<table>
<thead>
<tr>
<th>Time</th>
<th>Agenda Item</th>
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<tbody>
<tr>
<td>3:30</td>
<td>OPEN SESSION</td>
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<tr>
<td></td>
<td><strong>Consent Agenda</strong></td>
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<td></td>
<td><strong>Motion:</strong> That Senate approve or receive for information by consent items 1-5 below.</td>
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<tr>
<td></td>
<td>1. Approval of the October 17, 2011 Minutes [enclosed]</td>
<td>1-22</td>
<td>Decision</td>
</tr>
<tr>
<td></td>
<td>2. Report from Undergraduate Council</td>
<td></td>
<td>Decision/Information</td>
</tr>
<tr>
<td></td>
<td>3. Report of the President</td>
<td>23</td>
<td>Information</td>
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<td></td>
<td>a. Recognition and Commendation</td>
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<tr>
<td></td>
<td>4. Reports from Faculties [excluding environment] and Renison University College</td>
<td>24-40</td>
<td>Information</td>
</tr>
<tr>
<td></td>
<td>5. Other Business</td>
<td>41</td>
<td>Decision</td>
</tr>
<tr>
<td></td>
<td>a. COU Report [to be distributed]</td>
<td></td>
<td>Information</td>
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<tr>
<td></td>
<td>b. Committee/Council Appointments</td>
<td></td>
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<td></td>
<td><strong>Regular Agenda</strong></td>
<td></td>
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<tr>
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<td>6. Business Arising from the Minutes</td>
<td>42</td>
<td>Decision (2nd reading)</td>
</tr>
<tr>
<td></td>
<td>a. Amendment to Senate Bylaw 2</td>
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<tr>
<td></td>
<td>b. Policy Development (from November 2010 meeting)</td>
<td>Oral</td>
<td>Information</td>
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<td></td>
<td>7. Reports from Committees and Councils</td>
<td>43</td>
<td>Information</td>
</tr>
<tr>
<td></td>
<td>a. Executive Committee</td>
<td></td>
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<tr>
<td></td>
<td>3:55</td>
<td>b. Graduate &amp; Research Council</td>
<td>44-170</td>
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<tr>
<td></td>
<td>4:05</td>
<td>c. Undergraduate Council</td>
<td>171-198</td>
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<tr>
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<td>8. School of Optometry Name Change</td>
<td>199</td>
<td>Decision</td>
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<td></td>
<td>4:15</td>
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<tr>
<td></td>
<td>9. Research Presentation: Dr. Ray Laflamme, IQC</td>
<td>Oral</td>
<td>Information</td>
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<tr>
<td></td>
<td>4:25</td>
<td></td>
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<tr>
<td></td>
<td>10. Report of the Vice-President, University Research</td>
<td>200-266</td>
<td>Discussion</td>
</tr>
<tr>
<td></td>
<td>a. Report from the Committee on Senate-approved Centres and Institutes</td>
<td></td>
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<tr>
<td></td>
<td>4:35</td>
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<tr>
<td></td>
<td>11. Report of the President</td>
<td>Oral</td>
<td>Information</td>
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<td></td>
<td>4:55</td>
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<td></td>
<td>12. Q &amp; A Period with the President</td>
<td>Oral</td>
<td>Information</td>
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<td></td>
<td>5:05</td>
<td></td>
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<tr>
<td>Time</td>
<td>Item</td>
<td>Page</td>
<td>Action</td>
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</tr>
<tr>
<td>5:30</td>
<td>15. Other Business</td>
<td></td>
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<tr>
<td></td>
<td><strong>CONFIDENTIAL SESSION</strong></td>
<td></td>
<td></td>
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<tr>
<td>5:35</td>
<td>16. Approval of the October 17, 2011 Minutes [enclosed]</td>
<td></td>
<td>Decision</td>
</tr>
<tr>
<td>5:40</td>
<td>17. Report from the Nominating Committee for Honorary Degrees</td>
<td>CS1-CS3</td>
<td>Decision</td>
</tr>
<tr>
<td>5:50</td>
<td>18. Report of the President</td>
<td>Oral</td>
<td>Decision</td>
</tr>
<tr>
<td>6:00</td>
<td>a. Dean of Science</td>
<td>Oral</td>
<td>Decision</td>
</tr>
<tr>
<td>6:10</td>
<td>b. Vice-President, University Research</td>
<td>Oral</td>
<td>Decision</td>
</tr>
<tr>
<td>6:10</td>
<td>c. Naming</td>
<td>CS4</td>
<td>Decision</td>
</tr>
<tr>
<td>6:20</td>
<td>19. Other Business</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6:20</td>
<td>a. Student Matter [to be distributed]</td>
<td></td>
<td>Decision</td>
</tr>
</tbody>
</table>

EW: tad
November 9, 2011

Erin Windibank
Associate University Secretary
Senate Undergraduate Council met on October 11, 2011 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 and approval. Council recommends that these items be included in the consent agenda. Items recommended for inclusion in the regular agenda are contained within in a separate report.

Further details are available at: www.secretariat.uwaterloo.ca/Committees/senate/ugc.htm.

FOR APPROVAL

CALENDAR DATES

1. Motion: To approve the 2012-13 calendar dates as provided in attachment #1.

UNDERGRADUATE ADMISSION REQUIREMENTS

2. Motion: Council recommends approval of the undergraduate admission requirements for 2012 as detailed in attachment #2.

REGULATION CHANGES [effective September 1, 2012]

- Faculty of Environment

Final Examinations

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

A student who defaults a final examination, except for a properly certified reason, shall have no make-up examination privileges.

A student may be eligible for make-up examinations or other accommodations as decided between the student and the instructor, when an exam is missed due to documented extenuating circumstances. If a student fails to write a final examination for medical reasons, a completed University of Waterloo Verification of Illness Form, or a Medical Doctor's certificate covering the same information requested on the illness form, including the precise period of illness, must be provided to the instructor within 48 hours of the examination date. In addition, the student must have satisfied all course work requirements prior to the exam.

Each student is required to submit (in such form and at such time as may be determined by the instructor) evidence of satisfactory participation. In all courses, the marks obtained from course work during the term are used in part in determining standing. At the discretion of the Chair of the Department or the Director of the School, and the Dean, a student may be barred from the final examination if the course requirements are not completed to the satisfaction of the instructor.

Failure to write an examination is ordinarily considered a failure to pass (DNW or NMR=32). A student who defaults a final examination, except for a properly certified reason, shall have no make-up examination privileges. If a student fails to write a final examination for medical reasons, a Medical Doctor's certificate covering the precise period of absence must be provided to the instructor within one week of the examination date.

A student will be eligible for make-up examinations only when failure to pass is attributable to documented extenuating circumstances. In addition, students:

- must have attended a reasonable number of lectures in the course in which they propose to write;
must have satisfied all course work requirements; and
must have secured the permission of the instructor concerned.

Rationale: These changes bring Environment’s examination regulation in line with current practice in the faculty and the “Examination Regulations and Related Matters” document posted by the Registrar’s Office. This includes the necessity to use the Waterloo Verification of Illness form or replica, and the need to submit the documentation to the instructor within 48 hours of the posted exam date, in cases of missed exams due to illness.

Faculty of Mathematics
Transfer Students Residency/Registration Requirement

4. Motion: To change the faculty’s residency requirement and transfer regulation as below. (Note: new text = bold; deleted text = strikethrough.)

Students must normally complete at least 50% of the minimum number of math courses and at least 50% of the total number of units required for a degree offered through the Faculty of Mathematics while registered in the Faculty at the University of Waterloo. Students transferring into a co-op system of study must complete at least five work terms (unless otherwise stipulated by plan requirements); at least three of these must be successfully completed while registered in the Mathematics Faculty. At least two of the required five PD courses and two of the four required work reports must be submitted while registered in the Faculty of Mathematics.

14.2 Transfer Credits

Transfer students will normally be given transfer credit for relevant courses taken previously if (i) a mark of at least 60% or equivalent has been obtained, (ii) a mark of at least 50% has been obtained in a University of Waterloo non math course or in a University of Waterloo mathematics course specifically designated for mathematics students. Credit may not be granted for a course covering only part of the material contained in a corresponding required Waterloo course. Grades for transferred courses will not count in averages.

Rationale: The faculty proposes abolishing its residency requirement for internal transfer students, and to loosen restrictions on the transfer of courses from one faculty to another to smooth the transition to math for internal transfer students.

CHANGES TO ACADEMIC PROGRAMS [effective September 1, 2012]

Faculty of Mathematics
Actuarial Science

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

See BCS and BMath Academic Plan Combinations for a description of joint plan requirements. Note that both specialization areas designated in such joint plans must be disciplines within the Faculty of Mathematics. Note that at least 26 math courses are required.

Rationale: To decrease the number of required math courses from 28 to 26, which is consistent with other joint plans in the Faculty of Mathematics.

Mathematical Finance

6. Motion: To make the following change to the mathematical finance plan:

- Change minimum major average from 65% to 70%
Rationale: Mathematical finance is a joint plan between pure math and actuarial science. All students in mathematical finance have access to upper year actuarial science courses. Students in mathematical finance should have the same average requirements as actuarial science.

FOR INFORMATION

Academic Program Review Report

School of Architecture – See attachment #3.

CURRICULAR MODIFICATIONS

Changes to academic plans, new courses, course changes and course inactivations were approved for the Global Experience Certificate, and the faculties of: applied health sciences (applied health sciences, kinesiology, recreation and leisure studies, school of public health and health systems, arts (classical studies, dean of arts, drama and speech communication, economics, English language and literature, fine arts, global business and digital arts, overlapping content table [deletion of], philosophy, political science, psychology, religious studies, sexuality, marriage and family studies, social development studies, sociology and legal studies, spirituality and personal development); engineering (BASc and BSE degree requirements, business, entrepreneurship and technology, civil and environmental engineering, co-op work reports, electrical and computer engineering, environmental engineering, general engineering, management sciences, management engineering, mechanical and mechatronics engineering, nanotechnology engineering, software engineering, systems design engineering); engineering and mathematics (software engineering); environment (aviation, diploma in ecological restoration and rehabilitation, diploma in environmental assessment, environment and business, environment and resource studies, geomatics option, international development, knowledge integration, parks option, sustainable local economic development option, term and graduating dean’s honours list requirements); mathematics (actuarial science, combinatorics and optimization, commerce, computational mathematics, computer science, mathematical business, mathematics, mathematics,chartered accountancy, mathematical finance, mathematical optimization, information technology management, pure mathematics, statistics and actuarial science); science (aviation, biology, physics and astronomy, science).

/kjj Geoff McBoyle
October 28, 2011

Associate Vice-President, Academic
Memo

To: Senate Undergraduate Council
From: Ken Lavigne, Registrar
CC: Carmen Roecker
    Charlene Schumm
Date: October 25, 2011
Re: 2012-2013 Calendar Dates

Attached are the proposed dates for 2012-2013.

1. Fall 2012 dates synchronise with WLU and satisfy all requirements in the guidelines.

2. Winter term dates reflect all requirements specified in the guidelines. Note that a “Friday” class schedule will be used on the last day of classes, Monday, April 8, to balance meets on each day of the week.

3. Spring term dates reflect all requirements specified in the guidelines. Note that a “Monday” class schedule will be used on the last day of classes, Tuesday, August 6, to balance meets on each day of the week.

Motion: That Council recommend Senate approval of these dates as presented.
### Academic Calendar Dates, 2012-2013

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 2012</th>
<th>Winter 2013</th>
<th>Spring 2013</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Co-operative Work Term Begins</strong> *</td>
<td>Aug. 27 (M)</td>
<td>Jan. 2 (W)</td>
<td>April 29 (M)</td>
</tr>
<tr>
<td><strong>Lectures Begin</strong></td>
<td>Sept. 10 (M)</td>
<td>Jan. 7 (M)</td>
<td>May 6 (M)</td>
</tr>
<tr>
<td><strong>Reading Week</strong></td>
<td>N/A</td>
<td>Feb. 18-22</td>
<td>N/A</td>
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<td>(M-F)</td>
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<tr>
<td><strong>Convocation</strong></td>
<td>Oct. 19, 20 (F,S)</td>
<td>N/A</td>
<td>June 12-15 (W-S)</td>
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<tr>
<td><strong>Lectures End</strong></td>
<td>Dec. 3 (M)</td>
<td>Apr. 8 (M)</td>
<td>July 30 (T)</td>
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<tr>
<td></td>
<td></td>
<td>Note: Friday class schedule used</td>
<td>Note: Monday class schedule used</td>
</tr>
<tr>
<td><strong>Pre-Examination Study Days</strong></td>
<td>Dec. 4,5 (T,W)</td>
<td>Apr. 9-11 (T-Th)</td>
<td>July 31- Aug. 5 (W-M)</td>
</tr>
<tr>
<td><strong>On-Campus Examinations Begin</strong></td>
<td>Dec. 6 (Th)</td>
<td>Apr. 12 (F)</td>
<td>Aug. 6 (T)</td>
</tr>
<tr>
<td><strong>Online Class Examination Days</strong></td>
<td>Dec. 7,8 (F,S)</td>
<td>Apr. 12,13 (F,S)</td>
<td>Aug. 9,10 (F,S)</td>
</tr>
<tr>
<td><strong>On-Campus Examinations End</strong></td>
<td>Dec. 20 (Th)</td>
<td>Apr. 25 (Th)</td>
<td>Aug. 17 (S)</td>
</tr>
<tr>
<td><strong>Co-operative Work Term Ends</strong> *</td>
<td>Dec. 21 (F)</td>
<td>Apr. 26 (F)</td>
<td>Aug. 23 (F)</td>
</tr>
<tr>
<td><strong>Teaching days</strong></td>
<td>60</td>
<td>60</td>
<td>60</td>
</tr>
<tr>
<td><strong>Pre-examination study days</strong></td>
<td>2</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td><strong>Examination days</strong></td>
<td>13</td>
<td>12</td>
<td>11</td>
</tr>
</tbody>
</table>

* Actual dates may vary depending on employer or student requirements.
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 (e.g., 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)
Memo

To: Senate Undergraduate Council  (For approval)
From: Nancy Weiner, Associate Registrar, Admissions
Date: October 11, 2011
Re: Undergraduate Admission Requirements for 2013

For your consideration and approval, the 2013 admission requirements:

1. **Change in the minimum published overall average:**
   
   **Current:**
   An overall average of 78% on the best six grade 12 courses including the required courses is normally the minimum for consideration.

   **Revised:**
   An overall average of 79% on the best six grade 12 courses including the required courses is normally the minimum for consideration.

   **Rationale:**
   The 79% reflects the minimum average to be used for admission in the fall 2013. The university is increasing the average by 1% every year until the minimum average of 80% is stated which will be for the fall 2014 entry.

2. **There are no changes for the Faculties of Applied Health Sciences, Arts, Engineering (including Software Engineering and Architecture), Environment, Mathematics (including Computer and Financial Management), or Science.**

3. **There are no changes on this chart for Optometry, Pharmacy, or Social Work.**

If you have any questions, please do not hesitate to contact me at ext. 32265 or at nweiner@uwaterloo.ca.
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 79% 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 2013

<table>
<thead>
<tr>
<th>Faculty/Program</th>
<th>Requirements</th>
<th>Recommendations</th>
<th>Other Documentation</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Undergraduate first-year entry programs:</strong>&lt;br&gt;<strong>All programs require six Grade 12 U or M courses including specified courses.</strong></td>
<td><strong>Undergraduate first-year entry programs:</strong>&lt;br&gt;Courses listed are OSS. Grade 12 U courses unless otherwise specified and are not required for admission, but are recommended. Required courses are included in the calculation of the admission average.</td>
<td><strong>Information which is used in addition to course requirements is detailed below where applicable. This information will be requested when appropriate.</strong></td>
<td><strong>Programs requiring prior university studies:</strong> Requirements as listed.</td>
<td><strong>Programs requiring prior university studies:</strong> Recommendations are as listed.</td>
</tr>
<tr>
<td><strong>Applied Health Sciences</strong></td>
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<tr>
<td>All Programs</td>
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<tr>
<td><strong>Health Studies</strong>&lt;br&gt;Regular and Co-op</td>
<td>• Biology&lt;br&gt;• Chemistry&lt;br&gt; A final grade of at least 70% is normally required in each of the above required courses.&lt;br&gt;• Additional U or M courses for a total of six</td>
<td>• Advanced Functions&lt;br&gt;• English (ENG4U)</td>
<td>For students considering the Pre-Health Professions&lt;br&gt;Specialization:&lt;br&gt;• Advanced Functions&lt;br&gt;• English (ENG4U)</td>
<td>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.</td>
</tr>
<tr>
<td><strong>Kinesiology</strong>&lt;br&gt;Regular and Co-op</td>
<td>• Advanced Functions&lt;br&gt;• Chemistry&lt;br&gt;• One of Biology or Physics&lt;br&gt; A final grade of at least 70% is normally required in each of the above required courses.&lt;br&gt;• Additional U or M courses for a total of six</td>
<td></td>
<td></td>
<td>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.</td>
</tr>
<tr>
<td><strong>Recreation and Leisure Studies</strong>&lt;br&gt;Regular and Co-op</td>
<td>• Any Grade 12 U English&lt;br&gt; A final grade of at least 70% is normally required.&lt;br&gt;• Additional U or M courses for a total of six</td>
<td>• One Grade 12 U or M course from Arts, Business Studies, Canadian and World Studies, Classical Studies, French as a Second Language, Interdisciplinary Studies, International Languages, or Social Sciences and Humanities courses&lt;br&gt; For students considering the Therapeutic Recreation program:&lt;br&gt;• Biology or Exercise Science&lt;br&gt; For students considering the Recreation and Business program:&lt;br&gt;• Grade 12 M Principles of Financial Accounting</td>
<td>Information Form (AIF) is required.</td>
<td>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.</td>
</tr>
</tbody>
</table>
Admission Requirements and Recommendations for Year One Programs 2013

<table>
<thead>
<tr>
<th>Faculty/Program</th>
<th>Requirements</th>
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<th>Other Documentation</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Arts</strong></td>
<td>All programs require six Grade 12 U or M courses including a Grade 12 U English.</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 requirements set of 4. Required courses are included in the calculation of the admission average. 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 reviewed when an application is acknowledged.</td>
<td>When the Admissions Committee considers an application individually, it bases its decision on the overall average, the English grade, and information provided on the Admission Information Form. If Grade 12 courses are repeated, the highest grade attained will be used for making admission decisions. Renison University College and St. Jerome's University have the same admission standards as the University.</td>
</tr>
<tr>
<td><strong>Honours Arts Regular</strong></td>
<td></td>
<td>For Social Science programs such as Anthropology; Economics; Geography and Environmental Management; Political Science; Psychology; Sexuality, Marriage, and Family Studies; Social Development Studies; or Sociology: Mathematics of Data Management</td>
<td>Admission Information Form (AIF) is strongly recommended.</td>
<td>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.</td>
</tr>
<tr>
<td><strong>Arts and Business Regular and Co-op</strong></td>
<td>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.</td>
<td>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.</td>
<td></td>
<td>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.</td>
</tr>
<tr>
<td><strong>Global Business and Digital Arts Regular</strong></td>
<td>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.</td>
<td>Mathematics of Data Management is strongly recommended</td>
<td></td>
<td>Those not admitted to Social Development Studies in Year One are automatically considered for Honours Arts Regular through Renison University College. Based on academic performance in Year One, admission to General or Honours Social Development Studies at the Year Two level is possible.</td>
</tr>
<tr>
<td><strong>Social Development Studies Regular Renison University College</strong></td>
<td>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.</td>
<td>Mathematics of Data Management</td>
<td>Admission Form (AIF) is strongly recommended.</td>
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</table>
### Admission Requirements and Recommendations for Year One Programs 2013

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<tr>
<td><strong>Arts (Continued)</strong></td>
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<tr>
<td>Accounting and Financial Management - Business and Finance Co-op</td>
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<tr>
<td>• Any Grade 12 U English. A final grade of at least 75% is required.</td>
<td>• Grade 12 M Principles of Financial Accounting</td>
<td>Admission Information Form (AIF) is required</td>
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<tr>
<td>• Advanced Functions</td>
<td>• Grade 12 U Mathematics of Data Management</td>
<td>Accounting and Financial Management Admissions Assignment. See notes section.</td>
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<td>• Calculus and Vectors</td>
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<td>• Three other U or M courses</td>
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<tr>
<td>Independent Studies Regular</td>
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<td>In addition to the requirement for all Arts programs, a final grade of at least 70% in any Grade 12 U English is required.</td>
<td>Autobiographical Letter Interview</td>
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<tr>
<td>Computing and Financial Management (Co-op)</td>
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<tr>
<td>Computing and Financial Management Co-op</td>
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<tr>
<td>• Advanced Functions</td>
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<tr>
<td>• Calculus and Vectors</td>
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<tr>
<td>• Any Grade 12 U English. A final grade of at least 75% is required.</td>
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<td>• One other Grade 12 U course</td>
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<td>• Two other U or M courses</td>
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<tr>
<td>• Grade 11 U Introduction to Computer Science</td>
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<td>• Grade 12 M Principles of Financial Accounting</td>
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<td>Admission Information Form (AIF), which includes a teacher reference, is strongly recommended. All applicants are encouraged to write the Euclid Mathematics Contest. Applicants not currently attending an Ontario Secondary School are strongly advised to write the Euclid contest to demonstrate that they have sufficient mathematical background. The Canadian Computing Competition is recommended.</td>
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<td>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.</td>
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<tr>
<td><strong>Civil and Environmental Engineering</strong></td>
<td>Undergraduate first-year entry programs: All required courses and any specified and must be included in the required set of 6 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 must be included in the required set of 6 required courses.</td>
<td>Information which is used in addition to course requirements is detailed below.</td>
<td>The appropriate information will be requested when an application is acknowledged.</td>
</tr>
<tr>
<td><strong>Chemical Engineering Co-op</strong></td>
<td>- English (ENG4U). A final grade of at least 75% is normally required. - Advanced Functions - Calculus and Vectors - Physics</td>
<td>- Grade 11 or 12 M Advanced Functions - Independent arts courses - Creative and cultural studies such as visual arts and history</td>
<td>Interview English precis-writing exercise Portfolio Admission Information Form (AIF) is required.</td>
<td>Applicants are selected for the interview on the basis of grade 11 marks and any interim or final OSS 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 precis-writing exercise, and secondary school achievement.</td>
</tr>
<tr>
<td><strong>Civil Engineering Co-op</strong></td>
<td>- Advanced Functions - Calculus and Vectors - Chemistry - English (ENG4U) - Physics</td>
<td>- A final grade of at least 70% is normally required in each of these courses. - One other U or M course</td>
<td>Admission Information Form (AIF) is required.</td>
<td>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.</td>
</tr>
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### Admission Requirements and Recommendations for Year One Programs 2013

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<tr>
<td><strong>Environment</strong></td>
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</tbody>
</table>
| Environment and Business Co-op | • Any Grade 12 U English. A final grade of at least 70% is normally required.  
• Five other U or M courses | • One Grade 12 U Mathematics  
• One Grade 12 U Science  
• Grade 12 M Principles of Financial Accounting  
• Analysing Current Economics Issues (where offered)  
• Admission Information Form (AIF) | 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. |
| Environment and Resource Studies Regular and Co-op | • Any Grade 12 U English. A final grade of at least 70% is normally required.  
• Five other U or M courses | 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 | Admission Information Form (AIF) | 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. |
| Geography and Aviation Regular | • 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 | • One or more Grade 12 U or M Geography courses are strongly recommended.  
• A second Grade 12 U Mathematics  
• Earth and Space Science | Admission Information Form (AIF)  
Program Briefing Session  
Transport Canada Category 1 Medical Certification | Those not admitted to Honours Geography and Aviation are automatically considered for Honours Geomatics Regular. |
| Geography and Environmental Management Regular and Co-op | • Any Grade 12 U English. A final grade of at least 70% is normally required.  
• Five other U or M courses | • One or more Grade 12 U or M Geography courses are strongly recommended.  
• A Grade 12 U Mathematics  
• Earth and Space Science | Admission Information Form (AIF) | 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. |
### Admission Requirements and Recommendations for Year One Programs 2013

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<tr>
<td><strong>Environment (cont'd)</strong></td>
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<tr>
<td><strong>Geomatics</strong></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>A second Grade 12 U Mathematics Grade 11 U Introduction to Computer Science is highly recommended. Grade 12 U Computer Science would be an asset.</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. The first co-op work term begins in Year Two.</td>
</tr>
<tr>
<td><strong>International Development</strong></td>
<td>Any Grade 12 U English. A final grade of at least 70% is normally required. At least one Grade 12 U Science or Mathematics course. A final grade of at least 70% is normally required. Four other U or M courses</td>
<td>At least one Grade 12 U course in a second language</td>
<td>Admission Information Form (AIF) is required.</td>
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<tr>
<td><strong>Knowledge Integration</strong></td>
<td>Any Grade 12 U English. A final grade of at least 75% is normally required. Any Grade 12 U Science. A final grade of at least 75% is normally required. Any Grade 12 U Mathematics. A final grade of at least 75% normally required. Three other U or M courses</td>
<td></td>
<td>Admission Information Form (AIF) is required.</td>
<td></td>
</tr>
<tr>
<td><strong>Planning Co-op</strong></td>
<td>Any Grade 12 U English. A final grade of at least 75% is required. Five other U or M courses</td>
<td>Grade 12 U or M courses from the following: Canadian and World Studies Mathematics Science, preferably Biology or Earth and Space Science</td>
<td>Admission Information Form (AIF)</td>
<td>The first co-op work term begins in Year Two.</td>
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</table>
### Admission Requirements and Recommendations for Year One Programs 2013

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<tr>
<td><strong>Mathematics</strong></td>
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<tr>
<td>Computer Science</td>
<td>Advanced Functions, Calculus and Vectors, Any Grade 12 U English, One other Grade 12 U course, Two other U or M courses.</td>
<td>Admission Information Form (AIF) which includes a teacher reference. The AIF is required for Math/Chartered Accountancy, Math/Business Admin, Math/Financial Analysis and Risk Mgmt, Business Admin/Math, 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.</td>
<td>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.</td>
</tr>
<tr>
<td>Business Administration and Mathematics Double Degree Co-op</td>
<td>Grade 11 U Introduction to Computer Science</td>
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<tr>
<td>Business Administration and Computer Science Double Degree Co-op</td>
<td>Grade 12 M Principles of Financial Accounting</td>
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<tr>
<td>Bioinformatics</td>
<td>Advanced Functions, Calculus and Vectors, Chemistry, Any Grade 12 U English, One of Biology or Physics, One other U or M course.</td>
<td>Recommendation to Bioinformatics, Computer Science, Business Administration and Computer Science Double Degree, the Canadian Computing Competition is recommended.</td>
<td>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.</td>
<td>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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</table>
## Admission Requirements and Recommendations for Year One Programs 2013

<table>
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<tr>
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</thead>
<tbody>
<tr>
<td>Biotechnology/Chartered Accountancy Co-op</td>
<td>Six Grade 12 U or M courses including</td>
<td>Biology</td>
<td>Information which is used in addition to course requirements is detailed below when applicable. The information will be requested when an application is acknowledged.</td>
<td></td>
</tr>
<tr>
<td>Biotechnology/Economics Co-op</td>
<td>Any Grade 12 U English, Advanced Functions, Calculus and Vectors</td>
<td>Biology, Chemistry</td>
<td></td>
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<tr>
<td>Honours Science Regular</td>
<td>A final grade of at least 70% is normally required in each of these courses.</td>
<td>Chemistry, Earth and Space Science, Physics</td>
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<tr>
<td>Environmental Science Regular and Co-op</td>
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<td>Admission Information Form (AIF) is strongly recommended.</td>
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<tr>
<td>Life Sciences Regular and Co-op</td>
<td>Two of</td>
<td>Chemistry, Physics</td>
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<tr>
<td>Science and Aviation Regular</td>
<td>Physics</td>
<td>Chemistry, Earth and Space Science, Physics</td>
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<tr>
<td>Science and Business Regular and Co-op (All specializations)</td>
<td>Chemistry, Grade 12 M International Business Fundamentals</td>
<td>Admission Information Form (AIF) is strongly recommended.</td>
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<tr>
<td>Optometry Regular</td>
<td>Successful completion of at least three full years of university-level science with specific course requirements.</td>
<td>Optometry Admissions Test (OAT), Autobiographical Sketch, Essay, Optometrist and Academic References</td>
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</table>

- **Science**: Additional requirements and recommendations are provided for various science programs, including specific course requirements and recommended additional materials.
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<tbody>
<tr>
<td>Pharmacy Co-op</td>
<td>Successful completion of at least two full years of university-level science with specific course requirements.</td>
<td>Undergraduate first-year entry programs: Courses listed are OSS-12U courses unless otherwise specified and must be included in the required set of 6.</td>
<td>Information which is used in addition to course requirements.</td>
<td>Please refer to the School of Pharmacy website regarding admission averages and required university-level courses.</td>
</tr>
<tr>
<td>Social Work - Renison University College</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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</tbody>
</table>
| Software Engineering (Co-op)   | • 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 U Introduction to Computer Science is highly recommended.  
• Grade 12 U Computer Science would be an asset.  
• Admission Information Form (AIF) is required.  
• Experience in developing well-structured, modular programs is required, as demonstrated by at least one of the following:  
(1) strong performance in a programming course such as Grade 11 U Intro to Computer Science or Grade 12 U Computer Science or equivalent,  
(2) strong performance in a programming contest, such as the Canadian Computing Competition,  
(3) significant work experience,  
(4) other (must be explained on the Admission Information Form). | 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 the community; evidence of interest in software engineering; additional OSS Grade 12 courses; and participation in mathematics, science, engineering, or programming competitions. All applicants are encouraged to write the Euclid Mathematics Contest. Those not offered admission to Software Engineering may be considered for alternate engineering programs or for computer science; applicants specify their preferences for alternate programs on their Admission Information Form. |
Review Process

This was the second formal review of the undergraduate program in Architecture undertaken using the University of Waterloo's (UW's) Guidelines and the fifth review by the Canadian Architectural Accreditation Board. The Master's program was judged in "Good Quality" by the Ontario Council on Graduate Studies (OCGS) in 2000. Since the architectural accreditation process overlaps greatly with the undergraduate program review process, UW used the accreditation program report together with an addendum to satisfy the requirements of the undergraduate program review process for the Architecture program. The architectural program is evaluated for accreditation over 30 performance criteria; nine areas of critical thinking and communication; 12 areas of design and technical skills; four areas of comprehensive design; and five areas of leadership and practice. The program’s self study was submitted January 27, 2011; the site visit was conducted March 5 to 9, 2011; the report of the visiting team on the accreditation visit was received June 22, 2011. Accreditation was granted to Architecture for six years for the professional program: Master of Architecture. There will be a focused evaluation at the end of year three on Accreditation Condition 6, Human Resource Development which states "programs must have a clear policy outlining both individual and collective opportunities for faculty and student growth within and outside the program."

Characteristics of the Program

Historical Overview

In the mid-1960s, seeking to meet the needs of a rapidly expanding population, a boom in construction and the expansion of cities, the Government of Ontario created two new Schools of Architecture. In fall 1967, the first class of students was admitted to the new Architecture Program within the Systems Design section of the Department of Civil Engineering. Shortly after the program was established Architecture left Engineering to become part of a new academic unit, the Division of Environmental Studies (now the Faculty of Environment).

For the first 15 years of its existence the School of Architecture was housed off campus in Phillip Street. This played a critical role in the evolution of an independent culture and society within the School. This intensity produced a great deal of political unrest, culminating, in the resignation of the Director. An even more turbulent interregnum followed.

During the seventies, the profile of the School changed thanks to the expansion of the faculty complement in the design studios, the program of studies in Italy in 1979, and the publication of Ten Schools: Student Work from Canadian Schools of Architecture which focussed national attention on the quality of design at Waterloo.

In the early eighties, the School moved into a newly constructed addition the Environmental Studies Building on campus. While the space and facilities provided were from the outset, less than adequate, the students, faculty and staff members became more involved in the life of the University.

The current Director, who took over in January 1988, encouraged curriculum revisions aimed at strengthening instruction in professional and environmental areas, and expanded overseas connections. New priorities were set in the 1999 Strategic Plan entitled "Outside the Walls". As a result a graduate program was started in 2000; the School relocated to new facilities in Cambridge in 2004; and in 2005 returned to its original academic home in the Faculty of Engineering.
During these 30 years the academic structure of the Waterloo program with its double degree has been remarkably stable. The Bachelor of Environmental Studies (BES) was a three-year pre-professional degree, co-op and fully architectural. It was followed by a two-year program, also co-op, leading to the Bachelor of Architecture (BArch). Until the fall of 2000 specific courses and requirements had changed, but there had been no structural modification to the overall plan.

In 1999, the School embarked on an initiative designed to respond to issues raised specifically in the 1998 Accreditation Visiting Team Report, and, more broadly, to changes in architectural education and practice.

The three-year BES was replaced with a four-year Honours Co-op Pre-Professional BES. The BArch became a Master of Architecture (MArch), which requires a minimum of one year to complete. The implementation of the Honours BES and the MArch occurred virtually simultaneously. Students already in the program were given the opportunity to complete the BES/BArch program under which they entered. Rather than waiting more than four years for the students who entered the new BES in fall 2000 to reach the MArch, qualified students were given the opportunity to enter the MArch when they had completed fourth year. This resulted in a complex transition that came to an end in August 2005. Since that time there has been only one program at UW’s School of Architecture.

Space provision for the School had been criticized in all the Accreditation Reports and in the OCGS Report. However, in November 2000 a group of Cambridge business leaders made a proposal to relocate the School of Architecture to their city. This initiative gained support; a building was purchased in 2001; renovation began in January 2004; and the School began operations at Cambridge in fall 2004.

The School made yet another change, unforeseen in the 1999 plan. An unsuccessful Dean search in 2003-04 specifically provoked a discussion of the academic affiliation of the School of Architecture. In October 2004, faculty members voted unanimously in favour of returning to the Faculty of Engineering. The move received support. On May 1, 2005 the School of Architecture formally became one of seven Departments/Schools in the Faculty of Engineering. In the realignment the School’s academic program did not change, but the undergraduate degree was renamed the Honours Bachelor of Architectural Studies. The first of these degrees was awarded at the fall convocation of 2005.

The last five years have seen a consolidation of the School in its new location in Cambridge. The School has been a catalyst for a profound change in the city. Cambridge’s recent economic development strategy called “Designing the Future”, contains 27 recommendations, of which more than half involve the School of Architecture. The result of the relocation has meant that Waterloo’s School of Architecture has become a model for collaboration between city and university across the province and the country.

Program Objectives

The mission statement adopted by the School in 1997 continues to underpin the program’s direction and development. It states:

“The University of Waterloo, School of Architecture is dedicated to providing its students an excellent education which builds on the traditions of a profession rooted in the liberal arts and the art of construction, balances elements of theory and practice, incorporates new and emerging areas of influence and engages in discourse and design activity at a local, national and international level. The School is committed to maintain a fully supportive educational environment in which teaching, design and research form a common project in which faculty, staff and students act as much as possible as collaborators.”
When the School joined the Faculty of Engineering in 2005 it did create a set of goals for the School in line with those in the Faculty’s Vision 2010 plan. Progress towards these goals is reported annually. The next iteration of the Faculty of Engineering’s strategic plan entitled Vision 2015 is underway and will focus on the undergraduate experience.

Distinctiveness/Benchmarking

Two items distinguish the School of Architecture;

Within the academic program Cultural History is the feature that is unique to the School of Architecture. The Cultural History stream rests on the idea that neither Architecture nor Architectural History are isolated disciplines, but rather forms of cultural praxis, humanistic study and fields of cultural specialization. Fourteen of the 48 term courses in the pre-professional program are in the Cultural History area.

The “identity” of Waterloo Architecture has become a model for collaboration between city and University.

Academic Programs Offered

Two academic plans of study make up the five years of architectural studies:

the four-year Bachelor of Architectural Studies (BAS) comprising eight academic terms of study, which involves eight studio courses, and six four-month co-op work terms, the first of which is in the winter term of the second year. This degree is followed by a nominal one-year curriculum course of study with a self-directed thesis requirement for the Master of Architecture.

The program’s conception and the elements that define the educational experience; that is, the co-op program, the academic courses, the design studios and the Master’s thesis are conceived to produce the foundation for entry into the architectural profession.

Students

The applicant pool to the School of Architecture has grown from 967 in 2006 to 1,354 in 2010. In 2010, about 10% of applicants and students admitted come from the local communities. The normal entrant from high school has a grade average of about 90%. The average would be higher if the academic record was the sole criterion by which applicants were judged. Since the application process includes a personal interview, portfolio review and a précis test it is possible for students with lower averages to be admitted on the basis of critical ability, maturity, capacity in abstract thought, judgment, graphic ability, creativity or innovation. The School makes a major commitment each year in selecting the incoming class. Normally 500 to 600 students are invited for an interview. The cut-off mark for an interview varies from year to year but is in the range of 82%. Offers are sent to about 85 applicants to produce a class of 72 to 77 students.

In 2010, 14% of students admitted from high school had an average in the 95 to 100%; another 40% were in the 90 to 95% range; 36% were in the 85 to 90% range; and the remainder was in the 80 to 85% range. Only 63% of the entering students in 2010 came directly from high school, this compares with 69% in Civil Engineering, 79% in Systems Design Engineering and 94% in the School of Planning.

The academic program is demanding, students must carry a work load of seven or eight courses per term. Class averages in the Honours BAS academic courses and design studios fall in the range of 75 to 78%.
With a student faculty ratio consistently below 15:1 there is adequate time for effective exchange between faculty members and students.

The retention and completion rates of students in the undergraduate program are high. In the BAS program 79% of students complete their degree in the minimum time -- five years, and the overall completion of the degree by students is 84%.

By the time a Waterloo Architecture student graduates with the BAS degree he/she will likely have two to three years of professional experience through the co-op program and some of that experience will be international. The number of students seeking co-op employment outside of Canada topped 56% in 2005 with London and New York the main destinations. Since the financial collapse in 2008, the location shifted back to Canada, with 40% of jobs being in the Greater Toronto area. In 2009, the level of international placements fell to 26%, but has, as of 2010, closed at about 37%. The emphasis on London and New York has dwindled with the emphasis now being more global with placements in Germany, Italy, Portugal, Finland, Turkey, China, Australia, Singapore and Japan. Overall the rate of co-op employment for Architecture students is virtually 100% most terms.

The co-op process in Architecture has been under review since 2008 and various innovations have been implemented that have greatly assisted the students.

From 2006 to 2010 inclusive, an annual average of 87% of Architecture students has received scholarship support. The annual amount distributed is on average $324,000. Nearly half of all Architecture students receive a President’s Scholarship.

Students evaluate their courses each term. However, no student evaluation data on courses has been forthcoming.

The Director of the program meets regularly with student leaders. On a weekly basis the Undergraduate Student Services Coordinator meets with leaders of the undergraduate student association to discuss operational details, student concerns and the overall direction of the School.

Faculty

There were 19 faculty members in the School of Architecture at the time of the site visit. Seventeen held full-time appointments while two had fractional appointments. The 19 faculty positions represent a 12% increase in overall faculty complement since 2006. Of the 17 full-time faculty members, one was a Full Professor; 12 were Associate Professors; three were Assistant Professors; and one Continuing Lecturer. Five of the 19 faculty members are graduates from the University of Waterloo’s School of Architecture; all but two of these have advanced degrees from other institutions. There are more than 30 part-time appointments each year, many of whom are practicing architects, others are experts in mechanical systems, acoustics, computing and timber design.

On average over the last five years 25 guest lecturers, 52 visiting critics and 26 external thesis readers are invited to the School annually.

The School is supported by six full-time academic support staff members, three computing and media support staff members and 66% of one technical support staff person.

Over the past six years faculty members in the School have published 1.4 articles or reviews, and made 1.7 presentations/guest lectures annually. Five books and eight book chapters have been published in addition to the many creative projects undertaken. Most faculty members have been involved in at least
three projects annually for the last six years. Many of these creative activities are funded by SSHRC and Canada Council. The research funding in the School in 2009 was $500,000.

