available in 3B)</td>
</tr>
</tbody>
</table>

In addition to the above nine courses, at least two of the following fourth-year courses must be chosen as technical electives. (This list is subject to change from time to time. For further information on the eligibility of a particular course, contact the option co-ordinator).

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECE 406</td>
<td>Algorithm Design and Analysis</td>
</tr>
<tr>
<td>ECE 416</td>
<td>Higher Level Network Protocols</td>
</tr>
<tr>
<td>ECE 418</td>
<td>Communications Networks</td>
</tr>
<tr>
<td>ECE 429</td>
<td>Computer Architecture</td>
</tr>
<tr>
<td>ECE 451</td>
<td>Software Requirements Specification and Analysis</td>
</tr>
<tr>
<td>ECE 452</td>
<td>Software Design and Architectures</td>
</tr>
<tr>
<td>ECE 453</td>
<td>Software Testing, Quality Assurance and Maintenance</td>
</tr>
</tbody>
</table>
Special Note Regarding the Option in Software Engineering

This note affects only students enrolled in Computer Engineering or Electrical Engineering prior to Fall 2009. There has been a change to the three-course sequence in software engineering such that there is no longer a large group design project. For students considering the Option in Software Engineering, the situation remains as described in prior calendars except that students must now also complete the regular ECE design project sequence ECE 391, 492A, 492B. Computer Engineering students may replace ECE 355 in 3B with one of ECE 451, 452, or 453 but are then required to complete all of ECE 451, 452, and 453 even if the rest of the option is not completed. The substituted course is considered a core course. Students with an interest in software engineering are also able to take ECE 451, 452, or 453 individually and/or in any order and these count as TE courses in the program.

Rationale: The reasoning for the variety of changes proposed is as follows: wording related to the Option in Software Engineering is deleted as it was relevant prior to 2009; housekeeping changes include title changes to Natural Science Electives, PHYS 275 and 375; Math 211 and Math 212 are renumbered as ECE 205 and ECE 206 respectively in the academic listing, these courses are now taught by Electrical & Computer Engineering rather than by the Mathematics Faculty; the department is now using the new inter-disciplinary fourth-year design project sequence and therefore the academic listing is revised to reflect this; the Technical Presentation title is changed to include “Milestone” and the wording of this section is revised to describe how to handle a failed TPM after two attempts; PD 8 and PD 9 are added to the list of PD electives; ECE 358 is removed as a prerequisite for ECE 418 as it is no longer required; a spring term offering is added to ECE 206 calendar description; material has been reorganized and distinctive topics shuffled between the following courses to add to their appeal for the students: ECE 432, ECE 433 and ECE 475. As a result the titles have been revised and the prerequisite is updated for ECE 432 to reflect the required background since the content has been revised.

Faculty of Environment
Bachelor of Environmental Studies, Honours International Development

3. Motion: To approve the establishment of a research specialization and a practice specialization within the international development plan, as below.

The International Development Program is offered by the School of Environment, Enterprise and Development (SEED) within the Faculty of Environment.

Seed collaborates with St. Paul's University College in delivering the Program.

The trans-disciplinary field of international development (INDEV) has evolved significantly over the past 25 years. Governments, civil society organizations, and private enterprises increasingly are looking for people with a rigorous preparation that has equipped them to be development catalysts at the community project level. International Development students will acquire the knowledge,
business skills, and problem solving orientation required to improve life for all members of challenged communities in a manner that is environmentally sustainable, culturally responsible, and scientifically sound.

In addition to preparing development catalysts, due to its multi-disciplinary character, the Honours International Development plan, when supplemented by Arts electives, constitutes a contemporary general education for a 21st century global village world. From scientific method to political economy to business skills, the plan lays a foundation for a cosmopolitan hommes d’affaires.

The Honours International Development plan has been designed to: (1) integrate knowledge from several disciplines including environmental studies, social sciences, and management; (2) develop competencies for adapting to different cultural and societal perspectives on development, for problem-solving on multi-cultural teams, and for adapting technology to fit the local situation, and (3) encourage innovative, sustainable solutions to development issues. The plan emphasizes project-oriented learning that incorporates a strong problem-solving theme on issues that are inherently multi-dimensional and complicated by differing cultural perspectives on desired development outcomes. The opportunity for an eight month required field placement provides practical exposure to development work and issues.

In the first year, the plan provides an overview of the development field, a basic understanding of economics, and a thorough introduction to the environment, geography, and the principles of planning. These themes are continued in years two and three with environmental research methods and environmental assessment. In addition, in year two students are introduced to the tools of general and social accounting, and the theory and practice of problem-solving in development contexts. Courses in third year discuss ethical issues between and within cultures, the role of development organizations including the importance of the individual social entrepreneur. Students also begin studying marketing and communication for development.

In the fourth year students have the option of undertaking either a practice specialization or a research specialization. The Practice Specialization requires students undertake an eight month field placement for credit. In this plan, which requires students to take courses in the 4A (Spring) term prior to their field placement, students apply their marketing and communication skills in fund raising activities and gain specialized training toward their field placement. Fall term (4B) and winter term (4C) constitute two consecutive terms of field placement work and learning that culminates in a two week capstone exercise at St Paul's University College. Students pursuing field placements in French or Spanish-speaking developing countries are required to develop or demonstrate at least intermediate-level French or Spanish by fourth year. Students with little or no Spanish or French are advised to begin language preparation in first year. Students pursuing field placement in other non-English speaking developing countries will receive training in one of the local languages as part of the in-country orientation. Students who successful complete the requirements for the field placement option will receive a development practice designation on their transcript.

Students who choose not to undertake the field placement Research Specialization take courses in the Fall and Winter terms of their fourth year. The fourth year curriculum requires students to take a more advanced international development theory course, and develop and write an undergraduate thesis on a topic related to their program.

Additional information may be obtained from the Director, International Development.
<table>
<thead>
<tr>
<th>Field Placement</th>
<th>Non Field Placement</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Practice Specialization</strong></td>
<td><strong>Research Specialization</strong></td>
</tr>
<tr>
<td><strong>Year One</strong></td>
<td><strong>Year One</strong></td>
</tr>
<tr>
<td>INDEV 100 Introduction to International Development</td>
<td>INDEV 100 Introduction to International Development</td>
</tr>
<tr>
<td>INDEV 101 Issues in International Development</td>
<td>INDEV 101 Issues in International Development</td>
</tr>
<tr>
<td>ENVS 178 Introduction to Environmental Research Methods</td>
<td>ENVS 178 Introduction to Environmental Research Methods</td>
</tr>
<tr>
<td>ENVS 195 Introduction to Environmental Studies</td>
<td>ENVS 195 Introduction to Environmental Studies</td>
</tr>
<tr>
<td>GEOG 101 Geography and Human Habitat</td>
<td>GEOG 101 Geography and Human Habitat</td>
</tr>
<tr>
<td>PLAN 100 The Evolution of Planning</td>
<td>PLAN 100 The Evolution of Planning</td>
</tr>
<tr>
<td>ECON 101 Introduction to Microeconomics</td>
<td>ECON 101 Introduction to Microeconomics</td>
</tr>
<tr>
<td>ECON 102 Introduction to Macroeconomics</td>
<td>ECON 102 Introduction to Macroeconomics</td>
</tr>
<tr>
<td>Two electives</td>
<td>Two electives</td>
</tr>
<tr>
<td>Total 5.0 Units</td>
<td>Total 5.0 Units</td>
</tr>
<tr>
<td><strong>Year Two</strong></td>
<td><strong>Year Two</strong></td>
</tr>
<tr>
<td>INDEV 200 The Political Economy of Development</td>
<td>INDEV 200 The Political Economy of Development</td>
</tr>
<tr>
<td>INDEV 202 Accounting for Development Organizations</td>
<td>INDEV 202 Accounting for Development Organizations</td>
</tr>
<tr>
<td>INDEV 212 Problem-solving for Development</td>
<td>INDEV 212 Problem-solving for Development</td>
</tr>
<tr>
<td>ENVS 278 Advanced Environmental Research Methods</td>
<td>ENVS 105 Environmental Stewardship and Ethics</td>
</tr>
<tr>
<td>ERS 215 Environmental and Sustainability Assessment I</td>
<td>ENVS 278 Advanced Environmental Research Methods</td>
</tr>
<tr>
<td>Five electives</td>
<td>ERS 215 Environmental and Sustainability Assessment I</td>
</tr>
<tr>
<td>Total 5.0 units</td>
<td>Four electives</td>
</tr>
<tr>
<td><strong>Year Three</strong></td>
<td><strong>Year Three</strong></td>
</tr>
<tr>
<td>INDEV 300 Culture and Ethics</td>
<td>INDEV 300 Culture and Ethics</td>
</tr>
<tr>
<td>INDEV 302 Development Agents</td>
<td>INDEV 302 Development Agents</td>
</tr>
<tr>
<td>INDEV 303 Marketing and Communication for Development Agents</td>
<td>INDEV 303 Marketing and Communication for Development Agents</td>
</tr>
<tr>
<td>INDEV 308 Introduction to Social Entrepreneurship</td>
<td>INDEV 308 Introduction to Social Entrepreneurship</td>
</tr>
<tr>
<td>INDEV 387 Global Cities in Global Development</td>
<td>INDEV 387 Global Cities in Global Development</td>
</tr>
<tr>
<td>ERS 315 Environmental and Sustainability Assessment II</td>
<td>ERS 315 Environmental and Sustainability Assessment II</td>
</tr>
<tr>
<td>MSCI 211 Organizational Behaviour</td>
<td>MSCI 211 Organizational Behaviour</td>
</tr>
<tr>
<td>Three electives</td>
<td>Three electives</td>
</tr>
<tr>
<td>Total 5.0 units</td>
<td>Total 5.0 units</td>
</tr>
<tr>
<td><strong>Year Four</strong></td>
<td><strong>Year Four</strong></td>
</tr>
<tr>
<td>INDEV 304 Language Conversation for Development Field Work</td>
<td>INDEV 475 Contemporary Development Issues</td>
</tr>
<tr>
<td>INDEV 401 International Development Placement 1</td>
<td>INDEV 490A Honours Thesis/Project Preparation</td>
</tr>
<tr>
<td>INDEV 402 International Development Placement 2</td>
<td>INDEV 490B Honours Thesis/Project Completion</td>
</tr>
<tr>
<td>INDEV 403 Advanced Marketing and Communication for Development Agents</td>
<td>INDEV 476 Contemporary Issues in Development Practice</td>
</tr>
<tr>
<td>INDEV 476 Contemporary Issues in Development Practice</td>
<td>INDEV 404 International Development Theory</td>
</tr>
<tr>
<td>One elective</td>
<td>Six Electives</td>
</tr>
</tbody>
</table>
Rationale: The specializations will provide greater program flexibility for students. In addition, the two specializations are expected to improve recruitment and retention within the plan.

Knowledge Integration

4. Motion: To approve changes to the knowledge integration plan as shown. (Note: new text = **bold**; deleted text = strikethrough.)

**Year One**

INTEG 10 Knowledge Integration Seminar (0.0 units)
INTEG 120 Introduction to the Academy: Disciplines and Integrative Practices
INTEG 121 Introduction to the Academy: Design and Problem-Solving
PHIL 145 Critical Thinking
SPCOM 223 Public Speaking

Six electives totaling 3.0 units, including:

Students must take **at least one course to satisfy their Math Computer Science breadth requirement**, selected from of the following list, or a suitable substitute by departmental consent of the CKI Undergraduate Officer.

CS 100 Introduction to Computing through Applications
CS 115 Introduction to Computer Science 1
CS 135 Designing Functional Programs
CS 145 Designing Functional Programs (Advanced Level)

Students must take **at least two courses to satisfy their Math breadth requirement**. Select any two MATH courses at the 100-level or a suitable substitute by departmental consent of the CKI Undergraduate Officer.