In addition, faculty members have acted as jurists in many design competitions and exhibited in countries such as Italy, Mexico, Denmark, Holland and the USA,

Faculty members have received many awards, prizes and honours. A sample follows:

- Representing Canada at the Venice Biennale
- Far Eastern International Digital Architecture Award
- Ontario Association of Architects Architectural Excellence Award
- Fellow of the Royal Architecture Institute of Canada
- Applied Arts Magazine Award
- Prize Winner for a European Competition for the Redesign of Piazza S. Cosimato in Trastevere
- Winner of Sculpture Competition for Pearson International Airport, Toronto
- Co-Winner of the Canada Council Priz de Rome.

Main Strengths

The main strengths of the School are: its robust co-op –based pre-professional Bachelor's degree; its strong cultural history focus; its Rome program; and its high quality and very motivated students.

Concerns and Opportunities for Improvement

Although 44 of the 46 conditions for accreditation were met, two need improvement: Human Resource Development and Accessibility.

Human Resource Development: Although the nature and intensity of scholarly and creative activity has increased significantly since the previous accreditation visit, the general faculty profile in Architecture with respect to the university’s expectations and measure of scholarship has, however, changed little over the period. It would appear that most faculty members, by choice or circumstance, do not seek advancement.

Accessibility: Although accessibility is discussed and analysed in the course on Acts and Codes, application of this criterion appears in consistent in the comprehensive design projects suggesting that the principles of accessibility, which are essential aspects of any design regardless of the particular focus of the studio, are not fully integrated into the design work, particularly in early years.
Recognition and Commendation
The Waterloo iGEM (International Genetically Engineered Machine) student team (Ekta Bibra, Angela Biskupovic, Simon Burru, Diljot Chhina, Conria D’Souza, Andrew Dhawan, Joon Hyuk Hong, Kasia Karpinska-Leydier, Jordan Lapointe, Chris Milousis, James Scott, Michel Simard, Arianne Villa) won a bronze medal at the annual Regional Americas iGEM Competition, a premier undergraduate synthetic biology competition, recently held in Indianapolis, Indiana. The team advances on to the world championship to be held at the Massachusetts Institute of Technology (MIT). Teams compete by designing and building their own innovative biological systems to operate them in living cells. At the Regionals, 64 teams from the Americas shared their designs and presented in front of each other as well as world renowned experts in their field. This year, the Waterloo team created a biological system that will allow assembly of protein fusion in living organisms using self-excising ribozymes, or introns. It is described as a novel way of creating protein fusion by using a recombination site that is embedded within the intron, which then would allow insertion of a compatible protein fusion part as well as remove any extra sequences that would disrupt the reading of DNA. “The system we have created here will definitely move the field of synthetic biology forward,” said Joon Hyuk Hong, co-director of the team, “and can be applied in many different situations such as creating synthetic antibodies.” Only 25 teams advanced to the world championship, six of them from Canada. American finalists include Harvard, Yale, Berkeley, Caltech and MIT itself. Each will present its project again at the international event on November 4, with 18 schools from Europe and 18 from Asia also expected. [Oct. 26/11 Daily Bulletin]
FOR INFORMATION

A. APPOINTMENTS
   Adjunct Appointments
   Graduate Supervision and Research
   FENTON, Nancy, Assistant Professor, School of Public Health and Health Systems, October 1, 2011 to September 30, 2016.

   Undergraduate Teaching
   PEARCE, Nancy, Lecturer, School of Public Health and Health Systems, January 1, 2012 to April 30, 2012.

   Postdoctoral Fellow to Research Appointments
   MESCHINO, Lisa, Department of Recreation and Leisure Studies, September 1, 2011 to August 31, 2013.

   VETTE, Albert, Department of Kinesiology, September 1, 2011 to August 31, 2012.

Susan J. Elliott  
Dean, Applied Health Sciences
FOR INFORMATION

A. APPOINTMENTS

Probationary-term Appointments

DANISCH, Robert (BA, University of Virginia, 1998; MA, University of Pittsburgh, 2000; PhD, University of Pittsburgh, 2004), Assistant Professor, Department of Drama and Speech Communication, August 1, 2011 to June 30, 2014. Dr. Danisch’s work focuses on pragmatism, democracy, and communication theory. He is the author of *Pragmatism, Democracy, and the Necessity of Rhetoric* (University of South Carolina Press, 2007), the editor of *Citizens of the World: Pluralism, Migration, and Practices of Citizenship* (Rodopi Press, 2011), and the author of articles in journals including *Rhetoric and Public Affairs* and *Howard Journal of Communications*. Current projects include a SSHRC-funded grant entitled: “Completing the Linguistic Turn: Neopragmatism and Communication Theory.” Dr. Danisch will strengthen course offerings in public communication, ethics, communication theory, interpersonal communication, and rhetoric.

KELETA-MAE, Naila (BA, Concordia University, 2000; MFA, York University, 2005; PhD, York University, ABD), Assistant Professor, Department of Drama and Speech Communication, July 1, 2011 to June 30, 2014. Ms Keleta-Mae’s work focuses on theatre research and methodology, postcolonial theory, transnational feminism, and Black performance. She is a scholar and artist who has published in *Canadian Theatre Review*, and has considerable experience as a playwright, director, poet, and performer. She will strengthen course offerings in performance, Black culture, critical approaches to theatre theory, and non-Western theatre.

Probationary-term Reappointment: Date Change

PACKALEN, Mikko, Assistant Professor, Department of Economics, from July 1, 2010-June 30, 2013 to July 1, 2010 to June 30, 2014.

Definite-term Appointments

DOS SANTOS, Eugénia (BA, University of Western Ontario, 1998; MA, UWO, 1999; PhD, Université de Montréal, 2010), Lecturer, Department of French Studies, September 1, 2011 to August 31, 2012. Dr. Dos Santos is a medievalist who has taught French language and French literature at various postsecondary institutions such as the University of Western Ontario, Queen’s University, Université de Montréal, McMaster University, and Collège Boréal. She joins the Department of French Studies as a lecturer in medieval literature.

HAYES BENNESCH, Nicole (BA, Wilfrid Laurier University, 1998; MA, McMaster University, 2002; PhD, Boston University, 2011), Lecturer, Department of Anthropology, September 1, 2011 to June 30, 2013. Dr. Hayes Bennesch comes to UW following two years of teaching as a sessional instructor at Wilfrid Laurier University. Her research focuses on youth leadership and development projects, and the impact of the breakdown of traditional institutions in Africa and the spread of HIV/AIDS. She will contribute to the department’s activities through her research and teaching in Cultural Anthropology and Public Issues Anthropology.
KLIASHCHUK, Mikalai (BA, University of Minsk, 2003; MA, UM, 2004; MA, University of Western Ontario, 2005; PhD in progress, UWO), Lecturer, Department of French Studies, June 1, 2011 to May 31, 2012. Mr. Kliashchuk is responsible for the FR151 pilot project that will soon transform how beginner French is taught at UW.

REICHERT, Tetyana (Specialist Diploma in German Language and Literature, National University of Uzhhorod, 1997; MA, University of Waterloo, 2005; PhD, UW, 2010), Lecturer, Department of Germanic & Slavic Studies, September 1, 2011 to August 31, 2012. Dr. Reichert’s research background is in second language acquisition, computer-assisted language learning, conversation and discourse analysis. She will teach a variety of undergraduate language courses in German and Russian, including online courses in German language and culture.

Visiting Appointment
CHO, Chansoo, Scholar, Department of Political Science, September 1, 2012 to August 31, 2013.

Adjunct Appointments
Instruction
BAINS, Naveep, Lecturer, Department of Political Science, January 1, 2012 to April 30, 2012.

LAWOTI, Surendra, Lecturer, Department of Fine Arts, January 1, 2012 to April 30, 2012.

MCGOWAN, Rosemary, Lecturer, Department of Political Science, January 1, 2012 to April 30, 2012.

RICHARDS, Edward, Lecturer, Department of Political Science, January 1, 2012 to April 30, 2012.

Graduate Supervision
TRUSSELL, Dawn, Assistant Professor, Department of Sociology and Legal Studies, September 1, 2011 to August 31, 2014.

Adjunct Reappointments
Instruction
AMARSINGAM, Amarnath, Lecturer, Department of Sociology and Legal Studies, January 1, 2012 to April 30, 2012.

ATOCHÉ, Cristina, Lecturer, Department of Spanish and Latin American Studies, January 1, 2012 to April 30, 2012.

BRIGGS, Catherine, Lecturer, Department of History, January 1, 2012 to April 30, 2012.

CLADERON-CALLEJAS, Betty, Lecturer, Department of Spanish and Latin American Studies, January 1, 2012 to April 30, 2012.

CHAPUT, Louise, Lecturer, Department of Political Science, January 1, 2012 to April 30, 2012.

COCHRANE, Andrew, Lecturer, School of Accounting and Finance, September 1, 2011 to December 31, 2011.

CORRIGAN, Alan, Lecturer, Department of English Language and Literature, January 1, 2012 to April 30, 2012.
DAVIDSON, Tina, Lecturer, Women's Studies, January 1, 2012 to April 30, 2012.

FLERAS, Augie, Professor, Department of Sociology and Legal Studies, January 1, 2012 to April 30, 2012.

HARRIGAN, Patrick (Distinguished Professor Emeritus), Professor, Department of History, January 1, 2012 to April 30, 2012.

JACKES, Mary, Associate Professor, Department of Anthropology, January 1, 2012 to April 30, 2012.

JAIMES-DOMINGUEZ, Luis, Lecturer, Department of Spanish and Latin American Studies, January 1, 2012 to April 30, 2012.

JIMENEZ, Jennifer, Lecturer, Department of Drama and Speech Communication, September 1, 2011 to November 10, 2011.

KRELLER, Paul, Lecturer, Department of English Language and Literature, January 1, 2012 to April 30, 2012.

KROEKER, Ronald, Assistant Professor, Department of Classical Studies, January 1, 2012 to April 30, 2012.

LAM, Ibis, Lecturer, Department of Spanish and Latin American Studies, January 1, 2012 to April 30, 2012.

MCAULEY, Eva, Lecturer, Department of Fine Arts, January 1, 2012 to April 30, 2012.

MOTA, Fatima, Lecturer, Department of Spanish and Latin American Studies, January 1, 2012 to April 30, 2012.

OLDHAM, Andrew, Lecturer, School of Accounting and Finance, September 1, 2011 to December 31, 2011.

OLLEY, James, Lecturer, Department of Fine Arts, January 1, 2012 to April 30, 2012.

PARKIN, Melanie, Lecturer, Department of Psychology, September 1, 2011 to December 31, 2011.

PORTER, Robert, Assistant Professor, Department of Classical Studies, January 1, 2012 to April 30, 2012.

REICHERT, Tetyana, Lecturer, Department of Germanic and Slavic Studies, October 17, 2011 to December 31, 2011.

SCHWEITZER, David, Assistant Professor, Department of History, January 1, 2012 to April 30, 2012.

SIEBEL-ACHENBACH, Sebastian, Assistant Professor, Department of History, January 1, 2012 to April 30, 2012.

SPIELMACHER, Mark, Lecturer, Dean of Arts Office, January 1, 2012 to April 30, 2012.
WALKER VADILLO, Monica, Lecturer, Department of Fine Arts, January 1, 2012 to April 30, 2012.

WATSON, Patrick, Lecturer, Department of Sociology and Legal Studies, January 1, 2012 to April 30, 2012.

Graduate Supervision
HEINTZMAN, John David, Psychiatrist, Department of Psychology, September 1, 2011 to August 31, 2012.

Cross Appointment
SCOTT, Stacey, Assistant Professor, Department of Systems Design Engineering to Department of English Language & Literature, October 1, 2011 to September 30, 2016.

Staff to Faculty Appointment
GLOVER, Adam (Department of Fine Arts), Lecturer, Department of Fine Arts, January 1, 2012 to April 30, 2012.

Graduate Student to Part-time Lecturer Appointments
ARTHUR, Kasandra, Department of Political Science, September 1, 2011 to December 31, 2011.

FLAGLER, Jenny, Department of Political Science, September 1, 2011 to December 31, 2011.

GIBBONS, Sarah, Department of Political Science, September 1, 2011 to December 31, 2011.

GRANICK, Marcella, Department of Sociology and Legal Studies, September 1, 2011 to December 31, 2011.

KASSABIAN, Taline, Department of Sociology and Legal Studies, September 1, 2011 to December 31, 2011.

PULIS, Jessica, Department of Sociology and Legal Studies, January 1, 2012 to April 30, 2012.


SOLMAN, Grayden, Department of Psychology, September 1, 2011 to December 31, 2011.

VAN DONGEN, Laura, Department of Sociology and Legal Studies, September 1, 2011 to December 31, 2011.

WOODHALL, Julia, Department of Sociology and Legal Studies, January 1, 2012 to April 30, 2012.

YE, Ziqun, Department of Sociology and Legal Studies, September 1, 2011 to December 31, 2011.

ZEHR, Tamar, Department of Political Science, September 1, 2011 to December 31, 2011.

B. ADMINISTRATIVE APPOINTMENTS
ELLARD, Colin, Associate Chair, Undergraduate Studies, Department of Psychology, July 1, 2011 to June 30, 2012.
HAYES, Geoffrey, Associate Chair, Undergraduate Studies, Department of History, September 1, 2011 to August 31, 2012.

HOUSTON, Andrew, Associate Chair, Undergraduate Studies, Department of Drama and Speech Communication, July 1, 2011 to June 30, 2012.

RUSSELL, Grant, Associate Director, Undergraduate Studies and Master's Programs, School of Accounting and Finance, July 1, 2011 to June 30, 2013.

WALKER, James, Associate Chair, Graduate Studies, Department of History, July 1, 2011 to August 31, 2012.

Douglas M. Peers
Dean, Faculty of Arts
FOR INFORMATION

A. APPOINTMENTS

Probationary-term Appointments

AL-MAYAH, Adil, Assistant Professor, Department of Civil & Environmental Engineering, October 1, 2011 – June 30, 2014. PhD University of Waterloo 2004; MASc University of Waterloo 1999; BEng Basrah University 1990. Dr. Al-Mayah will join the Structures, Mechanics and Construction Research Group. His recent research has focused on the biomechanics of the human lungs and liver; the simulation of mammogram tests for breast cancer detection and treatment; the biomechanical modeling of the human head and neck for cancer treatment; material properties measurement of soft tissue using elastography; and the mechanical design of an imaging system for brain tumor treatment.

GERLICH, Adrian, Associate Professor, Department of Mechanical & Mechatronics Engineering, January 1, 2012 – June 30, 2015. PhD University of Toronto 2007; BASc University of Toronto 2003. Dr. Gerlich’s expertise is in the area of physical metallurgy, materials characterization and processing-microstructure-property relationships. His interests are in welding and joining technologies for structural metals and advanced metallic materials. This is a replacement position and a strategic hire for MME as Dr. Gerlich’s background complements the current research cluster of welding and joining expertise in the department and the Center for Advanced Materials Joining.

PRZYBYLSKI, Maya, Assistant Professor, School of Architecture, September 1, 2011 – June 30, 2014. MArch University of Toronto 2007; BSc University of Toronto 2003. Ms Przybylski has a strong academic, technical and professional background and has several international publications to her name. Her scholarly activity takes the form of speculative design based on mapping of natural systems and anthropic patterns at the scale of cities, infrastructure landscapes and regions, analyzing and drawing relations through imaginative digital sorting and overlay which include environmental, economic, social and cultural systems. Her interests clearly fit with those of several other faculty members at the school and offer potential collaboration with faculty in civil, environmental and geological engineering.

Definite-term Reappointments


YIN, Yong, Research Engineer, Department of Civil & Environmental Engineering, August 1, 2011 – April 30, 2012. PhD University of Waterloo 2009; MASc Tsinghua University 2003; BASc Tsinghua University 2000.

Continuing Lecturer Appointment

LEVITT, Andrew, School of Architecture, September 1, 2011. MSc Chestnut Hill College 1994; Architectural Associate Diploma Royal Institute of British Architects 1979. Mr. Levitt has been teaching at the school continuously for twelve years. His contributions to the curriculum are crucial.
and his experience as a teacher is widely acknowledged. He has developed a curriculum that achieves and exceeds all the outcomes required for professional accreditation. Student-presentation standards in his studio courses are exceptional, often involving dozens of sheets of drawings, models and other simulations. Studio is one of the strengths of the Waterloo program; it builds directly upon the foundation provided in the curriculum and on the co-op work experience. Students choose his studio to gain experience with strategies of naturalization and natural order within contemporary urban design, which is a unique concept and pedagogy they find very attractive.

**Visiting Appointments**

**FAN, XiQiu**, Scholar, Department of Mechanical & Mechatronics Engineering, September 1, 2011 – August 31, 2012.


**LEU, Jong**, Scholar, Department of Chemical Engineering, October 1, 2011 – December 31, 2011.


**SADHU, Mikhail**, Scholar, Department of Chemical Engineering, September 1, 2011 – December 31, 2011.


XIA, Jing Jing, Scholar, Department of Electrical & Computer Engineering, October 1, 2011 – December 31, 2011.

ZHANG, Wei, Scholar, Department of Chemical Engineering, October 1, 2011 – January 31, 2012.


Visiting Reappointment

TAJALIZADEH DASHTI, Sepideh, Scholar, Department of Chemical Engineering, October 1, 2011 – November 30, 2011.

Adjunct Appointments

Instruction

ABDELKADER, Mohamed A.M., Lecturer, Department of Electrical & Computer Engineering, September 1, 2011 – December 31, 2011.

AMIN, Ashraf, Lecturer, Department of Chemical Engineering, September 1, 2011 – December 31, 2011.

BELTRANO, Victoria, Assistant Professor, School of Architecture, September 1, 2011 – December 31, 2011.

BYRNE, Fionn, Assistant Professor, School of Architecture, September 1, 2011 – December 31, 2011.

EICHENBERG, Lynne, Assistant Professor, School of Architecture, September 1, 2011 – December 31, 2011.

GASTMEIER, William, Assistant Professor, School of Architecture, September 1, 2011 – December 31, 2011.

KOLLER, Heinrich, Lecturer, School of Architecture, September 1, 2011 – December 31, 2011.

LACALAMITA, Andrea, Assistant Professor, School of Architecture, September 1, 2011 – December 31, 2011.

MEHDIABADI, Saeid, Lecturer, Department of Chemical Engineering, September 1, 2011 – December 31, 2011.

MUSSON, Brian, Assistant Professor, School of Architecture, September 1, 2011 – December 31, 2011.

PATTERSON, Duncan, Assistant Professor, School of Architecture, September 1, 2011 – December 31, 2011.

PATTERSON, Jody, Assistant Professor, School of Architecture, September 1, 2011 – December 31, 2011.
PREMA, Dipesh, Lecturer, Department of Electrical & Computer Engineering, September 1, 2011 – December 31, 2011.

TAYLOR, Victoria, Assistant Professor, School of Architecture, September 1, 2011 – December 31, 2011.

Graduate Supervision and Research
XIAO, Gaohzi (George), Professor, Department of Electrical & Computer Engineering, September 1, 2011 – August 31, 2013.

ZHAO, Xuan, Associate Professor, Department of Management Sciences, September 1, 2011 – August 31, 2013.

Research
TAI, Yongming, Assistant Professor, Department of Management Sciences, October 1, 2011 – August 31, 2012.

Adjunct Reappointments
Instruction
HULLS, Carol, Lecturer, Department of Mechanical & Mechatronics Engineering, September 1, 2011 – December 31, 2011.

LIM TUNG, Fiona, Assistant Professor, School of Architecture, September 1, 2011 – December 31, 2011.

NAKAMURA, Hajime, Assistant Professor, School of Architecture, September 1, 2011 – December 31, 2011.

SCOTT, Tim, Assistant Professor, School of Architecture, September 1, 2011 – December 31, 2011.

Graduate Supervision and Research
ELMASRY, Mohamed, Professor, Department of Electrical & Computer Engineering, January 1, 2012 – December 31, 2014.

LENARD, John, Professor, Department of Mechanical & Mechatronics Engineering, May 1, 2012 – April 30, 2015.

MARK, Jon, Professor, Department of Electrical & Computer Engineering, September 1, 2011 – August 31, 2014.

MOMTAHAN, Kathryn, Assistant Professor, Department of Systems Design Engineering, January 1, 2012 – December 31, 2014.

YOVANOVICH, Michael, Professor, Department of Mechanical & Mechatronics Engineering, September 1, 2011 – August 31, 2014.

YU, Ming, Professor, Department of Electrical & Computer Engineering, May 1, 2011 – April 30, 2014.
Research

BICKEL, Grant, Researcher, Department of Civil & Environmental Engineering, October 1, 2011 – September 30, 2013.

RAITHBY, George, Professor, Department of Mechanical & Mechatronics Engineering, July 1, 2011 – June 30, 2014.

THOMPSON, Carl, Associate Professor, Department of Civil & Environmental Engineering, July 1, 2011 – June 30, 2014.

Other

ROE, Peter, Professor, Director of Exchange Program, Engineering Undergraduate Office, October 1, 2011 – September 30, 2012.

Cross Appointments

LAKSHMINARAYANAN, Vasudevan, Professor, School of Optometry to Department of Electrical & Computer Engineering, September 1, 2011 – August 31, 2013.

LUPASCU, Adrian, Assistant Professor, Department of Physics & Astronomy to Department of Electrical & Computer Engineering, September 1, 2011 – August 31, 2013.

JERNIGAN, Ed, Professor, Knowledge Integration, Faculty of Environment to Department of Systems Design Engineering, September 1, 2011 – August 31, 2014.

Graduate Student to Part-time Lecturer Appointments


BRAY, Adam, Department of Electrical & Computer Engineering, September 1, 2011 – December 31, 2011.


NADERI, Saeideh, Department of Chemical Engineering, September 1, 2011 – December 31, 2011.

B. ADMINISTRATIVE APPOINTMENT

OWEN, William, Associate Director, First Year Engineering, Engineering Undergraduate Office, September 1, 2011 – August 31, 2016.

ADMINISTRATIVE REAPPOINTMENTS

CAMPBELL, Scott, Director, Centre for Society, Technology and Values, Department of Systems Design Engineering, September 1, 2011 – August 31, 2012.

ELHEDHILI, Samir, Associate Chair, Graduate Studies, Department of Management Sciences, September 1, 2011 – June 30, 2012.
C. RESIGNATIONS
DONG, Mianiong, Visiting Scholar, Department of Electrical & Computer Engineering, August 31, 2011.

OTA, Kaoru, Visiting Scholar, Department of Electrical & Computer Engineering, August 31, 2011.

MATOTT, Shawn, Probationary-term Assistant Professor, Department of Civil & Environmental Engineering, August 31, 2011.

D. SABBATICALS
For Approval by the Board of Governors
MAZUMDAR, Ravi, Professor, Department of Electrical & Computer Engineering, May 1, 2012 – April 30, 2013, at 85% salary.

PRITZKER, Mark, Professor, Department of Chemical Engineering, September 1, 2012 – August 31, 2013, at 93.3% salary.

ROSENBERG, Catherine, Professor, Department of Electrical & Computer Engineering, May 1, 2012 – April 30, 2013, at 96.1% salary.

Adel Sedra
Dean, Faculty of Engineering
University of Waterloo
REPORT OF THE DEAN OF MATHEMATICS TO SENATE
Monday, November 21, 2011

FOR INFORMATION

A. APPOINTMENTS

Visiting Appointments
NETO, Baldoino, Scholar, David R. Cheriton School of Computer Science, September 1, 2011 – March 31, 2012.


Adjunct Appointments
Instructor

Graduate Committee
BUCHWEITZ, Ragnar-Olaf, Professor, Dept. of Pure Mathematics, September 1, 2011 – August 31, 2014.

Adjunct Reappointments
Research

YOUNGER, Daniel, Professor, Dept. of Combinatorics and Optimization, October 1, 2011 – September 30, 2014.

Cross Appointment
GOLAB, Łukasz, Assistant Professor, Department of Management Science to David R. Cheriton School of Computer Science, October 1, 2011 – September 30, 2013.

Cross Reappointments
CLEVE, Richard, Professor, David R. Cheriton School of Computer Science to Department of Combinatorics and Optimization, October 1, 2011 – September 30, 2014.

STINSON, Doug, Professor, David R. Cheriton School of Computer Science to Department of Combinatorics and Optimization, October 1, 2011 – September 30, 2014.

VECHTOMOVA, Olga, Associate Professor, Department of Management Science to David R. Cheriton School of Computer Science, October 1, 2011 – June 30, 2015.

B. SABBATICAL

For Approval by the Board of Governors
EMERSON, Joseph, Associate Professor, Dept. of Applied Mathematics, March 1, 2012 – August 31, 2012, with 85% salary.

Ian P. Goulden
Dean, Faculty of Mathematics
FOR INFORMATION

A. APPOINTMENTS

Tenured

SCHNEIDER, Eric, Associate Professor, School of Pharmacy, September 1, 2011. [B.Sc./Pharmacy, St. Louis College of Pharmacy (1987); D. Pharm., College of Pharmacy, Medical University of South Carolina (1990).] Dr. Schneider joins us from the University of Arkansas for Medical Sciences where he was associate dean of the Northwest regional pharmacy campus in Fayetteville. Dr. Schneider has expertise in curricular assessment, interprofessional education and the use of medications in primary care. He has been highly active in pharmacy, medical and nursing education in both the classroom and in the clinical setting working with pharmacy and family medicine residents. In addition to his scholarly interest in curricular outcomes, his research interests include chronic disease management, quality of care, and utilization of healthcare teams in patient management. Dr. Schneider is an important addition to the faculty in the School of Pharmacy at this stage of its development. The school has now completed a full cycle of the undergraduate pharmacy curriculum and his expertise in curricular assessment will be invaluable as the school begins the process of assessing the outcomes of the unique curriculum offered to student pharmacists at the University of Waterloo.

Probationary-term Appointment

MURPHY, Graham K., Assistant Professor, Department of Chemistry, November 1, 2011 to June 30, 2015. [B.Sc., University of Victoria (2001); Ph.D., University of Alberta (2006).] Dr. Murphy brings to the University of Waterloo an extensive expertise in natural product total synthesis and comprehensive knowledge of organic synthetic reagent chemistry. He obtained his Ph.D. in the area of metallocarbene chemistry. This was followed by a Japan Society for the Promotion of Science Post-doctoral Fellowship which was held at the Department of Chemistry, Tohoku University, Japan, wherein Dr. Murphy focused on developing marine natural product synthetic strategies. Further training was obtained as a NSERC postdoctoral fellow in the Department of Chemistry, Colorado State University, wherein he focused on investigations of synthetic strategies for fabrication of a class of natural products, called the phomoidrides. Subsequently, Dr. Murphy returned to Canada where he took up a position as a postdoctoral fellow associated with the Biorefining Conversions Network at the University of Alberta. He has extensive expertise in organic synthetic strategies and reagent development, areas directly applicable to the department’s interest in medicinal chemistry, materials science and green chemistry.

Definite-term Reappointment

LEONENKO, Yuri, Assistant Professor, Departments of Physics and Astronomy and Chemical Engineering, September 1, 2011 to August 31, 2012.

Adjunct Appointments

Graduate Supervision

WOODS, Craig, Associate Professor, School of Optometry, October 1, 2011 to September 30, 2014.

Undergraduate Instruction

BOHLOULI-ZANJANI, Parisa, Lecturer, Department of Physics and Astronomy, September 1, 2011 to December 31, 2011.
PANCESCU, Rocsana, Lecturer, Department of Earth and Environmental Sciences, September 1, 2011 to December 31, 2011.

Adjunct Reappointments

Graduate Supervision

HUNKELER, Daniel, Professor, Department of Earth and Environmental Sciences, August 1, 2011 to July 31, 2014.

TAKAR, Aden, Professor, Department of Biology, January 1, 2012 to December 31, 2015.

Graduate Supervision and Research

LEE, Lucila (Lucy), Professor, Department of Biology, November 1, 2011 to October 31, 2014.

WOLFE, Brent B., Associate Professor, Department of Biology, December 1, 2011 to November 30, 2014.

Graduate Supervision, Graduate Instruction and Research

FUCHS, Christopher A., Professor, Department of Physics and Astronomy, May 1, 2011 to April 30, 2016.

Research

BERNATH, Peter F., Professor, Department of Chemistry, September 1, 2011 to August 31, 2014.

SMITH, Stephen M., Professor, Department of Biology, February 1, 2011 to January 31, 2015.

Undergraduate Instruction

LANG, Jane, Lecturer, Department of Earth and Environmental Sciences, September 1, 2011 to December 31, 2011.

PARKS, Jennifer, Lecturer, Department of Earth and Environmental Sciences, September 1, 2011 to December 31, 2011.

Cross Appointment

FORREST, James, Professor, Department of Physics and Astronomy to School of Optometry, September 1, 2011 to August 31, 2014.

Cross Reappointments

CASCANTE, Giovanni, Associate Professor, Department of Civil and Environmental Engineering to Department of Earth and Environmental Sciences, May 1, 2011 to April 30, 2013.

JERVIS, Eric, Associate Professor, Department of Chemical Engineering to Department of Biology, November 1, 2011 to October 31, 2014.

NEKKAR, Praveen, Assistant Professor, School of Pharmacy to Department of Biology, November 1, 2011 to October 31, 2014.

SLAVCEV, Roderick, Assistant Professor, School of Pharmacy to Department of Chemistry, September 1, 2011 to August 31, 2014.
SPAFFORD, David, Assistant Professor, Department of Biology to Department of Chemistry, September 1, 2011 to August 31, 2014.

B. ADMINISTRATIVE REAPPOINTMENT
FORREST, James, Associate Director, Research and Graduate Studies, School of Pharmacy, September 1, 2011 to February 29, 2012.

C. RETIREMENT
LeROY, Robert, Professor, Department of Chemistry, effective September 1, 2011.

D. SABBATICALS
For Approval by the Board of Governors
EDWARDS, Thomas, Professor, Department of Earth and Environmental Sciences, July 1, 2012 to December 31, 2012, 85% salary arrangement.

SCHIFF, Sherry, Professor, Department of Earth and Environmental Sciences, January 1, 2012 to June 30, 2012, 85% salary arrangement.

VIJAYAN, Matt, Professor, Department of Biology, January 1, 2012 to June 30, 2012, 100% salary arrangement.

T.B. McMahon
Dean, Faculty of Science
Renison University College
REPORT OF THE PRINCIPAL TO SENATE
Monday, November 21, 2011

FOR INFORMATION

A. APPOINTMENTS

Probationary-term Appointments

BLOKHUIS, Jason, Assistant Professor, Social Development Studies, September 1, 2011 to August 31, 2013.

HOGARTH, Kathleen, Assistant Professor, School of Social Work, September 1, 2011 to August 31, 2013.

VAN KATWYK, Trish, Assistant Professor, School of Social Work, September 1, 2011 to August 31, 2013.

LOGEL, Christine, Assistant Professor, Social Development Studies, September 1, 2011 to August 31, 2013.

MCMILLAN, Colleen, Assistant Professor, School of Social Work, January 1, 2012 to December 31, 2014.

Definite-term Appointments

PANDIT, Idrisa, Assistant Professor, Studies in Islam, September 1, 2011 to August 31, 2013.

AL-ALI, Kanan, Lecturer, Studies in Islam, September 1, 2010 to August 31, 2013.

B. RESIGNATION

GEORGE, Miriam, Assistant Professor, School of Social Work, effective July 31, 2011.

C. RETIREMENTS

CUTHBERT BRANDT, Gail, Professor, Humanities, effective January 1, 2011.

MILLER, Judith, Associate Professor, Humanities, effective September 1, 2011.

D. SABBATICAL

COWAN, Doug, Professor, Religious Studies, September 1, 2011 to August 31, 2012, at 85% salary.

Glenn F. Cartwright
Principal, Renison University College
University of Waterloo
SENATE
November 21, 2011

FOR APPROVAL

Committee/Council Appointments

Motion: That Senate approve the following appointments:

• Amit and Meena Chakma Awards for Exceptional Teaching by a Student: Jen Doyle (English language and literature), graduate student representative; Cathy Duong (health studies), undergraduate student representative; terms to December 31, 2012.

• Distinguished Teacher Award Committee: Martin Smith (chemistry) and Jen Doyle (English language and literature), graduate student representatives; Cathy Duong (health studies), undergraduate student representative; terms to December 31, 2012.

• Senate Graduate & Research Council: Tanya Christidis (planning), environment graduate student representative, term January 1, 2012 to April 30, 2014.

• Senate Undergraduate Council: Steve Prentice (kinesiology), applied health sciences faculty representative, term January 1, 2012 to December 31, 2012.

• University Committee on Student Appeals: Sarah Johnson (health studies), undergraduate student representative, term to April 30, 2013.
The Senate Executive Committee recommends the following item to Senate for second reading [given first reading at the October 17 meeting of Senate] .* 

FOR APPROVAL - SECOND READING

Membership of the Senate Executive Committee
Amendment to Senate Bylaw 2

The proposed membership amendment [delete; new] to Senate Bylaw 2 formalizes the tradition of the FAUW president serving as the “One other ex officio member of Senate appointed by Senate” on the Senate Executive Committee. The Faculty Relations Committee approved this amendment at its meeting on June 9, 2011.

“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. One other ex officio member of Senate appointed by Senate: 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 Colleges.

i. One member from among the alumni members of Senate.”

Feridun Hamdullahpur
Chair

*Excerpt from Senate Bylaw 7 (procedure for creating new bylaws or amending existing bylaws of Senate): “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.”
The Senate Executive Committee met on November 7, 2011 and agreed to forward the following item to Senate for information.

FOR INFORMATION

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.]

Feridun Hamdullahpur
Chair
Senate Graduate & Research Council met on October 17, 2011 and agreed to forward the following items to Senate for information and approval. These items are recommended for inclusion in the regular agenda.

Further details are available at: www.adm.uwaterloo.ca/infosec/Committees/senate/sgrc.htm

FOR APPROVAL

ESTABLISHMENT OF CENTRES / INSTITUTES

Centre for Bioengineering and Biotechnology

1. **Motion:** To approve the establishment of the Centre for Bioengineering and Biotechnology for an initial period of five years (December 1, 2011 to November 30, 2016) as described in attachment 1, on the condition that the centre’s governance provisions will be subject to Senate review within two years of the establishment of any new policies regarding governance of research centres and institutes at the University of Waterloo following the release of recommendations by the committee organized by the vice-president: research.

**Rationale:** Today’s economy is challenged by concerns of environmental sustainability; clean energy and manufacturing; and a health care system faced with limited resources, escalating costs and an aging population. Some of these challenges can be mitigated by developing new technologies. This problem space is inherently multidisciplinary, requiring partnerships between researchers, healthcare institutions and corporations to be successful.

There are many strong researchers working individually in the areas of bioengineering and biotechnology within the Faculties of Engineering and Science; however, larger interdisciplinary research teams are often required. Waterloo is uniquely positioned to address major research and educational programs in this area, but requires stronger cohesion and collaboration in order to mount an effective response. The proposed centre will facilitate strategic multidisciplinary engineering research that applies technology to improve human health, the environment and industry by pursuing leading edge research, creating effective multidisciplinary partnerships and strengthening the university’s reputation in the field.

The proposed initial director is Catherine Burns, with associate directors Karim Karim (engineering) and Trevor Charles (science). Funding for the first five years of the centre will be provided by the deans of engineering and science.

NEW GRADUATE PROGRAMS

Master of Peace and Conflict Studies

2. **Motion:** To approve establishment of the Master of Peace and Conflict Studies (MPACS) to be offered by the University of Waterloo at Conrad Grebel University College in collaboration with the Faculty of Arts as described in attachment 2.

**Rationale:** MPACS will seek to educate, train and empower students to enter roles as agents of peaceful change at community, institutional and systemic levels. The underlying principle behind the program is that conflict is best transformed through collaborative and imaginative solutions. The program is anticipated to appeal to Canadian and international students from diverse intellectual, national and career backgrounds, and will highlight the role of individuals within civil society as essential catalysts for peace.

MPACS is proposed as a course-based professional degree program requiring students to complete 5.0 units and a
research milestone. One course unit may be satisfied through an optional three-month internship. A number of graduate courses in global governance, international development, political science and theological studies will be cross-listed with PACS in recognition of the importance of engaging in multidisciplinary approaches to peace.

The program will build on the existing reputation of the oldest peace and conflict studies undergraduate program in Canada in order to create a world-class graduate program that will stimulate the creative application of peace research and theory to contemporary realities and provide employers with candidates who have a holistic understanding of international conflict work, specialized knowledge and skills, practical know-how and political savvy.

Master of Social Work

3. **Motion**: To approve establishment of the Master of Social Work (MSW) to be offered by the University of Waterloo at Renison University College in collaboration with the Faculty of Applied Health Sciences as described in attachment 3.

**Rationale**: In keeping with the university’s vision for increased graduate level professional programs, as well as creating a natural progression pathway for Bachelor of Social Work graduates, the professional MSW will prepare students for advanced social work practice in a range of settings related to health, including public health and health promotion programs, primary care and long-term care, hospitals, health-related governmental agencies, community-based health services and health advocacy groups. The program and its courses will assume a holistic view of health that incorporates the political, environmental, psychosocial, biological and spiritual determinants of health in social work practice.

The MSW program will be offered through a blended learning format with a course-based curriculum, including eight required and two elective courses, and meets the accreditation requirements of the Canadian Association of Social Work Education. Two of the courses will be delivered on-campus in one week summer institutes at the beginning and end of the program, with the remainder to be completed using distance education based learning packages and online collaborative discussions. Two of the required courses are comprised of a 462-hour practicum under supervision at an approved practicum setting.

PROGRAM CHANGES

Master of Public Service

4. **Motion**: To approve addition of a non co-op education degree stream within the Master of Public Service program and related changes to the Master of Public Service page of the Graduate Studies Calendar as described below [underline = new text; ; strikeout = deleted text]:

Students must participate in complete an 8-month paid co-op work term with a government department or agency at the national, provincial, regional or local level. Applicants who do not wish to participate in the co-op work terms, and who demonstrate evidence of at least one year of full-time public service experience, will be considered for a non co-op MPS degree. Students already admitted to the program may be transferred to the non co-op stream, provided they complete an internship as approved by the Program Director. The program will assist students in identifying suitable internship opportunities. In pursuit of a co-op work term, students complete an application and interview process facilitated on campus by Co-operative Education and Career Services.

**Background**: The Master of Public Service is a course-based professional program in the Faculty of Arts. Degree requirements include ten courses (terms one and two), an eight-month co-op work term (terms three and four) and a major project (term 5).

**Rationale**: The faculty has received inquiries from prospective students who request exemption from co-op work terms based on their previous experience in the public service and, as with all co-op programs, there is a risk that
some students may not be able to secure co-op employment despite successful coursework completion. In these exceptional cases, an alternative pathway to complete the degree is required.

Electrical & Computer Engineering MEng Certificate in Sustainable Energy

5. **Motion**: To approve changes to course requirements for the Electrical & Computer Engineering Master of Engineering Certificate in Sustainable Energy as described below [underline = new text; strikeout = deleted text):

Compulsory Courses
- ECE 663 Energy Processing
- ECE 667 Sustainable Distributed Power Generation
- ECE 668 Distribution Systems Engineering

Elective Courses
- ECE 632 Photovoltaic Energy Conversion
- ECE 661* HVDC and FACTS
- ECE 662 Power Systems Analysis and Control
- ECE 664* Power System Computer Application
- ECE 665* High Voltage Engineering Applications
- ECE 666 Power System Operation
- ECE 667* Sustainable Distributed Power Generation
- ECE 669* Dielectric Materials
- ECE 760 (T6) Power System Management and Electric Market
- ECE 765 Distribution Systems Engineering
- ECE 768* Power System Quality

* courses will be offered every other year

FOR INFORMATION

CURRICULAR MODIFICATIONS
On behalf of Senate, council reviewed and approved curricular modifications for the Faculties of Arts (psychology and Master of Digital Experience Innovation) and Engineering (electrical and computer).

SCHOLARSHIPS AND AWARDS
On behalf of Senate, council approved creation of the Roman Baldur Memorial Engineering Award (trust).

/ew George Dixon
Vice-President, University Research

Sue Horton
Associate Provost, Graduate Studies
Proposal to Establish

The Centre for Bioengineering and Biotechnology

at the

University of Waterloo

July 27, 2011
1. Name
Centre for Bioengineering and Biotechnology (CBB)

2. Overview

2.1 Rationale and Background
Today's economy is challenged by concerns of environmental sustainability, clean energy and manufacturing, and a health care system faced with limited resources, escalating costs and an aging population. Some of these challenges can be mitigated by developing new technologies that improve our health, improve medication delivery, improve our environment and provide biobased alternatives for fossil fuel derived products. This problem space is inherently multidisciplinary, requiring partnerships between researchers, healthcare institutions and corporations to be successful.

This proposal has evolved from an earlier informal initiative in Engineering entitled, "Biotechnology and Health Engineering Centre (BHEC)", which has been on hold while the five-year Engineering Vision2010 strategic plan was being developed. While strongly supported, this earlier initiative did not result in a formal centre proposal. However, the strong interest in this area has remained and indeed has grown as a result of new faculty hiring and research. Throughout Engineering and Science at Waterloo there are many strong researchers working individually in the areas of bioengineering and biotechnology, yet given the multi-disciplinary nature of these problems, larger, interdisciplinary research teams are often required. The University of Waterloo is uniquely positioned to address major research and educational programs in this area, but requires stronger cohesion and collaboration in order to mount an effective response to these challenges. CBB is proposed in order to meet this need.

2.2 Mission

The Centre for Bioengineering and Biotechnology will facilitate strategic multidisciplinary engineering research that applies technology to improve human health, the environment, and industry.

Under this mission the centre has the following goals
1. Pursuing leading edge research
2. Creating effective multi-disciplinary partnerships
3. Strengthening the University of Waterloo’s reputation in this field

The Centre’s research goals are:
1. To advance current research in the areas of bioengineering and biotechnology
2. To pursue research projects that require a multidisciplinary team in order to tackle the research challenges appropriately.

The Centre’s partnership goals are:
1. To draw together the expertise of researchers in these areas within Engineering and Science
2. To build partnerships outside of Engineering and Science that include researchers in other faculties at the University of Waterloo.
3. To build partnerships with researchers, healthcare partners, and corporate partners outside of the University of Waterloo.

The Centre's reputation-strengthening goal is:

1. To establish the University of Waterloo as a world leader in bioengineering and biotechnology.
2. To enhance the external visibility of the University of Waterloo for its innovations in bioengineering and biotechnology.

CBB at the University of Waterloo would promote and facilitate research and education in the application of engineering principles and techniques to human health problems and concerns. CBB would address engineering systems for the maintenance, protection and improvement of public and personal health care. Collaborative investigations would include colleagues in other UW Faculties, in addition to external links with hospitals, industry, municipalities and other universities. With one of the largest Engineering schools and strongest Science faculties in Canada, Waterloo is in a unique position to address major research and educational programs in bioengineering and biotechnology.

3. Constitution

Centre for Bioengineering and Biotechnology
University of Waterloo

STRUCTURE AND CONSTITUTION

Mission of CBB

The Centre for Bioengineering and Biotechnology (CBB) at the University of Waterloo was formed in 2011 to promote research and education in the application of engineering principles and techniques to address human health, environmental and industrial challenges. The Centre promotes synergy among its researchers, provides efficient access to shared central services such as equipment and technical support for research, and serves as a focal point for research interaction with industry, hospitals and other external organizations.

3.1. Membership in CBB

There are two types of regular members in CBB, Regular Members and Student Members. Membership as Regular Members is open and virtually automatic for those faculty members in the Faculty of Engineering or Faculty of Science who are primarily concerned with research in biotechnology and bioengineering. Membership of faculty members outside of Engineering and Science is encouraged and these memberships will be decided by approval of the Director or one of the Associate Directors. Again, these memberships are highly encouraged and expected to be virtually automatic. Membership of student members is also highly encouraged and will be granted upon the endorsement of a regular member of the centre.
Obligations of Membership and Financial Support

The long term plan is for CBB to be self-supporting and, therefore, eventually services to members must be paid for by these members, directly or indirectly.

CBB will begin with a small amount of seed money from the Dean of Engineering and Dean of Science in order to launch the centre. After five years, this seed money will be discontinued and at that point CBB must be self-supporting through indirect support. In the first five years, indirect support is seen as the general income to CBB from sources such as corporate partners and corporate associates, other activities promoted by CBB. Basic CBB services will remain open to all members; however, to encourage active membership, CBB may issue service credits for more specialized services in proportion to member activities.

There are three other forms of CBB membership. Institutional associates are representatives of entities such as hospitals, professional schools, research institutes and government bodies. Corporate associates are firms or agencies active in the research, development, or application of CBB research and for a nominal per year fee (established by the Board of Directors) obtain notices of seminars, VIP invitations to research symposia, and research results updates. A third category recognizes Key partners who are noted for their extraordinary contribution to the centre in one or a combination of financial support, facility support, or educational support. Key partners receive similar centre services as institutional and corporate partners but may receive special mention on the CBB website or advertising materials.

3.2. Role of Groups

Synergy is the major motivating factor for CBB. Intellectual synergy is facilitated by the open individual membership in CBB and its promotion of a healthy research environment. Part of this process is the free association of researchers in groups of a transitory nature, where the close collaboration extends over rather limited time frames such as the conduct of a single project or the creation of one paper. In other circumstances, the “organizational synergy” required to acquire and manage laboratories with large specialized requirements for hardware and technical support results in the emergence of more formal entities such as research groups.

The mandate of CBB is admittedly broad and as such there is a need for research groups in specific topic areas. For groups primarily concerned with research in a specific topic area and that wish to have formal recognition and designation of such, a formal entity within CBB is possible. Such groups are called Federated Groups of CBB. This status is conferred by decision of the Board of Directors on a three-year renewable basis.

There is a clear need to coordinate the activities and interactions of the groups, as formal entities, in areas such as the cooperative acquisition, administration, maintenance and allocation of laboratory resources. Further, CBB can provide efficient access to many services by eliminating duplication. Such services might be document preparation, report distribution, advice on grant applications and proposals, and a public relations interface both on and off the campus.

CBB should be able to provide such services in a more cost-effective way than could be achieved through fragmented local development. Viewed in this way, the relations between research groups within the Engineering and Science Faculties and CBB may be as close or as distant as seems appropriate to the group concerned. The federation of the groups with CBB and individual membership in CBB are separate issues.
In its current conception, the centre is not expected to provide research funding to its members, but rather to facilitate members in obtaining funding from other sources. Should the centre reach a point where it can offer funding or grants to its members, a formal proposal process will be established whereby members apply formally for funding and proposals are reviewed by a selection committee.

Non-federated research groups within the University should have access to CBB services or facilities on a fee-for-service basis, negotiable with the Director of CBB and the appropriate CBB researchers where relevant.

3.3. Governance

The Board of Directors decides on policy and matters such as new members, new groups, space allocation, and so on.

The membership in the Board comprises senior members of the research community whose responsibilities involve CBB members in a major way.

The composition is:

- Dean of Engineering or a delegate
- Dean of Science or a delegate
- Director of CBB
- Associate Director (Engineering) and Associate Director (Science)
- Three representatives from the CBB Key Partners, Corporate Associates, or Institutional Associates.
- Six representatives from the regular members.

A member of the Board of Directors will be appointed Chair by the Vice President Academic. Normally, the Chair of the Board will be the Dean of Engineering. Board meetings will be announced at least one month in advance with an agenda indicating all decision items and background material.

The Director of CBB is responsible to the Board of Directors for the operational management of CBB, preparation of its annual budget, supervision of staff members and guiding the research and outreach agenda, consistent with policies established by the Board and with input from the Centre’s membership.

Other Positions and Committees

Associate Directors
The Director will be assisted by two Associate Directors, one from the Faculty of Engineering and one from the Faculty of Science who will be responsible for the detailed direction and support of the Centre’s research activities, including research-related workshops, seminars, and public talks.
Administrative Assistant
An administrative assistant will be hired to manage the Centre’s operations, provide organizational and logistical support, and serve as the initial point of contact between the Centre and internal and external individuals and organizations.

Operations Committee
Four representatives of the CBB membership plus the Associate Directors comprise the Operations Committee. The Director shall seek advice from the Operations Committee about initiatives involving CBB members.

Standing and Ad Hoc Committees
Standing and Ad Hoc Committees are established by the Board to provide advice to the Board and to the Director on policy and operational matters respectively.

![CBB Administrative Structure Diagram]

Figure 1. CBB Administrative Structure.

Only the CBB Board of Directors may propose amendments to this Constitution. A two-thirds majority vote by the CBB membership is required to ratify amendments to the constitution.

3.4. Procedure for Appointment of CBB Representatives, Partners, Corporate Associates and Institutional Associates to the Board

a) For the six regular members, the term shall be 2 years with staggered yearly elections to ensure continuity. No members of the centre shall stand for election if they expect to be away from campus for sabbatical or other reasons for a large portion of their term in office. The balance of members should be representative of the proportion of faculty members from Engineering and Science. Members from faculties other than Engineering and Science are eligible for these positions.

Election is held by secret mail ballot.

b) The representatives of the CBB Partners, Corporate Associates and Institutional
Associates shall be selected by a nominating committee and approved by the representatives of the Partners, Corporate Associates, and Institutional Associates by secret mail ballot. The term shall be for two years staggered to ensure continuity.

c) The Associate Directors will be appointed by the Director in consultation with the Operations Committee.

5. The procedure for nominating the Director of CBB shall be adapted from UW policy #40 dealing with the term and appointment of a Chair. This adaptation is included at the end of this document for reference.

Term of Office

The term of office will normally be for an initial period of three years, renewable for an additional term of three years. Unless warranted by exceptional circumstances, a director shall not serve for more than two terms consecutively.

3.5 Appointment of Director

The appointment of the director will be determined in accordance with an adaptation of Policy #40 of the University of Waterloo for the appointment of department chairs. This adaptation of Policy #40 is included in the Appendix.

3.6 Peremptory Removal of a Director

Peremptory removal of the Director will occur in accordance with the adaptation of Policy #40 included in the Appendix.

3.7 Conflict of Interest

All centre activities are subject to UW conflict of interest policies as specified in Policy #69.

4. Management

The University Officer with financial responsibility of CBB is the Dean of the Faculty of Engineering or his/her delegate. The operations are to be supervised and conducted by the CBB director, assisted by an associate director and an administrative assistant, subject to the constitution.

5. Listing of Members

The Appendix gives the names of proposed founding CBB members. Although the CBB home is in Engineering, membership will be open to faculty members in other Faculties at UW. In addition, affiliated memberships will be possible for external qualified collaborators.
6. Research/Educational Component

6.1 Research

With the ongoing rapid advances in the life sciences, escalating healthcare costs and concerns about environmental sustainability, it is imperative that biotechnology and bioengineering studies, in addition to the more traditional medical ones, be implemented to maximize benefits to society. At Waterloo, engineering considerations are being pursued that have a significant impact in the areas of personal and public health care (informatics, embryo development, prosthetics, automobile design, building design, food processing, pharmaceutical production, diagnostic devices, drinking water, bio-remediation; pollution control, risk assessment and management, bioproducts and bioenergy). The engineering tools and approaches being used and developed for these considerations include: MEMS, imaging, ergonomics, data mining, sensitivity analyses, sensors, stem cells, biochips, recombinant cells, bioreactors, bioseparators, biomechanics, nanotechnology, control systems, machine intelligence, mathematical algorithms, computer-aided simulations and optimizations, environmental genomics, chromosome engineering.

The above components are to be organized primarily within three thrust areas:

*Human Factors Engineering and Biodevices.* This area includes MEMS, NEMS, imaging, biomedical signal processing, lab-on-a-chip, human factors, biomechanics, orthopaedic engineering, human-robot interaction, biosensors, bioactuators, implant design.

*Cells and Molecular Engineering.* This area includes water treatment, pollution control, biochemical engineering, synthetic biology, bioprocessing, pharmaceutical engineering, enzyme reaction engineering, bioenergy, microbial processing, bio-remediation, material-cell interactions.
**Biomaterials and Biocompatibility.** This area includes membrane processes, nano-materials, smart materials, material-cell interactions, materials for bio-devices, biomaterial fabrication, materials for pharmaceutical delivery.

As critical masses develop these constituent groups may form new thrust areas, replace the existing thrust areas, or spin-off into independent research groups. CBB would provide an umbrella organization for its members to promote and facilitate synergy among them and encourage a healthy research and academic environment. Specialized units and/or individuals within each of the groups are expected to evolve.

### 6.2 Education

At present, undergraduate and graduate courses relevant to bioengineering and biotechnology are already offered in many of the engineering and science departments at the University of Waterloo. For this reason, CBB does not intend to offer undergraduate or graduate courses. Instead, CBB intends to serve the engineering and science student communities as the focal point for work in these areas, presenting opportunities where students interested in these areas can interact with each other, with faculty and other partners. As one example of this, one of our key partners, the ThunderBay Regional Research Institute (TBRII) has proposed a model whereby CBB students with relevant backgrounds could spend time at TBRII to gain practical experience in their “living laboratory” environment. This is one example of how CBB can improve the academic experience of related students in the Faculty of Engineering. CBB presents an opportunity to advertise our educational offerings and present a portal to bioengineering and biotechnology education in the Faculty of Engineering. CBB intends to provide out of classroom education opportunities through collaborations with CUBE and EMBS and UW iGEM (the Club for Undergraduate Bio-Engineering, the IEEE Engineering in Medicine and Biology Society, and the Waterloo International Genetic Engineering Machines team), opportunities for students through the seminar series, centre events, and contact with centre corporate and institutional associates.

A seminar series will augment the communication network at CBB, and provide educational opportunities to faculty and students. In addition, cooperation with colleagues in other Faculties will enhance the nature and scope of CBB activities.

For professionals, special workshops and short courses may be offered as required. These workshops or short courses are intended to educate professionals on new research or technologies and may be offered for a nominal fee. This fee will be used to offset the costs of running the workshops and to support centre activities.

At present, no significant difficulties are envisaged for the CBB mission.

### 6.3 Commercial Rights to Research Findings

Intellectual property arising from the work of Centre regular and student members is governed by university policy #73.
7. Facilities

At present the pool of existing resources of laboratory facilities and personnel are appropriate for the CBB objectives. Individual and group members also have appropriate experience in generating research grants and contracts.

8. Budget

For the first five-year operation of CBB, an infrastructure financial seed support will be provided by the Deans of the Faculties Engineering and Science. In addition, teaching-release time will be accorded to the CBB director. The primary expenditure will be the salary of a CBB manager. Within the five-year period, additional revenue is expected from CBB group research grants, corporate partners and fee-for-service activities such as contract research, workshops, boot camps, short-courses, consulting, etc. External donations and sponsorships are also expected from the CBB networking connections.

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9. Statement of Sanction and Commitment

No special library or IST requirements are needed by CBB members. Regular faculty entitlements are expected.
10. APPENDIX:

List of the founding CBB members according to the proposed thrust areas

(gray indicates expression of interest, to be confirmed)

**Human Factors Engineering and Biodevices**

E Abdel-Rahman, Associate Professor, SYDE (biomechanical dynamic systems)
J. Arocha, Associate Professor, School PHHS (health informatics, decisionmaking)
K. Bizheva, Physics, (biophotonics and biomedical optical imaging)
N. Bols, Biology (animal cell cultures, growth and health of fish)
S. Boumaiza, Assistant Prof, ECE (microwave circuits, RF technology)
H. Budman, Professor, Chemical Eng (modeling and control of nonlinear processes)
C. Burns, Professor, SYDE (healthcare human factors, patient safety)
M. Campbell, Professor, Physics (ophthalmic diagnostic instruments)
N. Chandrashekar, Assistant Professor, MME (orthopaedic biomechanics)
H. Chen, Assistant Research Professor, SPHHS (adaptable clinical workflow)
B. Cui, Assistant Professor, ECE (nanostructure and device fabrication, plasmonic devices)
B. Fidan, Assistant Professor, MME (multi-agent and adaptive systems)
A. Hajian, Research Professor, SYDE (imaging, spectroscopy)
J. Histon, Assistant Professor, SYDE (human factors, decision making in complex systems)
C. Hudson, Optometry, (non-invasive objective assessment of disease)
R. Hughson, Professor, Kinesiology (vascular changes in aging and space travel)
E. Jervis, Associate Professor, Chemical Eng (image and optical tools for cell examination)
V. Karanassios, Professor, Chemistry (instrumentation, lab on a chip, MEMS)
K. Karim, Associate Professor, ECE (silicon thin film applied research)
J. Kofman, Associate Professor, SYDE (biomechatronics, optomechatronics)
D. Kulic, Assistant Professor, ECE (automatic and adaptive motion learning)
V. Lakshminarayanan, Professor, Optometry (ophthalmic and visual optics)
Z. Leonenko, Physics (imaging, nano and biomaterials, biosensing)
B. Leung, Professor, ECE (mixed analog/digital circuits for wireless communication)
D. Li, Professor, MME (lab-on-a-chip)
M. Li, Professor, Computer Science (bioinformatics)
K. McKay, Professor, Man Sci (operations management/decision making in medical systems)
J. McPhee, Professor, SYDE (biomechanics and sports engineering)
D. Nairn, Associate Professor, ECE (analog and mixed signal circuit design)
P. Nekkar, Pharmacy (organic molecules and peptides as imaging agents, biosensors)
P. Nieva, Assistant Professor, MME (MEMS/NEMS biosensors and biomanipulators)
K. Ponnambalam, Professor, SYDE (intelligent systems in healthcare)
B. Reed, Biology (microscopy and imaging)
C. Ren, Associate Professor, MME (lab-on-a-chip)
M. Sachdev, Professor, ECE (digital circuit design for low power applications)
S. Safavi-Naeni, Professor, ECE (RF/microwave/millimeter wave devices)
S. Scott, Assistant Professor, SYDE (human factors, collaborative technology)
D. Stashuk, Professor, SYDE (EMG signal processing)
P. Stolee, Associate Professor, SPHHS (geriatric health care)
G. Strong, Professor, Optometry (low vision rehabilitation)
H Tizhoosh, Associate Professor, SYDE (medical image processing)
M. van der Meer, Biology, (electrical signals in learning and planning)
D. Yevick, Professor, Physics (optical wave propagation, guided wave optics)
Z. Wang, Assistant Professor, ECE (biomedical signal and image processing)
A. Wong, Assistant Professor, SYDE (medical image processing)
J. Yeow, Associate Professor, SYDE (MEMS/NEMS/nanodevices)

Cells and Molecular Engineering
W. Anderson, Professor, Chemical Eng (wastewater treatment and biofiltration)
M. Aucoin, Assistant Professor, Chemical Eng (applied virus and bioprocess eng)
M. Beazely, Pharmacy, (material-cell interactions)
P. Beesley, Professor, Architecture (responsive and living architecture)
W. Brodland, Professor, Civ and Env Eng, (mechanics of cell and tissue morphogenesis)
T. Charles, Professor, Biology (bacterial molecular genetics)
C. Chou, Professor, Professor, Chemical Eng (recombinant protein production, biofuel)
B. Dixon, Biology (pollution sensing and control, immunology of cell-tissue interactions)
G. Dixon, Biology (effects of toxic chemicals on fish, biotic modifying factors)
B. Duncker, Biology (cell cycle of cancer)
M. Emelko, Associate Professor, Civ and Env Eng (wastewater treatment)
T. Fahidy, Distinguished Professor Emeritus, Chemical Eng (electrolytic process dynamics)
M. Foldvari, Professor, Pharmacy (bionanotechnology and nanomedicine)
B. Glick, Professor, Biology (microbial genes in plant growth)
F. Gu, Assistant Professor, Chemical Eng (nanomedicine and drug delivery)
G. Guillemette, Chemistry (NOS enzyme regulation, cellular electron transfer)
J. Honek, Professor, Chemistry (enzymes, enzyme catalysis, bionanotechnology)
P. Huck, Professor, Civ and Env Eng (wastewater treatment)
B. Ingalls, Applied Math, (modeling for synthetic biology, metabolic engineering)
E. Jervis, Associate Professor, Chemical Eng (image and optical tools for cell examination)
H. Lee, Assistant Professor, Civ and Env Eng (bioenergy and biochemicals from biomass)
J. Liu, Chemistry (bio-inspired assembly and nanotechnology)
K. Ma, Biology (enzyme reaction engineering, bioenergy)
M. Marsden, Biology (molecular mechanisms of biological form and change)
B. McConkey, Biology (proteomics, bioinformatics)
E. Meiering, Chemistry (protein structure and dynamics, drug delivery, biomaterials)
B. Moffatt, Biology (bioengineering of plants)
M. Moo-Young, Distinguished Professor Emeritus, Chemical Eng, industrial biotechnology
C. Moresoli, Professor, Chemical Eng (membrane filtration and enzyme reactions)
R. Slavcev, Assistant Professor, Pharmacy(bacteriophage based biotechnology)
D. Spafford, Biology (calcium channel drug binding, drug blocking compounds)
S. Taylor, Chemistry (synthetic biology, medicinal chemistry, enzymology)
J. Thompson, Professor, Biology, (biochemistry and biology of cell senescence)
N. Thomson, Professor, Civ and Env Eng (groundwater and soil remediation)
M. Vijayan, Biology, (cellular and molecular mechanisms in stress tolerance)
S. Wettig, Assistant Professor, Pharmacy (surfactants for drug delivery)

**Biomaterials and Biocompatibility**
J. Chen, Physics, (biomaterials)
P. Chen, Professor, Chemical Eng (nano-biomaterials)
S. Esmaeili, Assistant Professor, MME (metallic biomaterials)
J. Forrest, Physics (biomaterials)
M. Gorbet, Assistant Professor, SYDE, (biocompatibility, biomaterials)
Bae-Yeun Ha, Physics, (biomaterials and biocompatibility)
J. Honek, Chemistry (biananotechnology, biomaterials)
S. Idziak, Physics, (biomaterials)
L. Jones, Professor, Optometry (ophthalmic biomaterials)
T. Leung, Chemistry (nanomaterials for bioapplications and biodevices)
V. Maheshwari, Chemistry (materials for biodevices, mems, material-cell interactions)
E. Meiering, Chemistry (protein structure and dynamics, drug delivery, biomaterials)
C. Moresoli, Professor, Chemical Eng (membrane filtration and enzyme reactions)
K. Papoulia, Associate Professor, Civ and Env Eng (computational solid mechanics)
M. Tam, Professor, Chemical Eng (nano drug delivery materials)
E. Toyserkani, Associate Professor, MME (biofabrication)
B. Zhao, Assistant Professor, Chemical Eng (biomimetic nano-technology)
N. Zhou, Professor, MME, (nanojoining and nanofabrication)

**Members from Outside UW**

**Key Partners**
Thunder Bay Regional Research Institute John Rowlands, Founding Scientific Director (support letter)

**Academic Members**
Peter Madziak, Professor, Conestoga College

**Institutional Members**
The Ottawa Hospital Kathryn Momtahan, Corporate Director Nursing Research
Conestoga College Marlene Raasok, Associate VP School of Health Sciences
St. Joseph’s Health System Gerardo Castenada, CIO (support letter)
University Health Network Joseph Cafazzo

*Potential corporate members who have expressed interest*
Bristol-Myers Squibb Canada
Cangene
Centurion Biofuels
DALSA
GE Healthcare
Huron Technologies
Mespere Life Sciences
Natrix
Sanofi-Pasteur
SQI Diagnostics

Matthew Williamson (support letter to come)
John Langstaff (support letter)
Duane Chung (support letter)
Nixon O (support letter)
Fiona Fitzgerald (support letter)
Savvas Damaskinos (support letter)
Krishna Coneevaram (support letter)
C. Honeyman (support letter)
Tony D’Amore (support letter)
P. Lea (support letter)

Advocacy Support Letters
Industry Canada
American Institute for Medical and Biological Engineering

Note
The letters of support referred to “Bioengineering and Biotechnology Institute (BBI)” rather to “Centre for Bioengineering and Biotechnology (CBB)”. This is a result of recent information that UW policy could be revised to differentiate “institute” and “centre” (currently no difference in usage) for the former for a Faculty-centric initiative and the latter for an University-wide imperative; hence, the name change here.
Activities to date

July 2010  Initial meeting to assess interest (32 attendees)
Oct 2010  Newsletter to members
Nov 2010  NCE Letter of Intent submitted involving 27 members
Nov 2010  Public lecture on engineering driven healthcare innovations
Jan 2011  Bioengineering/NSERC Engage mixer event
April 2011  Mitacs Accelerate workshop
April 2011  Seminar: Yuri Quintana, St. Jude’s Childrens Hospital
May 2011  CIHR grant writing workshop
September 2011  Open meeting to assess interest in the Faculty of Science
Adapted Policy 40 -- The Centre Director

1. Qualifications, Duties and Responsibilities

The Centre Director will be a person of academic stature, appointed for her/his intellectual and administrative abilities, devotion to education and research, and qualities of leadership. The Centre Director will be a tenured Associate or Full Professor who has the ability to create an environment conducive to the growth of intellectual life within the department and to maintain the confidence and co-operation of her/his colleagues.

The Centre Director has the dual role of representing the centre’s policies and points of view, and, as an officer of the Centre, making independent judgments on total Centre matters. The Centre Director will report directly to the Dean of the Faculty.

Within the centre, the Centre Director is responsible for providing academic and administrative leadership. In providing this leadership the Centre Director shall consult with the members of the centre, providing them with an adequate basis of information concerning its operations, and ascertaining their views and ideas concerning the various aspects of centre operations. The principal duties of a Centre Director shall include the advancement of the research mission of the centre, the upholding of the highest academic standards, the management of the centre budget, the implementation of centre activities, and the oversight of the centre’s support staff. The procedures followed by the Centre Director in all matters shall of course be governed by prevailing Faculty practices and University policies. Significant changes to centre practices or procedures should not be made without wide consultation.

The Centre Director may recommend the appointment of one or more Associate Directors to assist in these tasks.

2. Term of Office

The first term of office for the Centre Director is up to four years, renewable for up to four years, to a maximum of eight years.

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

The Centre Director’s performance is reviewed annually by the Dean. With the prior knowledge of the Centre Director, the Dean may seek confidential input from the faculty and staff of the centre by any means he/she deems appropriate.

In the event of the Centre Director’s absence for any prolonged period, arrangements should be made for the Dean to appoint an Acting Centre Director for a period of no more than one year.

If the office of the Centre Director becomes unexpectedly vacant, through death, resignation, or
other causes, it is the Dean's responsibility to appoint, after appropriate consultation, an interim Centre Director and to initiate the process of filling the vacancy as prescribed in Section 3. The term of office of the interim Centre Director should be of sufficient length for the nominating committee to complete its task and, normally, should not exceed one year.

The appointment of an untenured faculty member to an acting or interim position would be unusual but is not ruled out.

3. Appointment and Reappointment Procedures

A. Appointment of a Nominating Committee

When appointment or reappointment of a Centre Director is required, as through notice of resignation, death, removal from office or the approaching end of a term, the Dean will form a nominating committee. The nominating committee shall normally be formed no earlier than 18 months and no later than one full calendar year prior to the end of the term of office of the incumbent. The majority of the voting members of the committee shall be elected by and from the regular faculty and staff members of the centre.

The nominating committee shall consist of:

- The Dean of the Faculty, who shall chair the committee.
- A minimum of three regular faculty members elected by and from the regular faculty members of the centre.
- One regular staff member, elected by and from the regular staff members of the centre.
- The Vice-President, Academic & Provost or delegate, ex officio, non-voting.
- One representative from corporate partners, key partners, or institutional partners, chosen by the Dean. Normally, the Dean shall consult with the centre to determine this representative.

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

In voting, the "double majority" rule shall be enforced such that a successful candidate must have majority support from all voting members of the committee as well as majority support from the faculty and staff representatives of the centre in the committee.

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

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

B. Terms of Reference

It is understood that the committee shall be responsible for soliciting the views of those affected, by ballot or otherwise, including part-time and non-regular faculty members, staff and student members of the centre.

Reappointment of Incumbent. The first charge to the Nominating Committee will be to solicit, with the prior knowledge of the incumbent and by whatever means it may decide, the opinion of members of the Centre, with respect to the reappointment of the incumbent. If the incumbent is found by the Nominating Committee to be generally acceptable by means of separate secret mail ballots of regular faculty and staff members of the Centre, the Dean shall then determine the incumbent's willingness to accept reappointment.

If the centre wishes reappointment and the incumbent wishes to continue, the Dean shall forward a recommendation for reappointment to the Vice-President, Academic & Provost who, if he/she approves, will forward the recommendation to the President. The President shall forward it to the Board of Governors for information.

New Appointments. If the incumbent is not to be recommended for reappointment at the end of a first term, or if the incumbent is nearing the end of a second term, or if the incumbent has died, resigned or been removed, then the following procedure shall be followed. The committee will invite nominations, by whatever means it considers appropriate, from any person or group; it will advertise the position, internally and externally; and it will establish criteria against which nominations and applications may be measured. There may be circumstances where the appointment of an external candidate would present significant resource challenges for the unit and its Faculty; in such situations or when the Dean feels there are compelling reasons for an internal appointment, the Dean will determine in consultation with the Nominating Committee and the Vice-President, Academic & Provost whether to restrict the search to internal candidates. When external candidates are included in the search, the procedures are to be consistent with those for faculty hiring in general (see Policy 76).

The committee shall invite the members of the centre and other interested persons to submit nominations, and it shall be responsible for the initial selection of suitable candidates. These candidates will be invited to meet with the committee at the committee's discretion, and to make themselves available to members of the centre. After screening candidates, the committee shall select the person it regards as most suitable for the position, and shall submit its recommendation for the appointment of that candidate to the centre. However, if the committee feels that two or more of the candidates are well qualified, it may choose to submit the choice between these to
the members of the centre.

The regular faculty and staff members of the centre will then have the opportunity to indicate the acceptability of each candidate, and their choice among candidates, in separate secret mail ballots which shall be returned to the Chair of the nominating committee. The results of the ballots shall be made known to the nominating committee, who shall decide what constitutes an acceptable level of support, subject to the expectation that a candidate normally will be acceptable to a majority of voting regular faculty members as well as a majority of voting staff members of the centre.

If the Committee concludes that no candidate is acceptable, it shall resume its screening activities. Otherwise, the nominating committee shall recommend the appointment of a candidate to the Vice-President, Academic & Provost. If the centre generally approves a candidate, the nominating committee shall recommend the appointment of the candidate to the Vice-President, Academic & Provost. When more than one candidate is generally acceptable and the ballot results indicate no clear preference, the nominating committee shall select the person it regards as most suitable for the position and recommend the appointment to the Vice-President, Academic & Provost.

The Vice-President, Academic & Provost, if he/she approves, will forward the recommendation to the President. The President shall forward it to the Board of Governors for information. If the Vice-President, Academic & Provost does not concur with the recommendation, he/she will meet with the nominating committee and/or the centre, to provide reasons.

Note: If, in the opinion of the Dean of the Faculty and the Vice-President, Academic & Provost, the centre is in such a state that reasonable doubt arises concerning the capacity of the centre to render a judgment in the selection of a Centre Director which reflects a mature and experienced scholarly perspective, a procedure of selection alternative to the one cited above shall be employed. In such cases, the precise procedure employed shall be at the discretion of the Dean of the Faculty and the Vice-President, Academic & Provost, involving appropriate consultation with members of the centre.

It is expected that the circumstances which would warrant the resort to such extraordinary procedures will occur only rarely.

4. Removal of the Office Holder Before Expiration of Term

A. General Principles

A Centre Director may only be removed from office for cause. Cause is to be understood in relation to the duties of the Centre Director as indicated by all relevant University policies. Causes for removal include negligence, incompetence, unprofessional conduct, and inability to maintain the confidence of the members of the centre. Dismissal for cause from an administrative position is not to be confused with the dismissal for cause of a tenured faculty member. The criteria used and the procedures to be followed are different.
B. Reconciliation

In cases where a Dean becomes aware of serious problems in a centre, for example through individual submissions or a general petition of regular centre members, the Dean will, where appropriate and with the support of the Vice-President, Academic & Provost, seek to mediate the situation as early as possible. Especially in cases of widespread disaffection or dissatisfaction with the Centre Director, the process of reconciliation may involve the holding of a centre meeting, normally chaired by the Dean, for a full and frank discussion of concerns.

C. The Setting-Up of a Formal Inquiry

If the process of reconciliation fails or is inappropriate, the Dean should determine whether there is sufficient evidence to warrant an inquiry into whether there is cause for removal. The Centre Director will be informed in writing of the Dean's decision and the basis for it, and be given an opportunity to respond. The Dean will then bring the evidence, together with the Centre Director’s response, before the Vice-President, Academic & Provost. If the Vice-President, Academic & Provost believes that formal proceedings are necessary, he or she will set up a formal inquiry. At the same time, the Vice-President, Academic and Provost may choose to suspend the Centre Director, without prejudice, financial or otherwise, for the period of the inquiry, if this is warranted by the general interests of the centre and of the individuals involved, and is compatible with principles of natural justice. In the case of suspension, the Vice-President, Academic & Provost will appoint an Acting Centre Director so as to facilitate the operation of the centre during this period.

D. Formal Inquiry

The Vice-President, Academic & Provost, will appoint a committee of three senior faculty members from outside the centre concerned and inform the Centre Director. The Centre Director may challenge, in writing, a member or members of the committee for bias, apprehension of bias or conflict of interest.

The committee shall determine its own procedures. However, in all its proceedings it shall be guided by principles of natural justice. In particular, it shall make sure that the Centre Director has full knowledge of every charge, and has every opportunity to respond to these charges. On completion of its work the committee shall report to the President with a recommendation, supported by reasons, that the Centre Director either (1) continue in office (or be reinstated if temporary suspension has occurred), or (2) be removed for cause. The President will then take appropriate action. The report of the committee shall be made available to the Centre Director, the Dean, and, at the discretion of the committee, to other concerned parties within the centre.
UNIVERSITY OF WATERLOO

PROGRAM PROPOSAL BRIEF

MASTER OF PEACE AND CONFLICT STUDIES

NOVEMBER 2011

VOLUME I: THE PROGRAM

SUBMITTED TO UNIVERSITY OF WATERLOO SENATE
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Note: Appendix 1 is available on request from the secretary, Erin Windibank (erin.windibank@uwaterloo.ca).
1.0 INTRODUCTION: LEARNING OBJECTIVES AND OUTCOMES

Overview. This document is an application for a Standard Appraisal of a new Master of Peace and Conflict Studies (MPACS) at the University of Waterloo, located at Conrad Grebel University College. As an interdisciplinary program that integrates scholarship with opportunities for concrete application, the MPACS will be a vibrant academic program seeking to educate, train, and empower students to enter roles as agents of peaceful change at community, institutional, and systemic levels. The principle undergirding this Master’s program is that conflict is best transformed not by use of force or violence, but through collaborative and imaginative solutions. Understanding conflict as an inescapable part of the human experience, and a potential vehicle for positive change at local, national, and international levels, this Master’s will offer a cutting-edge program in which dynamic, sustainable, and creative solutions to conflict can be imagined, tested, and applied.

Anticipated to appeal to both Canadian and international students from diverse intellectual backgrounds, nationalities, and career goals, the MPACS will highlight the pivotal role that individuals within civil society can play as essential catalysts for peace. While this civil society focus will be the foundational approach, the program recognizes that a peaceable society requires the collective efforts, energies, and imaginations of many actors including the state, business, and religious communities. Four graduate departments and programs at the University of Waterloo (Global Governance, International Development, Political Science, and Theological Studies) have agreed to cross-list a number of their courses with PACS in recognition of the importance of engaging in multi-disciplinary approaches to peace. The Master’s will thus serve to foster the capacity of individuals to effectively engage across these other societal sectors.

The time is ripe for the University of Waterloo to offer a Master of PACS degree. With its long-standing reputation over the last 35 years as the oldest Peace and Conflict Studies program in Canada, its location in one of the country’s leading universities, and its history of activism and practical engagement, PACS occupies a distinctive place of influence and opportunity that is arguably unmatched by any other peace studies program in the world. As such, there is enormous potential to create a world-class graduate program that will stimulate the creative application of peace research and theory to contemporary realities. The program will also provide “[e]mployers [of international peace studies graduates] with candidates who have a holistic understanding of international conflict work, specialized knowledge and skills, practical know-how, and political savvy.”

Collaborating Partners. As a premier university, the University of Waterloo (uWaterloo) has long held the reputation as an innovative institution committed to advancing critical thinking, learning, and knowledge through its programs. Capitalizing on the synergistic possibilities that exist across the campus, MPACS will have a close working relationship with the following centres, groups, and units affiliated with uWaterloo:

- Faculty of Arts http://arts.uwaterloo.ca/arts/
- Undergraduate Peace and Conflict Studies Program http://grebel.uwaterloo.ca/pacs

• Institute of Peace and Conflict Studies  
  http://grebel.uwaterloo.ca/academic/undergrad/pacs/ipacs.shtml
• Project Ploughshares  http://www.ploughshares.ca/
• Certificate Program in Conflict Management  
  http://grebel.uwaterloo.ca/certificate/index.shtml
• Centre for the Study of Religion and Peace  
  http://grebel.uwaterloo.ca/academic/religion/index.shtml
• Centre for Family Business  http://www.cffb.ca/
• Cross-listed electives available to students will come from:
  - Global Governance  http://globalgovernance.uwaterloo.ca/
  - International Development and the Master of Development Practice program  
    http://www.environment.uwaterloo.ca/indiv/MDP.html
  - Political Science  http://politicalsecience.uwaterloo.ca/grad_studies.htm
  - Theological Studies  http://grebel.uwaterloo.ca/academic/gts/index.shtml

Beyond campus, the program will also partner with organizations that have agreed to host appropriate interns working on local, national, or global issues in a wide range of locations (see section 1.7 for a listing of some of these organizations).

The complementary perspectives provided by these four uWaterloo graduate departments and programs willing to collaborate on course delivery, and civil society partners offering practical internships, ensures that this proposed Master’s will successfully accomplish its goals and objectives by generating a lively learning environment for engaging multiple perspectives and invigorating critical thinking.

1.1 Brief listing of the program

The following is a brief executive summary that describes the proposed program in general terms.

Course-based. This proposed Master of PACS is a course-based professional degree program that will require students to complete 5.0 units and a research milestone. Both full-time and part-time enrolment will be permitted. Full-time students will be able to complete the Master’s over four consecutive terms of study, while part-time students will be permitted to complete the program over a five-year period, beginning with their initial enrolment term.

Tuition. The regular Waterloo graduate Arts tuition schedule will apply to full and part-time students.

Number of students. It is anticipated that there will be a full-time equivalent cohort of 12 students per year, with two-thirds being full-time students and the remainder being part-time. First year enrolment will be approximately 10 FTE equivalent students—this will allow issues that may surface during the implementation year to be effectively resolved. A four-year university degree will be required for admission. It is anticipated that once adequate international scholarship funding is identified, approximately one-third of the full-time cohort will be international students.
Summary of program structure. Students will be able to complete the entire program through successful completion of 5.0 units. In general, the program structure requires that students complete:

- 2.5 units of foundational PACS courses that undergird the program;
- At least 1.0 units of additional PACS electives that can be chosen from:
  - Additional PACS classroom-based courses (0.5 unit each);
  - A three-month internship (1.0 unit);
  - Intensive conflict resolution skills-training workshops combined with additional academic work, offered by credible training organizations such as the Certificate Program in Conflict Management (0.25 unit, may be repeated once); or
  - A significant Peace Research course project (0.5 unit) that will deepen a student’s skills in research and report writing.
- An additional 1.5 units that can be chosen from:
  - Additional PACS courses;
  - Cross-listed courses; or
  - Other uWaterloo or Wilfrid Laurier graduate courses approved by the PACS Graduate Advisor and for which the student is able to gain permission to enroll by the sponsoring department.