Students must take **at least one course** (including the corresponding lab, if the course has one), to count towards their **Investigative Science** breadth requirement.

Two electives†† **totaling** (1.0 units)

**Total of 5.0 units**

**Year Two**

INTEG 10 Knowledge Integration Seminar (0.0 units)
INTEG 220 Nature of Scientific Knowledge
INTEG 221 The Social Nature of Knowledge
INTEG 230 The Museum Course: Preparation and Field Trip (0.25 units)
Eight Electives†† (4.0 units)

**Total of 5.25 units**

**Year Three**

INTEG 10 Knowledge Integration Seminar (0.0 units)
INTEG 231 The Museum Course: Field Trip Project (0.25 units)
INTEG 320 The Museum Course: Research and Design
INTEG 321 The Museum Course: Practicum and Presentation
INDEV 300 Culture and Ethics or a suitable substitute by departmental consent

Seven Eight Electives†† (3.5 4.0 units)

Total of 5.25 units

Year Four
INTEG 10 Knowledge Integration Seminar (0.0 units)
INTEG 420 Senior Research Project A (Research and Planning)
INTEG 421 Senior Research Project B (Writing and Defence)
Eight Electives†† (4.0 units)

Total of 5.0 units

Theme Course Requirements

††Breadth course requirements (listed below) are to be taken in to consideration when choosing elective courses.

†Breadth Course Requirements

BKI students have significant flexibility in their course selection, but must be careful to choose their courses in order to meet specific overall breadth requirements in the following areas. Courses listed below are examples of those students may take to meet their breadth requirements; further guidance and a list of approved courses may be found on the Knowledge Integration website under Information for Current Undergraduates.

‡Investigative Science
Students must successfully complete a minimum of 1.5 units (three courses) that include a hands-on investigative component such as field study, lab, or programming. Co-requisite corresponding labs must be taken and passed but do not count toward the 1.5 units of investigative science. For example, KIN 100 Human Anatomy: Limbs and Trunk (0.50 units), and its co-requisite corresponding KIN 100L Human Anatomy Lab (0.25 units) count as one course (0.50 units) for the purposes of satisfying the investigative science requirement.

The investigative science requirement cannot be satisfied with any “SCI”-labelled or “SCBUS”-labelled units.

Students are not limited to first-year courses. They can satisfy the investigative science requirement with a sequence of courses, one prerequisite to the next, such as:
EARTH 121 Introductory Earth Sciences (0.50), and
EARTH 121L Introductory Earth Sciences Laboratory (0.25)
EARTH 122 Introductory Environmental Sciences (0.50), and
EARTH 122L Introductory Environmental Sciences Laboratory (0.25)
EARTH 231 Mineralogy (0.50)

Students are not limited to courses with corresponding labs. They can satisfy the investigative science requirement with courses that include hands-on investigative components, such as:
ANTH 355 Human Osteology
ANTH 365 Fossil Hominids
BIOL 211 Introductory Vertebrate Zoology
CS 234 Data Types and Structures
ENVS 200 Field Ecology
GEOG 165 Computer Cartography: Principles and Design
PLAN 281 Introduction to Geographic Information Systems (GIS)

Languages
Students must take at least one of 100-level or 200-level ENGL course.
ENGL 100-level
ENGL 200-level

Students must take at least two courses in a the same second language [e.g. FR 151/152 Basic French, GER 101/102 Elementary German, SPAN 101/102 Introduction to Spanish, or a suitable substitute by departmental consent]. etc.)

Probability and Statistics
Students must take at least one course in probability/statistics from the approved list on the Knowledge Integration website under Information for Current Undergraduates, of the following or a suitable substitute by departmental consent of the CKI Undergraduate Officer.
STAT 202 Introductory Statistics for Scientists
STAT 220 Probability (Non-Specialist Level)

Research design/methods
Students must take at least one course in research methods from the approved list on the Knowledge Integration website under Information for Current Undergraduates, of the following or a suitable substitute by departmental consent of the CKI Undergraduate Officer.
ENVS 178 Introduction to Environmental Research Methods
ENVS 278 Advanced Environmental Research Methods

Ethics
Students must take at least one course in ethics from the approved list on the Knowledge Integration website under Information for Current Undergraduates, or a suitable substitute by consent of the CKI Undergraduate Officer.

Notes for the Bachelor of Knowledge Integration Academic Plan

1. Minimum Required Units
Total: 20.5 units, of which up to 1.0 may be lab units.

2. Course Load
No more than 2.5 units may be taken in a term without departmental approval of the CKI Undergraduate Officer; students seeking such approval must generally have an overall average of 80%.

3. Average Requirements
Students in the Knowledge Integration Honours Regular Academic Plan must maintain an overall cumulative average (all courses) of at least 65% and a major cumulative average of at least 75%. The major cumulative average includes all INTEG-labelled and core (required) courses, PHIL 145, SPSCOM 223, and all courses taken towards the KI breadth requirements. All required courses must be passed.

4. Materials and Costs
For some courses, extra fees may be required to cover field expenses/travel costs. Statements on extra costs, where required, will be found with the course descriptions.
5. **Restriction on number of First-Year Courses**

   A student must have at least 13.5 units at the 200-level or above.

6. **Double Counting**

   A course can be used to satisfy requirements for a maximum of two credentials. Double counting of courses applies as follows: once for the plan and once for a joint honours or concurrent degree, option, minor, diploma, or specialization. There is no limit on the number of courses that may be double counted unless otherwise stated.

**Rationale:**

The proposed changes enhance the consistency with which how theme/breadth electives are managed. The changes include references to “theme courses” and to “breadth courses”. The course-load limit is increased to 2.75 units to reflect current practice. The proposed changes also clarify the courses that count toward the major average.

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### Professional Development

5. **Motion:** To approve changes to all of the faculty co-op plans, and to remove the statement regarding the non-technical skills professional development course requirement, as shown.  
(Note: new text = **bold**; deleted text = strikethrough.)

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### Degree Requirements Common to all Faculty of Environment Academic Plans

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Honours Bachelor of Environmental Studies (BES) or Bachelor of Knowledge Integration (BKI), 4-year, Regular</th>
<th>Honours Bachelor of Environmental Studies (BES), 4-year, Co-op</th>
<th>General Bachelor of Environmental Studies (BES), 3-year</th>
</tr>
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<tbody>
<tr>
<td>Minimum Academic Units</td>
<td>20.0</td>
<td>20.0</td>
<td>15.0</td>
</tr>
<tr>
<td>Minimum Work-term Units</td>
<td>0.0</td>
<td>2.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Minimum Professional Development Units</td>
<td>0.0</td>
<td><strong>2.5-2.0</strong></td>
<td>0.0</td>
</tr>
<tr>
<td>Minimum Work-term reports</td>
<td>0</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Minimum Cumulative Overall Average</td>
<td>65%</td>
<td>65%</td>
<td>60%</td>
</tr>
<tr>
<td>Minimum Cumulative Major Average</td>
<td>70-75%</td>
<td>70-75%</td>
<td>65%</td>
</tr>
</tbody>
</table>
3. All courses taken are included in the cumulative overall average. Cumulative major averages are calculated using grades of select courses in accordance with the individual plans. See your plan section in this calendar for details. Cumulative averages, both major and overall are calculated using grades whether a course is passed or failed.

Students in a Co-op plan are responsible for successfully completing four Work Terms, four Work Term Reports, and five Professional Development courses. See plan section for details.

Environment and Business

Overview

The Honours Co-op plan provides for alternate terms of practical work experience and academic study. The first work term is in the Winter of the second year. Co-op Environment and Business students must normally follow the work and study-term sequence outlined in the "Co-op Course Scheduling Recommendation." Students complete five work terms. A work-term report is required upon completion of each work term and the minimum number of "satisfactory" work reports required to fulfill Co-op degree requirements is normally four.

Co-op students in the Faculty of Environment are required to complete a minimum of four Professional Development (PD) courses. PD1 and PD2 are mandatory. PD1 must be taken prior to the first work term and PD2 during the first work term.

Professional Development 2 (PD2) requires the submission of a written report. Successful completion of PD2 will be considered one of the four required work-term reports.

Other than PD1, PD courses are normally taken during Co-op work terms. Students are encouraged to take a Professional Development course each work term until the requirement is met.

Honours Co-operative Plan

Environment and Business Honours Co-op is a five work term plan in which four satisfactory work-term reports have to be written. The first work term occurs in the Winter term of the second year. Co-op students in Faculty of Environment are required to complete a minimum of five Professional Development (PD) courses, including a Professional Development introductory course (PD1) that must be taken prior to the first work term. At least two other of the PD courses must cover non-technical skills. Other than the initial course, the courses are normally taken during Co-op work terms. PD2 requires a work-term report to be written, which will be considered one of the four.
required work-term reports. Students are encouraged to take a PD course each work term until the requirement is met.

Co-op students in the Faculty of Environment are required to complete a minimum of four Professional Development (PD) courses. PD1 and PD2 are mandatory. PD1 must be taken prior to the first work term and PD2 during the first work term.

Professional Development 2 (PD2) requires the submission of a written report. Successful completion of PD2 will be considered one of the four required work-term reports.

Other than PD2, PD courses are normally taken during Co-op work terms. Students are encouraged to take a Professional Development course each work term until the requirement is met.

Students who fail to meet these requirements will not be permitted to continue in Co-op.

The Environment and Business Honours Co-op plan has the same academic requirements as the Environment and Business Honours plan with the exception that Honours students must take at least one of ENBUS 307, 308, 309, 310, 311, or 312 in their choice of electives. Students will be permitted to transfer from the Honours Co-op plan to the Honours plan if academic requirements have been met up to the time of transfer.

Environment and Resource Studies

Terms 1A, 1B, 4A, and 4B are the same as Years One and Four respectively of the Regular Academic Plan. In the Fall term (2A) Co-op students will be interviewed for jobs. Co-op students in the Faculty of Environment are required to complete a minimum of five Professional Development courses, including a Professional Development introductory course (PD1) that must be taken prior to the first work term. At least two other of the Professional Development courses must cover non-technical skills. Other than the initial course, these courses are normally taken during Co-op work terms. Students are encouraged to take a Professional Development course each work term until the requirement is met.

Co-op students in the Faculty of Environment are required to complete a minimum of four Professional Development (PD) courses. PD1 and PD2 are mandatory. PD1 must be taken prior to the first work term and PD2 during the first work term.

Professional Development 2 (PD2) requires the submission of a written report. Successful completion of PD2 will be considered one of the four required work-term reports.

Other than PD2, PD courses are normally taken during Co-op work terms. Students are encouraged to take a Professional Development course each work term until the requirement is met.

The first work term will be in the Winter following 2A. A total of four approved work-term reports are required for the Honours Co-op degree. Professional Development 2 (PD2) requires a work-term report to be written, which will be considered one of the four required work-term reports.
Geography and Environmental Management

Overview

Honours Co-op provides for alternate terms of practical work experience and academic study. Students may be admitted to Co-op in the first or second year. The first work term is in the Winter of the second year. Co-op Geography and Environmental Management students must normally follow the work and study-term sequence outlined by Co-operative Education & Career Action. Students must complete five work terms. A work-term report is required upon completion of each work term and four of these must be approved for the Co-op degree.

Co-op students in the Faculty of Environment are required to complete a minimum of four Professional Development (PD) courses. PD1 and PD2 are mandatory. PD1 must be taken prior to the first work term and PD2 during the first work term.

Professional Development 2 (PD2) requires the submission of a written report. Successful completion of PD2 will be considered one of the four required work-term reports.

Other than PD1, PD courses are normally taken during Co-op work terms. Students are encouraged to take a Professional Development course each work term until the requirement is met.