1.2 Method used for preparation of the brief

The proposed Master of PACS program grew out of a careful, 10-year process of discernment and planning involving multiple stakeholders. This rigorous process included consideration of the following:

Inclusion in various strategic long-range plans. The vision to develop and implement what was originally thought to become a Master of Arts in PACS (MA) originated in Conrad Grebel University College’s “Long-Range Plan, Vision 2020,” approved by the College’s Board of Directors in February of 2000. Following a successful affirmation of the PACS programmatic review six years later, the proposed MA was once again affirmed in the “Seven Year PACS Strategy 2006-2013,” submitted to uWaterloo on 10 March, 2006. The College’s subsequent 2006 Strategic Implementation Plan, designed to update progress on its Long-Range Plan, again made note of the objective to establish an MA program.

Most recently, on June 22, 2010 the College Board revisited, revised, and updated its Academic Master Plan and included the goal of developing an MA in PACS. Calling for action to “develop a collaborative graduate program [in PACS] that blends theory and skills training for professionals working in related fields,” this updated plan articulated the decision to finally move ahead with developing the long-discussed program. The Graduate Affairs Group on March 17, 2011 affirmed that this program should be a Master of PACS instead of an MA.

Timing: why now? The rationale for moving forward on the development of a Master’s now is related to three significant factors: student interest; faculty capacity; and funding potential. First, the enormous growth in the PACS undergraduate degree since it was first offered in 2006 has
demonstrated dramatic student interest in the program—an interest that extends to graduate work. Plan growth has continued at a remarkable annual rate of 10-15% over the last five years. From an enrolment in Fall of 2006 of roughly 60 students in an undergraduate Minor, Option, and Diploma, the addition of the BA has resulted in more than 130 Majors by the end of the 2010-2011 Academic Year, as well as more than 45 Minor, Option, and Diploma students.

In addition to an increase in enrolment, conversations with students and unsolicited inquiries about the availability of a PACS Master’s have demonstrated widespread interest. Recently conducted surveys indicate that 62 students enrolled in PACS undergraduate Core Courses, as well as 63 PACS alumni, have expressed an interest in the proposed Master’s program. An additional survey completed by the Global Studies Program at Wilfrid Laurier University indicated that at least a dozen of the program’s current students were likely to be interested in a PACS Master’s.

Second, on December 9, 2010, the College Board of Directors approved the establishment of a 4th full time Faculty Position in PACS, making it possible to effectively resource the proposed Master’s. Third, and finally, the potential availability of grant and tuition-share funding from uWaterloo makes it possible to cover many of the associated core teaching costs.

Given these reasons, and the fruitful opportunities they present, in the summer of 2010 PACS embarked on an intensive effort to fully test the feasibility of a Master of PACS, as well as the shape, focus, and requirements a potential program could take.

**Broad consultations.** To identify how a Master of PACS at the University of Waterloo may fit into the broader academic landscape of peace and conflict studies, concentrated research was carried out from July to August 2010 that analyzed successful graduate programs in peace studies, mainly across North America and Europe. The goal of this research was to understand common trends and existing models.

This compiled research was then tested with a reference group, varying in attendance from 8 to 20 people (consisting of PACS faculty members and other interested faculty from the Balsillie School of International Affairs and University of Waterloo, Conrad Grebel University College administrators, PACS alumni, and other interested parties). This group met to process the information, critique and challenge assumptions, pose questions, and offer salient advice.

These meetings, occurring on the dates listed below, focused on the following agenda items:

- July 27, 2010 – review of other successful MA programs in North America and Europe;
- August 10, 2010 – review of a proposed rough draft of an MA in PACS;

**Meetings with uWaterloo administrative personnel.** Beyond this reference group, additional meetings were held with key uWaterloo administrators to clarify practical administrative, structural, and financial details of the proposed Master’s. These meetings included:

- August 18, 2010 – Lowell Ewert (Director of Peace and Conflict Studies) and Marlene Epp (Acting Academic Dean, Conrad Grebel University College) met with Sue Horton (Associate Provost, Graduate Studies), Lynn Judge (GSO), Mary Soulis
and Mary Jane Jennings (Institutional Analysis and Planning), and Bruce Muirhead (Associate Dean of Arts for Graduate Studies);

- August 27, 2010 – Lowell Ewert (Director of Peace and Conflict Studies), Henry Paetkau (President, Conrad Grebel University College), and Marlene Epp (Acting Academic Dean, Conrad Grebel University College) met with Mary Jane Jennings (Institutional Analysis and Planning), Ken Coates (Dean of Arts) and Feridun Hamdullahpur (Interim President for University of Waterloo);

- December 14, 2010 – Henry Paetkau (President, Conrad Grebel University College), Marlene Epp (Acting Academic Dean), Lowell Ewert (Director of Peace and Conflict Studies), met with representatives from Institutional Analysis and Planning (Mary Jane Jennings and Mary Soulis, to further discuss the financial implications of launching a Master of PACS;

- February 15, 2011 – a two-page rough summary of the proposed Master’s was placed on the Graduate Affairs Group (GAG) agenda and GAG members were invited to offer comments, critiques, and advice;

- Two meetings were held with staff from the Centre for Teaching Excellence at uWaterloo in order to review various aspects of this proposal;

- Numerous other in-person, phone, and e-mail communications have also been exchanged on an ongoing basis with key university administrators, department chairs, or individual faculty regarding specific issues that have required negotiation or advice.

**Academic review bodies.** Because the PACS program is administered by Conrad Grebel University College on behalf of the University of Waterloo, this proposal has gone through the administrative review of both structures and been approved at multiple levels by both entities. What follows is a listing of all formal bodies that have reviewed and approved various aspects of this proposal to date:

- PACS Administrative Group, approved March 2, 2011;
- Program Committee, Conrad Grebel University College Board of Governors, approved March 3, 2011;
- Conrad Grebel University College Council, approved March 4, 2011;
- Conrad Grebel University College Board of Governors, approved March 10, 2011;
- Graduate Affairs Group, approved March 17, 2011;
- Arts Faculty Council Executive, approved for placement on Arts Faculty Council agenda March 29, 2011;
- Arts Faculty Council, approved April 12, 2011;
- Finance Committee, Conrad Grebel University College Board of Governors, approval of draft budget, April 18, 2011;
- Institutional Analysis and Planning, financial agreement signed by Geoff McBoyle, Vice-president Academic and Provost, and Henry Paetkau, President of Conrad Grebel University College, April 26, 2011;
- Conrad Grebel University College Board of Governors, business plan and budget approved, June 23, 2011;
- Visit of external reviewers on June 27-28, 2011. Report received on July 6, 2011. Reviewers were:
PROGRAM BRIEF – PEACE AND CONFLICT STUDIES

- Dr. George Lopez, Rev. Theodore M. Hesburgh, C.S.C., Chair in Peace Studies, Kroc Institute for International Peace Studies, University of Notre Dame;
- Dr. Vernon Neufeld Redekop, Associate Professor, Conflict Studies, St. Paul University;
- Dr. Brian McNamara, University Chair in Astrophysics, Professor of Physics and Astronomy, University of Waterloo.

- Changes to MPACS Plan based on Reviewers report reviewed and approved by Conrad Grebel University College Council, September 16, 2011;
- Changes to MPACS Plan based on Reviewers report submitted for information to the following:
  - Graduate Affairs Group, September 22, 2011;
  - Arts Faculty Council Executive, September 27, 2011;
  - Arts Faculty Council, October 6, 2011.
- MPACS Plan approved by Senate Graduate and Research Council October 17, 2011. Recommended changes and clarifications included in final proposal to University Senate.

In addition to the above approvals, the proposal was developed as part of the following conversations:

- Conrad Grebel University College Council, composed of all teaching faculty plus senior administrators providing overall guidance and direction to academic programs managed by the College, met on the following dates:
  - June 4, 2010 – the Long-Range Academic Plan that included the goal to establish a Master’s was affirmed and forwarded to the Program Committee of the College Board;
  - October 15, 2010 – the overall vision and mission of the program was presented, discussed, and affirmed;
  - February 4, 2011 – the program’s structure as well as teaching and financial requirements were discussed;
  - February 18, 2011 – the course structure for the Master’s was reviewed and a description and posting for a new faculty position was approved;

- The PACS Administrative Group, comprised of the four permanent faculty who teach PACS Core Courses (often joined by the Academic Dean of Conrad Grebel University College) and provide day-to-day guidance to PACS administrative and academic affairs, met on the following dates to discuss and approve the specific details of Master’s proposal:
  - October 15, 2010 – updated content on the vision and mission of the proposed program was discussed and affirmation was given to proceed with the process;
  - November 17, 2010 – updates on the official discussions with uWaterloo about the proposal were provided;
  - December 3, 2010 – plans for student surveys about the Master’s were mapped out;
  - December 7, 2010 – a rough PACS Master’s concept was presented to the group and was affirmed (this also included PACS Faculty Committee members who are
representatives of the nine partner programs of the undergraduate PACS program);

- An additional five meetings dedicated to discussion of the proposal and ranging in length from 90 minutes to two hours were held on:
  - January 17, 2011;
  - January 21, 2011;
  - January 28, 2011;
  - February 4, 2011; and
  - February 15, 2011

- Two meetings were held following receipt of the external reviewers report to discuss their findings and formulate a response to the review as well as to develop appropriate changes to the proposal. The meetings were held on:
  - August 3, 2011; and
  - August 15, 2011.

- **Student input** was solicited on a number of occasions and included the following activities:
  - A focus group with PACS Alumni on December 10, 2010;
  - A survey of 200 PACS graduates on February 18, 2011 (96 alumni responded). In addition to indicating their general level of interest in a Master’s, respondents provided 51 clarifying comments;
  - A survey of approximately 470 students currently enrolled in a PACS Core Course (during the Winter 2011 term) on February 18, 2011 (77 students responded with some 23 additional written comments received);
  - Individual conversations with students known to be interested in further graduate studies were held;
  - A survey of Global Studies students from Wilfrid Laurier University to test their level of interest in a PACS Master’s and to offer suggestions and comments (14 responded).

- **Other**:
  - A focus group with six potential non-governmental intern recipients and employers on January 27, 2011, to discuss program structure and civil society needs for qualified interns/employees;
  - Conversations with the head of Global Studies at Wilfrid Laurier University (Michel Desjardins) about how a PACS Master’s may meet the graduate needs of the roughly 100 students enrolled in their program’s peace and justice stream, and whether it may be possible for the PACS Master’s to cooperate with a possible future Global Studies MA.

Given this broad range of activities and the diversity of stakeholders consulted, we are confident that the process used to develop and test the concept and structure of the proposed Master’s effectively addresses not only the interests of students but the needs of organizations that will accept students as interns and potential future employees. Moreover, we believe the proposal
responds to the administrative requirements for successful implementation and ensures academic excellence and integrity.

1.3 Objectives of the program

This proposed Master's program has been developed in a manner that reflects the mission and purpose of the University of Waterloo, its academic plan and Graduate Degree Level Expectations.

**Mission statements.** The proposed MPACS fits well within the parameters of the guiding mission statements of both the University of Waterloo and of the sponsoring institution, Conrad Grebel University College. Whereas uWaterloo's mission is to “advance learning and knowledge through teaching, research, and scholarship, nationally and internationally, in an environment of free expression and inquiry,” the College's mission statement builds on this academic vision, explicitly articulating the call for practical service to “seek wisdom, nurture faith, and pursue justice and peace in service to church and society.”

Building upon these inspirational and aspirational statements, the proposed mission for the PACS Master’s sharpens these foci even more, defining the program’s purpose as to “foster the capability of civil society to contribute to sustainable/holistic peace by empowering students with the knowledge, research and practical skills needed to contribute to nonviolent peacebuilding efforts. Combining rigorous interdisciplinary scholarship with concrete application, the program will provide scholars and practitioners alike with the tools needed to understand conflict and contribute to its peaceful resolution.”

These three mission statements are complementary. By incorporating a service objective that explicitly emphasizes the goals of pursuing peace and justice in a practical and applied manner, PACS builds upon the University of Waterloo’s core mission of advancing excellence in teaching, research, and scholarship. The interdisciplinary lens that will be used to examine peace and conflict issues acknowledges that multiple and diverse perspectives can foster understanding and help identify effective and sustainable solutions to conflict. Its inclusion of experiential learning and practical application, contributes to the achievement of uWaterloo ideals.

**Sixth Decade Plan.** The Sixth Decade Plan that articulates a long programmatic vision for uWaterloo is organized around four overarching conditions within which the proposed PACS Master’s well fits. As envisioned, the Master’s will not only serve as a significant contribution to the peace field but will also reinforce the goals of uWaterloo as an academic institution that believes in innovative, integrated, and experiential learning, cooperative education, and global engagement.

The four conditions include:

- **Guiding principles** set by uWaterloo to distinguish the university that are most applicable to the proposed Master of PACS, are listed below along with a brief explanation of how these principles are represented in the proposal:
  - Experiential learning – the proposed Master’s will incorporate an optional one-term internship that will challenge students to gain hands-on experience; service learning assignments will be incorporated into some seminar courses to bridge the
theoretical and practical divide; and workshops offered that emphasize the
development of specific skill sets;

- Global engagement and excellence – numerous courses within the program will
challenge students to understand local/global linkages and explore how current
cutting-edge responses can most effectively harness humanity’s potential for
positive change;

- Excellence – as the oldest Peace and Conflict Studies program in Canada, PACS
has garnered a remarkable reputation due to its foundation of academic
excellence, activism, practical engagement, and its Mennonite heritage that
emphasizes the possibility of collaborative non-violent solutions to conflict. The
Master’s program will continue in this long-standing tradition;

- Willing to make impactful choices – training future leaders to be able to most
effectively intervene in times of conflict requires choices that must be made based
on a full understanding of oneself and one’s limitations, as well the promise and
potential of alternative responses;

- Leadership in creativity, innovation and risk taking – the goal of the MPACS is to
produce leaders who possess the theoretical knowledge and practical wisdom
required to respond innovatively and boldly to the increasingly complex and inter­
related challenges the global community faces. Graduates will be empowered, as
members of civil society, with the tools necessary to offer hope and to nurture
innovative processes that will lead to sustainable peace.

- Objectives that will define how the university is recognized include:

  - Global leadership – the program’s location in one of Canada’s leading
    universities gives the program respect and credibility. Contributing to this
    reputation, the College’s faculty represent diverse areas of peacebuilding
    expertise in fields such as human rights, religion, arts, history, and Mennonite
    Anabaptist history. Faculty who teach cross-listed courses add well recognized
    expertise in global governance, political matters, development and theology;

  - Integration of experiential learning and research – the academic explorations of
    the MPACS will be complemented by pragmatic opportunities offered through
    skill-building workshops, in-class service learning options, and internship
    experiences; and

  - Preparing students to be global citizens – the College’s mission is neither passive
    nor disinterested in the outcome but rather is invested in actively cultivating
    global engagement, life-long learning, and compassionate service. In combining
    rigorous scholarly reflection with opportunities for practical application, the
    MPACS will further invigorate, prepare, and mobilize students to be active global
citizens.

- Benchmarking assessment will be made against uWaterloo’s reputation for
  experiential and applied learning, combined with the innovative solutions to global
  issues.

- Size is addressed by this proposed Master’s in that it will bring in additional students
  as uWaterloo seeks to increase enrolment in course-based graduate programs.
Program and learning objectives. The overarching programmatic objectives of the Master of PACS are to:

• Foster the capacity of students to understand the promise and potential of civil society to advance peace through principled advocacy, effective programming, and dynamic engagement with the state and marketplace;
• Educate students to be responsible, reflective and self-critical agents of peaceful change in local, national and/or global contexts.

These overarching program objectives acknowledge that there is a need to more creatively understand conflict. It may often have a very positive function as a catalyst that enables relationships to be renegotiated to a more healthy state of being. Focusing on the roles and responsibilities of individuals and communities, the program will equip graduates with the theoretical knowledge and practical skills needed not only to step into roles as agents of peaceful change but to collaborate and intersect with other sectors. These objectives also recognize that there is a need for individual interveners to explicitly understand their role, capacity, and potential, as well as their limitations in responding to conflict. Failure to be self-aware and self-critical can result in interveners exacerbating conflict and causing more harm.

To accomplish these two program objectives, students who complete the MPACS will be able to:

• Apply principles of conflict analysis and transformation at community, institutional, and/or systemic levels;
• Understand peace from a multi-disciplinary and holistic perspective and appreciate diverse contributions to peace efforts;
• Recognize potential applications of nonviolent intervention and transformation at all levels of society;
• Diagnose interactions among civil society, state and marketplace sectors, and develop collaborative strategies to foster peace;
• Deepen reflective, critical thinking and analytical skills needed to understand local, national and global peace issues;
• Develop skills in research necessary to prepare to contribute relevant scholarship to the peace field;
• Develop practical competencies necessary for effective peace building work; and
• Articulate a vision to advance peace in practical and meaningful ways locally, nationally and globally.

Graduate Degree Level Expectations. The proposed Master’s has been carefully reviewed to ensure that its course expectations lead to the accomplishment of the Graduate Degree Level Expectations (GDLEs) that have been established by uWaterloo. As the chart below illustrates, the GDLEs are addressed multiple times by the proposed learning objectives.
## Master of PACS Objectives and GDLES Chart

### OVERARCHING PROGRAM OBJECTIVES

- Foster the capacity of individuals to understand the promise and potential of civil society to advance peace through principled advocacy, effective programming, and dynamic engagement with state and marketplace.
- Educate students to be responsible, reflective and self-critical agents of peaceful change in local, national and/or global contexts.

<table>
<thead>
<tr>
<th>Learning Outcomes</th>
<th>GDLEs</th>
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</thead>
<tbody>
<tr>
<td><strong>OVERARCHING PROGRAM OBJECTIVES</strong></td>
<td>Depth and Breadth of Knowledge</td>
</tr>
<tr>
<td>1. Apply principles of conflict analysis and transformation at community, institutional, and/or systemic levels.</td>
<td>X</td>
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<tr>
<td>2. Understand peace from a multi-disciplinary and holistic perspective and appreciate diverse contributions to peace efforts.</td>
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<tr>
<td>3. Recognize potential applications of nonviolent intervention and transformation at all levels of society.</td>
<td>X</td>
</tr>
<tr>
<td>4. Diagnose interactions among civil society, state and marketplace sectors, and develop collaborative strategies to foster peace.</td>
<td>X</td>
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<td>5. Deepen reflective, critical thinking and analytical skills needed to understand local, national and global peace issues.</td>
<td>X</td>
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<tr>
<td>6. Develop skills in research necessary to prepare to contribute relevant scholarship to the peace field.</td>
<td>X</td>
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<tr>
<td>7. Develop practical competencies necessary for effective peace building work.</td>
<td>X</td>
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<tr>
<td>8. Articulate a vision to advance peace in practical and meaningful ways locally, nationally, and globally.</td>
<td>X</td>
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</tbody>
</table>
To conclude, there is an obvious consistency and synergy between the goals and objectives of this proposed Master of PACS and those of the University of Waterloo. Building upon a foundation of complementary mission statements, the MPACS adds to the collective achievement of long-term Academic Plans and the successful achievement of Graduate Degree Level Expectations.

1.4 Admission requirements

The Master of PACS will provide a dynamic program in which individuals of diverse intellectual backgrounds, traditions, nationalities, and career goals can pursue rigorous academic studies that will further their understanding of peacebuilding issues. Designed for people who have a passion for understanding the causes of conflict as well as gaining the tools for transforming it, this program will provide a first-class education that grounds theory and academic scholarship in the contemporary realities of the field. This program will be best suited for individuals aiming to step into careers as practitioners. Students who enrol in the Peace Research course will also have the basis for demonstrating that they have the ability to complete substantive, quality applied research. This program will have the capacity to enrol 12 full-time equivalent Master's students in each admission cycle after the first year of operation.3 The target balance of full-time and part-time, Canadian and international, students is described in more detail in section 5.0 of this document. A recruitment strategy to achieve this balance of students is being developed.

General admission requirements

- A four-year undergraduate degree (a variety of disciplines are permitted; PACS graduates are not granted advanced placement) with a minimum average of at least 78% in the final 20 courses;4
- The Admissions Committee reserves the right to require additional preparation for students without significant academic background in PACS or a related discipline. This additional preparation may involve completion of required an e-learning course or module, undergraduate course(s) or other appropriate requirement;
- Previous experience in the field, while not required, will be looked upon favourably;
- References and an interview will be required for entrance into the program;
- Applicants whose first language is not English must meet minimum English language capability as determined by normal uWaterloo graduate Arts requirements;
- Deferrals for admission and delayed entries will not be permitted;
- Full-time and part-time studies are available. Part-time students will be obligated to complete their requirements within five calendar years from the date of their initial registration.

3 Image courtesy of http://peace.maripo.com/
4 This minimum average follows the requirements of uWaterloo’s MA in Global Governance. Other uWaterloo MA requirements range from 75% (Environmental Science and Political Science) to 77% (History).
Alternative admission requirements. PACS may grant alternative admission to a limited number of mature students who do not meet the regular academic admission requirements of a four-year Bachelor's degree or equivalent. Standardized graduate entrance examinations are not equitably accessible and appropriate as the basis for such admission. Therefore the admissions committee will be guided by the following alternative admission standards:

- Minimum eight years of field experience related to peace and conflict issues. In order to show an appropriate level of academic and intellectual capacity for the program, the applicant will be asked to submit copies of reports, documents, manuscripts, or creative media that he/she may have prepared in relation to his/her field experience;
- Evidence of successful participation in post-secondary education as documented by transcripts and other records;
- References will be asked to comment on the applicant's academic and intellectual capacity and on the applicant's ability to do graduate work in English;
- Applicants will be interviewed to assess the potential of their success in graduate studies and their contribution to the program;
- Some applicants may be required to complete a specified qualifying program of PACS or related courses deemed helpful to prepare them for their proposed program of studies;
- Probationary admission may be granted for a specified time to confirm the applicant's ability to succeed in the program;
- Applicants whose first language is not English must meet minimum English language capability as determined by normal uWaterloo graduate Arts requirements.

Our experience in the PACS undergraduate program indicates that students who have lived in regions of conflict benefit immensely from participating in an academic PACS program, gaining a wider, more analytical and theoretical perspective, and augmenting their knowledge and skills. They, in turn, enrich our classrooms and provide other students with a more realistic and practical perspective. In classes populated with students who have lived in and dealt with violent conflict, theory and practice truly merge, serving to enliven discussion and more fully test peace theory against reality. The program will apply its alternative admission policy to foster these outcomes.

1.5 Program structure

The Master of Peace and Conflict Studies will be an interdisciplinary program that integrates scholarship with opportunities for practical experience. The program will consist of PACS courses and diverse electives (either cross-listed with PACS that draw on four other graduate departments or offered only by another department).

Course requirements and overall structure. Eligibility for graduation with a Master of Peace and Conflict Studies requires successful completion of 5.0 units. Full-time students will be normally expected to complete these requirements over a consecutive four-term period, enrolling...
in three courses for the first two terms and at least two courses in the last two terms. Part-time
students are expected to complete at least two courses per academic year.

To complete the requirements necessary for graduation, students must complete:

- 2.5 units of:
  o PACS 601 Systems of Peace, Order, and Good Governance
  o PACS 602 The Practice of Peace
  o PACS 603 Building Civil Society
  o PACS 604 Conflict Analysis
  o PACS 605 Conflict Transformation and Peacebuilding

- At least 1.0 units of:
  o PACS 610 Contemporary Nonviolent Movements
  o PACS 611 Reconciliation
  o PACS 612 Culture, Religion, and Peacebuilding
  o PACS 620 Special Topics in Peace and Conflict Studies
  o PACS 621 Peace Research
  o PACS 625 Internship
  o PACS 626 Conflict Resolution Skills Training

- An additional 1.5 units that can be chosen from:
  o Additional courses from PACS 610 - 626
  o PACS 630/GGOV 610/PSCI 688 Governance of Global Economy
  o PACS 631/GGOV 612/PSCI 612 Theories of Globalization
  o PACS 632/GGOV 632/PSCI 654 Post-War Reconstruction and State Building
  o PACS 633/GGOV 640/PSCI 658 Human Rights in the Globalized World
  o PACS 634/GGOV 630/PSCI 678 Security Ontology - Theory
  o PACS 635/GGOV 631/PSCI 679 Security Governance: Actors, Institutions, and Issues
  o PACS 650/INDEV 604 Sustainable Cities
  o PACS 651/INDEV 605 Economics for Sustainable Development
  o PACS 652/INDEV 608 Water and Security
  o PACS 660/PSCI 624 Justice and Gender
  o PACS 661/PSCI 655 Ethnic Conflict and Conflict Resolution I
  o PACS 662/PSCI 659 Conflict and Conflict Resolution
  o PACS 670/TS 637 War and Peace in Christian Theology
  o PACS 671/TS 619 The Bible and Peace
  o PACS 672/TS 731 Christianity's Encounter with Other Faiths

  Students may request permission from the PACS Graduate Advisor to enrol in elective courses in other uWaterloo or Wilfrid Laurier University graduate courses that will complement their program of study. Permission must also be granted by the department or program in which the courses are offered.
**Rationale for a four-term program.** The Committee responsible for developing the MPACS program considered a variety of options before agreeing on a 5.0 unit curriculum that can be completed by full-time students over four consecutive terms. For students to complete the program in four consecutive terms (16 months), they will need to enrol in courses during the Spring (Summer) term, a time when few graduate seminars are typically offered. PACS will offer 2.0 units of courses on a regular basis during the Spring term (Internship, Peace Research, Conflict Resolutions Skills) and there may be an undetermined number of potential electives offered throughout the University of Waterloo. As such, the Spring term is a viable option for students who desire to complete their program in four consecutive terms. Students also will be able to extend their studies over two years excluding the Spring terms.

Other well-respected programs are in line with a four term approach. A four term program thus appears to be within the normal range of what other programs require, while also falling within the ability of PACS to adequately resource.

In contrast, a shorter two or three term program would make it difficult for students to gain both the depth of theoretical knowledge the Committee deemed essential for a credible program and to complete a meaningful internship experience. Internships—which the Committee valued and highly recommends students be encouraged to complete—may not easily or neatly fit into a rigid, four-month term structure, thereby complicating three-term enrolment patterns. A four-term program offers more flexibility both for students and for PACS in establishing a consistent rotation of courses that students will have the option of completing during their enrolment. A four term program also gives students greater access to cross-listed or other electives from different graduate programs, as many of these courses will not be offered every year.

Lastly, surveys (of both alumni and current PACS undergraduates) and anecdotal conversations with the type of students envisioned as having the most interest in this Master’s indicate that four full-time terms is an optimal length for such a program. While some potential students may have interest in a two-year program, potentially leading to further graduate studies, most felt that a four-term, ten course program that enabled them to complete both theoretical and applied courses was ideal.

**Relationship of Learning Objectives to specific courses that will be offered.** Care has been taken to ensure that the proposed PACS courses are logically organized so as to achieve the specific program learning objectives. The chart below illustrates that the cross-cutting program learning objectives will be addressed in multiple and reinforcing ways by the courses students will complete. The core set of five courses (601-605) will expose students in a significant way to all program learning.

The same model also applies to PACS 610 – 626 with specific courses emphasizing particular learning objectives. Students who complete 1.5 units of this grouping of courses will be exposed to all learning objectives. PACS faculty members will be instructed about the relationship of

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6 For successful programs that are of roughly equal length, see St. Paul University in Ottawa which describes their program to be two years, or four terms in length; Kroc Institute MA in International Peace Studies is a two year, four term program with a five month internship; Antioch University’s MA in Conflict Analysis and Management involves 12 courses which can be completed over 18 months; Brandeis University’s MA in Coexistence and Conflict is 16 months long; and University of San Diego’s MA in Peace and Justice Studies has either a 12 or 17 month track.
each individual course to the MPACS learning objectives and course syllabi will be monitored to ensure that this approach is effective. It is more difficult to specify the specific contribution that PACS cross-listed or other electives will make towards the achievement of the learning objectives as there is so much variety, diversity, and choice.
# OVERARCHING PROGRAM OBJECTIVES

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## PACS Courses to Learning Objectives Chart

<table>
<thead>
<tr>
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<th>PACS Courses</th>
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<th>PACS Courses</th>
<th>PACS Courses</th>
<th>PACS Cross-listed electives</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Apply principles of conflict analysis and transformation at community, institutional, and/or systemic levels.</td>
<td>XX</td>
<td>X</td>
<td>X</td>
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<td>2. Understand peace from a multi-disciplinary and holistic perspective and appreciate diverse contributions to peace efforts.</td>
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<td>X</td>
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<tr>
<td>3. Recognize potential applications of nonviolent intervention and transformation at all levels of society.</td>
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<td>X</td>
<td>XX</td>
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<td>X</td>
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<tr>
<td>4. Diagnose interactions among civil society, state and marketplace sectors, and develop collaborative strategies to foster peace.</td>
<td>XX</td>
<td>XX</td>
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<tr>
<td>5. Deepen reflective, critical thinking and analytical skills needed to understand local, national and global peace issues.</td>
<td>X</td>
<td>XX</td>
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<td>X</td>
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## OVERARCHING PROGRAM OBJECTIVES

- Foster the capacity of individuals to understand the promise and potential of civil society to advance peace through principled advocacy, effective programming, and dynamic engagement with state and marketplace.

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### Learning Outcomes

<table>
<thead>
<tr>
<th>Milestone</th>
<th>PACS 601</th>
<th>PACS 602</th>
<th>PACS 603</th>
<th>PACS 604</th>
<th>PACS 605</th>
<th>PACS 610</th>
<th>PACS 611</th>
<th>PACS 612</th>
<th>PACS 620</th>
<th>PACS 621</th>
<th>PACS 625</th>
<th>PACS 626</th>
<th>PACS Cross-listed electives</th>
</tr>
</thead>
<tbody>
<tr>
<td>6. Develop skills in research necessary to prepare to contribute relevant scholarship to the peace field</td>
<td>XX</td>
<td>XX</td>
<td>XX</td>
<td>XX</td>
<td>XX</td>
<td>XX</td>
<td>XX</td>
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<td>XX</td>
<td>XX</td>
<td>XX</td>
<td>XX</td>
<td>Conflict Resolution Skills Training</td>
</tr>
<tr>
<td>7. Develop practical competencies necessary for effective peace building work.</td>
<td>XX</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<td>XX</td>
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<tr>
<td>8. Articulate a vision to advance peace in practical and meaningful ways locally, nationally, and globally.</td>
<td>X</td>
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<td>XX</td>
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XX means greater emphasis
Effect of structure on quality. See section 1.6 below for a detailed analysis of program structure and content as well as how these contribute to the desired outcome of the program.

1.6 Program content

Context. The significance of PACS can be understood by the role it plays in supporting the infrastructure of peace within local communities, nations, and the world. Many who have studied the methods that nations and societies have used to organize themselves into peaceful models of governance have emphasized the supreme importance of three sectors of society—the state, market, and civil society.

The three-legged stool diagram\(^7\) seeks to illustrate that an effective and healthy society, like a three-legged stool, needs all three sectors to act as equally-balanced building blocks. If one sector governs or overrides the others, like the dominant leg of a stool, the overall structure becomes unstable—unable to carry the “load” of peace. When stress occurs and the ground begins to shake, people run the risk of “falling off” or being left out of the equation. More serious yet, in times of extreme crisis or catastrophe, an unbalanced stool can collapse entirely under the dynamics of unequal weight. Not only must all three sectors of society be strong, but they must function in relationship to one another. They must work together while performing their respective functions, supporting proportions of the load in different areas of the terrain. To this end, the values that help determine the “length” of each leg, or dominance of each sector, are human rights standards and principles of justice and fairness.

Within this paradigm, the MPACS program will serve to strengthen the role of civil society in organized political life. Understanding conflict as an inescapable and natural part of human experience, PACS envisions peace holistically, as “a healthy society where communities and individuals flourish. It involves just relationships among its members. It is a space where all people are welcome to pursue goals that enhance the well-being of themselves, their communities, and their environment.”\(^8\)

Building a culture of peace requires the efforts and responsibilities of individuals or groups of individuals who will intersect all sectors of society. Establishing partnerships across sectors, collaborating with like-minded people of various backgrounds, building bridges between alienated or estranged persons or communities, providing services for vulnerable populations living in places where governments are unwilling or unable to assist, and fostering hope where little exists, are roles that individuals of conscience can play regardless of their position in society. Civil institutions are sometimes described as the “long-shadow of a peacemaker” as their impact and ripple effect often far exceeds the capability of any one person. While this sector is as essential in building a peaceable world as is government or business, it is often underemphasized in academia and its role misunderstood. The MPACS will

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\(^7\) Three-legged stool image courtesy of Dave Klassen.

\(^8\) [http://www.grebel.uwaterloo.ca/academic/undergrad/pacs/about.shtml](http://www.grebel.uwaterloo.ca/academic/undergrad/pacs/about.shtml)
maximize the impact by highlighting the pivotal role civil society plays as the glue that binds a nation together across sectors and towards a common goal.

**Rationale for course structure.** Courses were developed and chosen that build upon the philosophical approach to peace as described above. Envisioning civil society as one of three major sectors of organized life aids in understanding the relationship between the different categories of, and rationales for, the courses offered by this program.

**PACS 601 – 605.** The triangle below illustrates the core, peace-related themes we believe best prepare individuals for effective engagement across societal sectors. All students will be required to complete all five courses shown in the centre of the triangle. This particular collection of courses will support all program learning objectives, with the strongest emphasis on civil society's role as a catalyst for fostering peace. These courses become the common “brand” and will ground students in core concepts of a multi-sectoral, and multi-disciplinary approach to peacebuilding and conflict analysis emanating from civil society, in both theory and practice.

PACS 601 and 602 ground the program and introduce its key theoretical framework – that the three most crucial sectors of society (the state, market, and civil society) must work in a complementary way with each other and collaborate for there to be just and durable peace and that interveners must be self-critically aware of their personal perspectives and shaping influences as practitioners. PACS 601 will study society’s sectors and examine the promise and potential of each sector as an agent of peaceful change. PACS 602 will challenge students to examine their own roles, responsibilities, and limitations as interveners and give them skills in peace research they require for effective practice.

PACS 603 explores operational aspects of civil society organizations and explores contending views of civil society organizations and their complex relationships with government and business thereby developing a philosophical and ethical framework for their evaluation.

PACS 604 and 605 round out the core course set by providing the essential theoretical tools and foundation for conflict analysis and conflict resolution and transformation required for a well-balanced peacebuilding framework.
PACS 610 – 626. Courses offered in this block of electives taught by PACS instructors will allow students to begin narrowing their studies to intentionally focus on their specific interest. Here, students will be given the chance to focus on the study of non-violent movements, reconciliation, religion and culture, or to more specifically engage in individualized peace research. Students in this category will have the option of emphasizing theoretical or applied studies (Internship, Conflict Resolution Skills workshops).

Additional PACS cross-listed electives or other courses offered by other uWaterloo or WLU departments and programs. Lastly, students will have the opportunity to explore complementary values or views of peace as taught through the lens of Global Governance, International Development, Political Science, Theological Studies, or any other relevant course offered at uWaterloo or WLU for which the student can gain admission and the PACS Graduate Officer approves. This flexibility allows students to explore the realities, opportunities, and obligations of each sector as well as enhance their own multi-disciplinary understanding. In this way, students will not only be empowered as agents of peaceful change within civil society but will learn how to walk seamlessly among the three sectors.

1.7 Mode of delivery

The MPACS program will be offered through four primary modes of delivery that are well-suited to prepare graduates to deepen and broaden their theoretical knowledge in peace studies, develop the professional skills needed to be effective in the field, improve their communication skills, understand the limitations of what can be done in any given context, and contribute to greater research and scholarship in this emergent discipline. No on-line courses are offered or envisioned to be developed in the near term.

Delivery models include the following:

Classroom-based seminars. It is anticipated that all classroom-based courses will be offered as seminars in which students will be expected to complete significant reading, participate in vigorous classroom discussions, and prepare and interact with classmates as well as the course instructor about substantial written assignments. It is expected that most of these courses will emphasize significant research assignments that will test a student’s knowledge of a particular topic and challenge them to effectively research and present appropriate findings. Instructors may also offer quizzes, exams or optional digital assignments available on a limited basis to give students experience in persuasively communicating via multiple media.

Instructors will also be encouraged to offer Service Learning (SL) options as assignments in individual PACS courses in order to provide another avenue through which to more thoroughly integrate practical reflection into the program. Doing so will help to continually link intellectual and personal development, offer opportunities for more deliberately applying theory to practice, and foster student connections with community partners/practitioners in the field. The SL model to be used will be based on PACS’s Peace and Conflict Studies Service Learning Manual (2007), prepared to aid undergraduate instructors utilize SL opportunities.
**Internship.** Students will have an optional elective to complete an internship (1.0 unit) in a local, national, or international setting. Internships may involve work with a civil society organization, a research agency, or some other government or business entity that works on issues related to PACS courses. With its motto of “learning to serve, serving to learn,” PACS has a long history of encouraging practical engagement within its academic program. Since 1985 when the college began its undergraduate Field Studies course, over 200 students have worked in diverse contexts both at home and abroad.

An internship experience will serve to reinforce this already-existing tradition of applied learning both within the College as well as uWaterloo at large (with its focus on the importance of cooperative education) and enable graduate students to rigorously examine classroom theory in light of real life situations, to expand their practical skills, and to explore career possibilities related to their field. The internship will not be shorter than three months.

In addition to the hands-on internship experience, students will be expected to produce a significant academic paper related to the topic or theme of the interning organization. They will also be expected to prepare a reflective paper outlining their internship experience, the lessons learned, and the impact this has on their approach to peace and conflict practice. Attempts will be made to develop a unique cohort among the students pursuing an internship each term with students regularly keeping in contact with each other, sharing experiences, and using each other as a source of information, wisdom, and support. This may involve a variety of social media technologies, conference calls, or personal contact.

We explicitly endorse and affirm the Reviewer’s recommendation that, “The internship will function at three levels: first would be the field experience; second would be a reflection on the work of the NGO or other organization in the light of a framework for peace-work within civil society (or another aspect of society); third, it could provide opportunity for data collection in relation to a set of research questions.”

Listed below are some representative agencies that illustrate the breadth and diversity of potential placements for students:

- **cbm Canada**, Toronto, Ontario, Canada
  - cbm is an international Christian development organization focused on breaking the cycle of disability and poverty. [http://www.cbmcanada.org/default.htm](http://www.cbmcanada.org/default.htm)

- **House of Friendship**, Kitchener, Ontario, Canada
  - House of Friendship is a Christian non-profit agency that serves low-income adults, youth, and children in need of support. [http://www.houseoffriendship.org/](http://www.houseoffriendship.org/)

- **Interfaith Grand River Council**, Waterloo, Ontario, Canada
  - Interfaith Grand River Council works to promote dialogue among different religious and spiritual traditions in order to foster understanding and respect. [http://www.interfaithgrandriver.org/index.shtml](http://www.interfaithgrandriver.org/index.shtml)

- **Interfaith Mediation Centre**, Kaduna, Nigeria

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o Interfaith Mediation Centre is an NGO promoting and facilitating the use of faith-based approaches to conflict prevention. http://www.imcnigeria.org/

- **Mennonite Central Committee Ontario**, Kitchener, Ontario, Canada
  o Mennonite Central Committee is the peace and development organization of the Mennonite and Brethren in Christ Churches. MCC Ontario engages in various programming around issues such as interfaith bridge-building, aboriginals, peace, refugees, restorative justice etc. http://ontario.mcc.org/about

- **Mennonite Coalition for Refugee Support (MCRS)**, Kitchener, Ontario, Canada
  o MCRS supports refugees by helping them through the claims process, providing settlement support, building supportive communities, and encouraging community mobilization. http://www.mcrs.ca/

- **Mercy Corps**, Portland, Oregon, USA
  o Mercy Corp is one of the 10 largest humanitarian relief and development agencies headquartered in the USA that works in 36 countries integrating the strengthening of civil society and promoting conflict resolution alongside its development mandate. http://www.mercycorps.org/

- **Peacebuilders Community (PBCI)**, Davao, Philippines
  o PBCI is a team of peace and reconciliation specialists dreaming and working together for a just, radical, and nonviolent transformation of our land. http://peacebuilderscommunity.org/

- **Project Ploughshares**, Waterloo, Ontario, Canada
  o Project Ploughshares is an ecumenical agency that works to identify, develop, and advance approaches that build peace and prevent war. http://www.ploughshares.ca/

- **Tamarack Institute**, Waterloo, Ontario, Canada
  o Tamarack is an organization that develops and supports collaborative strategies that engage citizens and institutions to solve major community challenges, and to learn and share from these experiences. http://tamarackcommunity.ca/

- **Ugunja Community Resource Centre (UCRC)**, Nyanza Province, Kenya
  o UCRC is a community development NGO located in Western Kenya, working to promote sustainable development and to empower communities through increasing access to information. http://www.ugunja.org/intro/

- **World Vision Canada**, Mississauga, Ontario, Canada
  o World Vision is a Christian relief, development, and advocacy organization dedicated to working with children, families, and communities to overcome poverty and injustice. http://www.worldvision.ca/Pages/welcome.aspx

**Peace research.** Students will be required to complete a research colloquium as a milestone credit. It will require students to orally present a major paper they have written, to receive peer review, and to respond to questions and critique. Students will also be required to read and present an oral evaluation of another student’s research paper.

Students will also have the option to complete one research course offered on an individualized basis that will require the preparation of a substantial research assignment that aims to tie...
together the theoretical content of the Master’s with a particular focus on an applied objective. This assignment will serve to demonstrate a student’s theoretical knowledge of his/her area of concentration and ability to apply this scholarship to the peacebuilding field. Students will be paired with an instructor who will guide and mentor them for this assignment. Departmental consent will be required, as there will be a limited number of students who will be able to enrol in this option each term.

Skills Training Workshops. Students will be able to complete up to two skills training workshops (each 0.25 unit) offered by the Centre for Extended Learning at uWaterloo, the Certificate Program in Conflict Management located within the Institute of Peace and Conflict Studies (IPACS) at Conrad Grebel University College, or other credible training organizations. Intensive skills workshops offered by the Certificate Program in Conflict Management for example, are led by leading Canadian practitioners and educators, and address over 13 topics of inquiry with some 25 workshops are offered per year. Workshop participants come from a variety of vocational backgrounds making for a very relevant and practical community of learning. Participation in these workshops will give students specific conflict resolution and management skills, complemented by the collective experience of the co-learners. Significant additional academic work will be assigned to students as determined by criteria established by the faculty committee that will provide oversight to the Master’s program. The amount of additional academic work may vary from workshop-to-workshop as the topics and duration of each may vary. Additional fees will be required for registration in the skills workshops.

It should be noted that of the IPACS trainers involved in leading these skills workshops, five possess an earned doctorate and an additional three have law degrees. The combination of advanced training and a lifetime of application these trainers possess ensure that the workshops will effectively provide students with usable skills that they can put into practice.

1.8 Assessment of teaching and learning

Courses offered through this program will be assessed by a variety of methods that best fit the course objectives. Instructional quality will be measured by course evaluations regularly administered each term for each course.

Student work will be evaluated by a combination of written work (papers, reflections, case studies, policy briefs, book reports, conceptual mapping), applications projects (digital assignments, programming projects) as well by some exams and quizzes. The chart that follows outlines the most probable assessment measures that will be used to evaluate student progress in each proposed course.
## Overview of Program Objectives

- Foster the capacity of individuals to understand the promise and potential of civil society to advance peace through principled advocacy, effective programming, and dynamic engagement with state and marketplace.
- Educate students to be responsible, reflective and self-critical agents of peaceful change in local, national and/or global contexts.

## Learning Outcomes

1. **Apply principles of conflict analysis and transformation at community, institutional, and/or systemic levels.**
   - Final Project/Policy Brief
   - Case study; Take-home, multi-essay exam
   - Two-part case-study project; Reflective Journal

2. **Understand peace from a multi-disciplinary and holistic perspective and appreciate diverse contributions to peace efforts.**
   - Quizzes
   - Case study; Take-home, multi-essay exam
   - Reflective Journal; Seminar Presentation

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### PACS Course Assessment Tools and Learning Outcomes Chart

<table>
<thead>
<tr>
<th>Overall Program Objectives</th>
<th>PACS Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Foster the capacity of individuals to understand the promise and potential of civil society to advance peace through principled advocacy, effective programming, and dynamic engagement with state and marketplace.</strong></td>
<td><strong>Final Project/Policy Brief</strong></td>
</tr>
<tr>
<td><strong>Educate students to be responsible, reflective and self-critical agents of peaceful change in local, national and/or global contexts.</strong></td>
<td><strong>Case study; Take-home, multi-essay exam</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Learning Outcomes</th>
<th>PACS Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Apply principles of conflict analysis and transformation at community, institutional, and/or systemic levels.</strong></td>
<td><strong>Two-part case-study project; Reflective Journal</strong></td>
</tr>
<tr>
<td><strong>Understand peace from a multi-disciplinary and holistic perspective and appreciate diverse contributions to peace efforts.</strong></td>
<td><strong>Reflective Journal; Seminar Presentation</strong></td>
</tr>
</tbody>
</table>

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**PACS Cross-listed electives**

- Participating
- Reflective Journal
- Cross-list Course Requirements
## Overall Program Objectives

- Foster the capacity of individuals to understand the promise and potential of civil society to advance peace through principled advocacy, effective programming, and dynamic engagement with state and marketplace.
- Educate students to be responsible, reflective and self-critical agents of peaceful change in local, national and/or global contexts.

3. Recognize potential applications of nonviolent intervention and transformation at all levels of society.

4. Diagnose interactions among civil society, state and marketplace sectors, and develop collaborative strategies to foster peace.

### PACS Courses

<table>
<thead>
<tr>
<th>PACS Courses</th>
<th>PACS 601</th>
<th>PACS 602</th>
<th>PACS 603</th>
<th>PACS 604</th>
<th>PACS 605</th>
<th>Milestone</th>
<th>PACS 610</th>
<th>PACS 611</th>
<th>PACS 612</th>
<th>PACS 620</th>
<th>PACS 621</th>
<th>PACS 625</th>
<th>PACS 626</th>
<th>PACS Cross-listed electives</th>
</tr>
</thead>
</table>
Overall Program Objectives

- Foster the capacity of individuals to understand the promise and potential of civil society to advance peace through principled advocacy, effective programming, and dynamic engagement with state and marketplace.
- Educate students to be responsible, reflective and self-critical agents of peaceful change in local, national and/or global contexts.
- Deepen reflective, critical thinking and analytical skills needed to understand local, national and global peace issues.
- Develop skills in research necessary to prepare to contribute relevant scholarship to the peace field.
- Develop practical competencies necessary for effective peace building work.

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<thead>
<tr>
<th>PACS Courses</th>
<th>PACS 601</th>
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<th>PACS 603</th>
<th>PACS 604</th>
<th>PACS 605</th>
<th>Milestone</th>
<th>PACS 610</th>
<th>PACS 611</th>
<th>PACS 612</th>
<th>PACS 620</th>
<th>PACS 621</th>
<th>PACS 625</th>
<th>PACS 626</th>
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<tbody>
<tr>
<td><strong>Overall Program Objectives</strong></td>
<td><strong>PACS Courses</strong></td>
<td><strong>PACS 601</strong></td>
<td><strong>PACS 602</strong></td>
<td><strong>PACS 603</strong></td>
<td><strong>PACS 604</strong></td>
<td><strong>PACS 605</strong></td>
<td><strong>Milestone</strong></td>
<td><strong>PACS 610</strong></td>
<td><strong>PACS 611</strong></td>
<td><strong>PACS 612</strong></td>
<td><strong>PACS 620</strong></td>
<td><strong>PACS 621</strong></td>
<td><strong>PACS 625</strong></td>
</tr>
<tr>
<td>5. Deepen reflective, critical thinking and analytical skills needed to understand local, national and global peace issues.</td>
<td>Conceptual Mapping Exercise</td>
<td>Conflict Analysis</td>
<td>Critical Review of Prior Work</td>
<td>Oral Presentation</td>
<td>In-Depth Case Study</td>
<td>Final Project/Paper</td>
<td>Major Research Project</td>
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<tr>
<td>6. Develop skills in research necessary to prepare to contribute relevant scholarship to the peace field.</td>
<td>Policy Brief</td>
<td>Final Project/Paper</td>
<td>Oral Presentation</td>
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<tr>
<td>7. Develop practical competencies necessary for effective peace building work.</td>
<td>Seminar Presentation</td>
<td>Peace Program-Mining Project or Digital Project</td>
<td>Case Study</td>
<td>Oral Presentation</td>
<td>Case Study and Seminar Presentation</td>
<td>Case Study</td>
<td>Reflective Journal</td>
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**Overall Program Objectives**

- Foster the capacity of individuals to understand the promise and potential of civil society to advance peace through principled advocacy, effective programming, and dynamic engagement with state and marketplace.
- Educate students to be responsible, reflective and self-critical agents of peaceful change in local, national and/or global contexts.

**Learning Outcomes**

- 8. Have a vision for advancing peace in practical and meaningful ways locally, nationally, and globally.

<table>
<thead>
<tr>
<th>PACS Courses</th>
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<th>PACS Courses</th>
<th>PACS Courses</th>
<th>PACS Courses</th>
<th>PACS Courses</th>
<th>Cross-listed electives</th>
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<td>PACS 601</td>
<td>PACS 602</td>
<td>PACS 603</td>
<td>PACS 604</td>
<td>PACS 605</td>
<td>Milestone</td>
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<td>PACS 612</td>
<td>PACS 620</td>
<td>PACS 621</td>
<td>PACS 625</td>
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</tbody>
</table>

- All Assessment Tools
- All Assessment Tools
- All Assessment Tools
- Determinded by course reqm’ts
- All Assessment Tools
- All Assessment Tools

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1.9 Fields in a graduate program
Not applicable.

2.0 HUMAN RESOURCES

2.1 Resources for graduate programs only

Expertise. PACS and the uWaterloo graduate departments and programs which will deliver MPACS bring the education, experience, and connections to very well resource the program. To summarize, there a total of 16 faculty who will deliver 27 PACS or cross-listed courses, representing five disciplines, and associated with two research entities. The faculty mix includes skilled researchers as well as individuals who have practical experience in the field of peace building. Faculty who have been selected to teach in the program possess complementary educational specialities, plus demonstrate a wide range of experience and skills. Faculty have degrees in Environmental Design and Rural Development, Political Science, History, Geography, International Relations, Religious Studies, English, Theology, International Law and New Testament and Christian Origins. The combination of theory and practice represented by the teaching faculty is very consistent with the goals of the program to provide a practitioner oriented curriculum that will prepare students to engage in peace building across sectors.

Supervisory load distribution. Each of the four permanent PACS faculty will be expected to supervise two – three Internships or Peace Research projects per year. Program consent will be required for admission into each of these courses and hence workloads can be managed and enrolments limited in these courses to a total of 12. It is possible that students may request that an instructor of a cross-listed course be named as their supervisor and this will be negotiated on a case-by-case basis if this request arises.

List of faculty by field. The number of faculty who will resource the MPACS are sufficient to successfully deliver the proposed courses. As illustrated by the chart in section 4.1, the program will require the offering of six or seven PACS courses per year which number is within budget. Regularly offering this number of courses per year will allow students who enrol in four consecutive terms to have access to enough PACS seminar courses during their enrolment period, plus access to the PACS Internship, Peace Research Course, and Conflict Resolution Skills course. It is therefore possible for students to complete their entire program of study only taking courses offered by PACS.

Students will be encouraged, however, to enrol in up to 1.5 units of courses offered by other programs or departments. While PACS will not supervise the instructors of these courses or schedule these courses, we have been assured that many of these courses will be offered on a regular basis and available to PACS students. As such, there are adequate teaching resources available to sustain the program. To summarize,

- Within PACS, there are currently 4 full-time instructors who are available to deliver courses and supervise students. The work load of each of these instructors will be split between the PACS undergraduate and proposed graduate program as determined year-to-year by the Academic Dean.
- It is anticipated that a Sessional practitioner will offer one course per year.
- There is a full-time PACS vacant position that is expected to be filled effective July 1, 2012. This position replaces a retirement of an instructor effective June 30, 2012 who
has taught one PACS undergraduate course per year. The position has been approved by the Conrad Grebel University College Board of Directors. The announcement circulated in March 2011 for this position follows. "Conrad Grebel University College (a Mennonite College at the University of Waterloo, Waterloo, Ontario, Canada) invites applications for a full-time continuing contract faculty position in the undergraduate Peace and Conflict Studies (PACS) program and the proposed graduate PACS program, with a teaching and research specialty in interdisciplinary and multi-sector approaches to peace studies. The appointment will begin July 1, 2012. The College will begin reviewing applications on August 1, 2011. The College is committed to employment equity. Canadian citizens and permanent residents will be given priority."

- Twelve faculty will teach 15 cross-listed courses. Of these, two are from the International Development department (Frayne, Swatuk), seven are within Political Science and Global Governance (Coleman, Kitchen, Jaworsky, Momani, Sedra, Thompson, and Welch), and three faculty are within the Theological Studies program (Bergen, Pankratz, Yoder Neufeld). International Development is currently recruiting for an additional member for their faculty who may teach a cross-listed course.

- Four faculty (Coleman, Momani, Sedra, Welch) are also part of the Centre for International Governance Innovation (CIGI), a think tank affiliated with the University of Waterloo to study the impact of significant global problems. In particular, CIGI believes that "better international governance can improve the lives of people everywhere, by increasing prosperity, ensuring global sustainability, addressing inequality and safeguarding human rights, and promoting a more secure world." The approach represented by CIGI is therefore very compatible with that of PACS.

- Two faculty are also affiliated with the Balsillie School of International Affairs (Coleman, Welch).

- Five faculty members are associated with the Centre for the Study of Religion and Peace (Bergen, Ewert, Funk, Pankratz, Yoder Neufeld), located at Conrad Grebel University College.

In summary, faculty involved in teaching PACS and cross-listed courses possess a wealth of experience and diverse connections that will enrich the educational experience for students. The "Faculty Names and Rank" table below lists those who will teach the core courses in the program listed in Categories 1 and 2. Faculty who will teach the cross-listed courses are listed in category 3.

11 [http://www.cigionline.org/about/vision](http://www.cigionline.org/about/vision), viewed February 25, 2011.
## Faculty Names and Rank Table

<table>
<thead>
<tr>
<th>Faculty Name and Rank</th>
<th>M/F</th>
<th>Home Unit</th>
<th>Supervisory Privileges</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Category 1</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marlene Epp</td>
<td>F</td>
<td>Conrad Grebel University College, Peace and Conflict Studies; cross-appointed with the Department of History, University of Waterloo</td>
<td>Full</td>
</tr>
<tr>
<td>Associate Professor</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Nathan C. Funk</td>
<td>M</td>
<td>Conrad Grebel University College, Peace and Conflict Studies; cross-appointed with Political Science, University of Waterloo; Centre Study Religion and Peace</td>
<td>Full</td>
</tr>
<tr>
<td>Associate Professor</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hildi Froese Tiessen</td>
<td>F</td>
<td>Conrad Grebel University College, Peace and Conflict Studies, English</td>
<td>Full</td>
</tr>
<tr>
<td>Professor</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Category 2</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Lowell M. Ewert</td>
<td>M</td>
<td>Conrad Grebel University College, Peace and Conflict Studies, cross-appointed with Political Science, University of Waterloo; Centre Study Religion and Peace</td>
<td>Master's</td>
</tr>
<tr>
<td>Director, Peace and Conflict Studies</td>
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<tr>
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<tr>
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<tr>
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<tr>
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<td>Master's</td>
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<tr>
<td>Larry A. Swatuk</td>
<td>M</td>
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<td>Full</td>
</tr>
<tr>
<td>Andrew S. Thompson</td>
<td>M</td>
<td>Program Officer, Global Governance Programs, University of Waterloo; Political Science, University of Waterloo</td>
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</tr>
<tr>
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<tr>
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Page 33 of 50
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<td>Researcher – U of Guelph</td>
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</tbody>
</table>
External operating research funding. It is difficult to precisely report on external funding that has been received by the faculty members who will teach PACS and cross-listed courses as some faculty reported funds received in ways that were difficult to explicitly categorize, break down by year or translate into a common currency for comparison purposes. Volume II, Curricula Vitae for Faculty, provides detailed information about funding accessed by individual faculty members. The first table below summarizes funding received by the core faculty (Category 1 and 2 Faculty) who will teach the PACS courses that are not cross-listed, and the second table includes all Category 3 Faculty who will teach all cross-listed courses.

What these two tables reveal is that the faculty members who will collectively resource the Master's program have been very successful in accessing both research funding and operational funding that puts theory to practice. As such, these instructors have a proven capacity to find funding enabling them to engage in cutting edge research and application. Some faculty members have focused on pure research and scholarship while others have emphasized practice. Collectively, this group is extraordinarily qualified to create a visionary, energetic and exciting learning community for the program.

Operation Research Funding Tables

<table>
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<th>Year</th>
<th>Granting Councils</th>
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<td>2008-09</td>
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<td>2009-10</td>
<td></td>
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<td>Totals</td>
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12Sources: CIDA; uWaterloo TRACE; University of Waterloo; Conrad Grebel University College
Graduate supervision. According to the instructions, this section is not applicable to course-based Master’s programs.

Commitment of faculty from other graduate departments, programs or other institutions. Faculty from four other graduate department or programs will offer 15 courses that are cross-listed with PACS. PACS initially developed a list of possible cross-listed courses which was reviewed with the host department or program chair. During discussions with chairs and faculty who teach specific courses, we confirmed these instructors are eager to participate and expand their classroom to include PACS students alongside their own disciplinary students. Faculty from the other disciplines will not be expected to supervise PACS Internships or Peace Research course projects, though it is anticipated that some may be willing to do so. This is a matter that individual students may choose to negotiate with faculty from other disciplines whose research interests may overlap closely with theirs.

2.2 Quality of faculty

The quality of the faculty who will teach PACS or cross-listed courses can be measured by their accomplishments. While it is difficult to precisely report on the depth and breadth of their experience (faculty have many different ways of self-reporting on CVs, and individually report inconsistently), it is very evident that this teaching cohort is very well qualified to resource the program. Collectively, they have the education, scholarship, experience with supervising students, and connection to the international field of peace building, to very effectively accomplish program goals.

\[13\] Euro and USD Grants added in 2007 CDN Dollars

\[14\] Sources: Trudeau Foundation; Ford Foundation; Development Bank of South Africa; CIDA; IDRC; Irish Aid; Shastri Applied Research Project; CIGI; South African Water Research Commission; EU through INCO-DEV; NorAid; uWaterloo; Other

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Academically, of the 16 faculty who are teaching PACS or cross-listed courses, they have 15 earned Ph.D.'s, represent nine different disciplines, are individually associated with a total of more than 15 research institutes, have earned teaching awards for excellence, and served on more than a dozen editorial boards or as guest editors of various publications. They have collectively authored 34 books, edited 50 more, contributed over 200 chapters to other books, and read almost 200 papers at scholarly conferences. To round out the theoretical aspect of their work with more practice oriented contributions, they have also authored more than 125 technical reports and resourced over 200 workshops or other events at which their individual expertise was shared.

In terms of student mentoring, faculty have supervised over 50 Master's students and 25 Ph.D. students. Several faculty have lived and worked outside of North America as adults, or supervised international projects from this side of the ocean, for over 35 years. More than half of this time would fall within the definition of building peace, justice, and more sustainable futures. They have also had experience working with a variety of civil society organizations, served on Boards of Directors or Councils of some sort, and participated in challenges and opportunities presented by collaborative projects.

3.0 PHYSICAL AND FINANCIAL RESOURCES

Conrad Grebel University College will assume primary responsibility for managing the PACS graduate program and providing the resources required for successful implementation. The necessary funding for covering core costs comes from two sources: first, the College’s share of tuition and grant revenues as per agreement with the University of Waterloo; second, the College annually raises significant funds for capital and operational budgets. The College determines fundraising priorities and allocates funds received in accordance with both donor instructions and the College’s own long-term plan.

In general, the College will manage recruitment and admission into the graduate program; provide necessary classrooms and faculty offices; hire and evaluate PACS teaching and administrative personnel; and provide a limited amount of financial support for international students. This funding commitment is not new, but rather continues the tradition of support the College has demonstrated towards peace studies at the University of Waterloo for more than 35 years. The College’s Development Office is aware of the potential demands a graduate program may place on their efforts and believes these demands are reasonable and achievable.

3.1 Library Resources

The following is a summary of the Conrad Grebel University College (CGUC) and University of Waterloo (uWaterloo) library information resources and services that are available to support a Master of Peace and Conflict Studies (PACS). This summary has been prepared by Laureen Harder-Gissing, librarian of CGUC and liaison librarian for PACS, and was developed in consultation with uWaterloo librarians.

The CGUC library is administered by Conrad Grebel University College and exists to meet the College’s teaching and research needs. It operates within the context of the uWaterloo library and TriUniversity Group of Libraries (TUG) system.
I. Information Resources

PACS materials are currently collected by the CGUC library to support learning, teaching and research at the instructional (undergraduate and graduate support) level for PACS with emphasis on:

- support for specific PACS courses;
- disarmament and arms control;
- human rights;
- conscientious objection;
- history of pacifism;
- theology of nonviolence;
- conflict resolution and mediation.

Limited buying is done in the areas of specific war analysis (e.g. Vietnam, Rwanda), the role of the United Nations, and international relations. Some duplication with other TUG libraries is deliberately undertaken in order for patrons to have quick, local access at CGUC.\(^{15}\) Collection emphasis may need some refocusing to support the Master’s teaching needs.

The decision to purchase library materials for PACS is the responsibility of the CGUC Librarian in consultation with the PACS faculty representative. Materials are obtained in a variety of ways including firm orders, open orders, and subscriptions. The CUGC library is the only library within the uWaterloo library system to have responsibility for the purchase of PACS-specific materials. Collection development is guided by the CGUC library acquisitions policy. The collegial nature of CGUC and close physical proximity of PACS faculty to library staff makes for frequent and efficient communication between PACS and the library.

The CGUC and uWaterloo libraries obtain resources in electronic format whenever it is possible and practical to do so. Some electronic resources are obtained directly by the CGUC library and many are obtained through the uWaterloo library’s membership in the Ontario Council of University Libraries (OCUL) and the Canadian Research Knowledge Network (CRKN). Access to and use of electronic resources is generally governed by license agreements with the publisher or vendor.

The CGUC library’s collection currently consists of approximately 75 current electronic and print journals and approximately 1,500 monographs purchased specifically to support PACS teaching and research. A TUG-wide count of Library of Congress classification ranges shows 74,590 volumes of potential interest to PACS scholars.\(^{16}\) PACS materials are scattered widely throughout the LC system partly because of their interdisciplinary nature, and also because some LC classifications in this developing subject area are relatively new.

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\(^{15}\) Conrad Grebel University College Library Acquisitions Policy, 2005

\(^{16}\) Range counts were conducted on a sampling of relevant LC classifications: BT736 (Peace – Religious Aspects), HM 1126 (Conflict Management), HM 1281 (Non-violence), HV (Criminology, including Restorative Justice), JC 336 and JC 337 (Civil society), JC 571 (Human rights), JX (International law; old location for Peace Movements), JZ (Peace Movements), KE (Mediation, Aboriginal Justice). This is not a comprehensive count, as relevant materials are found in other areas such as DS 481.G3 (Gandhi), BF 637 (Bullying, Communication), HD42 (Conflict management), etc.
The interdisciplinary nature of PACS, the potential broad range of graduate student research interests, and the synergistic approach of the PACS Master’s program means that collections of other uWaterloo disciplines provide rich resources. The most immediately relevant are:

- Global Governance;
- Political Science;
- International Development;
- Theological Studies;
- History;
- Economics.

The CGUC library benefits from uWaterloo library’s membership in the TriUniversity Group of Libraries (TUG) consortium. Collections from the University of Guelph (UG) and Wilfrid Laurier University (WLU) enhance the depth and breadth of locally-available subject materials. WLU’s global studies collection and UG’s collection on rural and agricultural development are of particular relevance.

II. Services
   a. Print Collections

Print collections to support PACS are housed primarily in the CGUC library; additional relevant collections are located primarily in uWaterloo’s Dana Porter library. Access to the entire uWaterloo library collection, as well as materials held by UG and WLU, is available through the web-accessible resource discovery tool PRIMO.

Borrowers may charge out materials at particular libraries and renew items online at any time. Most materials in the library collections circulate, with the exception of reference, rare items, and current issues of print journals. Faculty, staff and graduate students may borrow most monographs for a term at a time, or longer if materials are not recalled.

Faculty, staff and graduate students may request copies of print journal articles from any uWaterloo library location, and from the libraries of the affiliated and federated colleges and universities. This patron group can also place holds on books from any TUG library for pickup at any TUG library. Books and journal articles not owned by uWaterloo libraries but held at UG or WLU may be requested by this patron group as well as by undergraduates. Items are usually delivered in three working days; the cost is absorbed by the uWaterloo library.

TUG owns a facility called the Annex which is used to house low-use research materials. Monographs or copies of journal articles housed in the Annex will be delivered to uWaterloo libraries including CGUC within three working days; the cost of this service is borne by the uWaterloo library. In keeping with uWaterloo’s research intensive status, TUG libraries ensure that a last copy is maintained in perpetuity through the Last Copy Agreement. Although not formally bound by this agreement, the CGUC library is mindful of the uniqueness of many PACS publications and routinely checks TUG, RACER and OCLC holdings when making weeding decisions.

Since a program with this specific focus is rare, a comparison of our holdings against an approved or accepted standard is not possible. In order to gage the richness of the TUG collection in this area, a search of the library catalogues of three institutions with graduate
programs in peace studies was carried out in February 2011. Monograph title searches were conducted on the phrases “peace,” “human rights” and “civil society.” Keeping in mind that differences in catalogue platforms may affect accuracy, the following results still show a strong comparative print collection within TUG holdings:

University of Winnipeg: 4,326 (includes all “printed material”)  
University of Notre Dame: 15,791  
American University: 20,542 (search was truncated)

uWaterloo libraries (including CGUC): 15,852  
CGUC library only: 1,064  
TriUniversity Group: 18,847

b. Electronic Resources

The primary tool for accessing electronic resources is the uWaterloo library Web site. This site organizes and provides access to licensed resources available to only uWaterloo faculty, students and staff, as well as select Internet resources freely available to anyone. The site also provides access to electronic resources hosted by the OCUL Scholars Portal program and available to the uWaterloo community (including CGUC) through the uWaterloo library's participation in consortia purchasing through OCUL.

The uWaterloo library uses linking technology (SFX), provides access to bibliographic management software (RefWorks), and permits uWaterloo faculty, students and staff to access electronic resources from off-campus. The library has purchased, or subscribes to, a range of electronic resources. In addition, the library identifies and provides access to select material freely available through the Internet. The following are a sampling of electronic resources of particular interest to the PACS program:

- Access UN
- PAIS (Public Affairs Information Service)
- CBCA (Canadian Business and Current Affairs)
- Worldwide Political Science Abstracts
- Military and Intelligence Database
- ATLA Religion Database and ATLA Serials
- Alternative Press Index
- Factiva
- Columbia International Affairs Online
- Historical Abstracts
- Econlit
- Canadian Research Index
c. **Statistics and Numeric Data**

TriUniversity Data Resources (TDR) provides access to a wide assortment of electronic data products from a centralized web site (tdr.tug-libraries.on.ca). Statistics Canada and ICPSR surveys comprise a large segment of this collection. Access to most data is restricted to members of the three institutions for non-commercial academic use. Odesi is the source for most recent Statistics Canada data. A current listing of statistics resources accessible to the uWaterloo community is found on the uWaterloo library website.

d. **Graduate carrels**

The CGUC library offers larger carrels to graduate students on a first come first served basis. These carrels, located in the quietest part of the library, may be reserved for a term at a time.

e. **Government Information**

The uWaterloo library is a full depository for Canadian federal government documents, and a selective depository for Ontario Provincial government documents. Key publications from the United States, United Kingdom, United Nations and other international and non-governmental organizations are also acquired.

f. **Reserves**

The CGUC library and uWaterloo Dana Porter library both provide reserves services for PACS courses. Instructors can communicate their reserve requests to library staff through the ARES system. uWaterloo library staff handles any copyright issues with e-reserves. The advantage of placing print reserves at the CGUC desk is proximity to faculty and classes; the advantage of Dana Porter is its extended hours.

g. **Archives**

In representing the collective memory of a society, archives are a strong resource for civil society research. The Mennonite Archives of Ontario at CGUC documents the experiences of Mennonites and civil society through such collections as the Mennonite Central Committee fonds (the relief and service arm of the Mennonite church), the Conference of Historic Peace Churches fonds (which lobbied for and administered a conscientious objector program during WW II), and the files of Frank H. Epp, who researched conflicts in the Middle East and Vietnam. The uWaterloo library's Special Collections department also houses relevant collections such as the Canadian Coalition on Acid Rain fonds.

h. **Resources beyond the Tri-Universities Group**

The Interlibrary Loan/Document Delivery (ILL) service provides faculty, students and staff with books, copies of journal articles, theses, and government documents from libraries within Canada and elsewhere. OCUL’s RACER web-based interlibrary loan system facilitates ILL access and service. With some exceptions, the cost for this service is absorbed by the uWaterloo library. Patrons can choose the CGUC library as a pick up location for ILL materials.
Most Canadian university libraries extend, at no charge, in-person borrowing privileges to faculty, students and staff from across the country. Faculty, students and staff are entitled to borrowing privileges at participating libraries.

Eduroam provides the preferred connection to the campus wireless network. Eduroam provides an encrypted connection to the uWaterloo network, and also allows our users to access wireless networks at other participating educational institutions around the world.

i. Information Services

It is anticipated that the liaison librarian for PACS will draw from accepted standards in developing information literacy-related activities and materials in consultation with faculty. These include the development of specialized online research guides and seminars for those in the PACS program. The interdisciplinary nature of PACS and the prominence of freely accessible Internet resources in this field are two major factors which will shape PACS information literacy education.

More general workshops and seminars for graduate students are run through the uWaterloo library. These sessions support graduate students completing their literature reviews, comprehensives and graduate information research endeavours as part of their degree requirements and complement faculty mentoring in the same areas.

The liaison librarian designated for PACS will be available for consultation with individuals or small groups of students. He or she may be contacted directly in person, by phone, and by e-mail if a personal visit to the library is not convenient. The librarian will also develop and maintains an online subject guide for PACS.

Reference assistance is available in person or by telephone at the CGUC and uWaterloo library information desks, which are staffed by professional librarians and specially trained library associates. Alternatively, faculty, students and staff may get reference assistance via e-mail and online chat available through uWaterloo’s Ask a Librarian service. The uWaterloo library also offers general orientation programs including tours, workshops on research skills, and seminars for students. In addition, each fall, the Library participates in a campus-wide orientation program for incoming students, including programs specific to international students and students with disabilities.
III. Financial Support

Table 1: Summary of Expenditures—PACS acquisitions at the CGUC Library

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<td>Total</td>
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</table>

Electronic resources relevant to PACS but purchased for other departments are purchased by the uWaterloo library through the Electronic Resources library fund. Print materials acquired for other disciplines, such as those listed in Section I of this report, are also of interest to PACS. CGUC is prepared to re-evaluate expenditures on PACS-specific materials if a graduate program warrants an increase in library acquisitions.

IV. Conclusion

The current tightly-focused PACS collection and the personal services of the small CGUC library provide a good foundation for the development of a Master’s program in PACS. The interdisciplinary nature of PACS and well-established co-operation with the uWaterloo libraries and TUG system makes the CGUC library a gateway for PACS graduate students to a wealth of resources.

I would be pleased to discuss the Library’s holdings and services with the reviewers at the time of a campus visit.

Laboratory Resources. Not applicable.

3.2 Computer facilities. All faculty and graduate students are provided with an account on the University of Waterloo computing system. This account provides access to email and internet. Conrad Grebel University College provides all PACS faculty and support staff with computers, software necessary for successful completion of their jobs, and an annual amount to allow for needed upgrades and replacements. Students will be expected to provide their own computer, software, and other electronic equipment (clickers) that instructors may require.

3.3 Space. The PACS program is located within Conrad Grebel University College, which provides administrative space as well as private faculty offices with phone and computer access for tenured instructors who teach courses owned by PACS. Adjuncts hired by the College will have access to shared offices utilized by part-time instructors. Departments or programs offering cross-listed courses will provide office space for their own instructors.

It is anticipated that all courses owned by PACS will be held in one of the seminar/classrooms located at the College. There are sufficient classrooms at the College for scheduling the proposed
graduate courses. The College Board of Directors recently authorized an $8 million dollar expansion to its academic and archival facilities. These facilities, once completed in September 2013, will provide additional high tech classrooms that will be used by all teaching programs located at the College. Classroom space may also be booked in other uWaterloo facilities as needs arise.

3.4 Financial support. Scholarship or bursary support will generally not be provided to full or part-time Canadian students enrolling in this program. This policy is in line with other uWaterloo Arts course-based Master’s programs, which charge standard tuition.

It is assumed that most full-time international students originating from Southern countries will require significant financial assistance. The first year budget for this program has allocated sufficient funds to support 75% of the tuition costs for two Southern international students, and it is hoped that available scholarship and bursary funds will increase over time. International students originating from the United States or Europe will likely have the ability to fund their own studies.

The Development Office of Conrad Grebel University College is aware of the need to create and fund scholarships and bursaries for students who have financial need, and believes that the level of funding budgeted for the first year of the program is reasonable and achievable. The exact amount of available funds, however, will depend on the level of donor interest.

4.0 CURRICULUM

4.1 The intellectual development and the educational experience of the student

The proposed program has been designed so that its different components are consistent, build on each other, and lead to a good experience for students.

Resources available from the University of Waterloo. Students will be encouraged to fully participate in workshops or events offered to the university community. The PACS graduate student handbook that will be developed will note uWaterloo resources that may be of particular interest to students for personal or career support, as well as how to connect to the larger community of Master’s students at the university.

Programmatic resources. The PACS program is fully managed at Conrad Grebel University College and it will prepare and offer orientation to in-coming students. Occasional receptions and events specifically for Master’s students will be held from time-to-time. Students and faculty alike will be encouraged to get to know each other and relate to each other in a collegial and mentoring manner. Given the proposed mix of full and part-time students, Canadian and International, care will be taken to organize events and activities so that all students feel welcome to participate. The PACS program also regularly sponsors or sends students to events in Ottawa, New York, and to a peace-related conference that rotates between different Canadian and US universities, which Master’s students would be welcome to join.

Role of experiential learning. Experiential learning will be an important part of this program and students will be encouraged “to get their hands dirty” by utilizing principles discussed in class. Experiential learning opportunities will exist within several seminar courses where instructors utilize service learning. Students will also be encouraged to enrol in an internship that will provide them with an intensive experience working with an entity or agency related to
peace issues. Third, students will have access to Conflict Resolution Skills workshops offered by the Centre for Extended Learning, the Certificate Program in Conflict Management, or other credible training organizations that will bring together professional trainers leading a learning community of practitioners to together enhance their skill base. Lastly, many courses will significantly rely on case studies which will challenge students to put themselves in the role of a practitioner and learn from the experience of others. Role plays and simulations are also planned for many of the courses that will give students simulated experience.

Funding. The PACS program currently has access to a limited amount of funding to assist undergraduate students participate in events that they may otherwise not be able to afford. It is anticipated that the program will annually budget a similar amount for Master's students for a variety of events. The preliminary budget also includes $25,000 per year to provide funds to students who incur additional expenses associated with an internship. Many international placements require students to cover their own housing, travel, and per diem costs, and it is estimated that support in the amount of $5,000 per student computed at five international placements per year is adequate support.

The education experience in general. The educational experience for students has been developed to allow students to have great flexibility in order to pursue their unique interests, yet provide enough similar core experience so that the program is coherent and represents a consistent approach. See the chart below that illustrates the proposed five year teaching schedule. This schedule has been constructed so that students will have the option to pursue PACS and other electives at a pace that suits them. This course offering schedule is one that the PACS program is able to sustain (offering an average of six courses per year) and that gives full-time students the option of completing eight seminar courses over a four consecutive terms of study.

Additionally, students will have the option to enrol in an internship, conflict resolution skills workshop, or peace research course almost any term. For the student who prefers, they can complete their entire Master's by only taking PACS courses. We value interdisciplinarity however, and intend to strongly encourage students to complete up to 1.5 units of cross-listed courses or graduate courses offered by other disciplines.
## Program Schedule 2012-2018

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### 4.2 Program regulations

**Admission.** All admissions decisions will be managed in accordance with the principles described earlier in section 1.4. In general, all standard Arts graduate uWaterloo policies will be followed unless authority for alternative admission practices has been negotiated. The most notable exception to standard uWaterloo admission policies proposed here is that PACS reserves
the right to admit up to two students as described in section 1.4 above who may be an excellent candidate for admission, but who might not otherwise fit the traditional uWaterloo profile. The PACS Admissions Committee will manage all exceptions to ensure that the credibility and integrity of the program is maintained. Reasons for alternative admission have been described in more detail in section 1.4.

**General program regulations.** The PACS program will adhere to all standard uWaterloo Arts policies applicable to graduate students as revised from time-to-time pertaining to course requirements, examination and evaluation procedures, appeals, required minimum grade averages, language requirements, milestones, or other requirements.

**Non-traditional course offerings.** This Master’s proposes to offer three non-traditional courses to which will be managed as follows:

- **PACS 621 Peace Research** – program consent is required to ensure that there is agreement between the student and the supervising faculty member about research expectations, length of paper, format, topic, types of sources that can be used, and anticipated outcomes. Students will be required to prepare a detailed proposal prior to registration in this course that will fully explain the proposed research as well as provide a short bibliography to ensure that adequate sources exist to successfully complete the research. Students will meet periodically with their instructor throughout the term to ensure that milestones are reached. Written work will be evaluated per normal academic criteria.

- **PACS 625 Internship** – program consent is required to give faculty the ability to review the potential internship placement and verify that it is likely to be a valuable experience for students. Students will be required to submit a petition outlining the details of the proposed internship such as place, position, cost, academic work expectations, security concerns, etc. Students will be expected to engage in substantial research on issues related to the host agency as part of the internship. While PACS has the agreement of over ten organizations who are interested in hosting interns, it is anticipated that internships will be negotiated to fit the unique long-term goals of each student. Host agencies will be expected to submit a reference evaluating the student intern at the end of the internship. Written work submitted by the student (evidence of research and reflective report) will be evaluated per normal academic criteria.

- **PACS 626 Conflict Resolution Skills Training** – program consent is required to ensure that workshops selected by students, plus the expected additional assigned academic work, are appropriate. The faculty committee that will provide oversight to the program will develop specific guidelines to ensure consistent administration and evaluation of this course.

**Student handbook.** A graduate handbook will be prepared prior to the launch of the MPACS that will provide students with additional orientation information, thoroughly outline the program’s vision and rationale, and describe pertinent rules and regulations and how they can be accessed. Particular attention will be paid to how students may best take advantage of other uWaterloo opportunities, which may serve to deepen, enrich, and round out their academic training.
Student progress. The PACS Graduate Advisor will regularly track student progress and meet at least annually with each student to review degree progress and offer advice as appropriate. The Advisor will also regularly meet with the instructors teaching PACS courses to troubleshoot and to ensure that emergent problems encountered by students can be addressed while they are still resolvable. Students will be encouraged to see their instructors as mentors and seek advice from those instructors with whom they feel most comfortable.