Inquiries for additional information regarding Co-operative studies should be directed to the Co-op Undergraduate Officer.

Geography and Environmental Management Four Year Honours

Honours Co-operative Academic Plan

Honours Geography and Environmental Management Co-op is a five work term Academic Plan in which four work-term reports have to be satisfactorily written.

Co-op students in the Faculty of Environment are required to complete a minimum of four Professional Development (PD) courses. PD1 and PD2 are mandatory. PD1 must be taken prior to the first work term and PD2 during the first work term.

Professional Development 2 (PD2) requires the submission of a written report. Successful completion of PD2 will be considered one of the four required work-term reports.

Other than PD1, PD courses are normally taken during Co-op work terms. Students are encouraged to take a Professional Development course each work term until the requirement is met.

The first work term occurs in the Winter term of the second year. PD2 taken during the first work term requires a work-term report, which will be considered one of the four required work-term reports.

Co-op Scheduling Recommendations

Co-op students in the Faculty of Environment are required to complete a minimum of five Professional Development (PD) courses, including a Professional Development introductory course (PD1) that must be taken prior to the first work term. At least two of the Professional Development courses must cover non-technical skills. Other than the initial course, these courses are
normally taken during Co-op work terms. Students are encouraged to take a Professional Development course each work term until the requirement is met.

**Geomatics**

**Honours Co-operative Academic Plan**

Honours Geomatics Co-op is a five work term Academic Plan in which four satisfactory work-term reports have to be written.

Co-op students in the Faculty of Environment are required to complete a minimum of four Professional Development (PD) courses. PD1 and PD2 are mandatory. PD1 must be taken prior to the first work term and PD2 during the first work term.

Professional Development 2 (PD2) requires the submission of a written report. Successful completion of PD2 will be considered one of the four required work-term reports. Other than PD1, PD courses are normally taken during Co-op work terms. Students are encouraged to take a Professional Development course each work term until the requirement is met.

The first work term occurs in the Winter term of the second year. Professional Development 2 (PD2) taken during the first work term requires a work-term report, which will be considered one of the four required work-term reports.

**Co-op Scheduling Recommendations**

Co-op students in the Faculty of Environment are required to complete a minimum of five Professional Development (PD) courses, including an introductory course Professional Development (PD1) that must be taken prior to the first work term. At least two other of the Professional Development courses must cover non-technical skills. Other than the initial course, these courses are normally taken during Co-op work terms. Students are encouraged to take a Professional Development course each work term until the requirement is met.

**Planning**

Honours Co-operative Plan

Planning Co-op is a five work-term plan in which four satisfactory work-term reports have to be written. It is recommended that students write their work-term reports for their first four work terms. Planning students are strongly encouraged to participate in at least one out-of-province work placement.

Co-op students in the Faculty of Environment are required to complete a minimum of four Professional Development (PD) courses. PD1 and PD2 are mandatory. PD1 must be taken prior to the first work term and PD2 during the first work term.

Professional Development 2 (PD2) requires the submission of a written report. Successful completion of PD2 will be considered one of the four required work-term reports.

Other than PD1, PD courses are normally taken during Co-op work terms. Students are encouraged to take a Professional Development course each work term until the requirement is met.
Co-op students in the Faculty of Environment are required to complete a minimum of five Professional Development courses, including a Professional Development introductory course (PD1) that must be taken prior to the first work term. Students are encouraged to take a professional-development course each work term until the requirement is met. Professional Development 2 (PD2) requires a work term report to be written, which will be considered one of the four required work-term reports. At least two other of the Professional Development courses must cover non-technical skills. Other than PD1, Professional Development courses are normally taken during co-op work terms.

**Rationale:** Reducing the requirement to four Professional Development courses will allow flexibility for students who are unable to either complete a PD course during a work term, or who fail a PD course, to still meet the Co-op degree requirements. Taking a missed PD course during an academic term is not manageable for all students. WatPD supports this change. The stipulation regarding non-technical skills is unwarranted as PD courses address soft skills.

**Economics Specialization for Environment and Business**

6. **Motion:** To inactivate the economics specialization for the environment and business plan, as shown (Note: deleted text = strikethrough.)

The Economics Specialization is available for students in the Environment and Business Honours Co-op Plan in the Faculty of Environment.

**Required Courses**
ECON 101, ECON 102, ECON 201, ECON 202, ENVS 278

**Elective Courses**
At least three other Economics courses excluding: ECON 220, ECON 357, ECON 344, ECON 371

**Rationale:** The economics specialization was originally implemented as an alternative to the economics minor for which students did not qualify under the old double counting rules for the faculty of arts. The faculty has now changed its policies regarding double counting for minors and lowered minor requirements from ten to eight courses. These changes have now made it possible for students to qualify for the economics minor, thereby making the economics specialization redundant.

**International Development Minor**

7. **Motion:** To approve changes to the international development minor as shown (Note: deleted text = strikethrough, new text = bold)

**International Development Minor**
The International Development Minor is available to University of Waterloo undergraduate students who are enrolled in an Honours or Four Year General plan.

The requirements of the Minor are 5.0 units (ten courses) with a minimum overall cumulative average of 65% and the completion of the Community Service Experience.

**Required Courses:** Eight Courses
ENVS 200, ERS 215, INDEV 100 or PSCI 252, INDEV 101, INDEV 200, 300, GEOG 101, 203, and one of INDEV 302 or 308

Elective Courses: Two Courses
One Two of: ERS 404, GEOG 426, 461, 462, PLAN 432, 433 ERS 372
One of: ANTH 370, ERS 372, RS 285, 381

Community Service Experience Requirement
The International Development Minor requires the completion of a pre-approved community service experience or educational seminar focused on community development issues of at least three weeks duration in Canada or internationally. Pre-approval is required by the International Development Field Placement and Language Program Coordinator (INDEV FPC). This requirement must be organized by the student with support from INDEV FPC and is to be completed at the student's own expense. Co-op work terms that meet the above description will normally qualify for the requirement.

Rationale: ENVS 200 is no longer required for the international development plan. INDEV 101 is a pre-requisite for INDEV 200, and is therefore required. Changes to the elective courses complement the minor.

International Development Option

8. Motion: To approve changes to the international development option as shown (Note: deleted text = strikethrough, new text = bold)

International Development Option
The International Development Option is available to all undergraduate students in the Faculty of Environment, except for students in the International Development Honours plan.

The requirements of the Option are six courses (four five core and two one elective) with a minimum overall cumulative average of 65% and the completion of a Community Service Experience.

Required Courses
Four Five Courses: INDEV 100 or PSCI 252, INDEV 101, INDEV 200, 300 and one of INDEV 302 or 308

Elective Courses
Two Courses:
One of: ERS 404, GEOG 426, 461, 462, PLAN 432, 433 ERS 372
One of: ANTH 370, ERS 372, RS 285, 381

Community Service Experience Requirement
The International Development Option requires the completion of a pre-approved community service experience or educational seminar focused on community development issues of at least three weeks duration in Canada or internationally. Pre-approval is required by the International Development Field Placement and Language Program Coordinator (INDEV FPC). This requirement must be organized by the student with support from the INDEV FPC and is to be completed at the student's own expense. Co-op work terms that meet the above description will

Rationale: INDEV 101 is a pre-requisite for INDEV 200, and is therefore required. Changes to the elective courses complement the Option.

Faculty of Mathematics
Mathematics/Chartered Accountancy
9. **Motion:** To change the name of the Mathematics/Chartered Accountancy plan to Mathematics/Chartered Professional Accountancy.

**Rationale:** The accounting profession in Canada is undergoing major changes. The CA designation is being replaced by the new Chartered Professional Accounting (CPA) designation. The Institute of Chartered Accountants of Ontario would fully support, and in fact prefer, that we use the initials CPA rather than CA at the first opportunity. The name change is in alignment with the terminology used in the School of Accounting and Finance.

10. **Motion:** To change the name of the Biotechnology/Chartered Accountancy plan to Biotechnology/Chartered Professional Accountancy, and to make changes to the degree requirements associated with the plan as shown. (Note: new text = underlined; deleted text = strikethrough.)

**Biotechnology/Chartered Professional Accountancy Program**

*Advisor:* Kashif Memon

With an increasing involvement of business in the application of science and technology, encouraged by a wide range of government incentives, there is a demand for professional accountants, working in the public practice of accounting, and in industry and government, who can understand the specialized needs for services in these areas. The Faculty of Science, in co-operation with the School of Accounting and Finance, offers an Honours Biotechnology/Chartered Professional Accountancy Academic Plan which combines courses in Biotechnology with courses in Accounting and business-related areas of study. This plan provides a unique opportunity to prepare professional accountants with an integrated educational experience for a role in providing accounting and advisory services in the rapidly growing science and technology business sector of the economy.

**Requirements for Admission**

Students normally apply for direct admission from high school into the first year of the Honours Co-operative Biotechnology/Chartered Professional Accountancy program. Upon completing a provisional first year (maintaining a 65% average in the Science courses, an average of 70% in the AFM (Accounting and Financial Management) courses and a 70% overall average), students will be allowed to formally proceed into the Honours Co-operative Biotechnology/Chartered Professional Accountancy program in second year. Courses used for admission to Year 2 include: BIOL 130, 239; CHEM 120, 120L, 123, 123L; AFM 101, 102, 131; SCBUS 225; ECON 101; MATH 109; SPCOM 111.

To remain eligible to continue in this plan, students must have a cumulative Science average of 65%, a cumulative Accounting average of 70% and a cumulative overall average of 70%. In order to graduate in the Honours Biotechnology/Chartered Professional Accountancy Academic Plan, the following requirements must be met:

1. Successful completion of **22.25 22.75** units, with cumulative averages of 65% in Science courses, 70% in Accounting courses and 70% overall. Of the **22.25 22.75** units required:
   - at least **21.0 21.5** units must be lecture units
   - **8.75** Science units of which **7.5** units are Science lecture units and **1.25** are Science lab units
2. Completion of the English Language Proficiency Requirement.
3. For detailed information on co-op program requirements, please see the Co-operative Education and Career Action section of the undergraduate calendar as well as the Science department work term report guidelines.
4. Mandatory Courses are listed below:
   o BIOL 130, 239, 240, 240L, 309, 241, 331, 342, 432, 443
   o CHEM 120, 120L, 123, 123L, 266, 266L, 237, 237L
   o 1.0 BIOL/CHEM electives from BIOL 345, 431, 441, 442, 444, 474, 483; CHEM 333, 432
   o AFM 101, 102, 144, 202, 211, 231, 273, 274, 291, 311, 341, 351, 362, 363, 373, 382, 391, 401, 444, 433, 462, 479, 481, 482, 491
   o ECON 101, 102, (ECON 221 or STAT 202 or STAT 211)
   o MATH 109
   o SCBUS 225
   o SPCOM 111

A schedule outlining the recommended term-by-term sequence of courses is available from the Science Undergraduate Studies Office.

Tuition – This is an additional cost-recovery plan as defined by the Ministry of Education and Training. As such, tuition higher than the normal University of Waterloo tuition is required. For details of tuition costs, please see the Fees section of the Calendar.

Eligibility for University of Waterloo's Master of Accounting (MAcc)

The School of Accounting and Finance in the Faculty of Arts offers a Master of Accounting (MAcc) degree. This eight-month graduate portion is normally taken in consecutive Winter and Spring terms immediately following completion of the 4B term of undergraduate studies. Graduates of Honours Biotechnology/Chartered Professional Accountancy, who also satisfy the additional requirements below, are eligible to enrol in MAcc studies. MAcc applicants are required to meet all University of Waterloo Graduate School entry requirements, including having achieved a minimum, all-inclusive, cumulative average of 75% in their undergraduate course work. Candidates are also normally required to have attained a minimum average of 75% in all their required courses during their last year of undergraduate studies.

Rationale: The previous CA designation is being replaced by the new Chartered Professional Accounting (CPA) designation, and the plan name change will serve to demonstrate alignment of the university’s accounting education with that required to pursue the new designation. The new CPA map includes a broader set of competencies than the old CA map, along with expectations for deeper levels of knowledge and understanding in many areas. These areas include topics covered in newly added courses to the Biotechnology/CPA Program.

Mario Coniglio
Associate Vice-President, Academic
FOR APPROVAL

Communications and Public Affairs – Department Name Change

Motion: To recommend to the Board of Governors the following name change: change from “Communications and Public Affairs” to “Marketing and Strategic Communications.”

Rationale: In 2012, External Relations at the University of Waterloo was divided into Advancement, under Vice-President Ken McGillivray, and University Relations, under Vice-President Tim Jackson.

The University Relations team was restructured into three functional areas: Government Relations, Community Relations and Events, and Communications and Public Affairs. Although the teams work closely together, there is lingering confusion between the “public events” focus of the Community Relations team, and the “public affairs” focus on Communications and Public Affairs.

Moving from Communications and Public Affairs to a new title — Marketing and Strategic Communications, would reduce role confusion and better reflect the work done by the team. There is a shift to strategic communications as a planful, intentional and effective communications program that supports the university’s strategic plan and marketing initiatives that recognize the brand as a strategic asset in achieving institutional goals and objectives.

Tim Jackson
Vice-President, University Relations
To: Members of Senate

From: Logan Atkinson, Secretary of the University

Date: 28 October 2013

Subject: Review of and draft amendments to Senate bylaws

This memorandum introduces the idea of a full revision and consolidation of Senate bylaws before the end of the current meeting cycle in June 2014.

Over the course of many years and through myriad changes within the university, significant aspects of the bylaws of Senate have drifted out of alignment with the university’s current structure and practices. These inconsistencies are seen across all of Senate’s bylaws and require updating to align the governing documents of Senate with the realities of the university. While some bylaws have been more recently updated, several bylaws of Senate have not been updated or amended for periods ranging from 20–40 years. The occasion of implementing straightforward updates across all Senate bylaws provides the further opportunity to promote and ensure good governance practices within the university by undertaking a full review of the bylaws.

The Secretariat has initiated this review and proposes a two-step approach to update the Senate bylaws:

1. Approval of a refreshed set of the existing bylaws that:
   - Retains the present allocation of powers and responsibilities as in the current bylaws
   - Includes a large volume of minor and stylistic amendments
   - Corrects errors or omissions with respect to position titles, where applicable
   - Harmonizes inconsistencies among bylaws
   - Establishes a single interpretations section applicable to all bylaws for ease of use
   - Replaces references to defunct and/or anachronistic practices with updated practices, where appropriate
     - Bylaw 5 requires extensive review and will not be included in the first step
   - Establishes a consistent organization of bylaws for a common look and feel
   - Aligns the bylaws to the current Waterloo Writing Style Guide

   It is anticipated that completion of this first step would occur at the January 2014 meeting of Senate.

   Toward this goal, two attachments to this memo are included: (1) a red-lined version of the draft amended Senate bylaws to reflect the proposed changes, and (2) the draft bylaws in their final form.

2. The second step would be a thorough consolidation of our eleven Senate bylaws. This consolidation of the bylaws would reorganize and/or substantially amend certain bylaws where appropriate.

   Prospective major amendments include:
   - Establishing a regular procedure for members of Senate and its committees and councils to declare conflicts of interest at every meeting
   - Consolidating similar bylaws into a fewer number of larger bylaws
   - Significant changes to current Senate Bylaw 5 (on elections) to reflect modern practices and use of technology

   It is anticipated that this second step would be completed for the June 2014 meeting of Senate.
Senate Bylaw 1

A bylaw relating generally to the business and affairs of Senate of the University of Waterloo.

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

1. DEFINITIONS

1. In this bylaw,

   a. "academic year" year means the twelve-month period dating from May 1st of one year to April 30th of the succeeding year.
   b. "Senate" means the Senate of the University of Waterloo.
   c. “Executive Committee” means the Executive Committee of Senate as established in the Senate bylaws

2. Throughout all the bylaws of Senate of the University of Waterloo:

   a. Where the title "president" appears, an acting president or president pro tem, so designated by the Board of Governors, shall serve in the place of the president, with the latter's full rights and responsibilities.
   b. Where the title "vice-president, academic & provost" appears, an acting vice-president, academic & provost or vice-president, academic & provost pro tem, so designated by the president and/or the Board of Governors, shall serve in the place of the vice-president, academic & provost, with the latter's full rights and responsibilities.
   c. Where the title "vice-president, administration & finance" appears, an acting vice-president, administration & finance or vice-president, administration & finance pro tem, so designated by the president and/or the Board of Governors, shall serve in the place of the vice-president, administration & finance, with the latter's full rights and responsibilities.
   d. Where the title “vice-president, advancement” appears, an acting vice-president, advancement or vice-president, advancement pro tem, so designated by the president and/or the Board of Governors, shall serve in the place of the vice-president, advancement, with the latter's full rights and responsibilities.
   e. Where the title "associate vice-president, academic " appears, an acting associate vice-president, academic or associate vice-president, academic pro tem, so named to serve by the president, shall serve in the place of the associate vice-president, academic, with the latter's full rights and responsibilities.
   f. Where the title "associate provost, graduate studies " appears, an acting associate provost, graduate studies or associate provost, graduate studies pro tem, so named to serve by the president, shall serve in the place of the associate provost, graduate studies, with the latter's full rights and responsibilities.
   g. Where the title "associate provost, resources" appears, an acting associate provost, resources or associate provost, resources pro tem, so designated by the president and/or the Board of Governors, shall serve in the place of the associate provost, resources, with the latter's full rights and responsibilities.
j. Where the titles "dean of each faculty" appear, an acting dean, or dean pro tem, so named to serve by the president, shall serve in the place of the dean, with the latter's full rights and responsibilities.

2. MEETINGS OF THE SENATE

General Meetings

The Senate shall normally hold nine (9) general meetings during each academic year. The date and time of such meetings shall be established by the Senate, and such date and time shall be published in the University calendar. Notice of each meeting shall be communicated to the university community in such places and ways as may be designated from time to time by Senate.

Place of Meetings

Meetings of the Senate shall be held upon the campus of the University.

Notice of an Agenda and Background Material for General Meetings

Notice in writing of each general meeting and the agenda and available background material with respect to non-confidential matters, for any such meeting, shall be sent to or delivered to all members of the Senate at least seven (7) days prior to the date of each such meeting. Meetings of the Senate shall be held upon the campus of the University.

Special Meetings

1. A. Special meetings of the Senate shall be called by one of the following:

   ia. The Chair of the Senate, upon the receipt of a request of the Executive Committee for such meeting, or,

   iib. The Secretary of the Senate, upon receipt by the Secretary of a written request for such meeting signed by at least twenty members of the Senate, such request to state the reason for the calling of the special meeting.

2. Special meetings shall be called promptly.

3. Notice in writing of each special meeting, together with the agenda and available background material with respect to non-confidential matters, shall be sent to or delivered to each member of the Senate at least seven (7) days prior to the date of the meeting, provided that the Chair of the Senate shall have the power and authority to abridge such seven-day period when, in his absolute discretion, the urgency of any item of business to be dealt with at such meeting so requires.

4. Notice in writing of each special meeting shall be displayed on the University campus communicated to the university community in such places and ways as may be designated from time to time by the Senate.

Quorum

At all meetings of the Senate, a majority of the members of the Senate shall constitute a quorum for the transaction of the business and affairs of the Senate.
3. MEETINGS IN OPEN SESSION

Persons entitled to be present

a. Subject to section 4 of this bylaw, all general and special meetings of the Senate, subject to the provisions of subparagraph (b) (1), hereof, shall be open to members of the University community, the public-at-large, and representatives of the news media. Senate will make every effort to hold its meetings in a room sufficiently large to accommodate those who indicate, two full working days in advance of the meeting, their desire to attend.

b. Admittance to all meetings of the Senate, by members of the University community and by the public-at-large shall be by way of passes which shall be available at the office of the Secretary of the Senate, the number of passes to be made available to the commensurate with the physical space available for any such meeting. If at the commencement of the meeting, space remains available, members of the University community and of the public-at-large, will be admitted to the meeting on a first-come basis, and any rights to attendance by means of passes distributed not exercised at that time shall be waived.

c. Non-Senate members in attendance at meetings shall observe the rules of decorum established by the Senate.

4. MEETING IN CLOSED SESSION

a. The Senate, notwithstanding the provisions of section 3 of this bylaw, and provided that all meetings shall begin in open session, Senate shall have the right to hold any meeting or part thereof in closed session and to exclude therefrom all persons, save for the Senate members and such resource persons as Senate may agree should be in attendance, for the purpose of considering confidential financial matters of the University or where intimate financial or personal matters of any person may be disclosed, unless such person requests that such part of the meeting be open to the public.

b.a. The Executive Committee shall determine for purposes of the agenda, whether any matter is of a confidential nature and such matter shall be so designated on the agenda for such Senate meeting and shall be designated and described in a manner consistent with maintaining the confidentiality of such matter.

e-b. The Senate shall initially deal with any such confidential matter in closed session, but, after receiving the pertinent information, relative to the confidential matter, may direct that the matter be thereupon considered in open session.

5. SECRETARY OF SENATE

Secretary of Senate 1. The Secretary of the University or designate shall be the non-voting Secretary of Senate.

2. The secretary of the university shall appoint an associate secretary of Senate to act as secretary of Senate in the absence of the secretary of the university.
Amended by Senate in two readings September and October 1975.
Amended by Senate in two readings, March and June 1998.
Amended by Senate in two readings, [month] and [month][year].
Senate Bylaw 2

A bylaw relating to the establishment of the Executive Committee of the Senate of the University of Waterloo.

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

1. EXECUTIVE COMMITTEE

There shall be a standing Committee of the Senate called the Executive Committee.

2. COMMITTEE MEMBERSHIP

The membership of this Committee shall consist of the following:

a. The President of the University who shall be Chair of this Committee.
b. The Vice-President, Academic & Provost.
c. The Dean of Graduate Studies.
d. The President of the Faculty Association of the University of Waterloo.
e. One faculty member of Senate from each Faculty of the University.
f. Three members from the student members of Senate, at least one of whom shall be an undergraduate student and at least one of whom shall be a graduate student.
g. One member of Senate from among the community-at-large members of the Board of Governors.
h. One faculty member of Senate from the federated university and affiliated College.
i. One member from among the alumni members of Senate.

3. POWERS AND DUTIES OF EXECUTIVE COMMITTEE

The Executive Committee shall have the following powers and duties:

a. To call special meetings of the Senate.
b. To exercise the powers held by the Senate, within the limits of the University Act, for what are normally considered routine matters, on those occasions when the agenda does not, in the estimation of the Executive Committee, warrant a meeting of the Senate. All such actions are to be reported to Senate.
c. To prepare the agenda for all regular and special meetings of the Senate.
d. To receive and review reports from the Faculty Councils of the University prior to their submission to the Senate at each regular meeting.
e. To present to the Senate, normally at the last regular meeting in the academic year in April, a list of nominations for the Committees and Councils of the Senate.
f. To make recommendations to the Senate as may be necessary from time to time regarding the establishment of ad hoc Committees of the Senate, such recommendations to include the terms of reference of any such Committee and a list of nominations for the membership thereof.
g. To receive and review the reports and recommendations of all Committees and Councils prior to their presentation to the Senate and to make at its discretion recommendations to the Senate thereon.
h. To act on behalf of the Senate on such matters as may from time to time designate.
i. To report to the Senate, as expeditiously as possible, with respect to the conduct of such matters as shall be delegated by the Senate to the Committee from time to time.
4. MEETINGS OF THE EXECUTIVE COMMITTEE

The Executive Committee shall normally hold a minimum of ten (10) regular meetings during each academic year, each such meeting to be held approximately two weeks prior to the date of each general meeting of the Senate. Special meetings of the Committee shall be called by the Chair of the Committee.