4.3 Part-time studies

Part-time studies. In order to respond to the needs of students who will pursue the Master of PACS in order to upgrade their skills while still engaged in some other priority, students will be allowed to pursue part-time studies, which is defined as enrolment in less than 1.0 unit per term. Part-time students will be required to complete their program of study over a five-year period from date of original enrolment. An anticipated one-third of each entering cohort will be admitted to part-time studies. In order to manage overall program size and demand on instructional resources, students who are admitted to either part-time or full-time studies will be allowed to change their status only after receiving approval from the PACS Graduate Advisor. The key determination of whether such approval will be granted is the impact such change in status will have on program resources.

Courses available to part-time students. Given the requirement for the program to serve the needs of different students, course timing will be staggered in order to find a balance between the likely schedules of full and part-time students. Lessons learned from the experience of the Theological Studies graduate program, which has a similar mix of full and part-time students and is also administered by Conrad Grebel University College, will be applied to determine how best to schedule classes so as to accommodate the most students. A mix of early morning, later afternoon, evening, and three-hour block courses will be used in order to facilitate the needs of part-time students as well as full-time students. At this time, it is not envisioned that on-line courses will be developed given constraints on teaching resources; however, this could change as the program develops over time.

Experiential learning opportunities. Experiential opportunities such as Skills Workshops and Internships will be equally available to full and part-time students. Most Skills Workshops are offered as full, two or three contiguous day experiences, which means that all participants, most of whom are already employed, have to book-off time from work to attend. Part-time students therefore will find themselves in the same circumstance as most other participants and will have to prioritize the time demands of training that may conflict with other activities.

Internships will require the equivalent of 60 full-time days of work, which can be either completed over three contiguous months or part-time over an agreed period of time. Students will be able to gain approval for part-time internships as long as the minimum contact days of experience are met. For students pursuing a part-time internship over a longer period of time than normally envisioned, they will be expected to formally enrol in the internship during the term that they will complete its requirements.

Faculty workload. All PACS faculty workload responsibilities will be accounted for in accordance with standard policies in place for all faculty employed by Conrad Grebel University College. Full-time tenured College faculty are typically expected to teach five courses per year, plus serve on various committees and carry out a normal research agenda. It is also expected that each faculty member will supervise up to three students per year who are pursuing an internship
or carrying out a special research project. Program consent is required for PACS 621 (Peace Research) and PACS 625 (Internship) in order to ensure that the workload associated with these more individualized courses is manageable. Given that PACS 626 (Conflict Resolution Skills) is offered only on a credit/no credit basis, no workload allowance will be made for marking assignments submitted for this course.

4.4 Curriculum

Milestones. All students will be required to complete a non credit Academic Integrity Workshop for graduate students offered by uWaterloo within their first two terms of study. Once completed, this milestone will be shown on each student’s academic record.

The second milestone required is a Research Colloquium, completed towards the end of the student’s program.

Course Descriptions and MPACS Milestone. See Appendix # 1 for descriptions described on standard templates for all PACS courses. The description of the above Research Colloquium is shown as the last page in this appendix of course submissions.

4.5 Collateral and supporting departments and programs

Four University of Waterloo departments and programs have agreed to offer 15 graduate courses that will be cross-listed with PACS. These departments and programs include Global Governance, International Development, Political Science and Theological Science. While these departments and programs are making a commitment to admit students into these specified classes, they will not be expected to supervise MPACS students, conduct joint research or otherwise be responsible for MPACS students. PACS will not be responsible for determining the offering schedule for these courses or for determining who will teach them.

In exchange, PACS will make a limited amount of space available for students from these four graduate disciplines in PACS courses. This arrangement between PACS and the four disciplines named above is subject to negotiation from time-to-time as circumstances require. It is based on an understanding of reciprocity and mutual concern for achievement of mutual objectives.

4.6 Organizational structure

The organizational or governance structure of the MPACS will mirror that of the undergraduate PACS program that has worked successfully for over 35 years. The MPACS will be managed on behalf of the University of Waterloo by Conrad Grebel University College and will be dually accountable to both the University of Waterloo’s Faculty of Arts and to Conrad Grebel University College. The organizational and administrative structure of the program will involve a unique blend of both College and uWaterloo’s management systems. These systems will combine the College’s internal procedures with uWaterloo’s standard policies and practices. In particular, the organization structure will include:

- **Graduate Chair of PACS.** Conrad Grebel University College will appoint, evaluate, and reappoint the Graduate Chair of PACS who will be directly accountable to the College Academic Dean. The Graduate Chair will provide day-to-day oversight to the faculty and administrators who are responsible for managing the graduate program. In accordance with policies of Conrad Grebel University College, the Graduate Chair may also be the chief administrator of the undergraduate program, as determined when workloads are negotiated and allocated by the College.
• **PACS Administrative Group (PACSAG).** PACSAG will be composed of the Graduate Chair of PACS, the Director of PACS and the faculty who teach the majority of the PACS core courses. Members of this committee will be appointed by the Conrad Grebel University College Academic Dean. PACSAG will be responsible to provide primary policy oversight to Master of PACS, approve admission into the program, make recommendations concerning the program’s scholarships and bursaries that may be administered by Conrad Grebel University College, monitor and develop the program’s long-term goals and objectives, recommend curricular changes, manage programmatic reviews, and review and approve student petitions. It is anticipated that this committee will meet eight to ten times per year.

• **College Council.** Conrad Grebel University College Council is composed of all College-appointed permanent teaching faculty and senior administrators. College Council is tasked with the responsibility to review and vet all proposed Master’s core courses, program evaluations and changes. College Council is not responsible for electives that are not taught by College-appointed faculty.

• **Master of PACS Faculty Committee.** An MPACS Committee will be formed that will be composed of PACSAG plus at least one representative appointed by key participating uWaterloo departments and programs that offer cross-listed courses for the Master’s. The Master’s Faculty Committee will be responsible for reviewing curricular matters, recommending changes to the program, and ensuring that electives offered are appropriate and adequate. Each Faculty Committee member will also be expected to serve as a liaison between the various supporting disciplines and the Committee. Approved recommendations will be processed through normal uWaterloo graduate structures. It is anticipated that this committee will meet two to three times per year at most.

• **uWaterloo Structures.** The MPACS program will be accountable to all the uWaterloo entities that are responsible for graduate Master’s programs in the Faculty of Arts.

• **Conrad Grebel University College Board of Governors.** This is a 17-member Board composed of 9 members appointed by Mennonite Church Eastern Canada, 4 members appointed “at-large” by the Board, one representative appointed by the College Alumni Association, and three persons representing the College (President, Student Council representative, and Faculty representative). The Board of Governors establishes College policies and approves and provides general oversight to all College-sponsored courses and programs, including major PACS initiatives and implementation of the institution’s Long Range Academic Plan.

### 5.0 PROJECTED ENROLMENT

Given that this is a new program, it is difficult to predict with any certainty enrolment patterns for the next seven years. Surveys and conversations we have had with potential students lead us to believe that there is significant demand for both full and part-time studies. In general, we anticipate that the program will initially admit 10 students for the first year, and then annually admit the equivalent of 12 full-time students, enrolling in three courses per term. We ultimately hope that this would be broken down into:

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• Between two and four international students, admission of which will likely depend on the availability of funding.
• A total of eight full-time students, including the full-time international students referred to above. These are students would enrol in 1.5 units in each of their first two terms of study, and 1.0 unit in their last two terms of study.
• Up to 12 students (four full-time student equivalents) enrolled in part-time studies who will enrol in .5 unit per term, two terms per Academic Year.

Full and part-time admissions will be adjusted between these three admission categories in order to result in the proposed ideal full-time equivalent enrolment in the program. The program may grow gradually over the next seven years as its reputation becomes better known.

A business plan is being developed and is under negotiation with the uWaterloo Institutional Analysis and Planning office. Preliminary figures indicate a realistic budget that ensures that adequate resources are available to offer a high quality program of which the University of Waterloo can be proud. The preliminary budget also shows that the program can cover its costs if the budget assumptions are accepted, leading to the development of a long-term, stable, world class, program.
RENISON UNIVERSITY COLLEGE

UNIVERSITY OF WATERLOO

PROGRAM PROPOSAL BRIEF

MASTER OF SOCIAL WORK

NOVEMBER 2011

VOLUME I: THE PROGRAM
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University of Waterloo
Program Proposal Brief
for the Master of Social Work
Submitted to the
Ontario Universities Council on Quality Assurance
November 2011

1. INTRODUCTION: LEARNING OBJECTIVES AND OUTCOMES

1.1 Brief listing of the program

Introduction

In keeping with the University of Waterloo vision for increased graduate level professional programs, as well as creating a natural progression pathway for Bachelor of Social Work (BSW) undergraduates, a professional Master of Social Work (MSW) program at Renison University College, University of Waterloo, would fill a unique niche and would serve as a drawing-card for students outside of the Kitchener-Waterloo area. This program would require a BSW for admission and would have a health focus.

The proposed Master of Social Work program, offered through a blended learning format, has a course-based curriculum, which includes a degree requirement of eight required courses, plus two elective courses. Two of these courses will be delivered in 1-week Summer Institutes at the beginning and end of the program on the Renison campus. To accommodate professionals working in the human services, enrolled in either the full-time or part-time option, they will complete their remaining course requirements using distance education based learning packages and online collaborative discussions via Desire2Learn. Two of the required courses are comprised of a 462-hour practicum supported by an online integration seminar. Students will complete the practicum at an approved practicum setting under the direction of a supervisor with a minimum of an MSW degree.

The degree will be completed over a period of 12 months for full-time students or within two years for part-time students. Given marketplace conditions and the goal of providing access to working professionals, the program will charge regular fees.

Learning Objectives and Outcomes

The Renison University College School of Social Work’s MSW Program will prepare students for advanced social work practice in a range of settings related to health, including public health and health promotion programs, primary care and long-term care, hospitals, health-related governmental agencies, community-based health services, and health advocacy groups. Practising in this field involves working with individuals, families, groups, communities and organizations on issues such as health promotion and disease prevention, health promotion in the workplace, health education, treatment and rehabilitation, building community partners and social support, and/or health reform promotion. The program and its courses will assume a holistic view of health that
incorporates the political, environmental, psychosocial, biological, and spiritual determinants of health in social work practice.

The program’s core curriculum includes courses in the social and behavioural aspects of health, social work practice in health, leadership in health services, and health policy. The program recognizes the importance of culturally and spiritually sensitive social work health practice within a diverse society and the impact of discrimination, economic deprivation, and oppression on social work health practice with at-risk populations. A 462-hour practicum in a health setting serves to ground and refine the knowledge, skills, and values of students completing the program.

The social work curriculum is organized around specific learning objectives for students which link social work education to social work practice. These learning objectives for students reflect the values, knowledge and skills that social work students are expected to acquire and demonstrate upon completion of the social work program and are applicable to social work practice with individuals, families, groups, organizations, and communities. Social work programs use learning objectives for students in designing and delivering their curricula and field education.

1.2 Method Used for Preparation of the Brief

This proposal was prepared with the assistance of a number of individuals, departments and organizations both internal and external to the Renison University College’s School of Social Work. Input was sought and provided in a number of areas of this proposal including the creation of curriculum, development of the mission statements, objectives and guiding principles along with an understanding of the physical and financial resources of the proposed program. The School of Social Work planning team was comprised of Dr. Peter Donahue (Chair), Dr. Ellen Sue Mesbur (Director), Marion Reid (Administrative Assistant, School of Social Work), Gwen Potter (Assistant, School of Social Work), Courtney Smith (Director of Finance, Renison University College). Consultation was sought from the following:

- Dr. Paul McDonald, Chair, School of Public Health and Health Systems
- Dr. Mark Havitz, Chair, Department of Recreation and Leisure Studies
- Dr. Susan Elliott, Dean of the Faculty of Applied Health Sciences
- Dr. Sue Horton, Associate Provost, Graduate Studies
- The staff in Institutional Planning and Analysis
- Dr. Geoff McBoyle, Associate Vice President Academic & Provost
- Dr. Feridun Hamdullahpur, President
- Dr. Glenn Cartwright, Principal, Renison University College
- Courtney Smith, Director of Finance, Renison University College
- Lois Clifford, Librarian, Renison University College
- Dr. Susan Cadell, Interim Dean, Faculty of Social Work, Wilfred Laurier University
- Dr. Barbara Decker-Pierce, Director, School of Social Work, King’s University College, University of Western Ontario
- Centre for Community Based Research, Kitchener, Ontario
- Joan Mackenzie Davies, Executive Director, Ontario Association of Social Workers
- Academic Council, Renison University College
- Academic Council Curriculum Committee, Renison University College
1.3 Objectives of the Program

Alignment with the University of Waterloo’s Mission and Academic Plans

The University of Waterloo’s Sixth Decade Plan, published by the University of Waterloo’s Secretariat in 2006, encouraged members of the university to be ‘bold and daring’ in their commitment to academic excellence and achievement of international recognition (University of Waterloo Secretariat, 2006). This plan encouraged the development of distance education master’s level programs for working professionals. The proposed Master of Social Work program is consistent with this plan. It caters to professionals committed to developing specialization in the field of health and will be provided primarily through an on-line format which is more accessible to professionals than an on-campus degree program.

Mission of the School of Social Work

The School of Social Work prepares social work practitioners through an accessible and inclusive curriculum, at both baccalaureate and masters levels, in a learning environment that fosters caring and competent social work practice within regional, national and international contexts and embraces principles of justice, equality and respect for diversity.

MSW Statement of Educational Philosophy

The Master of Social Work program offered through the School of Social Work at Renison University College, University of Waterloo, provides students with knowledge and skills in advanced social work practice within a focus on health, research/scholarship, professional leadership, and social work supervision. This degree program is delivered primarily online, with required on-campus summer institutes, allowing students to continue to work and participate in family and community life while pursuing a post-graduate degree in social work. The MSW program offers a rich and highly interactive learning environment.
Rationale for Mode of Delivery and Focus on Health

There are currently only a handful of MSW programs in Canada that offer online delivery of graduate level training in social work, and none in Ontario. There are few MSW programs offering a focus on health. In Ontario, only the University of Toronto offers health as one of its five theme areas, but it is classroom-based only. Given current North American demographics, along with the potential collaborations with other Faculties and Departments at the University of Waterloo, including the agreement of the Faculty of Applied Health Sciences to be our academic "home", the health focus brings exciting possibilities for programming, research, practica and contributions to a changing society.

MSW Objectives

• To prepare graduates who have a generic foundation of core social work knowledge, values and skills, for specialized practice in health and mental health through a range of methods of practice and according to the Standards for Accreditation of the Canadian Association for Social Work Education (CASWE)
• Consistent with the School of Social Work's mission, to provide a learning milieu that fosters academic excellence and the development of professional social workers who are knowledgeable, skilled, and committed to social justice;
• To provide an academic environment that promotes open critical inquiry and welcomes students, faculty and staff from diverse backgrounds
• To advance the theoretical grounding, critical understanding and practice abilities of students
• To prepare graduates for ethical, innovative and effective social work practice in diverse societies
• To prepare graduates who make professional decisions and perform professional functions informed by an understanding of the socio-political contexts of practice and by research evidence
• To provide flexibility through program delivery to adapt learning plans for people working in social services for part-time and full-time studies
• To strengthen our partnerships with health-related agencies and organizations for the purposes of enriching our curriculum and of producing graduates with the requisite skills to function in those agencies
• To encourage inter-disciplinary linkages and inter professional education

Degree to be Offered

Title: Master of Social Work (MSW)
School of Social Work, Renison University College, University of Waterloo
Academic Home: Faculty of Applied Health Sciences
Potential Start Date: August, 2012

Academic Home

Renison University College does not have degree-granting authority; all degrees are granted through the University of Waterloo. The curriculum will be approved through the Curriculum Committee and Academic Council of Renison University College. The university-based approvals logically fit under the auspices of Applied Health Sciences.
We believe that the affiliation with the Faculty of Applied Health Sciences is a good fit with a Master of Social Work Program that focuses on health.

Evidence of Need

The Ontario graduate approval process and the Canadian Association of Social Work Education (CASWE) require new programs to demonstrate evidence of need. In August 2011, we contracted the Centre for Community-Based Research to conduct a needs assessment to determine the need and viability of an MSW program at Renison (See Appendix 1: Renison University College Online MSW Needs Assessment).

This needs assessment utilized a self-administered online survey as the main data gathering tool. Surveys were designed and customized for each of the three main stakeholder groups identified in this study: Renison Bachelor of Social Work (BSW) students/graduates; employers in Waterloo Region; and field (practicum) instructors. The survey asked respondents about the need for trained social workers at the graduate level, the need for a new Master of Social Work program (at Renison University College School of Social Work), and the level of interest in enrolling in or supporting such a program. It further asked about agencies' willingness to serve as practicum placement sites, potential sources of funding for students, and interest in various methods and fields of social work practice. The survey also gathered demographic information about respondents.

Results from the survey indicated strong support for an MSW program at Renison from each of our three constituent groups surveyed. Almost 90% of the Renison BSW graduates/students who were not currently enrolled in, or have not completed an MSW program indicated that they are considering applying for an MSW program. Out of this number, 88% said that they would consider applying to an MSW program at Renison University College. Also, 90% of BSW graduates/students who have either completed an MSW program, or are currently enrolled in one, indicated that they would have considered applying to an MSW program at Renison University College, had that option been available.

The majority of the employers (58%) thought there is a need for more trained social workers at the graduate level and 36% of them thought there was a need for a new graduate program in social work. If you exclude those who were unsure from the analysis, these numbers rise significantly to 87% and 80% respectively. Half of the Renison practicum instructors (50%) also thought there is a need for more trained social workers at the graduate level and half (50%) also thought there is a need for a new graduate program in social work.

Responses by the majority of participants in this study indicated that there is strong support and available practicum placement options in the K-W area for an MSW program. Given that we are anticipating applicants from across Canada, there will be less demand for field placements in the K-W area as students will be able to complete their practicum where they live. The four universities offering online MSW programs in Canada are: the University of Victoria (blended format, full-time), University of Calgary (blended format, part-time only, focus on leadership), Dalhousie (online, part-time), and Memorial University of Newfoundland (blended format, part-time and full-time).
A 2008 report on workforce planning by the Ontario Association of Social Workers (OASW) to the Ministry of Community and Social Services (MCSS) discusses the demographic shifts as Ontarians age and the increase in the number of people who live into late life with a complexity of chronic health conditions. This demographic shift will increase the demand for a wide number of social and health care services and supports.

A 2006 study by the National Association of Social Workers (NASW) in the United States warns of impending labour force shortages for the social work profession following a national study of licensed social workers. The findings of the study emphasize the impending shortage of social workers, particularly in services for the most vulnerable populations, children and older adults. The number of new social workers providing services to older adults is decreasing, despite demographic trends pointing to the increase in the number of older adults with complex care needs who will require social work services, particularly within the health care system.

Joan Mackenzie Davies, Executive Director of the Ontario Association of Social Workers pointed out the trends in employment expectations (October, 2011) for social workers. She noted that in hospitals and school boards the MSW is the preferred degree. This parallels other professions where a Master's degree is preferred (eg: Speech Therapists; Psychometrists). As well, organizations are facing a leadership crisis as current leaders are retiring. These positions will require an MSW as a minimum degree as BSW degrees are not viewed as adequate preparation for these leadership roles. Lastly, social workers are increasingly working with more complex problems at a time when there are limited resources and lack of supervision, therefore an MSW will be needed for more autonomous practice.

**The School of Social Work, Renison University College**

The Honours Bachelor of Social Work (BSW) program was established at Renison College in 1997 as a post-degree professional program. Its first class of 25 students entered the program in September 1998. They completed the 10 month course of study involving two days per week of classes and three days per week of field practice at the end of June and graduated in October 1999. The BSW Program received its first accreditation by the Canadian Association of Schools of Social Work (now named the Canadian Association for Social Work Education) in 2002. The BSW Program is currently accredited until January 2014, following a full seven-year accreditation in 2007.

The Department of Social Work was given the designation of School of Social Work in March 2004. A Part-time Program was begun in September 2004. This program addressed the demand for greater accessibility to professional studies from many university graduates already working in social services, making it possible for them to complete their requirements in approximately three years. The school now has approximately 60 students in the full-time program and over 50 students in the part-time program.

The School is distinguished by a strong academic program as well as a skills-oriented approach to social work practice. The goal is to prepare students through theory and practice opportunities to enable them to enhance the quality of life for their clients and promote human rights and social justice in the larger community.

Renison social work graduates are employed in every province in Canada and
internationally. BSW graduates work in a variety of fields of practice, including Addictions, Children and Family Services, Community-based programs, Community Development, Gerontology, Mental Health, Social Planning, Social Policy, Vocational Assistance and Youth Programs. Many graduates pursue post-graduate degrees primarily at universities offering Master of Social Work degrees.

Access to professional social work education is a major priority of the School of Social Work at Renison. In an effort to increase access and continue to enhance the program and the diversity of students we are able to attract, we have completed a planning process for the development of a Master of Social Work (MSW) program delivered primarily online with two intensive on-campus Summer Institutes.

An MSW program at Renison would offer a number of benefits for students. A recent survey of our BSW graduates of both the full-time and part-time programs indicates that many of them would have preferred to pursue graduate studies at Renison had this option been available. Students could streamline their educational path at Renison, and within five years complete a BA, a BSW, and an MSW through a continuum of learning.

Relationship to Other Departments at the University of Waterloo

We have received excellent ongoing consultation and support from various administrative and academic units within the University of Waterloo. The Faculty of Applied Health Sciences will serve as our academic home. This will provide students and faculty with increased opportunities for collaborations in research, new initiatives, and other academic possibilities. The School of Public Health and Health Systems may share electives with us and we may have a joint faculty appointment between our two schools. The Department of Recreation and Leisure Studies and the School of Social Work have begun initial explorations of ways in which our programs might benefit from collaborations.

The Centre for Extended Learning has provided us with outstanding consultation. Cathy Newell Kelly, Director and Aldo Caputo, Association Director, have worked with us on the plan for the development of the on-line courses and we will be working with them closely.

The Centre for Teaching Excellence is another outstanding resource for us. Social Work faculty Dr. Peter Donahue is a member of the CTE Council and Dr. Sandra Campbell has worked extensively with CTE and with CEL. We look forward to future opportunities for faculty and student development.

Learning Outcomes

The Canadian Association for Social Work Education (CASWE) is a voluntary, national charitable association of university faculties, schools and departments offering professional education in social work at the undergraduate, graduate and post-graduate levels. The curriculum of the MSW program includes attention to all CASWE Core Learning Objectives for Students, which are a component of the Standards for Accreditation, as follows:

1. Identify as a professional social worker and adopt a value perspective of the social work profession
1.1 Social work students develop professional identities as practitioners whose professional goal is to facilitate the collective welfare and wellbeing of all people to the maximum extent possible.

1.2 Social work students acquire ability for self-reflection as it relates to engaging in professional practice through a comprehensive understanding and consciousness of the complex nature of their own social locations and identities. Students develop an awareness of personal biases and preferences to advance social justice and the social well-being of social work service users.

2. Adhere to social work values and ethics in professional practice

2.1 Social work students have knowledge of the relevant social work codes of ethics in various professional roles and activities and institutional contexts, with a particular emphasis on professional responsibilities towards vulnerable or disadvantaged groups.

2.2 Social work students acquire skills to monitor and evaluate their own behaviours in relation to the relevant codes of ethics.

3. Promote human rights and social justice

3.1 Social work students understand their professional role in advancing human rights and social justice in the context of the Canadian society and internationally.

3.2 Social work students have knowledge of the role social structures can play in limiting human and civil rights and employ professional practices to ensure the fulfillment of human and civil rights and advance social justice for individuals, families, groups and communities.

4. Support and enhance diversity by addressing structural sources of inequity

4.1 Social work students recognize diversity and difference as a crucial and valuable part of living in a society.

4.2 Social work students have knowledge of how discrimination, oppression, poverty, exclusion, exploitation, and marginalization have a negative impact on particular individuals and groups and strive to end these and other forms of social injustice.

5. Employ critical thinking in professional practice

5.1 Social work students develop skills in critical thinking and reasoning, including critical analysis of assumptions, consistent with the values of the profession, which they apply in their professional practice to analyze complex social situations and make professional judgments.

5.2 Social work students are able to apply critical thinking to identify and address structural sources of injustice and inequalities in the context of a Canadian society.

5.3 MSW students are able to apply knowledge of a variety of social work theories and perspectives to critically analyze professional and institutional practices.
6. Engage in research

6.1 Depending on the level of university education, social work students acquire knowledge and skills to participate in social work research.

6.2 Social work students at both levels of university education are prepared to apply social work knowledge, as well as knowledge from other disciplines, to advance professional practice, policy development, research, and service provision.

6.3 MSW students acquire knowledge and skills in conducting social work research and evaluating professional practices.

7. Participate in policy analysis and development

7.1 Social work students have knowledge of social policies in relation to the wellbeing of individuals, families, groups and communities in Canadian and global contexts.

7.2 Social work students have knowledge and skills to identify negative or inequitable policies and their implications and outcomes, especially for disadvantaged and oppressed groups, and to participate in efforts to change these.

7.3 MSW students have knowledge and skills to contribute to the development and implementation of new and more equitable social policies.

8. Engage in organizational and societal systems’ change

8.1 Social work students acquire knowledge of organizational and societal systems and acquire skills to identify social inequalities, injustices, and barriers and work towards changing oppressive social conditions.

8.2 Social work students develop ability to critically assess the social, historical, economic, legal, political, institutional and cultural contexts of social work practice at local, regional, provincial, national, and international levels.

8.3 MSW students are prepared to take leadership roles in organizational and societal systems and to work towards changing oppressive social conditions.

9. Engage with individuals, families, groups, and communities through professional practice

9.1 Social work students are equipped with knowledge and skills to competently perform various interactive practices such as engagement, assessment, intervention, negotiation, mediation, advocacy, and evaluation.

9.2 Social work students have relevant knowledge and skills to actively promote empowering and anti-oppressive practice.

9.3 Social work students acquire skills to practice at individual, family, group, organization, community and population levels including advocacy and activism.
9.4 Social work students are prepared for interprofessional practice, community collaboration and team work.

9.5 MSW students develop knowledge and skills in advanced practice, and/or in specialized practice with individuals, families, groups, and/or communities.

1.4 Admission Requirements

MSW Admission Requirements

Admission to the MSW program requires a Bachelor of Social Work (BSW) degree. Thus, the structure and content of the MSW program assume that applicants possess a foundation of generalist social work practice knowledge, values and skills. This program is designed to attract practitioners with an interest in a health specialization.

Academic Requirements for Admission

In order to be considered for admission, applicants must be academically eligible, meaning each of the following academic requirements must be met:

1. The completion of a Bachelor of Social Work degree from an accredited social work program. If an applicant’s Bachelor of Social Work degree is from a country other than Canada, they are required to provide BSW course outlines in English. These will be reviewed to ensure that their BSW degree is equivalent to the BSW degree in Canada.

2. Minimum 75% average in final two years of study (equivalent to last 20 half-credit courses).

3. The successful completion of one full-course equivalent in Research Methodology and Statistics; that is, a half course in Research Methodology and a half course in Statistics, or one full course which includes both. There is no specific minimum mark requirement.

Non-Academic Requirements for Admission

The following documentation must be submitted as part of the application process:

Transcripts: Academic transcript from each post secondary institution an applicant has attended. Transcripts from Ontario post secondary institutions can be ordered as part of the online application process. Students who have attended post- secondary institutions out of province or out of country will be required to submit two official transcripts from all post-secondary institutions attended and a translation where required. (Translations alone do not constitute official transcripts.)

Reference Letters: Three letters of reference, one must be academic and two must be professional. Reference forms and letters must be completed by their referees through the online system. The referees have 14 days to complete the online reference form.

An applicant selects three individuals who have current knowledge (preferably within the last two years) of the candidate’s potential for undertaking graduate studies in Social Work. (An applicant may not have two references from the same source.)
Professional references must be from two of the following three sources:

a) **Work Source:** Director, employment supervisor, practicum supervisor.
b) **Voluntary Source:** A representative from a voluntary board, organization, or group with whom the applicant has volunteered
c) **Professional Source (from a professional perspective):** Social worker, physician, nurse, psychologist, psychiatrist, chaplain, or similar community-based professional

References are confidential, not available to applicants, used only for admission purposes, and are kept on file for those accepted.

**Curriculum vitae/resumé:** The School of Social Work is interested in the experiences of applicants in any or all of the following areas: educational qualifications, practica, employment experience, volunteer experience, membership in volunteer associations, membership in professional associations, supervisory experience, research activities, presentations given, publications, and additional skills, attributes or other information.

**Content of Resumé**

Applicants will be required to submit a detailed resumé, which lists separately, under the headings provided, and chronologically beginning with the most recent, their experiences in these areas.

**Employment Experience:** Under the following three sub-headings “pre-BSW, during BSW, post-BSW” indicate clearly:
Dates, agencies/organizations, positions held, whether the positions were full-time or part-time, and a brief description of roles, duties and responsibilities.

**Volunteer Experience:** Under the following three sub-headings “pre-BSW, during BSW, post-BSW”, indicate clearly:
Dates, agencies/organizations, positions held, and a brief description of roles, duties and responsibilities.

**Practica:** Indicate clearly,
Dates, agency/organization, field instructor’s name and title, and a brief description of roles, duties and responsibilities.

**Membership in Professional Associations:** Indicate clearly:
Dates, associations and, if applicable, a brief description of roles, duties and responsibilities. Please include the specific professional and/or regulatory provincial/Canadian associations, or related organizations.

**Community Recognition:**
Awards and other forms of recognition by the community.

**Education and Professional Development:**
Degrees, certificates, diplomas, academic awards, workshops and conferences attended, ongoing professional development activities, and language skills (including sign language).
Additional Skills, Attributes and Information relevant to the MSW program.
These may include such things as research activities, presentations (conferences, workshops, staff development and training) and publications (both refereed and non-refereed).

Study Plan: The applicant's Study Plan is an important component of the non-academic requirements for admission, and is comprised of the applicant's response to three questions.

Question #1

In registering in the MSW program at Renison University College, what are your expectations, goals and learning needs? In discussing this question, please consider the following: your academic goals; your professional reasons for pursuing graduate education; how your attributes and qualities can contribute to the learning environment.

The maximum length for Question #1 is four (4), double-spaced, typed pages using a standard 12-point computer font and one-inch margins. Answer Question #1 in essay form.

Question #2

Discuss your Practicum area of interest with specific reference to the following: learning goals; current knowledge; skill set, academic and research interests related to practicum; area(s) of interest, including any particular type of agency or specific field of practice that you would like the School to consider; qualities of the field instructor with whom you would like to work;

If you are applying for part-time studies, challenges you would face as a part-time MSW student completing field practice; and how you plan to address these.

The maximum length for Question #2 is two (2), double-spaced, typed pages using a standard 12-point computer font and one-inch margins. Answer Question #2 in essay form.

Question #3

Outline a contemporary social problem of interest to you, why it is of interest, and the practice implications of the social concern. Please consider the following in your response:
What is the specific social concern of interest to you and why is it an important topic?
What are the major issues surrounding the problem? Relate your personal and professional experience, along with your theoretical foundation/formal practice approach to the issue area.
What are the ethical issues surrounding this social concern?
How would you, as a social worker, attempt to address this social concern in practice?
How have your personal and professional relationships informed your values and approach to this concern?
How can the course of study offered at Renison assist you in working with this social concern?
The maximum length for Question #3 is four (4), double-spaced, typed pages using a standard 12-point computer font and one-inch margins. Answer Question #3 in essay form.

**Study Plan Evaluation Criteria**

As is our current practice in the undergraduate program, the study plan of all applicants who meet the standard admission criteria will be rated by two independent paid raters. This provides consistency in the evaluation process and provides an effective way to deal with a large number of applications. Each answer will be evaluated according to the following criteria:

- **Writing style;** the ability to communicate clearly including use of language, organization and comprehensibility;
- **Demonstrated analytic ability including evidence of scholarship;**
- **Creativity and originality;** and
- **Completeness of answers**

These ratings will then be passed along to the MSW Admissions Committee for final consideration.

**Employer Statement of Support Form OR Letter of Commitment from the Applicant (part-time applicants only):** Typically, the practicum will be the most difficult component for part-time students who are working full-time to complete. Thus, candidates require both the support of and accommodation by their employers in order to successfully complete the practicum. It is appropriate to inform employers of the structure of the MSW program at Renison; and to request, in the admissions process, that employers provide formal written support of their employees' pursuit of the MSW degree, or that the applicant commits to complete the practicum component of the program.

Therefore, a part-time applicant must submit **one** of the following two documents:

If an applicant is currently working, they provide their employer with the letter from the Director of the School of Social Work, and ask their employer to complete the "Employer Statement of Support Form".

**OR**

If an applicant is not currently working, anticipates leaving her/his current employment during the course of graduate studies, or is unable to obtain the "Employer Statement of Support Form" from the employer, they complete the "Letter of Commitment from the Applicant".

The School does not give preference to either one of these forms.

**Language Proficiency:** Applicants who have not completed three or more years of post-secondary work at a Canadian institution, or at an institution at which English was the language of instruction, or have not been employed for a similar period of time in a position in which English was the language of business will be required to provide certification of English language proficiency through one of the accepted examinations listed within the application form.
Students are required to pass the University of Waterloo's English requirements, if English is not their first language. Please refer to the University of Waterloo's website for further information on this requirement. http://gradcalendar.uwaterloo.ca/page/GSO-ELP

Application documents become the property of the University of Waterloo. Personal information in this application and the supporting documentation is confidential, and is available only to individuals directly associated with the MSW program and staff in the Graduate Studies Office.

If evidence of misrepresentation or fraudulent or falsified documentation is found, the penalty is severe. The University of Waterloo reserves the right to revoke any offer of admission and/or financial support from the University.

The University of Waterloo may disclose evidence of any misrepresentation or fraudulent or falsified documentation to all Canadian universities, and to law enforcement personnel where appropriate.

1.5 Structure

a) Program Structure

Based on our review of existing MSW programs in Canada and the results of our needs assessment, we have developed a model for the structure and delivery of our proposed MSW program that would fill a unique niche. The program includes the following features:

- Course-based only with a practicum
- Primarily online delivery with two, week long Summer Institutes in years I and II
- Part-time to begin, with possibility of completing the program on a full-time basis in year II
- Part-time model allows for completion over 2 years (6 terms – fall, winter, spring/summer)
- Full-time model allows for completion in 1 year (3 terms – fall, winter, spring/summer)
- Focus on health.

The proposed MSW contains the required number of courses for a non-thesis Master's program in compliance with the requirements of the Graduate Studies Office at the University of Waterloo.

Beginning in the second year the program, every course will be offered consistently on a yearly basis, allowing students to complete the program in a timely fashion.

b) Effect of structure on quality

The program provides a number of advantages for students: accessibility for working professionals; access to a much broader student pool (all of Canada) through part-time and online delivery; and a focus on health.
Online Delivery

In the last decade, the emergence and spread of the Internet has offered new possibilities for availability, interactivity, and global application that have sparked much interest in the use of this platform for education (Osguthorpe & Graham, 2003). Internet-based higher education has particularly flourished in recent years. In a recent study of more than 2,500 colleges and universities in the United States, Allen & Seaman (2007) found that 3.48 million students (about 20% of students) were taking at least one online course during the fall 2006 term, more than double the number of students taking online courses 4 years earlier.

The increased popularity of online learning can be attributed to a number of different factors, including the availability and use of new technologies, a changing student population, an increased societal focus on lifelong learning, and growing educational requirements for professional licensing and career advancement (Mehrotra, Hollister, & McGahey, 2001; Miller & King, 2003; National Center for Education Statistics, 2002; Trindade et al., 2000). The use of online learning in higher education is also supported by substantial evidence that distance courses and programs can be as effective as traditional education, or at the very least, that there is no significant difference between distance and traditional education in areas such as student outcomes (Phipps & Merisotis, 1999; Zhao, Lei, Yan, Lai, & Tan, 2005). Although research on the effectiveness of online learning in particular is still emerging, preliminary reviews of comparative studies have found no significant differences in learning outcome between students in online courses and those in traditional courses (Cohen, 2003).

Constructs of adult learning theory state that adults are autonomous, self-directed, and goal oriented; when adults enrol in a course, they usually know what goal they want to attain; and are generally motivated to learn because of internal or intrinsic factors, not external or extrinsic forces (Knowles, 2002). These constructs reflect the types of students who choose to take courses that utilize various forms of distance learning technology. Today, students in professional education are likely to be both goal-oriented and self-directed, and distance education, especially Web-based education, suits the learning needs and temperaments of these students (Moore, 2004).

Social work education online

Social work education has also seen a trend of increasing use of technology and online learning in the delivery of social work courses and programs, particularly in the last decade (Harris & Parrish, 2006; Ouellette, Westhius, Marshall, & Chang, 2006). A wide range of courses in undergraduate and graduate social work education are increasingly being developed and implemented partly or fully online. These include: research (Frey & Faul, 2005; Hisle-Gorman & Zuravin, 2006), generalist social work practice (Ouellette et al., 2006; Petracchi, Mallinger, Engel, Rishel, & Washburn, 2005), social work history (Faux & Black-Hughes, 2000), field education (Birkenmaier et al, 2005; Maidment, 2006), gerontology (Sidell, 2006), diversity (Hilton, 2006), social policy (Roberts-DeGennaro & Clapp, 2005), child welfare (Bellegeuille, 2006; Rice-Green & Dumbrill, 2005), addictions (Harris & Parrish, 2006), administration (Freddolino & Knaggs, 2005), crisis intervention (Siebert, Siebert, & Spaulding-Givens, 2006), mental health (Knowles, 2001), and ethics (Biggerstaff, 2005).
The growth of online education in social work continues to fuel debate about whether students in Web-based environments receive the same quality of instruction and socialization as their peers in classroom-based environments. A number of recent articles in the social work literature have examined topics related to this debate. York (2008) compared groups of students taking a social work administration course in either a classroom, an online, or a hybrid format. The results found no significant differences between the students when it came to knowledge gain, gain in self-efficacy, and course satisfaction. Wilke, Randolph, and Vinton (2009) found that students in online social work classes, despite their lack of in-person interaction, engaged in a process of mutual aid whereby they shared information, engaged in discussions, and supported one another. The authors suggested that certain elements of online classes, such as small-group interactions, discussion boards, and prompt instructor response to student communication, help foster a sense of connection between participants. Kondrat and Calloway-Graham (2009) examined digital tools to enhance both student self-efficacy and direct practice skills. For this study, the researchers randomly assigned students to a technology enhanced (22 students) or traditional course (26 students). Whereas the researchers found that use of technology tools did not significantly affect student self-efficacy ratings, there were differences in ratings between the technology and traditional groups. In fact, the technology group scored much higher in practice skills and interview structure skills ratings, a difference the researchers found to be statistically significant.

**Hybrid/Blended Learning**

Certain skills can't be taught entirely from a distance. Sometimes an instructor has to be physically present in order for students to get the most out of a lecture or demonstration. Sometimes the need to collaborate with fellow students is best achieved face-to-face. Hybrid course delivery, sometimes called blended or multi-modal, refers to courses of instruction that require students to meet for face to face classes while providing much of the course content and interaction online via course delivery software and instructional tools. Hybrid programs refer to programs of study that provide students with an option of taking some courses fully online and some in class, or hybrid. Extensive work has been done on the development of blended learning models at the University of Waterloo through the Centre for Extended Learning and the Centre for Teaching Excellence. We will be drawing upon the expertise of the staff from these centres in the development, delivery and evaluation of the courses. The School of Social Work has contracted with the Centre for Extended Learning to assist in the development of the courses to be offered in the MSW program. The School of Social Work already has a track record of delivering the part-time BSW program through blended learning that we will build upon in our MSW program.

**Quality of Field Education**

Given that field education is a central component of the Master's program, we have developed the following criteria for the selection of practicum settings and field instructors. Field instructors are agency/organization-based and provide both educational and task supervision on a regular basis.