5. TERM OF OFFICE

The term of office of members listed in section 2 (e)-(i) shall be for one year. Each member is eligible for re-election.

6. INTERPRETATIONS

   a. In this Bylaw, where the title "President" appears, an Acting President or President pro tem, so designated by the Board of Governors, shall serve in the place of the President, with the latter's full rights and responsibilities.

   b. In this Bylaw, where the title "Vice-President, Academic & Provost" appears, an Acting Vice-President, Academic & Provost or Vice-President, Academic & Provost pro tem, so designated by the President or Acting President or President pro tem and/or the Board of Governors, shall serve in the place of the Vice-President, Academic & Provost, with the latter's full rights and responsibilities.

   c. In this Bylaw, where the title "Dean of Graduate Studies" appears, an Acting Dean of Graduate Studies or Dean of Graduate Studies pro tem, so named to serve for a period of three months or more by the President or Acting President or President pro tem of the University, shall serve in the place of the Dean of Graduate Studies, with the latter's full rights and responsibilities.

Approved by Senate November 16, 1972.
Amended by Senate in two readings, September and October 1975.
Amended by Senate in two readings, September and October 1977.
Amended by Senate in two readings, May - June 1990.
Amended by Senate in two readings, March and June 1998.
Amended by Senate in two readings, October and November 2011.
Amended by Senate in two readings, [month] and [month]/[year].
Senate Bylaw 3

A bylaw relating to the establishment of the Finance Committee of the Senate of the University of Waterloo

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

1. FINANCE COMMITTEE

There shall be a standing Committee of the Senate called the Finance Committee.

2. COMMITTEE MEMBERSHIP

The membership of this Committee shall consist of the following:

a. The President who shall be Chair of this Committee.
   b. The Vice-President, Academic & Provost.
   c. The Vice-President, Administration & Finance.
   d. The Dean of each Faculty.
   e. The associate provost, graduate studies.
   f. The Associate Provost, Academic & Student Affairs.
   g. The Dean of each Faculty.
   h. One member from the community-at-large members of the Board of Governors.
   i. One elected faculty member of Senate from each Faculty and one faculty member of Senate from the federated University and affiliated Colleges.
   j. Three members from the elected student members of the Senate, at least one of whom shall be an undergraduate student and at least one of whom shall be a graduate student.
   k. One member from among the alumni members of Senate.

3. POWERS AND DUTIES OF FINANCE COMMITTEE

The Finance Committee shall have the following powers and duties:

a. To consider, study, and review all matters pertaining to the financial operations of the University and to make recommendations to the Senate thereon.
   b. To consider, study, and review the general policies governing the internal allocation of the University's financial resources and to make recommendations to the Senate thereon.
   c. To receive each year from the President, for consideration, study, and review, on behalf of the Senate, a detailed operating budget for the University and to make recommendations to the Senate thereon.

4. TERM OF OFFICE

The term of office of members listed in section 2 (h)-(k) shall be for one year. Each member is eligible for re-election.

Approved by Senate November 16, 1972
Amended by Senate January 15, 1973
Amended by Senate in two readings, September and October 1975
5. INTERPRETATIONS

a. In this Bylaw, where the title "President" appears, an Acting President or President pro tem, so designated by the Board of Governors, shall serve in the place of the President, with the latter's full rights and responsibilities.

b. In this Bylaw, where the title "Vice-President, Academic & Provost" appears, an Acting Vice-President, Academic & Provost or Vice-President, Academic & Provost pro tem, so designated by the President or Acting President or President pro tem and/or the Board of Governors, shall serve in the place of the Vice-President, Academic & Provost, with the latter's full rights and responsibilities.

c. In this Bylaw, where the title "Vice-President, Administration & Finance" appears, an Acting Vice-President, Administration & Finance or Vice-President, Administration & Finance pro tem, so designated by the President or Acting President or President pro tem and/or the Board of Governors, shall serve in the place of the Vice-President, Administration & Finance, with the latter's full rights and responsibilities.

d. In this Bylaw, where the title "Associate Provost, Academic & Student Affairs" appears, an Acting Associate Provost, Academic & Student Affairs or Associate Provost, Academic & Student Affairs pro tem, so designated by the President or Acting President or President pro tem and/or the Board of Governors, shall serve in the place of the Associate Provost, Academic & Student Affairs, with the latter's full rights and responsibilities.

e. In this Bylaw, where the titles "Dean of each Faculty" or "Dean of Graduate Studies" appear, an Acting Dean, or Dean pro tem, so named to serve for a period of three months or more by the President or Acting President or President pro tem of the University, shall serve in the place of the Dean, with the latter's full rights and responsibilities.

f. In this Bylaw, where the title "Vice-President, University Research" appears, an Acting Vice-President, University Research or Vice-President, University Research pro tem, so designated by the President or Acting President or President pro tem and/or the Board of Governors, shall serve in the place of the Vice-President, University Research, with the latter's full rights and responsibilities.
Senate Bylaw 4

A bylaw relating to the establishment of the Long Range Planning Committee of the Senate of the University of Waterloo.

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

1. LONG RANGE PLANNING COMMITTEE

There shall be a standing committee of Senate called the Long Range Planning Committee.

2. COMMITTEE MEMBERSHIP

The membership of this committee shall consist of the following:

a. The president of the university.

b. The vice-president, academic & provost, who shall be chair of this committee.

c. The vice-president, administration & finance.

d. The vice-president, university research.

e. The associate provost, resources.

f. The dean of each faculty.

g. The vice-president, university research.

h. One elected faculty member of Senate from each faculty and one faculty member of the senatorial university and affiliated university colleges.

i. One member from the Faculty Association Board of Directors of the University of Waterloo.

j. Three members of Senate from the elected student members, at least one of whom shall be an undergraduate student and at least one of whom shall be a graduate student.

k. One member from the community-at-large members of the Board of Governors.

l. One member from among the alumni members of Senate.

3. POWERS AND DUTIES OF LONG RANGE PLANNING COMMITTEE

The Long Range Planning Committee shall have the following powers and duties:

a. To make recommendations to Senate in all matters pertaining to the co-ordination of the planning of the academic, physical, and operational development of the university and the achievement of a planned rate and scope of such development.

b. To receive from the president, for consideration, study and review, on behalf of Senate, plans for the development of the university and to make recommendations to the Senate thereon.

c. To undertake such studies as Senate may designate.

d. To report to the Senate, as expeditiously as possible, with respect to the conduct of such matters as shall be delegated by Senate to the committee from time to time.

4. TERM OF OFFICE

The term of office of members listed in section 2 (h)-(l) shall be for one year. Each member is eligible for re-election.
5. INTERPRETATIONS

a. In this Bylaw, where the title "president" appears, an acting president or president pro tem, so designated by the Board of Governors, shall serve in the place of the president, with the latter's full rights and responsibilities.

b. In this Bylaw, where the title "vice-president, academic & provost" appears, an acting vice-president, academic & provost or vice-president, academic & provost pro tem, so designated by the president or acting president or president pro tem and/or the Board of Governors, shall serve in the place of the vice-president, academic & provost, with the latter's full rights and responsibilities.

c. In this Bylaw, where the title, "vice-president, administration & finance" appears, a vice-president, administration & finance or vice-president, administration & finance pro tem, so designated by the president or acting president or president pro tem and/or the Board of Governors, shall serve in the place of the vice-president, administration & finance, with the latter's full rights and responsibilities.

d. In this Bylaw, where the title "associate provost, resources" appears, an acting associate provost, resources or associate provost, resources pro tem, so designated by the president or acting president or president pro tem and/or the Board of Governors, shall serve in the place of the associate provost, resources, with the latter's full rights and responsibilities.

e. In this Bylaw, where the title "associate provost, graduate studies" appears, an acting associate provost, graduate studies, or associate provost, graduate studies pro tem, so designated by the president or acting president or president pro tem and/or the Board of Governors, shall serve in the place of the associate provost, graduate studies, with the latter's full rights and responsibilities.

f. In this Bylaw, where the title "dean of each faculty" appears, an acting dean or dean pro tem, so designated by the president or acting president or president pro tem and/or Board of Governors, shall serve in place of the dean, with the latter's full rights and responsibilities.

g. In this Bylaw, where the title "vice-president, university research" appears, an acting vice-president, university research or vice-president, university research pro tem, so designated by the president or acting president or president pro tem and/or the Board of Governors, shall serve in the place of the vice-president, university research, with the latter's full rights and responsibilities.
Senate Bylaw 6

A bylaw relating generally to the business and affairs of Committees committees and Councils councils of the Senate of the University of Waterloo.

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

1. MEETINGS TO BE OPEN

Subject to the provisions in section 2 of this bylaw, all meetings of Committees committees and Councils councils of the Senate shall be open to members of the University university community, the public-at-large, and representatives of the news media. Any Committee committee or Council council of Senate will make every effort to hold its meetings in a room sufficiently large to accommodate those who indicate to the secretary of the relevant committee or council, two full working days in advance of the meeting, their desire to attend.

2. MEETINGS IN CLOSED SESSION

Notwithstanding the provisions of section 1 of this bylaw, any such Committee committee or Council council of Senate may elect to hold part or all of any meeting in closed session for the purpose of considering confidential financial matters of the University university or where intimate financial or personal matters of any person may be disclosed unless such person requests that such part of the meeting be open to the public.

3. AGENDA AND BACKGROUND MATERIAL TO BE AVAILABLE

1. Notice in writing of each general meeting of any committee or council shall be available at least seven (7) days prior to the date of each such meeting.

2. The agenda and available background material with respect to non-confidential matters for any general meeting of any committee or council shall be available at least seven (7) days prior to the date of each such meeting. Prior to each Committee or Council meeting, copies of the agenda and available background material, save for any confidential material, will be in the office of the Secretary of the University to be given to members of the University community, the public-at-large and representatives of the news media, upon request.

4. REPRESENTATIONS TO MEETINGS

Any members of the University university community, or of the public-at-large, wishing to make representations to any meeting of a Committee committee or Council council shall file with the secretary of the relevant committee or council, at least two full working days prior to the date of such proposed meeting, written notice to that effect with the Secretary of the said Committee or Council, with such notice to designate the nature of the proposed representations.

5. TIME LIMIT ON PRESENTATIONS

The Chair chair of any Committee committee or Council council may limit the time to be allotted to members of the University university community and the public-at-large for Committee committee or Council council presentations.

6. LIMIT ON SERVICE ON COMMITTEES
An elected member of Senate shall not serve on more than one of the Executive, Finance or Long Range Planning Committees.

67. TERM OF OFFICE

Except where specified by Senate bylaws, the term of office on Committees or Councils shall be for one year, with members eligible for re-election.

78. SECRETARY OF COMMITTEES

The Secretary of the University or designate shall be the non-voting Secretary of each Committee or Council of the Senate.

Approved by Senate December 4, 1972.
Amended by Senate in two readings, September and October 1975.
Amended by Senate in two readings, [month] and [month][year].
Senate Bylaw 7

A bylaw relating to the procedure for creating new bylaws or amending existing bylaws of the Senate of the University of Waterloo.

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

1. GENERAL

a. The passage of a new bylaw or amendment(s) to an existing bylaw is accomplished in two readings of the document by Senate. At the first reading, such discussion of the document as is deemed appropriate by Senate shall take place. At the second reading, further discussion may take place and the vote on the document shall be taken. The two readings shall take place at different, but not necessarily consecutive, meetings of the Senate.

b. Written prior notice of the proposed bylaw or amendment(s) must be provided to Senate. Such notice may be provided one month in advance of the first reading, or may accompany the first reading. No proposed bylaw or amendment(s) will be given first reading, however, unless it has been bound into or accompanies the agenda portfolio distributed in advance of the meeting.

c. The written prior notice of the proposed bylaw or amendment(s) shall include the proposed wording of the bylaw or amendment(s), and where appropriate, a summary of the reasons for such bylaw or amendment(s).

d. In order to be approved by Senate, any new bylaw or amendment(s) to bylaws must receive the affirmative vote of at least two-thirds of the members of the Senate present and voting at the meeting.

Amended by Senate in two readings, September and October 1975.
Amended by Senate in two readings, [month] and [month][year].
Senate Bylaw 8

A bylaw relating to the establishment of the Graduate & Research Council of the Senate of the University of Waterloo.

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

1. GRADUATE & RESEARCH COUNCIL

There shall be a Council of the University, appointed by and responsible to the Senate, called the Graduate & Research Council.

2. GRADUATE & RESEARCH COUNCIL MEMBERSHIP

The membership of this Council shall consist of the following:

- a. The President of the University
- b. The Vice-President, Academic & Provost
- c. The Vice-president, university research, who shall co-chair this council
- d. The Associate Provost, Graduate Studies, who shall co-chair this council
- e. The Associate Dean of Graduate Studies
- f. The Vice-President, University Research, who shall chair this council
- g. The Associate Vice-President, Research Operations
- h. The Associate Vice-President, External Research
- i. The Director, Research Ethics & Grants
- j. The Director, Contracts Research & Industrial Grants
- k. The University Librarian
- l. The President of the Graduate Student Association
- m. Two faculty members with Approved Doctoral Dissertation Supervisor (ADDS) status from each faculty, one of whom must be an associate dean with a research and/or graduate studies portfolio [associate dean positions are ex-officio; others are two years]
- n. One faculty member from the Federated University & Affiliated Colleges, who shall serve for a term of two years.
- o. One graduate student from each faculty, each of whom shall serve for a term of two years.

3. POWERS AND DUTIES OF THE GRADUATE & RESEARCH COUNCIL

The Graduate & Research Council shall consider all questions relating to the academic quality of graduate studies and research activity within the University and, without intending to restrict the generality of the foregoing, the Graduate & Research Council shall,

- a. Make recommendations to the Senate with respect to the government, direction and management of, or any changes in rules, regulations or policies for graduate studies and research in the University.
- b. Advise the Vice-President, Academic & Provost on all matters relating to graduate studies and research.
- c. Receive, consider, study and review briefs on any aspect of graduate studies and research from members of the University.
- d. Make recommendations to Senate with respect to any financial matter pertaining to graduate studies and research.
e. Consider, study and review all proposals for new graduate programs, the deletion of graduate programs, major changes to existing graduate programs, arrange for internal appraisals as the Council shall see fit, and make recommendations to the Senate thereon.

f. On behalf of the Senate, consider and approve all new graduate courses, the deletion of graduate courses, and proposed minor changes to existing graduate courses and programs, and provide a brief summary of Council's deliberations in this regard. Any matter of controversy that might arise may be referred to the Senate.

g. Consider, study and review all proposals for new centres and institutes, and the closure of centres and institutes, and make recommendations to the Senate thereon.

h. On behalf of the Senate, consider and approve renewals for centres and institutes, and report such renewals to the Senate for information. Any matter of controversy that might arise may be referred to Senate.

i. On behalf of the Senate, consider and approve all new graduate scholarships and awards. Any matter of controversy that might arise may be referred to the Senate.

4. INTERPRETATIONS

a. In this Bylaw, where the title "President" appears, an Acting President or President pro tem, so designated by the Board of Governors, shall serve in the place of the President, with the latter's full rights and responsibilities.

b. In this Bylaw, where the title "Vice-President, Academic & Provost" appears, an Acting Vice-President, Academic & Provost or Vice-President, Academic & Provost pro tem, so designated by the President or Acting President or President pro tem and/or the Board of Governors, shall serve in the place of the Vice-President, Academic & Provost, with the latter's full rights and responsibilities.

c. In this Bylaw, where the title "Dean of Graduate Studies" appears, an Acting Dean of Graduate Studies, or Dean of Graduate Studies pro tem, so named to serve for a period of three months or more by the President or Acting President or President pro tem of the University, shall serve in the place of the Dean of Graduate Studies, with the latter's full rights and responsibilities.

d. In this Bylaw, where the title "Vice-President, University Research" appears, an Acting Vice-President, University Research, or Vice-President, University Research pro tem, so named to serve for a period of three months or more by the President or Acting President or President pro tem of the University, shall serve in the place of the Vice-President, University Research, with the latter's full rights and responsibilities.

Senate Bylaw Number 8

Approved by Senate December 4, 1972.
Amended by Senate in two readings, September and October 1975.
Amended by Senate in two readings, September and October 1977.
Amended by Senate in two readings, May and June 1981.
Amended by Senate in two readings, April and May 1982.
Amended by Senate in two readings, April and May 1987.
Amended by Senate in two readings, January and February 1989.
Amended by Senate in two readings, June and October, 1995.
Amended by Senate in two readings, May and June 2003.
Amended by Senate in one reading, May 19, 2009.
Amended by Senate in two readings, December and January, 2012-13.
Amended by Senate in two readings, [month] and [month]/year.

Senate Bylaw Number 12
Approved by Senate in two readings, November and December 1988.
Approved by Senate in two readings on November 15 1993.
Approved by Senate in two readings, June and October 1995.
Amended by Senate on June 17, 1996.
Merged with revised Bylaw 8, June 2003, to reflect the amalgamation of the Senate Graduate & Research Council.
Senate Bylaw 9

A bylaw relating to the establishment of the Undergraduate Council of the Senate of the University of Waterloo.

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

1. UNDERGRADUATE COUNCIL

There shall be a Council of the University, appointed by and responsible to the Senate, called the Undergraduate Council.

2. UNDERGRADUATE COUNCIL MEMBERSHIP

a. The membership of this Council shall consist of the following:

   b. The president of the university.
   c. The vice-president, academic & provost.
   d. The associate vice-president, academic, who shall chair this council.
   e. The dean of the federated university.
   f. The associate dean for undergraduate studies for each faculty.
   g. A director of Co-operative Education & Career Action.
   h. The university librarian or delegate.
   i. An executive member of the Federation of Students.
   j. One member of the faculty from each faculty of the university which offers undergraduate programs, each of whom shall serve for a term of two years.
   k. One member of faculty from the federated university, who shall serve for a term of two years.
   l. One member of faculty from the affiliated university colleges, who shall serve for a term of two years.
   m. The vice-president (education) or equivalent from the Undergraduate Student Association of each faculty of the university.

3. POWERS AND DUTIES OF THE UNDERGRADUATE COUNCIL

The Undergraduate Council shall consider all questions relating to the academic quality of undergraduate studies within the University and, without intending to restrict the generality of the foregoing, the Undergraduate Council shall,

a. Make recommendations to the Senate with respect to rules and regulations for the government, direction and management of undergraduate studies in the University.

b. Make recommendations to the Senate with respect to new undergraduate programs/plans, and the deletion of undergraduate programs/plans.

c. On behalf of the Senate, consider and approve all new undergraduate courses, the deletion of undergraduate courses, and proposed changes to existing undergraduate courses and programs and/or plans, and provide Senate with a summary of Council’s deliberations in this regard. Any matter of controversy that might arise may be referred to the Senate.

d. Advise the Vice-President, Academic & Provost on all matters relating to undergraduate studies.

   Consider, study and review briefs on any aspect of undergraduate studies from members of the University.
Approved by Senate in two readings, November 2002 and May 2003.
Amended by Senate in two readings, January and February 2013.
Amended by Senate in two readings, [month] and [month]/[year].

4. INTERPRETATIONS

1. In this Bylaw, where the title “President” appears, an Acting President or President pro tem, so
designated by the Board of Governors, shall serve in the place of the President, with the latter's full rights
and responsibilities.

2. In this Bylaw, where the title “Vice-President, Academic & Provost” appears, an Acting Vice-
President, Academic & Provost or Vice-President, Academic & Provost pro tem, so designated by the
President or Acting President or President pro tem and/or the Board of Governors, shall serve in the place
of the Vice-President, Academic & Provost with the latter’s full rights and responsibilities.
A bylaw relating to the Constitutions for Faculties and Academic Departments of the University of Waterloo.

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

1. CONSTITUTIONS

Each faculty of the university is hereby empowered to develop a formal constitution governing its operations, provided that each such constitution and any amendments thereto shall be inoperative and ineffective until approved by the Senate. No provision of the said constitutions shall be inconsistent with any provisions of the University of Waterloo Act, 1972, as amended. Further, and no provision of any constitution shall be exempt from the provisions of any of the bylaws or established policies of the university, except as expressly approved by Senate.

Approved by Senate December 4, 1972. 
Amended by Senate in two readings, September and October 1975. 
Amended by Senate in two readings, [month] and [month][year].
Senate Bylaw 11

A bylaw relating to the naming of additional *ex officio* members of the Senate of the University of Waterloo.

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

1. **EX OFFICIO MEMBERS**

WHEREAS the University of Waterloo Act, 1972 provides in Section 18.a.9. that the Senate of the university may add to its membership such other *ex officio* members as Senate by bylaw may, from time to time, designate, and

WHEREAS the University of Waterloo Act, 1972 provides in Section 18.b.2. that elected members of the faculty shall equal in number one more than the total number of all other members of Senate, and

WHEREAS the University of Waterloo Act, 1972 provides in Section 18.c. that upon the designation of and addition, from time to time, by Senate of any additional *ex officio* members, the number of elected members from the Board of Governors, the undergraduate students, the graduate students and the alumni shall be increased by whatever numbers are necessary to retain the ratios, in each case, of the number of such elected persons to the number of elected faculty.

BE IT THEREFORE enacted as a Bylaw of the Senate of the University of Waterloo as follows:

1. That the following be named as *ex officio* members of the Senate:
   a. The vice-president, administration & finance
   b. The vice-president, advancement
   c. The vice-president, university relations
   d. The vice-president, university research
   e. The associate provost, resources
   f. The president of the Faculty Association of the University of Waterloo
   g. The president of the Federation of Students, University of Waterloo
   h. The president of the Graduate Student Association - University of Waterloo

2. That the chief returning officer be empowered upon passage of this Bylaw to take whatever steps are necessary to carry out such elections or by-elections as may be necessary to comply with the provisions of the University of Waterloo Act, 1972, cited above and arising from the designation of *ex officio* members of Senate by the passage or amendment of this Bylaw.

_APPROVED BY SENATE MAY 20, 1975._
_Amended by Senate at two meetings, December 5, 1980 and January 19, 1981._
_Amended by Senate at two meetings, December 19, 1983 and January 16, 1984._
_Amended by Senate at two meetings, May 19, 1987 and June 15, 1987._
_Amended by Senate at two meetings, May 22, 1990 and June 18, 1990._
_Amended by Senate at two meetings, October 15, 2012 and November 19, 2012._
_Amended by Senate in two readings, [month] and [month]/[year]._
Senate Bylaw 1

A bylaw relating generally to the business and affairs of Senate of the University of Waterloo.