**Criteria for the Selection of Practicum Settings**

Field Practicum settings are selected by the School of Social Work according to the following criteria:
• A demonstrated commitment to the education of social work students
• A demonstrated commitment to provide an environment that is safe and free from discrimination and harassment
• Social work practice within the practicum setting is based on professional standards and is a respected component of the activities of the setting
• The practicum setting is willing and able to provide learning experiences and assignments appropriate to the education needs of the student and in accordance with the curriculum of the School
• A qualified Field Instructor is available in accordance with the School's requirements and is given adequate time during the work day to provide the field instruction to the student as required by the School, as well as time to attend the necessary orientation meetings and workshops held by the School for Field Instructors
• Adequate space, clerical support services and a milieu conducive to student learning and participation is provided
• The practicum setting allows and encourages full participation of the student in staff meetings, staff development activities, and other activities as deemed appropriate by the Field Instructor and the MSW Coordinator
• The practicum setting demonstrates the ability and the willingness to carry out the responsibilities of a practicum setting as outlined by the School of Social Work, and
• The School reserves the right to determine the suitability of a setting for student practicum, taking into consideration such factors as the length of time the practicum setting has been in operation, staff turnover, organizational context, etc.

Criteria for the Selection of Field Instructors

The School of Social Work is committed to providing field instruction by a professional social worker for each of the students in the practicum. However, it also values learning experiences in certain innovative settings where there may not be social workers on staff. The following guidelines determine the selection of Field Instructors for the field education experience:

• Field Instructors should have a MSW (or equivalent degree as recognized by CASWE) and a minimum of two years' practice experience. They should be recommended by the practicum agency
• If the social worker who has been identified as the Field Instructor leaves the practicum setting after a student's field placement begins, the practicum setting will attempt to find an appropriate replacement
• If no social worker or alternatives are available within the practicum setting, the MSW Coordinator will arrange a new placement

Supports for Field Instructors

The School of Social Work has well-developed supports for field instructors in the BSW program. These will be available to the field instructors in the MSW program and include an on-line Social Work Field Instructors Community Group as well as an on-line Field Instructor Training Program.

Through the Social Work Field Instructors Community Group, field instructors will have immediate and ongoing access to articles, teaching tools, presentations, and electronic
links to the latest information in field education and student supervision. An integral component of this site is a discussion board will allow them to ask questions and share ideas with their fellow field instructors.

Social work field education research shows that specific training for field instructors significantly improves the students' perception of the quality of their practicum education experience and the quality of the relationship with their field instructor. In order to support them in this important role, we have developed a required online supervision course to provide them with the latest information, tools, and resources relating to social work supervision. In addition to preparation as effective field instructors, those who complete all ten modules will receive a Certificate in Field Instruction from the Renison School of Social Work.

The training program is organized in modules that follow a sequence of yearly practicum learning tasks similar to those experiences required by students in their field practicum. The online modules are as follows:

Module 1: Mission and Requirements of Field Education  
Module 2: Conducting an Effective Agency Orientation  
Module 3: Incorporating Adult Learning Styles and Theory  
Module 4: Developing the Learning Contract  
Module 5: Providing Effective Supervision  
Module 6: Integrating Theory and Practice  
Module 7: Feedback and Evaluation  
Module 8: Building Cultural Competence in Practice  
Module 9: Ethics in Practice  
Module 10: Working with Challenging Students

Benefits of an online MSW program

The greatest benefit of an online program is the flexibility that it affords students, allowing them to connect from their home or office, enabling them to advance their education while maintaining other responsibilities. Many, especially in the field of social work, choose to work full-time or part-time in a related field while they pursue their degree. In social work, it's very important to get real-world working experience, and online programs allow the time for this to happen.

Another benefit of online programs is increased access to social work education for students in rural areas or areas otherwise underserved by schools of social work. Offering an online MSW program allows students to remain in their home communities and receive academic and field education supports necessary for successful completion of professional social work education. In all likelihood, graduates will continue to live and work in their communities, thus enhancing social work services in rural and remote areas.

Completing an academic degree online carries several inherent pedagogical benefits. First, students have the opportunity to work at a pace which best suits their own academic style, and to have the time to provide and access more considered responses to questions than in an on campus classroom setting. Second, learning materials can be accessed in multiple modalities, i.e. sound, visual, text, etc., allowing students to better address the needs of their own particular learning style. Finally, Internet-based courses
tend to make better use of external, primary resources, allowing students to interact with more timely and authentic learning materials.

Despite traditional concerns that online classes limit students' ability to socialize, some students who have taken classes online find the process helps them make connections they would not have made in classrooms. Students who may be reluctant to participate during classroom discussions often blossom online. Also, highly evolved-technology now offers innovative ways of presenting course material while still fostering active and collaborative learning, providing what many students feel can be an even more interactive and fulfilling experience than a traditional classroom.

Online learning may facilitate constructivist learning strategies like collaborative, self-directed, and active learning, by allowing students increased time and opportunities for student-teacher and student-student interaction, broadening the array of resources available, giving students increased responsibility for their own learning, and producing a more individualized environment to suit students' differing needs and styles (Garrison, 2003; Jonassen, Howland, Moore, & Marra, 2003; Knowles, 2002). Gonzales and Sujo de Montes (2001) conclude that key themes of online learning include collaboration, student-centeredness, community, exploration, shared knowledge, and authenticity.

1.6 Program Content

Focus on Health

Over the past twenty years a number of papers and reports have been written outlining the need for restructuring in the Canadian health care system. In 2002 the Romanow Commission published its findings which, coupled with the recent infusion of funds into the health care system, would seem to herald that major change is coming to how we deliver and consume health care services in Canada. A major component of all the official health care reports has been the emphasis on the development and implementation of a primary health care model. In simplest terms, a primary health care approach places an emphasis on community based services with increased attention to early intervention and prevention strategies such as health promotion (CASW, 2003).

International research demonstrates that countries with strong primary care systems have better population health outcomes for people, improved health and social equity for their citizens and spend less of their GDP on health care services. (Kasperski, Power & VanderBent, 2005). The important areas of primary care practice are defined as: accessibility and first contact when needs arise; more person-focused interactions as distinguished from disease-focused interactions; greater comprehensiveness of care; better referral networks; coordination of care when referrals are necessary; family orientation; community orientation and cultural competence (Starfield: 2004).

A move to a primary health care model will require a radical re-conceptualization of the meaning of health and health care. In the most recent federal budget, significant targeted funding aimed at stimulating the shift to a primary health care model was announced. It is likely that the coming changes will be the most profound since the initial development of the public health care system in this country. Primary Health Care reform symbolizes an attempt by the health care system to align its structures and practices with a broad determinants of health perspective. The fact that the determinants
of health have been embedded within the social work theory and practice (i.e. ecological, person-in-environment, systems theory) means that the profession has a significant contribution to make to Primary Health Care reform (CASW, 2003).

The Social Work profession has a long tradition of working with a strong ‘person-in-environment’ orientation and demonstrating an understanding of how the social and economic lives of individuals; families and communities are directly linked to emotional and physical health. It is clear that this focus is essential to the transformation of our health care system from treatment of illness to prevention and promotion of wellness (Kasperski, Power and VanderBent, 2005).

Studies have validated the effectiveness of social work practice with primary care patients showing decreased depression, anxiety, adjustment reactions, fewer physician visits, less somatization and improved compliance with medical and diet/nutrition regimes (Rock & Cooper, 2000). Older people often have difficulty accessing social services and suffer delays when waiting for assessments. Having social workers available in the primary care practice has been shown to reduce the anxiety some clients feel in being referred to a social worker (Banyard et al: 2002). By strengthening the services provided in a primary care setting and being able to make referrals to the greater home and community care sector, social workers support a seamless continuum of care and contribute to overall health system cost reduction related to hospital re-admissions, emergency department presentations, frequency of physician visits, and crisis placements in long term care (Glendinning: 2002).

Primary health care reform has implications for how social workers are initially trained and continue in the profession as life-long learners. Social work graduates will be required to have basic, or generalist skills, as community developers, researchers, advocates, service brokers, educators, policy analysts and group facilitators. In addition to this, social workers will require on-going access to educational opportunities to allow them to meet the needs of clients with special needs. Levin and Herbert (2001, p.98) suggest that "... graduates of formal social work programs are not necessarily equipped with either the conceptual basis or the substantive skills to make a unique /is ample evidence to support a call for education programs to review how they are preparing graduates for inter-disciplinary practice in community-based health care settings.

In addition to the role of training students, it is recommended that schools of social work look at how they are connecting with health facilities and other professions (Feldman, 2001). Globerman and Bogo (2002) argue that in health settings where social work departments are being replaced by program management models and social work supervision is often non-existent, individual staff are increasingly looking to universities to support their practice and education needs. Given that social work practice within the context of primary health care settings provides the potential for more autonomous practice, it follows that there will be greater need to establish a variety of formal and informal linkages between universities, individual practitioners and primary health care settings (Greene & Kulper, 1990).
Unique Program Innovations/Creative Components:

Spring/Summer Institutes

The Summer Institutes, which occur in an intensive format at the beginning and end of the program, each comprise two components. The first institute includes a two-day orientation and community-building experience followed by a five-day intensive course, Diversity and Health. The second institute includes a five-day intensive course, Health Policy, followed by a two-day Capstone Experience that synthesizes the learning experience.

Capstone Experience

The capstone experience is intended to be both a synthesizing experience and a culminating experience; the focus is on the development of the “professional self”. The capstone experience is a student-directed demonstration of beginning master's level practitioner competence developed over the student's career, a chronicle of career development and reflection and a glimpse into the student's professional future learning through a plan for continued growth. It is a scholarly and creative collection of artefacts accumulated through course work, field practicum and daily experiences that demonstrate the students' abilities to articulate a model of practice and sense of the integration of the domains of professional social work. The capstone experience culminates in designated days of student sharing and demonstration to each other, faculty, and local practitioners about their learning as MSW students. The capstone experience will be built into the practicum courses and will count towards 10 hours of practicum. Like the practicum, it will be graded as pass/fail.

1.7 Mode of Delivery

Delivery of Program

Based on our review of existing MSW programs in Canada, the results of our needs assessment, the requirements for graduate programs at the University of Waterloo, and the Standards for Accreditation established by the Canadian Association for Social Work Education, we have developed a unique model for the structure and delivery of our proposed MSW program that offers greater access to graduate level social work education, the flexibility to study while working, the opportunity to complete a field practicum in a student's home territory, and the option to complete the program on either a part-time or full-time basis.

This course-based program consists of six one-semester courses delivered online, a field practicum equivalent to two courses, and two five-day intensive on-campus courses delivered as part of two one-week institutes in the spring/summer semesters. In total, the program comprises the equivalent of ten one-semester courses. All courses include interactive components requiring students to be active participants with the instructor and other students through the online learning environment. When the program is initiated, the first year of the program will be offered on a part-time basis only. By the second year of implementation, the program will be offered on both a part-time and a full-time basis. The program can be completed part-time over two years (6 terms—fall, winter, spring/summer), or full-time in one year (3 terms—fall, winter, spring/summer).
In addition to the delivery of one of the courses in the program (5 day intensive in-class format with assignments due later in the term), the first summer institute will provide students with a two-day orientation to Renison University College and the University of Waterloo, the School of Social Work, and the MSW program. Familiarization with distance education technologies will be included in the orientation, along with an overview of the various resources available to School of Social Work students. This week will also provide an opportunity for students to meet each other, which we believe is an essential component of developing a cohesive community of online learners.

In the second summer institute, students will complete another course in the program (5 day intensive in-class format with assignments due later in the term), along with a two-day “capstone experience”. This culminating experience will be designed to bring integration and reflection to the “whole” of the distance MSW experience. It will focus on some feature of the student’s area of concentration and will require the disciplined use of skills, methodology, and knowledge taught throughout the MSW curriculum. The capstone experience will be a student-directed demonstration of beginning masters level practitioner competence over the student’s career, a chronicle of career development and reflection about that development, and a glimpse into the student’s professional future learning through a plan for ongoing professional development. It is a scholarly and creative collection of artifacts accumulated through classes and daily experience that demonstrates their abilities to articulate their model of practice and sense of the integration of the domains of professional social work. The capstone experience will culminate in designated days of student sharing and demonstration to each other, faculty, and local practitioners about their learning as MSW students.

Field Education in the MSW Program

The integration of knowledge, values and skills in the context of field education is a critical and distinctive aspect of social work education and, therefore, field education is considered ‘signature pedagogy’.

The field program consists of two courses that are equivalent to one full credit (1.0); each is worth a half (0.5) credit. The courses are offered to students in the full-time program between September and April of each year. Part-time students may enrol at any time from September on in their first year of the program and the courses run year-round. The field courses are intended to provide students with opportunities to integrate learning in other courses into their practice through a supervised social work experience related to their learning goals.

Students spend 462 hours in a placement, and receive supervision from an agency-based supervisor qualified at the MSW level. In addition to the placement students will be involved in regular online Integration Seminars facilitated by the MSW Coordinator. The location of the placement is determined through consultation and agreement among the student, the MSW Coordinator of the School of Social Work, and the agency. Students can normally expect to undertake their field placement in their own community or region, subject to the availability of suitable placement agencies and supervisors. Grading is according to a pass/fail system.
1.8 Assessment of Teaching and Learning

Evaluation of the MSW Program

Consistent with current UW practices, the UW online course evaluation forms will be provided to all students prior to the completion of each course they take in the program. The School of Social Work will also conduct its own assessment of the strengths of each course and areas for development. This is consistent with our current practices within the BSW program. At the end of every term, these School assessments are reviewed by the Curriculum Committee, comprised of all teaching Faculty, student representatives from the full and part-time programs and is chaired by the Director of the School, which makes recommendations for revisions to courses. We will develop a parallel MSW Curriculum Committee to be chaired by the MSW Program Coordinator with online components to facilitate constituents' participation. We will also incorporate the addition of a yearly review based on exit surveys with our MSW graduates.

As previously mentioned, the program will require accreditation through the Canadian Association for Social Work Education (CASWE). Although it is expected that schools will be involved in a process of continuous self-reflection, as part of the accreditation process, schools are expected to develop a self-study document as an opportunity to thoroughly examine its entire program. The self-study provides the basis for a school to document compliance with Educational Policy Statements and Standards for Accreditation. In the self-study, the school systematically evaluates the educational experience it offers, articulates to what extent the program’s stated mission, objectives, and goals are achieved, and identifies areas for future consideration.

Evaluation of Student Performance in Academic Courses

Each course will develop a variety of assignments allowing students to demonstrate their learning in relation to the particular subject matter of each course. It is expected that students, through these assignments will demonstrate the application of theory to practice, critical analysis, and scholarship at the graduate level. We will be working with the Centre for Extended Learning at the University of Waterloo to develop assignments appropriate for the on-line learning environment. Each course will be required to offer a variety of learning assignments to meet learning styles and learning needs.

Evaluation of Student Performance in the Field Education Component of the Program

A formal evaluation of the student by the Field Instructor and MSW Coordinator will be completed at the end of each practicum course. Evaluation criteria are fully described in the Field Practicum Manual and are consistent with the CASWE Standards for Accreditation. (See Appendix 2 for MSW Practicum Manual)

Process for Evaluation

Evaluation of the student's field practice performance is based on the program Learning Objectives. Evaluation and feedback will be an ongoing process throughout the placement. Both the agency Field Instructor and the MSW Coordinator should be providing feedback to the student regularly. The agency Field Instructor will meet virtually (i.e., teleconference, Internet) with the student and the MSW Coordinator to discuss the End of Term Evaluation. The MSW Coordinator must approve the final grade.
Grading

The field courses are graded on a Pass/Fail basis. Students must obtain a pass in the field courses in order to continue in the Master of Social Work Program. The student must pass both the agency placement and the Integration Seminar.

The field education components of the course will be subject to ongoing evaluation. At the end of the field education experience, both the student and field instructor will be asked to complete an assessment of the experience.

2. HUMAN RESOURCES

2.1a) List of Faculty

Table 1 lists the tenured/tenure track faculty together with sessional faculty and lecturers who we anticipate could teach in the MSW program and assist in its development. As an MSW program with a focus on health, our current faculty possess the expertise in the required fields of practice (individuals and groups, community, policy and health) to further develop the program.

In order to successfully launch and deliver this program, our proposal requires the recruitment of two tenure-track faculty at the associate level (one appointment is scheduled for July 2012 and the other for July 2013.)
Table 1: School of Social Work Faculty Members

<table>
<thead>
<tr>
<th>Faculty Name</th>
<th>Rank</th>
<th>M/F</th>
<th>Home Unit</th>
<th>Supervisory Privileges</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category 1</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Brenner, Tom</td>
<td>Assistant Professor</td>
<td>M</td>
<td>Renison U.C.</td>
<td>Full</td>
</tr>
<tr>
<td>Donahue, Peter</td>
<td>Associate Professor</td>
<td>M</td>
<td>Renison U.C.</td>
<td>Full</td>
</tr>
<tr>
<td>Hogarth, Kathleen</td>
<td>Assistant Professor</td>
<td>F</td>
<td>Renison U.C.</td>
<td></td>
</tr>
<tr>
<td>McMillan, Colleen</td>
<td>Assistant Professor</td>
<td>F</td>
<td>Renison U.C.</td>
<td></td>
</tr>
<tr>
<td>Mesbur, Ellen Sue</td>
<td>Director &amp; Professor</td>
<td>F</td>
<td>Renison U.C.</td>
<td>Full</td>
</tr>
<tr>
<td>Snyder, Linda</td>
<td>Associate Professor</td>
<td>F</td>
<td>Renison U.C.</td>
<td>Full</td>
</tr>
<tr>
<td>Van Katwyk, Trish</td>
<td>Assistant Professor</td>
<td>F</td>
<td>Renison U.C.</td>
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</tr>
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<td>Category 2</td>
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<td></td>
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<tr>
<td>Dutta, Debashis</td>
<td>Lecturer</td>
<td>M</td>
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<td>Jeffery, Heather</td>
<td>Lecturer</td>
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<td>Lieghgio, Maria</td>
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<tr>
<td>Loucks Campbell, Sandra</td>
<td>Adjunct Assistant Professor</td>
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<tr>
<td>Schmidt Hanbidge, Alice</td>
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<tr>
<td>Thompson, John</td>
<td>Lecturer</td>
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<td>Renison U.C.</td>
<td></td>
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<tr>
<td>Woynarski, Jan</td>
<td>Lecturer</td>
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<tr>
<td>Category 3</td>
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<tr>
<td>*Peressini, Tracy</td>
<td>Associate Professor</td>
<td>F</td>
<td>Renison U.C.</td>
<td>Full</td>
</tr>
</tbody>
</table>

*Cross appointed with Social Development Studies, Renison University College

2.1b) External operating research funding

As illustrated in Table 2, the faculty has an excellent record of attracting funding. Drs. Donahue and Mesbur were collaborators in one of only five funded Networks of Centres of Excellence New Initiative (NCE-NI) projects that received $1,600,000.00. The NCE-NI pilot was established by the NCE Secretariat and was administered jointly by NSERC, CIHR, and SSHRC in partnership with Industry Canada. This pilot was created to: 1) facilitate the creation of networks on a national and an international level; 2) support networking activities among well-established researchers or research teams to encourage the development of new partnerships with receptor communities (e.g., industry, government, not-for-profit organizations, etc.); and 3) respond to the needs of both researchers and receptor communities for interaction, partnership, and networking. They were also collaborators in a $400,000.00 project jointly funded by the NCE and the International Development Research Centre (IDRC). This was an NCE special competition to promote the internationalization of the NCE’s. Dr. Colleen McMillan who has recently joined the School brings with her over $600,000.00 in research funding, including a $358,000.00 research grant from the Ontario Neurotrauma Foundation. Although not a core Faculty member, Dr. Peressini was awarded a multi-year contract...
from the Region of Peel in Ontario to conduct a longitudinal evaluation of the Ontario Works Program, valued at $2,200,000.00.

Dr. Mesbur, Dr. Van Katwyk and Maria Liegghio were recently successful in securing a Learning Initiatives Fund Grant from the University of Waterloo. This initiative offers researchers the opportunity to apply for funding for research projects that enhance student learning and support the strategic plans of the academic unit and/or the University of Waterloo. This project not only represents excellence in research, but the commitment of the faculty to teaching excellence.

Table 2: External Research Funding by Source and Year

<table>
<thead>
<tr>
<th>Year</th>
<th>Granting Councils</th>
<th>Other Peer Adjudicated</th>
<th>Contracts</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005-06</td>
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<td>119,740.00</td>
<td>250,000.00</td>
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<td>2006-07</td>
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<td>2007-08</td>
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<tr>
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<td>601,200.00</td>
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<td>2009-10</td>
<td>400,000.00</td>
<td>132,600.00</td>
<td>250,000.00</td>
<td>62,000.00</td>
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<tr>
<td>2010-11</td>
<td>25,000.00</td>
<td>91,500.00</td>
<td>250,000.00</td>
<td>20,800.00</td>
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<tr>
<td>2011-12</td>
<td>25,000.00</td>
<td>244,000.00</td>
<td>250,000.00</td>
<td>40,000.00</td>
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<td>Totals</td>
<td>2,142,900.00</td>
<td>587,840.00</td>
<td>1,750,000.00</td>
<td>264,700.00</td>
</tr>
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</table>

2.1c) Graduate Supervision

As you can see in Table 3 below, several of our faculty have had extensive involvement in the supervision of graduate students, both at Masters and Doctoral level, including serving as thesis committee members and external examiners. As this is a course-based Masters, the supervision of graduate theses will not be required, but our experience in this area will allow us to consider this option at a later date.
### Table 3: Graduate Student Supervision by Faculty Member

<table>
<thead>
<tr>
<th></th>
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<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Tom Brenner</td>
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<tr>
<td>Peter Donahue</td>
<td>8</td>
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<tr>
<td>Debasish Dutta</td>
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<tr>
<td>Kathleen Hogarth</td>
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<tr>
<td>Heather Jeffrey</td>
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<tr>
<td>Maria Leigghio</td>
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<tr>
<td>Sandra Loucks Campbell</td>
<td>1</td>
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<td>1</td>
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<tr>
<td>Colleen McMillan</td>
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<tr>
<td>Ellen Sue Mesbur</td>
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<tr>
<td>Tracy Peressini</td>
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<tr>
<td>Alice Schmidt Hanbidge</td>
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<tr>
<td>Linda Snyder</td>
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<td>John Thompson</td>
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<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Trish Van Katwyk</td>
<td>0</td>
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<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Jan Woynarski</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

### 2.1d) Commitment of Faculty from other Graduate Programs/other Institutions

Within the MSW program, there are two elective courses; SWREN 608: Health issues & Ethics and SWREN 609: Social Work Practice in Mental Health. Discussions concerning the possibility of sharing elective courses between the current Master of Public Health program and the proposed MSW program have been held with the School of Public Health and Health Systems. We feel these would be a good fit, as both programs will offer courses via distance education. As well, the sharing of electives would afford students excellent opportunities for interdisciplinary education. Discussions have also included the possibility of a joint faculty appointment between the School of Social Work and the School of Public Health and Health Systems, which were initiated by Dr. Geoff McBoyle, Associate Vice President Academic and Provost at the University of Waterloo. There have been some preliminary discussions of shared electives with the Department of Recreation and Leisure Studies at the University of Waterloo.

### 2.2 Quality of faculty

Although a relatively small school, you will note from the faculty CVs (MSW Proposal Volume 2) that they have a solid history of research, scholarship, teaching and service to the academy, professional organizations/associations and to the community. In terms of research, the faculty has a solid record, collectively being involved in research projects totalling more than $4,000,000.00 in the past seven years alone. The faculty also have
developed a strong record of scholarship. The combined lifetime summary of the faculty members listed in Table 1 includes 38 chapters in books, 36 articles in refereed journals, 167 refereed conference papers and presentations, 51 invited papers and presentations, 45 workshops and 52 working and technical papers.

Although Renison University College does not currently have a graduate program, many faculty have taught at the graduate level at other academic institutions throughout their careers (i.e., Wilfrid Laurier University, University of Calgary, University of Toronto). Further indicators of the quality of the faculty are the honours and awards they have received. For example, Dr. Sandra Loucks Campbell was the recipient of the Distinguished Service Award from the Canadian Association of Social Workers in 2009. Dr. Mesbur received a Life Membership Award from the Ontario Association of Social Workers in recognition of her contribution to the profession and social work education. Dr. Brenner was nominated for a Distinguished Teaching Award at the University of Waterloo.

**Faculty Resources**

Table 4 highlights the current qualified faculty who are available to assist with the MSW program development, including the courses in the MSW program they could develop and/or teach. The two new tenure track faculty members that would be hired for the MSW program will further complement this. One faculty member would be hired in spring/summer 2012 to work on the course development for the 2012-2013 academic year as well as teach in the program and the second faculty member would be hired in spring/summer 2013 to work on the development of courses to be offered in the 2013-2014 academic year as well as teaching in the program (based on a Fall 2012 start date).

**Table 4: Faculty Areas of Expertise**

<table>
<thead>
<tr>
<th>Faculty</th>
<th>Position</th>
<th>Potential Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tom Brenner</td>
<td>Assistant Professor</td>
<td>Health Policy</td>
</tr>
<tr>
<td>Peter Donahue</td>
<td>Associate Professor</td>
<td>Knowledge Mobilization and Evidence-Based Practice</td>
</tr>
<tr>
<td>Kathy Hogarth</td>
<td>Assistant Professor</td>
<td>Diversity &amp; Health</td>
</tr>
<tr>
<td>Colleen McMillan</td>
<td>Assistant Professor</td>
<td>Social Work Practice in Mental Health</td>
</tr>
<tr>
<td>Ellen Sue Mesbur</td>
<td>Professor</td>
<td>Critical Explorations of Supervision and Leadership Roles for Social Workers in Health Care</td>
</tr>
<tr>
<td>Tracy Peressini</td>
<td>Associate Professor</td>
<td>Evaluation of Health and Human Service Programs</td>
</tr>
<tr>
<td>Linda Snyder</td>
<td>Associate Professor</td>
<td>Health Issues and Ethics</td>
</tr>
<tr>
<td>Tricia van Katwyk</td>
<td>Assistant Professor</td>
<td>Social Work Practice in Health</td>
</tr>
</tbody>
</table>
3. PHYSICAL AND FINANCIAL RESOURCES

3.1 Library Resources

MSW Program Library Resources

The Lusi Wong Library at Renison College is part of the TriUniversity Group of Libraries (TUG) system. TUG, a partnership of the University of Waterloo, Wilfrid Laurier University, and the University of Guelph, provides a full range of library services to its members and access to over seven million items in the system. Renison Library's specialized collection, which supports the College's Social Work, Social Development Studies, East Asian Studies, Anglicanism, and English as a Second Language programs, supplements these vast holdings.

In the 4,300 square foot Library, opened in Summer 2006, students have access to two group study rooms in addition to more than thirty other study spaces; computer workstations provide full Internet access as well as connection to the university's large academic computing network. Wireless access for laptop computers is available in the library, along with wired access at each of the study spaces. In a study survey in 2008, the Library received the top score among campus libraries for the excellence of its study environment.

The collection is comprised largely of books and journals. Access to the collection is provided through Primo, a search/discovery interface, giving public web-based access to databases like TRELLIS, the online catalogue which includes the resources of all the TUG member libraries, through the University of Waterloo Library home page at http://www.lib.uwaterloo.ca/. The holdings of the Wilfrid Laurier Faculty of Social Work Library will be of particular interest to Master of Social Work students.

The integrated library system allows faculty, students and staff to borrow in person from any library location and also to place hold requests for circulating materials from any of the member libraries and have the items delivered to a designated pick-up location. Copies of print journal articles from any uWaterloo library can also be delivered, as well as copies of print journal articles not owned by uWaterloo Library but held by University of Guelph or Wilfrid Laurier University. Faculty, graduate students, and staff may borrow most monographs for a term at a time. Through a service of the uWaterloo Library, books and copies of articles from print journals will be sent, upon request to students living some distance from the campus. With the exception of return postage for books, the Library absorbs the cost.

Access to electronic resources, including research databases, e-journals, online reference resources, electronic data resources, and bibliographic citation management software (RefWorks), is also provided through the University of Waterloo Library home page. Renison students have access to all resources licensed for the University of Waterloo community as well as Internet resources freely available to anyone. The site also provides access to electronic resources hosted by the OCUL Scholars Portal program (http://scholarsportal.info/index.html) and available to the uWaterloo community through the Library's participation in consortia purchasing through OCUL. The Library uses linking technology (SFX) to enable users to link directly from research databases to the uWaterloo Library full-text electronic journal subscription or to the TRELLIS
catalogue record for holdings and call number information. University of Waterloo faculty, students, and staff may access electronic research databases and full text electronic journals from off-campus via the Library's "Connect from Home" feature.

The University of Waterloo Library's InterLibrary Loan/Document Delivery service provides faculty, staff, and students with books, copies of journal articles, theses, and government documents from libraries within Canada and elsewhere. The uWaterloo Library uses OCUL's RACER web-based interlibrary loan system (http://tracer.scholarsportal.info) to facilitate ILL access and service for users. With minor exceptions the cost for this service is absorbed by the uWaterloo Library.

The Renison Librarian is available for reference assistance to faculty, students, and staff in person, by phone, or through email communication. The uWaterloo Library offers general orientation programs including tours, workshops on database searching and using the Web, and seminars for graduate students. There are also online tutorials and other online helps available through the uWaterloo Library web site.

The library holdings in the Renison Library that support the teaching program of the School of Social Work are selected by the Librarian, frequently in consultation with various faculty members. Recommendations and requests from faculty members are encouraged. Resources supporting social work and related fields comprise the majority of the collection. While the Library resources budget has not been strictly allocated according to programs or disciplines, expenditures have been tracked in that way. During the previous seven fiscal years, a total of $72,474.00 has been spent on information resources specifically in the field of Social Work; an additional $38,180.00 has been spent for resources in the areas of Social Development Studies, many of which would directly relate to social work issues.

Table 5: Library Expenditure for the School of Social Work

<table>
<thead>
<tr>
<th>Fund</th>
<th>Fiscal Year</th>
<th>Monographs</th>
<th>Serials</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Work</td>
<td>2003-2004</td>
<td>4,208</td>
<td>8,334</td>
<td>12,542</td>
</tr>
<tr>
<td>Social Work</td>
<td>2004-2005</td>
<td>3,090</td>
<td>7,886</td>
<td>10,976</td>
</tr>
<tr>
<td>Social Work</td>
<td>2005-2006</td>
<td>3,490</td>
<td>9,337</td>
<td>12,827</td>
</tr>
<tr>
<td>Social Work</td>
<td>2007-2008</td>
<td>2,996</td>
<td>7,028</td>
<td>10,024</td>
</tr>
<tr>
<td>Social Work</td>
<td>2008-2009</td>
<td>3,220</td>
<td>7,563</td>
<td>10,783</td>
</tr>
<tr>
<td>Social Work</td>
<td>2009-2010</td>
<td>3,013</td>
<td>2,075</td>
<td>5,088</td>
</tr>
<tr>
<td>Totals for</td>
<td>2003-2004</td>
<td>23,827</td>
<td>48,647</td>
<td>72,474</td>
</tr>
<tr>
<td>2009-2010</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The expenditures in Table 5 above represent an average expenditure of 42.9% of the total Library budgets for information resources over the seven years. This demonstrates that the field of Social Work has definitely been a priority for acquisitions of materials. The obvious decrease in expenditures for serials in the most recent year reflects a decision, in the face of budget constraints, to discontinue print subscriptions for titles which are electronically available through uWaterloo Library access; access to information was not jeopardized.
The library collection at Renison University College, in conjunction with the library collection at Wilfrid Laurier's Faculty of Social Work, provides a good foundation for the introduction of a Master of Social Work program. The Lusi Wong Library will continue to build its collection to support the program; priority can be given to needed resources within the flexibility provided by the Library's budget allocation practice.

To facilitate this process the School, in consultation with the librarians and faculty, will initiate a review immediately to develop a strategic plan for review and purchase of critical serials. As well, the School, in consultation with the librarians, faculty and students in the program, will conduct an annual review of electronic resources for the program. Additional funds will be allocated for new resources as appropriate.

*Library Report prepared by Lois Clifford, Librarian (with adapted inclusions from uWaterloo Library OGS appraisal briefs).*

3.2 Laboratory Resources

Not applicable.

3.3 Computer Facilities

All faculty and graduate students will be provided with an account on the university computing system. This account provides access to email, internet and the Desire2Learn software. Desire2Learn (D2L) is the learning management system used at the University of Waterloo that can be used as a supplement to face-to-face classes or for a totally online class. Faculty and students log into the system using their UW username and password. Only students registered in a course have access to that course's materials. There are many tools that instructors can utilize in their D2L courses: post course documents, utilize an online discussion forum, have students take online quizzes, and create an online gradebook. A D2L course site allows "anytime, anywhere" access to syllabi, readings, multi-media files, electronic dropboxes, online quizzes, email, grading, student progress reports, and project files. All courses that are offered each semester are automatically created in D2L along with the student roster for each course. The School of Social Work will also provide access to the Intern Placement Tracking System (IPT) for students throughout the course of their field placements. This system can be accessed from anywhere that a student or field instructor has an Internet connection. The IPT system allows students, field instructors, and the MSW Coordinator to effectively and efficiently complete administrative tasks relating to the field education program. This includes keeping relevant practicum and contact information up-to-date and accessing and completing forms online.

Students will be required to have their own computers and internet access to participate in this primarily distance education-based program. The University of Waterloo campus has wireless internet access and the University of Waterloo libraries have computers available with high-speed internet access that students may use. Off-campus students will have remote access to the on-campus UW computing resources through high-speed remote access protocols that enable connections to university computers and their software resources.
3.4 Space

Office space will be provided by Renison University College for all new faculty members and administrative staff in the Founders Building. New faculty and staff members will also be provided with a computer and network account/email address through the Renison University College IT Office.

As this is primarily a program delivered by distance education, the MSW students will not require office space. However, communal spaces will be made available for the MSW students’ use whenever they are on campus. During the 1-week intensive block week courses at the beginning and end of the program accommodations, parking, and meals will be made available at a reasonable cost to students through Renison’s Residence. Renison’s Residence is centrally located on the Campus of the University of Waterloo.

Miscellaneous Resources

Printing, photocopying, meeting rooms and study spaces are available at the libraries on the University of Waterloo campus as well as the Lusi Wong Library at Renison University College when students are on campus. Meeting and study spaces are also available to students at the University of Waterloo Student Life Centre.

3.5 Financial support

Financial Resources for Graduate Students

The University of Waterloo has a number of awards, bursaries and scholarships that are available for all full-time UW students to apply for. (See Appendix 3: University of Waterloo Awards, Bursaries and Scholarships). At this point, we don’t anticipate TA opportunities in the program, particularly given the intensity of the required field education component of the program (462 hours).

This past year, the School of Social Work worked closely with the Renison Scholarships and Awards Committee to secure $25,000.00 for entrance scholarships to the BSW program (please see table 6). These awards are to be given annually to outstanding undergraduate social work students who also demonstrate leadership, and service to the community. It is important to note that this included funding for part-time students who are not normally eligible for many of the student awards. If we are successful with our MSW proposal, we will work with this Committee to secure similar funding for our MSW students, including those in the part-time stream.

Table 6: BSW Entrance Scholarships

<table>
<thead>
<tr>
<th>BSW Entrance Scholarships</th>
<th>Amount</th>
<th># of Awards</th>
<th>Full-Time</th>
<th>Part-Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>$7,500.00</td>
<td>2</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$5,000.00</td>
<td>1</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$2,500.00</td>
<td>2</td>
<td></td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>
Financial Resources for Program

The development and implementation of the MSW program requires financial resources outside of the ones currently being provided to the School of Social Work. These resources would enable the hiring of two tenure track faculty members to assist with the course development and graduate teaching in the MSW Program (one in spring/summer 2012 and one in spring/summer 2013). The financial resources would also provide support for three new administrative hires, one full-time equivalent MSW Program Coordinator (spring/summer 2012), one half-time MSW Practicum Coordinator (spring/summer 2012) and one half-time equivalent MSW Administrative Assistant (winter 2012). The hiring of this staff would be staggered due to budgetary considerations.

Support Staff Requirements

a) MSW Program Coordinator - 1.0 FTE

The MSW Program Coordinator provides overall coordination and implementation of the MSW program, including the admission process, student advisement and oversight of all administrative duties required for the operation of the program, including the online Intern Placement Tracking System (IPT). This person facilitates the online integration seminar and assists field instructors by working with them to link theory learned with actual practice in the agency setting. The MSW Program Coordinator is responsible for facilitating professional development opportunities for Field Instructors, such as the online Field Instructor Training program and the Social Work Field Instructors Community Group.

b) MSW Practicum Coordinator – 0.5 FTE

The Practicum Coordinator negotiates and approves practicum settings, matches students based on information gathered from students and agencies, monitors evaluations related to students, field instructors and field settings, and ensures that administrative contracts are processed. This person is responsible for maintaining contact between the practicum setting and the School by implementing a smooth working environment and ensuring regular contact between the Faculty Field Consultant, Field Instructor and student. The MSW Practicum Coordinator works with the Field Instructor in evaluating the student’s performance at the end of each term and submitting the grade to the university Registrar. This person is responsible to the MSW Program Coordinator and regularly reports on the appropriateness of the fieldwork settings as learning environments.

b) MSW Administrative Assistant - 0.5 FTE

This individual will offer support to the MSW Coordinator. This person will be responsible for receiving and responding to admissions and handling prospective and current students’ academic related questions. This individual will also be responsible for sending and receiving program and field education materials.
3.6 The intellectual development and the educational experience of the student

The MSW, as a professional program, will offer students a unique educational experience, in which hands-on work in the field through their practicum is combined with intensive reading, rigorous academic assignments, and critical discussion on-line and face-to-face. Although primarily an online program, the two one-week on-campus Summer Institutes will provide students with exposure to further experiential learning opportunities as a group. In particular, the first Summer Institute, which will be held at the beginning of the program, will provide a community-building opportunity for students to meet and interact with one another, allowing for the formation of group cohesion for the reminder of the program. This first week will also serve as an opportunity to provide students with an orientation to the program, including use of the online platform being used in the delivery of the program (Desire2Learn) and how to access the library resources remotely.

A focal component the program is the practicum. As mentioned earlier, field education is considered the signature pedagogy of a social work program. Students will have the opportunity to integrate and apply the theories and knowledge gained through their academic work in actual social work practice settings.

A unique component of the MSW program will be the Capstone Experience. The second one-week summer institute attended at the end of the student’s academic program will culminate in a symposium highlighting the Capstone Experience. As the full-time and part-time students will move through the program as cohorts, the Capstone Experience will afford and opportunity for students in both cohorts to come together and share their learning in the program.

Throughout the program, students will be collecting artifacts to create their capstone project. These could be papers from classes, reflective pieces, essays, poetry written or read, journal entries, power points, wise quotes, bumper stickers, art work, music, and other things that they encounter and are meaningful to them and are part of their learning. As they progress through the program, students will be asked to organize their artifacts and talk about them casually and in classes, building toward a display that they will make public that is illustrative of their growth, professionalism, and vision for their future. Part of this “final display” could take the form, for example, of an electronic portfolio, website, case study, power point, quilt, performance, scrapbook, a book, or some other creative idea. The final display would be set up and presented at a School of Social Work symposium event.

The final product should be a compilation/integration of their artifacts that represents and articulates their professional growth and development. The contents should contain items that they feel comfortable having publicly viewed at the Symposium and the connections among these artifacts. Their display will be open to other faculty and students to observe as well as members of our local community.

Throughout the program, the School will regularly advise students of workshops and other learning opportunities available on-line through the University of Waterloo. We will provide links to provincial and national professional associations so that students may take advantage of learning opportunities available to them locally. Students may also participate in the annual conference of the Canadian Association for Social Work Education, held in conjunction with the Congress of the Humanities and Social Sciences.
3.7 Program regulations

The School of Social Work has developed a detailed MSW Student Resource Manual (see Appendix 2) and MSW Practicum Manual (see Appendix 3).

MSW Admission Process

The School of Social Work evaluates each candidate according to its academic and non-academic requirements for admission (see details under Admission Requirements and Selection Process).