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

1. DEFINITIONS

1. In this bylaw,
   a. "academic year" means the twelve-month period dating from 1 May of one year to 30 April of the succeeding year.
   b. "Senate" means Senate of the University of Waterloo.
   c. “Executive Committee” means the Executive Committee of Senate as established in the Senate bylaws

2. Throughout all the bylaws of Senate of the University of Waterloo:
   a. Where the title "president" appears, an acting president or president pro tem, so designated by the Board of Governors, shall serve in the place of the president, with the latter's full rights and responsibilities.
   b. Where the title "vice-president, academic & provost" appears, an acting vice-president, academic & provost or vice-president, academic & provost pro tem, so designated by the president and/or the Board of Governors, shall serve in the place of the vice-president, academic & provost, with the latter's full rights and responsibilities.
   c. Where the title "vice-president, administration & finance" appears, an acting vice-president, administration & finance or vice-president, administration & finance pro tem, so designated by the president and/or the Board of Governors, shall serve in the place of the vice-president, administration & finance, with the latter's full rights and responsibilities.
   d. Where the title "vice-president, advancement" appears, an acting vice-president, advancement or vice-president, advancement pro tem, so designated by the president and/or the Board of Governors, shall serve in the place of the vice-president, advancement, with the latter's full rights and responsibilities.
   e. Where the title "associate vice-president, academic" appears, an acting associate vice-president, academic or associate vice-president, academic pro tem, so named to serve by the president, shall serve in the place of the associate vice-president, academic, with the latter's full rights and responsibilities.
   f. Where the title "associate provost, graduate studies" appears, an acting associate provost, graduate studies or associate provost, graduate studies pro tem, so named to serve by the president, shall serve in the place of the associate provost, graduate studies, with the latter's full rights and responsibilities.
   g. Where the title "associate provost, resources" appears, an acting associate provost, resources or associate provost, resources pro tem, so designated by the president and/or the Board of Governors, shall serve in the place of the associate provost, resources, with the latter's full rights and responsibilities.

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j. Where the titles "dean of each faculty" appear, an acting dean, or dean pro tem, so named to serve by the president, shall serve in the place of the dean, with the latter's full rights and responsibilities.

2. MEETINGS OF THE SENATE

General Meetings

Senate shall normally hold ten (10) general meetings during each academic year. The date and time of such meetings shall be established by Senate, and notice of each meeting shall be communicated to the university community in such places and ways as may be designated from time to time by Senate.

Place of Meetings

Meetings of Senate shall be held upon the campus of the university.

Notice of an Agenda and Background Material for General Meetings

Notice in writing of each general meeting and the agenda and available background material with respect to non-confidential matters, for any such meeting, shall be available to all members of Senate at least seven (7) days prior to the date of each such meeting.

Special Meetings

1. Special meetings of Senate shall be called by one of the following:

   a. The chair of Senate, upon the receipt of a request of the Executive Committee for such meeting, or,

   b. The secretary of Senate, upon receipt by the secretary of a written request for such meeting signed by at least twenty members of Senate, such request to state the reason for calling the special meeting.

2. Special meetings shall be called promptly.

3. Notice in writing of each special meeting, together with the agenda and available background material with respect to non-confidential matters, shall be available to each member of Senate at least seven (7) days prior to the date of the meeting, provided that the chair of Senate shall have the power and authority to abridge such seven-day period when, in the chair’s absolute discretion, the urgency of any item of business to be dealt with at such meeting so requires.

4. Notice in writing of each special meeting shall be communicated to the university community in such places and ways as may be designated from time to time by Senate.

Quorum

At all meetings of Senate, a majority of the members of Senate shall constitute a quorum for the transaction of the business and affairs of Senate.

3. MEETINGS IN OPEN SESSION

1. Subject to section 4 of this bylaw, all general and special meetings of Senate shall be open to members of the university community, the public-at-large, and representatives of the news media. Senate will make every effort to hold its meetings in a room sufficiently large to accommodate those who indicate, two full working days in advance of the meeting, their desire to attend.
2. Non-Senate members in attendance at meetings shall observe the rules of decorum established by Senate.

4. MEETING IN CLOSED SESSION

1. Notwithstanding the provisions of section 3 of this bylaw, and provided that all meetings shall begin in open session, Senate shall have the right to hold any meeting or part thereof in closed session and to exclude therefrom all persons, save for Senate members and such resource persons as Senate may agree should be in attendance, for the purpose of considering confidential financial matters of the university or where intimate financial or personal matters of any person may be disclosed, unless such person requests that such part of the meeting be open to the public.

   a. The Executive Committee shall determine for purposes of the agenda whether any matter is of a confidential nature and such matter shall be so designated on the agenda for such Senate meeting and shall be designated and described in a manner consistent with maintaining the confidentiality of such matter.
   b. Senate shall initially deal with any such confidential matter in closed session, but, after receiving the pertinent information relative to the confidential matter, may direct that the matter be thereupon considered in open session.

5. SECRETARY OF SENATE

1. The secretary of the university shall be the non-voting secretary of Senate.

2. The secretary of the university shall appoint an associate secretary of Senate to act as secretary of Senate in the absence of the secretary of the university.

   Amended by Senate in two readings September and October 1975.
   Amended by Senate in two readings, March and June 1998.
   Amended by Senate in two readings, [month] and [month] [year].
Senate Bylaw 2

A bylaw relating to the establishment of the Executive Committee of Senate of the University of Waterloo.

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

1. EXECUTIVE COMMITTEE

There shall be a standing committee of Senate called the Executive Committee.

2. COMMITTEE MEMBERSHIP

The membership of this committee shall consist of the following:

a. The president of the university who shall be chair of this committee.
b. The vice-president, academic & provost.
c. The associate provost, graduate studies.
d. The president of the Faculty Association of the University of Waterloo.
e. One faculty member of Senate from each faculty of the university.
f. Three members from the student members of Senate, at least one of whom shall be an undergraduate student and at least one of whom shall be a graduate student.
g. One member of Senate from among the community-at-large members of the Board of Governors.
h. One faculty member of Senate from the federated university and affiliated university colleges.
i. One member from among the alumni members of Senate.

3. POWERS AND DUTIES OF EXECUTIVE COMMITTEE

The Executive Committee shall have the following powers and duties:

a. To call special meetings of Senate.
b. To exercise the powers held by Senate, within the limits of the University of Waterloo Act, for what are normally considered routine matters, on those occasions when the agenda does not, in the estimation of the Executive Committee, warrant a meeting of Senate. All such actions are to be reported to Senate.
c. To prepare the agenda for all regular and special meetings of Senate.
d. To receive and review reports from the deans of the university prior to their submission to Senate at each regular meeting.
e. To present to Senate, normally at the last regular meeting in the academic year in April, a list of nominations for the committees and councils of Senate.
f. To make recommendations to Senate as may be necessary from time to time regarding the establishment of ad hoc committees of Senate, such recommendations to include the terms of reference of any such committee and a list of nominations for the membership thereof.
g. To receive and review the reports and recommendations of all committees and councils, prior to their presentation to Senate and to make at its discretion recommendations to Senate thereon.
h. To act on behalf of Senate on such matters as Senate may from time to time designate.
i. To report to Senate, as expeditiously as possible, with respect to the conduct of such matters as shall be delegated by Senate to the committee from time to time.

4. MEETINGS OF THE EXECUTIVE COMMITTEE

The committee shall normally hold ten (10) regular meetings during each academic year, each such meeting to be held approximately two weeks prior to the date of each general meeting of Senate. Special meetings of the committee shall be called by the chair of the committee.
5. TERM OF OFFICE

The term of office of members listed in section 2 (e)-(i) shall be one year. Each member is eligible for re-election.

Approved by Senate November 16, 1972.
Amended by Senate in two readings, September and October 1975.
Amended by Senate in two readings, September and October 1977.
Amended by Senate in two readings, May - June 1990.
Amended by Senate in two readings, March and June 1998.
Amended by Senate in two readings, October and November 2011.
Amended by Senate in two readings, [month] and [month][year].
Senate Bylaw 3

A bylaw relating to the establishment of the Finance Committee of Senate of the University of Waterloo

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

1. FINANCE COMMITTEE

There shall be a standing committee of Senate called the Finance Committee.

2. COMMITTEE MEMBERSHIP

The membership of this committee shall consist of the following:

a. The president of the university who shall be chair of this committee.
b. The vice-president, academic & provost.
c. The vice-president, administration & finance.
d. The vice-president, university research.
e. The associate provost, graduate studies
f. The associate provost, resources
g. The dean of each faculty
h. One member from the community-at-large members of the Board of Governors.
i. One elected faculty member of Senate from each faculty and one faculty member of Senate from the federated university and affiliated university colleges.
j. Three members from the elected student members of Senate, at least one of whom shall be an undergraduate student and at least one of whom shall be a graduate student.
k. One member from among the alumni members of Senate.

3. POWERS AND DUTIES OF FINANCE COMMITTEE

The Finance Committee shall have the following powers and duties:

a. To consider, study, and review all matters pertaining to the financial operations of the university and to make recommendations to Senate thereon.
b. To consider, study, and review the general policies governing the internal allocation of the university's financial resources and to make recommendations to Senate thereon.
c. To receive each year from the vice-president, academic & provost, for consideration, study, and review, on behalf of the Senate, a detailed operating budget for the university and to make recommendations to the Senate thereon.

4. TERM OF OFFICE

The term of office of members listed in section 2 (h)-(k) shall be one year. Each member is eligible for re-election.

Approved by Senate November 16, 1972
Amended by Senate January 15, 1973
Amended by Senate in two readings, September and October 1975
Amended by Senate in two readings, September and October 1977
Amended by Senate in two readings, April and May 1984
Amended by Senate in two readings, April and May 1989
Amended by Senate in two readings, February and March 1990
Amended by Senate in two readings, October and November 1990
Amended by Senate in two readings, [month] and [month][year].
Senate Bylaw 4

A bylaw relating to the establishment of the Long Range Planning Committee of Senate of the University of Waterloo.

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

1. LONG RANGE PLANNING COMMITTEE

There shall be a standing committee of Senate called the Long Range Planning Committee.

2. COMMITTEE MEMBERSHIP

The membership of this committee shall consist of the following:

a. The president of the university.
b. The vice-president, academic & provost, who shall be chair of this committee.
c. The vice-president, administration & finance.
d. The vice-president, university research.
e. The associate provost, graduate studies
f. The associate provost, resources.
g. The dean of each faculty.
h. One elected faculty member of Senate from each faculty and one faculty member of Senate from the federated university and affiliated university colleges.
i. One member from the Board of Directors of the Faculty Association of the University of Waterloo.
j. Three members of Senate from the elected student members, at least one of whom shall be an undergraduate student and at least one of whom shall be a graduate student.
k. One member of Senate from the community-at-large members of the Board of Governors.
l. One member from among the alumni members of Senate.

3. POWERS AND DUTIES OF LONG RANGE PLANNING COMMITTEE

The Long Range Planning Committee shall have the following powers and duties:

a. To make recommendations to Senate in all matters pertaining to the co-ordination of the planning of the academic, physical, and operational development of the university and the achievement of a planned rate and scope of such development.
b. To receive from the president, for consideration, study and review, on behalf of Senate, plans for the development of the university and to make recommendations to Senate thereon.
c. To undertake such studies as Senate may designate from time to time.
d. To report to Senate, as expeditiously as possible, with respect to the conduct of such matters as shall be delegated by Senate to the committee from time to time.

4. TERM OF OFFICE

The term of office of members listed in section 2 (h)-(l) shall be one year. Each member is eligible for re-election.

Approved by Senate November 16, 1972
Amended by Senate January 15, 1973
Amended by Senate in two readings, September 15, 1975 and October 20, 1975.
Amended by Senate in two readings, September 19, 1977 and October 17, 1977.
Amended by Senate in two readings, April 16, 1984 and May 22, 1984.
Amended by Senate in two readings, April 17, 1989 and May 15, 1989.
Amended by Senate in two readings, February 19, 1990 and March 1990.
Amended by Senate in two readings, October 15, 2012 and November 19, 2012.
Amended by Senate in two readings, [month] and [month][year].
Senate Bylaw 6

A bylaw relating generally to the business and affairs of committees and councils of Senate of the University of Waterloo.

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

1. MEETINGS TO BE OPEN

Subject to the provisions in section 2 of this bylaw, all meetings of committees and councils of Senate shall be open to members of the university community, the public-at-large, and representatives of the news media. Any committee or council of Senate will make every effort to hold its meetings in a room sufficiently large to accommodate those who indicate to the secretary of the relevant committee or council, two full working days in advance of the meeting, their desire to attend.

2. MEETINGS IN CLOSED SESSION

Notwithstanding the provisions of section 1 of this bylaw, any committee or council of Senate may elect to hold part or all of any meeting in closed session for the purpose of considering confidential financial matters of the university or where intimate financial or personal matters of any person may be disclosed unless such person requests that such part of the meeting be open to the public.

3. AGENDA AND BACKGROUND MATERIAL TO BE AVAILABLE

1. Notice in writing of each general meeting of any committee or council shall be available at least seven (7) days prior to the date of each such meeting.

2. The agenda and available background material with respect to non-confidential matters for any general meeting of any committee or council shall be available at least seven (7) days prior to the date of each such meeting.

4. REPRESENTATIONS TO MEETINGS

Any members of the university community, or of the public-at-large, wishing to make representations to any meeting of a committee or council shall file with the secretary of the relevant committee or council, at least two full working days prior to the date of such proposed meeting, written notice to that effect with such notice to designate the nature of the proposed representations.

5. TIME LIMIT ON PRESENTATIONS

The chair of any committee or council may limit the time to be allotted to members of the university community and the public-at-large for committee or council presentations.

6. LIMIT ON SERVICE ON COMMITTEES

An elected member of Senate shall not serve on more than one of the Executive, Finance or Long Range Planning Committees.

7. TERM OF OFFICE

Except where specified by Senate bylaws, the term of office on committees or councils shall be one year, with members eligible for re-election.
8. SECRETARY OF COMMITTEES

The secretary of the university, or designate, shall be the non-voting secretary of each committee or council of Senate.

Approved by Senate December 4, 1972.
Amended by Senate in two readings, September and October 1975.
Amended by Senate in two readings, [month] and [month][year].
Senate Bylaw 7

A bylaw relating to the procedure for creating new bylaws or amending existing bylaws of Senate of the University of Waterloo.

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

1. GENERAL

   a. The passage of a new bylaw or amendment(s) to an existing bylaw is accomplished in two readings by Senate. At the first reading, such discussion of the document as is deemed appropriate by Senate shall take place. At the second reading, further discussion may take place and the vote on the document shall be taken. The two readings shall take place at different, but not necessarily consecutive, meetings of Senate.

   b. No proposed bylaw or amendment(s) will be given first reading unless it has been bound into or accompanies the agenda portfolio distributed in advance of the meeting.

   c. Proposed bylaw or amendment(s) shall include the proposed wording of the bylaw or amendment(s), and where appropriate, a summary of the reasons for such bylaw or amendment(s).

   d. In order to be approved by Senate, any new bylaw or amendment(s) to bylaws must receive the affirmative vote of at least two-thirds of the members of Senate present and voting at the meeting.

Amended by Senate in two readings, September and October 1975.
Amended by Senate in two readings, [month] and [month][year].
Senate Bylaw 8

A bylaw relating to the establishment of the Graduate & Research Council of Senate of the University of Waterloo.

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

1. GRADUATE & RESEARCH COUNCIL

There shall be a council of the university, appointed by and responsible to Senate, called the Graduate & Research Council.

2. GRADUATE & RESEARCH COUNCIL MEMBERSHIP

The membership of this council shall consist of the following:

a. The president of the university
b. The vice-president, academic & provost
c. The vice-president, university research, who shall co-chair this council
d. The associate provost, graduate studies, who shall co-chair this council
e. The associate dean of graduate studies
f. The associate vice-president, research operations
g. The associate vice-president, external research
h. The director, office of research ethics
i. The director, contracts research & industrial grants
j. The director, graduate academic services
k. The university librarian
l. The president of the Graduate Student Association
m. Two faculty members with Approved Doctoral Dissertation Supervisor status from each faculty, one of whom must be an associate dean with a research and/or graduate studies portfolio [associate dean positions are ex-officio; others are two years]
n. One faculty member from the federated university & affiliated university colleges, who shall serve for a term of two years.
o. One graduate student from each faculty, each of whom shall serve for a term of two years.

3. POWERS AND DUTIES OF THE GRADUATE & RESEARCH COUNCIL

The Graduate & Research Council shall consider all questions relating to the academic quality of graduate studies and research activity within the university and, without intending to restrict the generality of the foregoing, the Graduate & Research Council shall,

a. Make recommendations to Senate with respect to the government, direction and management of, or any changes in rules, regulations or policies for graduate studies and research in the university.
b. Advise the vice-president, academic & provost on all matters relating to graduate studies and research.
c. Receive, consider, study and review briefs on any aspect of graduate studies and research from members of the university.
d. Make recommendations to Senate with respect to any financial matter pertaining to graduate studies and research.
e. Consider, study and review all proposals for new graduate programs, the deletion of graduate programs, major changes to existing graduate programs, arrange for internal appraisals as the council shall see fit, and make recommendations to Senate thereon.
f. On behalf of Senate, consider and approve all new graduate courses, the deletion of graduate courses, and proposed minor changes to existing graduate courses and programs, and provide
Senate with a brief summary of council's deliberations in this regard. Any matter of controversy that might arise may be referred to the Senate.

g. Consider, study and review all proposals for new centres and institutes, and the closure of centres and institutes, and make recommendations to Senate thereon.

h. On behalf of Senate, consider and approve renewals for centres and institutes, and report such renewals to Senate for information. Any matter of controversy that might arise may be referred to Senate.

i. On behalf of Senate, consider and approve all new graduate scholarships and awards. Any matter of controversy that might arise may be referred to the Senate.

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**Senate Bylaw Number 8**

Approved by Senate December 4, 1972.
Amended by Senate in two readings, September and October 1975.
Amended by Senate in two readings, September and October 1977.
Amended by Senate in two readings, May and June 1981.
Amended by Senate in two readings, April and May 1982.
Amended by Senate in two readings, April and May 1987.
Amended by Senate in two readings, January and February 1989.
Amended by Senate in two readings, June and October, 1995.
Amended by Senate in two readings, May and June 2003.
Amended by Senate in one reading, May 19, 2009.
Amended by Senate in two readings, December and January, 2012-13.
Amended by Senate in two readings, [month] and [month][year].

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**Senate Bylaw Number 12**

Approved by Senate in two readings, November and December 1988.
Approved by Senate in two readings on November 15 1993.
Approved by Senate in two readings, June and October 1995.
Amended by Senate on June 17, 1996.
Merged with revised Bylaw 8, June 2003, to reflect the amalgamation of the Senate Graduate & Research Council.
Senate Bylaw 9

A bylaw relating to the establishment of the Undergraduate Council of the Senate of the University of Waterloo.

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

1. UNDERGRADUATE COUNCIL

There shall be a council of the university, appointed by and responsible to Senate, called the Undergraduate Council.

2. UNDERGRADUATE COUNCIL MEMBERSHIP

The membership of this council shall consist of the following:

a. The president of the university.
b. The vice-president, academic & provost
c. The associate vice-president, academic, who shall chair this council.
d. The dean of the federated university.
e. The associate dean for undergraduate studies for each faculty.
f. The registrar of the university.
g. A director of Co-operative Education & Career Action.
h. The university librarian or delegate.
i. An executive member of the Federation of Students.
j. One member of the faculty from each faculty of the university which offers undergraduate programs, each of whom shall serve for a term of two years.
k. One member of faculty from the federated university, who shall serve for a term of two years.
l. One member of faculty from the affiliated university colleges, who shall serve for a term of two years.
m. The vice-president (education) or equivalent from the Undergraduate Student Association of each faculty of the university.

3. POWERS AND DUTIES OF THE UNDERGRADUATE COUNCIL

The Undergraduate Council shall consider all questions relating to the academic quality of undergraduate studies within the university and, without intending to restrict the generality of the foregoing, the Undergraduate Council shall,

a. Make recommendations to Senate with respect to rules and regulations for the government, direction and management of undergraduate studies in the university.
b. Make recommendations to Senate with respect to new undergraduate programs/plans, and the deletion of undergraduate programs/plans.
c. On behalf of Senate, consider and approve all new undergraduate courses, the deletion of undergraduate courses, and proposed changes to existing undergraduate courses and programs and/or plans, and provide Senate with a summary of council's deliberations in this regard. Any matter of controversy that might arise may be referred to the Senate.
d. Advise the vice-president, academic & provost on all matters relating to undergraduate studies.
e. Consider, study and review briefs on any aspect of undergraduate studies from members of the university.

Approved by Senate in two readings, November 2002 and May 2003.
Amended by Senate in two readings, January and February 2013.
Amended by Senate in two readings, [month] and [month]/[year].
Senate Bylaw 10

A bylaw relating to the Constitutions for Faculties and Academic Departments of the University of Waterloo.

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

1. CONSTITUTIONS

Each faculty and each academic department of the university may adopt a formal constitution governing its operations, provided that each such constitution and any amendments thereto shall be inoperative and ineffective until approved by Senate. No provision of the constitutions shall be inconsistent with any provisions of the *University of Waterloo Act, 1972*, as amended, and no provision of any constitution shall be exempt from the provisions of any of the bylaws or established policies of the university, except as expressly approved by Senate.

*Approved by Senate December 4, 1972.*
*Amended by Senate January 15, 1973.*
*Amended by Senate in two readings, September and October 1975.*
*Amended by Senate in two readings, [month] and [month][year].*
Senate Bylaw 11

A bylaw relating to the naming of additional ex officio members of the Senate of the University of Waterloo.

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

1. EX OFFICIO MEMBERS

WHEREAS the University of Waterloo Act, 1972 provides in Section 18.a.9. that Senate of the university may add to its membership such other ex officio members as Senate by bylaw may, from time to time, designate, and

WHEREAS the University of Waterloo Act, 1972 provides in Section 18.b.2. that elected members of the faculty shall equal in number one more than the total number of all other members of Senate, and

WHEREAS the University of Waterloo Act, 1972 provides in Section 18.c. that upon the designation of and addition, from time to time, by Senate of any additional ex officio members, the number of elected members from the Board of Governors, the undergraduate students, the graduate students and the alumni shall be increased by whatever numbers are necessary to retain the ratios, in each case, of the number of such elected persons to the number of elected faculty.

BE IT THEREFORE enacted as a Bylaw of Senate of the University of Waterloo as follows:

1. That the following be named as ex officio members of Senate:
   a. The vice-president, administration & finance
   b. The vice-president, advancement
   c. The vice-president, university relations
   d. The vice-president, university research
   e. The associate provost, resources
   f. The president of the Faculty Association of the University of Waterloo
   g. The president of the Federation of Students, University of Waterloo
   h. The president of the Graduate Student Association - University of Waterloo

2. That the chief returning officer be empowered upon passage of this Bylaw to take whatever steps are necessary to carry out such elections or by-elections as may be necessary to comply with the provisions of the University of Waterloo Act, 1972, cited above and arising from the designation of ex officio members of Senate by the passage or amendment of this Bylaw.

Approved by Senate May 20, 1975.
Amended by Senate at two meetings, December 1980 and January 1981.
Amended by Senate at two meetings, December 1983 and January 1984.
Amended by Senate at two meetings, May 1987 and June 1987.
Amended by Senate at two meetings, May 1990 and June 1990.
Amended by Senate at two meetings, October 2012 and November 2012.
Amended by Senate in two readings, [month] and [month][year].