The Admissions Committee of the School of Social Work recommends candidates to admission to the Director of the School. The Director then makes recommendations to the Associate Dean, Graduate Studies, Faculty of Applied Health Sciences. The Faculty submits approved recommendations to the Graduate Studies office for review on behalf of the University of Waterloo. Applicants must meet the University requirements. If the Graduate Studies Office approves an applicant for admission, an offer of admission from the University which includes details from the School of Social Work, is emailed to the applicant. Applicants who are offered admission have a specified time frame within which to accept or decline the offers of admission.

The School of Social Work notifies applicants who are not recommended to or admitted by the Graduate Studies Office. Decisions regarding applicants who are in the process of completing course requirements will be made once final transcripts are available. A waiting list is established by the School of Social Work in the event that applicants decline the initial offers of admission. Admission may not be deferred; however, an applicant may reapply for admission to the MSW program.

Selection of MSW Candidates

Enrolment in the MSW program is limited each year to 25 part-time and 25 full-time candidates. In the admissions process, candidates are selected according to a scoring system, which is based on both the academic and non-academic requirements.

In order to be considered for admission, applicants must be academically eligible (refer to the section on academic requirements for admission). To be academically eligible, a candidate must meet each of the academic requirements. An academic admission score out of 100 will be calculated for those candidates who are academically eligible and score a minimum of 65 out of the total 100 non-academic points which are comprised of:

| Three Letters of Reference (5 points each) | 15 points |
| Resumé | 35 points |
| Study Plan | 50 points |

Candidates who meet both of these requirements - academic and non-academic - are eligible for admission and will have their total overall scores calculated as follows:

| Academic Score out of 100 points |
| Total Non-Academic Score out of 100 points |
| Total Academic and Non-Academic Score out of 200 points |
This total is then divided by 2 to obtain a total overall score out of 100 points. An applicant’s total overall score (out of 100 points) determines admission to the MSW program. The total overall scores of all eligible candidates are ranked in order from highest to lowest. The School of Social Work recommends to the Graduate Studies Office those candidates with the highest total overall scores.

Course Requirements

The proposed Master of Social Work program has a course-based curriculum, which includes a degree requirement of 8 required courses, plus two elective courses. Two of the required courses are the two practicum courses (462 hours of supervised practice, including an online integration seminar and the Capstone Experience, which are graded on a pass/fail basis). The Capstone Experience occurs during the second summer institute. (See Tables 7, 8, & 9)

According to the regulations set out by the University of Waterloo Graduate Studies Office, students must obtain an average of at least 70% in the set of courses that they present in fulfillment of course requirements for any graduate degree. Some departments may require higher program averages or course grades for graduate degrees. In keeping with the requirements of our BSW program, students will be required to obtain an average of at least 75% in their required coursework.

The regulations also state that Departments may offer, for graduate credit, courses that carry no grades, and satisfactory work in such courses will be indicated on the transcript by CR/NCR. No degree candidate can fulfill more than half of the minimum department course requirements by courses of this type. The two practicum courses and Capstone Experience in the MSW program fall within these guidelines; only representing one-fifth of the department course requirements.

MSW Practicum

The MSW practicum is governed by the accreditation standards set out by the Canadian Association for Social Work Education (CASWE). The Standards stipulate:

... The field education curriculum provides opportunities for students to acquire, apply, and demonstrate knowledge and skills congruent with social work values and with the core learning objectives for students as defined in this document (Preamble 3.1), (CASWE Standards for Accreditation, SB/M 3.2.4, May 2011).

The Standards further state:

... A one-year MSW program provides a minimum of 450 practicum hours and/or a thesis or memoire. (CASWE Standards for Accreditation, SM 3.2.2, May 2011).

Field Education at the MSW level at the School of Social Work consists of two courses that are equivalent to one full credit. The practicum courses are intended to provide students with opportunities to integrate learning in other courses into their practice through a supervised social work experience related to their learning goals, and an online Integration Seminar. The focus of the field practicum is to advance the theoretical
 grounding, critical understanding and practice abilities of students who are already familiar with a field of practice.

As defined in the Canadian Association for Social Work Education Standards of Accreditation:

... The school specifies the particular areas of specialization and/or advanced study which characterize the program within the context of the school's mission. The MSW curriculum includes theories, policies and practices relevant to the student's selected major area of social work practice (i.e., research/scholarship, professional leadership, social work supervision and advanced practice and/or areas of specialization). (CASWE Standards for Accreditation, SM 3.1.1, May 2011).

... Programs for students admitted with a first level social work degree include a specialized or advanced study component of at least 18 credit hours of course work, a practicum of at least 450 hours and/or a thesis or memoire, as defined by the program's university, such as to provide an opportunity for the integration and demonstration of advanced social work skills in practice, and/or policy analysis and/or research. (CASWE Standards for Accreditation, SM 3.1.3, May 2011).

Policies on Student Grievance and Academic Disciplines

A student who has a question or complaint will be advised to follow normal administrative channels, by contacting the MSW Program Coordinator. Students will be asked not to go directly to the School of Social Work Director, the Associate Dean of Graduate Studies and/or Dean of Graduate Studies. The MSW Program Coordinator will consult these individuals as required. Student appeal procedures are set out in the Student Grievance Policy # 70.

If students have a grievance or question about an academic decision, they will be strongly encouraged to first speak informally with the course instructor and/or the MSW Program Coordinator within the School of Social Work. Policy #71, Student Academic Discipline Policy, should also be referred to. Policy Guidelines of Graduate Student Support and other policy excerpts are listed in the document regarding UW Policies, Procedures and Committees, which is included in the offer of admission package sent to all students. Students will be asked to refer to the Graduate Studies Office website for UW Policies, Procedures, Councils & Committees.

3.8 Part-time studies

One of the strengths of the proposed MSW is the ability to complete the program on a part-time basis. The School of Social Work has experienced a great deal of success in its part-time BSW program. We would continue to build upon this success in our MSW program. In a recent evaluation of the part-time BSW program at Renison, current students indicated a number of reasons for pursuing part-time studies, including: work commitments (95.7%), financial (47.8%), family commitments (43.5%), and distance from campus (30.4%). Further, students speculated that if this program were not available on a part-time basis, the majority would have looked for another part-time BSW program (78.3%) or a different part-time program (13%). The study concluded that the individualization, flexibility, and accessibility of the program responded to the needs and
realities of part-time students. Access was further enhanced by the varied course
delivery methods (i.e., multimodal, face-to-face) that responded to both learning styles
and situational needs and by practicum options (Campbell, 2011).

Students will be able to apply to the MSW program on a part-time basis. Should
circumstances change full-time students will be able to transfer into the part-time
program. Conversely, part-time students would also be able to transfer into the full-time
program. Requests to transfer between part-time and full-time studies would be made
through the MSW coordinator.

With the exception of a face-to-face one-week block course at the beginning of the
program and again at the end of the program, all other courses will be delivered
asynchronously online, enabling students to complete course requirements from work or
home at a time that is convenient for them. Students will also be able to secure
placements in their home communities and complete the required 462 hours at a pace
that meets their personal and professional needs (minimum of seven hours per week).

Experiential learning opportunities will be provided through the practicum courses,
through on-line structured interaction, as well as through the on campus block courses.
Course development and teaching in this program will be factored into the normal
workload of five semester-long courses for faculty members teaching in the MSW
program. It is expected that many faculty members will want to teach in both the BSW
and MSW program.

3.9 Curriculum

Program Format

The program will be primarily offered through a distance education format; three courses
will be offered each term to cater to full-time and part-time students. As a professional
program at the graduate level, enrolment will be capped at 25 students for each section
of a course. There will be two sections offered for each course; one for part-time and
one for full-time students. A faculty member will be responsible for one course in the
program and ensuring consistency in content and assignments for each course section.
There will be two courses for the program on campus every year delivered during the
Spring/Summer Institutes. Each on-campus course will be one week in duration. The
distance education courses will be taught in 12 modules supported by individual
readings, PowerPoint presentations, self-reflective questions and group dialogues
facilitated via online discussion boards. There will be a minimum of two assignments per
course.

The two practicum courses will be taken in an approved agency under the supervision of
a practitioner who holds an MSW degree. General supervision of the overall practicum
will be provided by the MSW Coordinator. As part of the practicum, students will be
required to take part in an online integration seminar (5 modules per course, 10 modules
in total). Students will be required to complete detailed learning objectives at the
beginning of each course in consultation with their practicum supervisor and the MSW
Coordinator. An evaluation completed by the student, practicum supervisor and MSW
coordinator must also be submitted at the end of each practicum course and will
contribute to the student's course credit (pass/fail). Table 7 provides an overview of the
course offerings.
Table 7: Overview of Course Offerings

<table>
<thead>
<tr>
<th>Course</th>
<th>Required</th>
<th>Electives</th>
</tr>
</thead>
<tbody>
<tr>
<td>SWK 600: Diversity and Health</td>
<td>0.5</td>
<td></td>
</tr>
<tr>
<td>SWK 601: Health Policy</td>
<td>0.5</td>
<td></td>
</tr>
<tr>
<td>SWK 602: Social Work Practice in Health</td>
<td>0.5</td>
<td></td>
</tr>
<tr>
<td>SWK 603: Critical Exploration of Supervision and Leadership Roles for Social Workers in Health Care</td>
<td>0.5</td>
<td></td>
</tr>
<tr>
<td>SWK 604: Evaluation of Health and Human Service Programs</td>
<td>0.5</td>
<td></td>
</tr>
<tr>
<td>SWK 605: Knowledge Mobilization and Evidence-Based Practice</td>
<td>0.5</td>
<td></td>
</tr>
<tr>
<td>SWK 606: Practicum I</td>
<td>0.5</td>
<td></td>
</tr>
<tr>
<td>SWK 607: Practicum II</td>
<td>0.5</td>
<td></td>
</tr>
<tr>
<td>SWK 608: Health Issues and Ethics</td>
<td></td>
<td>0.5</td>
</tr>
<tr>
<td>SWK 609: Social Work Practice in Mental Health</td>
<td>0.5</td>
<td></td>
</tr>
<tr>
<td>Total Credits Required</td>
<td>4.0 Credits</td>
<td>1.0 Credits</td>
</tr>
</tbody>
</table>

Course Descriptions

Spring/Summer Institutes

The Summer Institutes, which occur in an intensive format at the beginning and end of the program, each comprise two components. The first institute includes a two-day orientation and community-building experience followed by a five-day intensive course, Diversity and Health. The second institute includes a five-day intensive course, Health Policy, followed by a two-day Capstone Experience that synthesizes the learning experience.

Diversity and Health (.5)
Delivered in a block-format – 5 days during the first Summer Institute

The increasing racial, ethnic, cultural and linguistic diversity of Canada, coupled with continuing disparities in health, presents a significant challenge to health care providers. Culture has a fundamental bearing on decisions of how health care services are offered and used. Sensitivity to the values, norms, traditions, belief systems and histories of differing client populations is consequently crucial if such services are to be appropriately targeted, accessed, and used.

This course studies the impact of diversity on health in Canada and across nations. It provides an understanding of the complex interaction among aspects of diversity. The course examines and critiques the methods used in the study of these concepts and issues related to the measurement of health among diverse groups. The ultimate goal of this examination is to help students develop an appreciation of the impact diversity has on assessments and study of health, health status, and health promotion in Canada and other nations. The course is designed to integrate different sources of information about diversity by utilizing critical thinking skills for the consumption of health information.
Health Policy (.5)  
Delivered in a block-format – 5 days during the second Summer Institute

The course offers a critical analysis of health policy formulation, implementation, and evaluation related to population health initiatives and health care delivery. The course includes discussion of the role of various regional, provincial, and national agencies in health care policy formation. It examines various health care systems, and their funding as well as investigates how the Canadian healthcare system compares with systems in other countries.

Capstone Experience

The capstone experience is intended to be both a synthesizing experience and a culminating experience; the focus is on the development of the "professional self". The capstone experience is a student-directed demonstration of beginning master's level practitioner competence developed over the student's career, a chronicle of career development and reflection and a glimpse into the student's professional future learning through a plan for continued growth. It is a scholarly and creative collection of artifacts accumulated through course work, field practicum and daily experiences that demonstrate the students' abilities to articulate a model of practice and sense of the integration of the domains of professional social work. The capstone experience culminates in designated days of student sharing and demonstration to each other, faculty, and local practitioners about their learning as MSW students. The capstone experience will be built into the practicum courses and will count towards 10 hours of practicum (two in-class days). Like the practicum, it will be graded as pass/fail.

Social Work Methods – 2 courses (.5 each)  
Social Work Practice in Health

This course examines practice models and multi-level methods of intervention for effective social work practice in health care, including health promotion, disease prevention, assessment, treatment, rehabilitation, continuing care, and discharge planning within the context of social, economic, environmental, and cultural variations. The distribution, determinants, as well as psychological and behavioural aspects of health and disease across the life span are addressed. Practice models incorporate competence and empowerment as central themes. New models of care are considered, including primary health care, the impact of socio-cultural factors on health and well being, the significance of family relationships and resources in the management of chronic and complex health conditions, and interventions that support individual and family capacity to adapt to acute health crises or chronic health conditions.

Critical Exploration of Supervision and Leadership Roles for Social Workers in Health Care

This course examines effective leadership in a tumultuous health care environment characterized by changing patient populations, health care technologies, professional practices, community needs/expectations, and rapid shifts in service delivery modalities. In this environment, health care professions are increasingly challenged to develop and oversee staff capable of delivering contemporary benchmark professional practice. Competent supervision requires practice knowledge, keen
perspective, and the ability to support, guide, educate and direct practitioners of varying skill and experience. This course provides inquiry-based opportunities for students to critically examine their leadership styles, developing foundational knowledge and skills for effective involvement in organizational change, staff management, coaching and supervision, coordination of inter-professional teams and development of policies to address the social determinants of health.

Research – 2 courses (.5 each)
Evaluation of Health and Human Service Programs

Program evaluation is the systematic, utilization focused collection of information for internal planning purposes, external accountability, and accreditation requirements. This course introduces students to theoretical and practical aspects of program evaluation. Students learn about the application of data collection skills to all phases of developing a health or human services program or service innovation, from needs assessment to analysis of findings to implementation of changes based on results. Students learn to appreciate how these skills can be used as practical tools for identifying health and human services problems, for developing and implementing programs including taking a reflective practice approach, ensuring equity and fairness in program delivery (i.e., combating disparities), and generally promoting health and human services through effective and efficient programming.

Knowledge Mobilization and Evidence-Based Practice

The goal of knowledge mobilization is to make research in health and social science more useful to policy, practice, and the public. In this course students learn how to gather, evaluate, synthesize and summarize scholarly knowledge in ways that meet the needs, timeframes, cultures, and realities of stakeholders. Activities include framing academic research in the context of public issues and creating knowledge products for practitioners and policy-makers in the students’ areas of interest.

Electives – 2 courses (.5 each)

Note: These courses may be substituted with courses offered through the MPH program listed under 3.10.

Health Issues and Ethics

Canadians identify health care as a core value, but the practical realities of delivering care are overwhelming our compassion. This course considers the nature of health itself, and explores the complexities of a health care system that corresponds with our values and ethics while being effective and financially stable. Three related themes serve as substrates for the semester: the nature of health, delivery of health care, and populations at risk. Issues such as how health and illness are defined, the roles of preventive and curative approaches, and the impacts and ethics of new technologies will be addressed. The course compares public and private models, focuses on community health care as a developing new paradigm, and examines the particular challenges of marginalized and vulnerable communities.
Social Work Practice in Mental Health

Mental illness and mental health problems affect the lives of individuals and families encountered by social workers in a wide range of health and social service settings. This course aims to equip students to provide sensitive and effective help to clients by presenting material concerning a range of mental health problems and their treatment. The course considers social work practice across the continuum of mental health care services. Attention is focused on how social workers assess, support and intervene with consideration of both the client and his or her environment.

Practicum – 2 courses (.5 each)
Practicum I & Practicum II

A 462-hour practicum in a health setting serves to ground and refine the knowledge, skills, and values of students completing the MSW program.

- 462 hours – 66 days @ 7 hours/day
- Practicum would be organized in two 231 hour blocks = 33 days @ 7 hours/day.
- The practicum may be completed through a more concentrated time span of 3 days a week, which would enable students to complete it in 2 terms. This option is for those wishing to complete the program full-time.

The following tables (Tables 8, 9, & 10) are sample student schedules for both full-time and part-time students in the program.

Table 8: Full-Time Enrolment

<table>
<thead>
<tr>
<th>TERM</th>
<th>On Campus (August)</th>
<th>Term I (Fall)</th>
<th>Term II (Winter)</th>
<th>Term III (Spring/Summer)</th>
<th>On Campus (August)</th>
</tr>
</thead>
<tbody>
<tr>
<td>COURSES</td>
<td>Diversity &amp; health (5-day Block)</td>
<td>Social work practice in health</td>
<td>Critical explorations of supervision and leadership roles for social workers in health care</td>
<td>Health issues and ethics</td>
<td>Health policy (5-day Block)</td>
</tr>
<tr>
<td></td>
<td>Orientation &amp; Community Building (2-days)</td>
<td>Evaluation of health and human services</td>
<td>Knowledge mobilization &amp; evidence-based practice</td>
<td>Social work practice in mental health</td>
<td>Capstone project (2-days)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Practicum I</td>
<td>Practicum II</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 9: Part-Time Enrolment Year 1

<table>
<thead>
<tr>
<th>TERM</th>
<th>On Campus (August)</th>
<th>Term I (Fall)</th>
<th>Term II (Winter)</th>
<th>Term III (Spring/Summer)</th>
</tr>
</thead>
<tbody>
<tr>
<td>COURSES</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diversity &amp; health (5-day Block)</td>
<td>Social work practice in health</td>
<td>Critical explorations of supervision and leadership roles for social workers in health care</td>
<td>Health issues and ethics</td>
<td></td>
</tr>
<tr>
<td>Orientation &amp; Community Building (2-days)</td>
<td>Practicum I</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 10: Part-Time Enrolment Year 2

<table>
<thead>
<tr>
<th>TERM</th>
<th>Term IV (Fall)</th>
<th>Term V (Winter)</th>
<th>Term VI (Spring/Summer)</th>
<th>On Campus (August)</th>
</tr>
</thead>
<tbody>
<tr>
<td>COURSES</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evaluation of health and human services</td>
<td>Knowledge mobilization &amp; evidence-based practice</td>
<td>Social work practice in mental health</td>
<td>Health policy (5-day Block)</td>
<td></td>
</tr>
<tr>
<td>Practicum II</td>
<td></td>
<td></td>
<td></td>
<td>Capstone project (2-days)</td>
</tr>
</tbody>
</table>

3.10 Collateral and supporting departments

The following courses, offered through the University of Waterloo’s Masters of Public Health (MPH) program, may be available to students in the MSW program as alternatives to one of the elective courses. We will finalize these arrangements if the MSW program is successful in its application.

PHS 607 Social, Cultural and Behavioural Aspects of Public Health I

An introduction to the social, cultural and behavioural foundations of public health and outline the contributions of the social sciences to the planning and implementation of public health interventions.
PHS 617 Population Intervention for Disease Prevention and Health Promotion

This course introduces the principles and methods for the effective design, selection and implementation of public health interventions to address socio-behavioural risk factors. At completion, students will be able to: determine when interventions are justified; differentiate between individual and population level interventions; describe various types of interventions; use theory and evidence to select and design interventions including the appropriate mixes of intervention types, sites, and delivery systems. Emphasis is placed on self learning through reading and problem-based learning. Lectures highlight and link important constructs, theories, perspectives, and bodies of evidence.

PHS 632 Health Economics and Public Health

An exploration of the socioeconomic determinants of health, the role of economics in public health policy, and the uses of economic evaluation methods in public health decision-making.

PHS 662 Global Health

"Global Health" refers to health issues and concerns that transcend national borders, class, race ethnicity, and culture. This course will examine Global Health issues and challenges in the 21st century from a Public Health perspective. Issues range from socioeconomic factors, health systems, culture, human rights, ecological sustainability, humanitarian assistance, and war and peace. Group work is emphasized.

There may be opportunities for service learning or interviews with frontline providers to explore Global Health in a local context.

PHS 663 Human Development and Health

Course content includes normative and non-normative development across the lifespan as it is relevant to individual and population health and public health programming. The human is treated as an independent system nested within an environmental system. Consideration will be given to the interaction of the commonly recognized developmental domains, the individual's context, and wellness. Topics of discussion may include the impact on health and wellness of developmental continuity, resilience, transitions, and milestones.

3.11 Organizational structure

The School of Social Work is an academic unit within Renison University College. The School has a full-time Director who reports to the Principal of Renison University College. In the case of the MSW program, the Director will provide updates to the Dean of Applied Health Sciences and the Associate Provost Graduate Studies as needed.

MSW Program academic approvals (curriculum changes; new program development) occur through the following:

- School of Social Work Faculty Committee
4. PROJECTED ENROLMENT

A key assumption of the business proposal is that the MSW program enrolment will be staggered, beginning with the enrolment of 25 part-time students in the first year and reaching full capacity of 75 students per year in year two (i.e., 25 full-time students and 50 part-time students) as illustrated in Table 11 below. An assumption of this business proposal is that, on average, part-time students will enrol in five courses per year whereas full-time students will complete their ten courses within the duration of one year.

<table>
<thead>
<tr>
<th>Student Enrolment</th>
<th>Year of Program</th>
<th>Number of Courses Taken Per Year</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Part-Time</td>
</tr>
<tr>
<td>Total Part-Time:</td>
<td>Year 1</td>
<td>5</td>
</tr>
<tr>
<td>50</td>
<td>Year 2</td>
<td>5</td>
</tr>
<tr>
<td>Total Full-Time:</td>
<td>Year 3</td>
<td>5</td>
</tr>
<tr>
<td>25</td>
<td>Year 4</td>
<td>5</td>
</tr>
<tr>
<td>Max. # of Students:</td>
<td>Year 4</td>
<td>5</td>
</tr>
</tbody>
</table>

REFERENCES


CASWE (2011). *Standards for Accreditation.* Ottawa, ON: CASWE.


Senate Undergraduate Council met on October 11, 2011 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 may be obtained at: www.secretariat.uwaterloo.ca/Committees/senate/ugc.htm.

FOR APPROVAL

REGULATION CHANGES  [effective September 1, 2012]

Faculty of Arts

Minors and Options

1. Motion: To approve the changes to arts’ minors and options as below. (Note: new text = bold; deleted text = strikethrough.)

Minors

A minor in arts requires the successful completion of five four academic course units in the minor discipline. Students should consult with the appropriate undergraduate advisors for details of more specific requirements.

An arts minor in most Arts disciplines and in many disciplines in other faculties may be pursued by arts students enrolled in degree plans. Honours or four-year general BA major plans or the BIS plans. Students enrolled in degree plans in other faculties should consult with their home faculty regarding their eligibility before pursuing an arts minor.

Minors offered by other faculties may be pursued by arts students enrolled in honours or four-year general BA major plans. Students should consult with the appropriate faculty for their regulations.

Minors are also available in applied language studies, church music and worship, cognitive science, East Asian studies, environment and economics, Greek, human resources management, international studies, Italian studies, Jewish studies, Latin, management studies, Mennonite studies, spirituality and personal development, and studies in Islam, although there are no majors in those disciplines.

Note: Arts students enrolled in three- and four-year general liberal studies plans or three-year general major plans may not pursue a minor. Honours and four-year general students enrolled in other faculties may also pursue minors offered by the Faculty of Arts.

Options

An option provides a secondary area of concentration similar to a minor. Options, however, may consist of less than five academic course units worth of courses (though some options do require five academic course units). The majority of options, moreover, are open to all degree students in arts, including those who cannot pursue a minor (i.e., students in a three-year general major plan or students in three-year or four-year liberal studies). Options are also available to degree students in other faculties. The majority of options are offered in interdisciplinary plans; see the individual plan sections for details.

Rationale: To reduce the number of courses required for a minor from 10 to eight, and to expand the potential audience for minors across Waterloo to include students in three-year general plans as well as liberal studies; in addition, to eliminate options as a separate plan category in arts.

Requirements for minors at other institutions across Ontario and Canada vary, and six-eight courses is the norm. Arts has a large number of minors and options with identical requirements (e.g., management studies) except for the permitted audience; these are being inactivated and
replaced with eight-course minors. In other cases (e.g., cognitive science, international studies) there are options not attached to a major; these are being transformed into eight-course minors, others are being inactivated entirely. This will eliminate a number of identical (or nearly so) plans in arts, and streamline the sometimes confusing array of offerings for students.

Please see attachment #1 for a detailed report outlining proposed changes.

**Faculty of Mathematics**

**Course Load Regulation**

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

The standard course load for students in the mathematics faculty is five courses per term (2.5 units). The maximum load that may be taken without special permission is 2.75 units, allowing for five 0.5-unit courses and one 0.25-unit course. Exceptions to this normal load are as follows:

- Students who have a cumulative average of 80% or more and are in ‘Good Standing’ will have their maximum course load increased to six courses (3.0 units) for the subsequent academic term. May request permission from their advisor to enrol in a sixth course. The intention is to permit students to take additional courses beyond the 40 course (20 unit) degree requirement and thereby gain greater breadth in their education. However, honours co-op students should not enrol in six courses with a view to graduating in fewer than eight terms, since it is Faculty policy that co-op students must complete eight full-time terms in order to graduate with an honours degree.

- If a student has courses with INC grades on his/her record, the total unit weight of those INC courses and the courses enrolled for the current term may not normally exceed 3.25 units. A student may obtain permission from an academic advisor to exceed this limit, if an INC will not be completed in the current term because the course is not offered.

- In the term after a student’s first 1A term in the Faculty of Mathematics, each failed course will reduce his/her maximum course load by 0.5 units. In addition, each INC beyond the first will reduce his/her maximum course load by an additional 0.5 units. Under no circumstances will a student’s maximum course load be reduced to less than 1.0 units. A student with a maximum course load of 1.0 units may be permitted to enrol in 1.5 units at the discretion of his/her academic advisor.

- Students with a CAV that is less than 60% are restricted to a maximum course-load of 2.0 units for the subsequent academic term.

- If more than one of the preceding apply to a student, the maximum course load is the smallest of the limits specified.

Students may add new courses or change sections in already scheduled courses no later than the end of the second week of lectures. Students must complete their add or swap activity on Quest or submit a Course Override Form to the Mathematics Undergraduate Office by the published deadline.

**Rationale:** The faculty has some students who have a lot of potential but, unfortunately, lack maturity. As a result, despite a difficult fall term, they continue to enrol in too many courses during the following winter term, often resulting in additional failures. The proposed changes are intended to slow such students down enough to give them a term in which they can succeed and to send the clear message that continuing on as usual is not appropriate. Finally, it provides the basis for new initiatives to intervene early when students are facing difficulties in their 1A term. These changes should help reach the student success goals recently outlined by the broader institution.
Academic Standing

3. Motion: To approve changes to the faculty's academic standing regulation as below. (Note: new text = bold)

To remain in the Faculty of Mathematics, a student may not have more than 3.0 units of excluded courses. A student who exceeds this limit will be required to withdraw. Note that, in addition to passed courses excluded at the student's request, failed courses will be excluded automatically. Any student required to withdraw may be eligible to graduate with a general degree under the Honours Fallback Provision, if they meet the requirements for a general degree when they are required to withdraw.

Any student who has more than 3.0 excluded units, and has no more than 0.5 units remaining to satisfy degree requirements, may enrol in one additional term. The student will still qualify for an honours degree if, at the end of that term, he/she:

- satisfies all degree requirements (other than the failure limit),
- has credit for at least 1.0 units more than the minimum number of required units, and
- has no excluded courses, WDs, or CLCs in that term.

No student is permitted to take advantage of this exception more than once.

Rationale: The faculty feels that it is cruel to deny a degree to a student who falls just short of requirements without granting that student one last chance for redemption.

Course Drop Regulation

4. Motion: To approve changes to the faculty's course drop regulation as below. (Note: new text = bold)

The faculty’s degree requirements stipulate that the difference between the number of units attempted and the number of units completed cannot exceed five. Thus, a student will be required to withdraw if the total unit value of excluded courses, WDs, and repetitions of (non-excluded) passed courses exceeds five units. Any student required to withdraw may be eligible to graduate with a general degree under the Honours Fallback Provision, if they meet the requirements for a general degree when they are required to withdraw.

Any student who has more than 5.0 units of unusable attempts, and has no more than 0.5 units remaining to satisfy degree requirements, may enrol in one additional term. The student will still qualify for an Honours degree if, at the end of that term, he/she:

- satisfies all degree requirements (other than the attempt limit),
- has credit for at least 1.0 units more than the minimum number of required units, and
- has no excluded courses, WDs, or CLCs in that term.

No student is permitted to take advantage of this exception more than once.

Rationale: The faculty feels that it is cruel to deny a degree to a student who falls just short of requirements without granting that student one last chance for redemption.

NEW ACADEMIC PROGRAMS  [effective September 1, 2012]

- Faculty of Arts
  - Minors
    - Economics: Environment and Economics Minor
    - Interdisciplinary Plans: Cognitive Science Minor; International Studies Minor
    - Religious Studies: Catholic Studies Minor
    - Renison University College: Applied Language Studies Minor
    - St. Jerome’s University: Human Sciences Minor
    - Sociology and Legal Studies: Legal Studies Minor
Spanish: Latin American Literature and Cultures Minor; Spanish/English

Translation Minor

5. Motion: To approve the creation of new minors as detailed in attachment #1.

Rationale: Congruent with the proposed changes to the faculty's minors and options described above, the faculty proposes the creation of two new minors (Catholic studies, human sciences), and several new minors which used to be options (environment and economics, applied language studies, legal studies, Latin American literature and cultures, Spanish/English translation, cognitive science, international studies). Please note: changes to existing minors are provided under “Changes to Academic Plans” and the inactivation of all existing options is included under “Academic Plan Inactivations” below.

The Faculty of Arts has taken this opportunity to review all existing minors and options, and numerous additional changes are being proposed in addition to those modifications based solely on the regulation change. Although all existing options in arts are being inactivated, some of arts' interdisciplinary options are popular; instead of getting rid of them completely (due to the regulation change), these are being “transformed” into new minors. Some of the options' existing requirements fell below the new standard of eight courses, and in those cases, the required number of courses has been increased. Generally, existing minors required ten courses; those requirements have been decreased to eight in all arts minors. For some minors, the only changes they require are to the general listing of their requirements, as their individual plan-specific requirements already fall below the new standard of eight required courses. Thus, no other changes were needed, or desired, by these plans. The Faculty of Arts has also taken this opportunity to standardize the required averages for all arts minors, which is now 65%, with two exceptions. The following plans are changing their required average, from 70% to 65%, to increase consistency among all arts minors: cognitive science, environment and economics, international studies, Jewish studies, and management studies. There remain two arts minors with higher averages: Spanish/English translation minor (75%) and human resources management minor (70%). For the Spanish/English translation minor, the required average of 75% is being retained for the new minor because students require a minimum of 75% to pass the final exit examination. As for the human resources management (HRM) minor, it offers students a unique blend of academic and applied skills and provides a very clear path for students who wish to obtain the HR professional designation following graduation. The HRM director believes it is in the students' best interest to align the HRM average requirements with those of the HR Professional Association (HRPA), which requires an average of 70% on the nine courses required for the Certified Human Resources Professional (CHRP) designation with no individual course achieving lower than 65%. To deviate from these requirements causes a great deal of confusion and frustration for students who achieve the 65% average requirement at Waterloo only to learn that some courses are not recognized by HRPA because they fall below that average requirement. These students must either appeal to retake the course at Waterloo (and the second attempt is often “extra” to the degree) or complete the course at another institution, or register and pay to take a challenge exam at HRPA in the subject area. Thus, the current HRM minor’s required average of 70% is being kept.

Please see attachment #1 for a detailed report outlining proposed new minors.

CHANGES TO ACADEMIC PROGRAMS  [effective September 1, 2012]

Faculty of Arts

Minors and Diplomas

Anthropology: Anthropology Minor
Classical Studies: Classical Studies Minor; Greek Minor; Latin Minor
Conrad Grebel University College: Church Music and Worship Minor; Mennonite Studies Minor;

Diploma in Mennonite Studies; Music Minor;
Peace and Conflict Studies Minor; Diploma in Peace and Conflict Studies
Drama: Drama Minor
Economics: Economics Minor
English Language and Literature: English Minor
Fine Arts: Fine Arts Minor; Visual Culture in a Global Context Minor
French Studies: French Minor
German: German Minor; Russian and East European Studies Minor
History: History Minor
Management Studies: Management Studies Minor; Diploma in Management Studies
Philosophy: Philosophy Minor
Political Science: Political Science Minor
Psychology: Human Resources Management Minor; Human Resources Management Diploma; Psychology Minor
Religious Studies: Jewish Studies Minor; Religious Studies Minor
Renison University College: Diploma in Applied Language Studies; East Asian Studies Minor; Diploma in East Asian Studies; Social Development Studies Minor; Studies in Islam Minor; Diploma in Studies in Islam
Sociology and Legal Studies: Sociology Minor
Spanish: Spanish Minor
Speech Communications: Speech Communications Minor
St. Jerome’s University: Italian Studies Minor; Sexuality, Marriage and Family Studies Minor
Women’s Studies: Women’s Studies Minor

6. Motion: To approve the changes to arts’ minors and options as detailed in attachment #1.
Rationale: See the Faculty of Arts’ motions above for rationale.

ACADEMIC PLAN INACTIVATIONS [effective September 1, 2012]

Faculty of Arts
3-year General Plan, Minors, Options, Specializations and Diplomas

Conrad Grebel University College: Church Music and Worship Option; Mennonite Studies Option; Peace and Conflict Studies Option
Economics: Environment and Economics Option
Interdisciplinary Plans: Cognitive Science Option; Fine and Performing Arts Option; International Studies Option; Management Studies Option
Philosophy: Philosophy Option
Psychology: Human Resources Management Option; Honours Psychology – Human Resources Management Specialization
Religious Studies: Jewish Studies Option; Diploma in Jewish Studies
Renison University College: Applied Language Studies Option; East Asian Studies Option; Studies in Islam Option
Sociology and Legal Studies: Legal Studies and Criminology Option
Spanish: Latin American Literature and Cultures Option; Spanish/English Translation Option
Speech Communication: Speech Communication Option
Spirituality and Personal Development: Spirituality and Personal Development Minor; Spirituality and Personal Development Option
St. Jerome’s University: Three-Year General Italian Studies; Italian Language Minor; Italian Studies Option; Sexuality, Marriage, and Family Studies Option
Women’s Studies: Women’s Studies Option

7. Motion: To approve the inactivation of the above plans.
Rationale: Congruent with the proposed changes to the faculty’s minors and options described in council’s report recommended for inclusion in the consent agenda, the faculty proposes the inactivation of these plans. Some proposed inactivations are not directly related to the regulation change, but have come out of evaluations/updating of the plans, as well as discussions between the disciplines and the office of the Associate Dean of Arts – Undergraduate Studies.
Faculty of Mathematics
Computational Mathematics
Computational Mathematics/Bio-Medical Option; Computational Mathematics/Data-Mining Option; Computational Mathematics/Earth and Space Option; Computational Mathematics/Economics Option

8. Motion: To approve the inactivation of the above plans.

Rationale: In the last 10 years the faculty has had no students in these plans. It is not clear that a student could even do one of these plans if he/she wanted to, given that he/she would not have access to any electrical engineering courses.

Faculty of Science
Computational Science Co-op and Regular

9. Motion: To approve the inactivation of the above plans.

Rationale: Consecutive years of low enrolment, and the lack of students gravitating towards the program from the high school system have led the faculty to propose to discontinue these plans, a move encouraged by the recent program review process. Because there have been such low application numbers there will likely be no students admitted for the fall 2012/13 academic year; any person making an inquiry regarding these plans will be encouraged to consider other physical sciences programs. Any person currently in the program will be able to finish and graduate.

/kjj Geoff McBoyle
October 28, 2011
Associate Vice-President, Academic
NEW ACADEMIC PLANS

1.1. Religious Studies
1.1.1. Catholic Studies Minor

Students enrolled in any degree program may pursue a minor designation in Catholic Studies.

The Catholic Studies Minor requires successful completion of a minimum of four academic course units (eight courses) in Catholic Studies with a minimum cumulative average of 65%, including:

- RS 110, 150, 151
- one of RS 348, 354
- two of RS 240, 245, 251, 253, 283
- two from the following list of courses:
  - HIST 115, 235, 236, 304
  - HUMSCI 101, 102, 201, 301, 401, 490
  - RS 130, 152
- No more than four courses at the 100-level

Rationale: The Religious Studies Department intends to introduce a Minor program in Catholic Studies for the following reasons: a) a Minor program complements the offerings already being regularly provided by the Religious Studies Department; b) a Minor program would assist those students who intend to teach in a Catholic School Board; c) an increase in the teaching faculty at St. Jerome’s supports the introduction of this Minor.

1.2. St. Jerome’s University
1.2.1. Human Sciences Minor

Students enrolled in any degree program may pursue a minor designation in Human Sciences.

The Human Sciences Minor requires successful completion of a minimum of four academic course units (eight courses) in Human Sciences and approved courses with a minimum cumulative average of 65%, including:

- HUMSC 101, 102
- one of HUMSC 201, 301
- one of HUMSC 401; PHIL 418J
- two of PHIL 100J, 118J, 120J, 204J, 210J, 218J
- one of ITALST 291, 311, 312, 360, 370
- one of SOC 355J, 369J
- No more than four courses at the 100-level

Note: Course selection should be made in consultation with the Director of Human Sciences as other approved courses may be substituted.

Rationale: The Human Sciences, a St. Jerome’s University initiative, is an interdisciplinary and multifaceted approach to learning and formation steeped in the liberal arts tradition. It was developed as one way of expressing the commitment St. Jerome’s University, as a liberal arts university, has to this tradition. Summary Rationale: St. Jerome’s University is committed to ensuring that the minor will be resourced as one particular way of expressing its identity as a
liberal arts university; over the last many years many students who have taken Human Sciences courses have requested a minor; the increase in number, frequency, and variety of courses offered for this minor ensures that students will be able to complete this program in a timely manner.

1.3. **New Minors that Used to be Options**

*Note: See Council's report for rationale.* New Minors are being created and old Options are being inactivated. Although these are new plans, changes occurring because of the plan transformations from existing Options are demonstrated by bolding and strikeouts for clarity.

1.3.1. **Economics**

1.3.1.1. **Environment and Economics Minor**

Students enrolled in any degree program may pursue a minor designation in Environment and Economics.

The Environment and Economics Minor requires successful completion of a minimum of **three** academic course units (six eight courses) with a minimum cumulative average of 70%-65%, including:

- ECON 101, 201, 355, 357-361
- ENVS 220
- two three courses from the following:
  - ECON 355 361
  - ENVS 200 or 201
  - GEOG 356
  - PHIL 224
  - PLAN 320/GEOG 319
  - PSCI 432/ERS 404
  - RS 285/ERS 294
  - SCI 250
  - SYDE 433

*Note: Students in any Economics academic plan are not eligible to take the Environment and Economics Minor.*

1.3.2. **Renison University College**

1.3.2.1. **Applied Language Studies Minor**

Students enrolled in any degree program may pursue a minor designation in Applied Language Studies.

The Applied Language Studies Minor requires successful completion of a minimum of **five** academic course units (ten eight courses) in APPLS Core, Approved Language, and Approved Applied Language Studies courses with a minimum cumulative average of 65%, including:

- APPLS 205R, 301, 306R
- four Approved Language Courses (all in one language that is not the student's first language, or two in each of two languages that are not the student's first language):
  - CROAT 101, 102, 201, 202
  - DUTCH 101, 102, 201, 202
  - ESL 101R, 102R, 129R
  - ENGL 129R
1.3.3. Sociology and Legal Studies

1.3.3.1. Legal Studies Minor

Students enrolled in any degree program may pursue a minor designation in Legal Studies.

The Legal Studies Minor requires successful completion of a minimum of five four academic course units (ten eight courses) with a minimum cumulative average of 65%, including:

1. five Legal Studies courses:
   - two of HIST 277; LS 101, 102, 403; PHIL 327; PSCI 260; PSYCH 230; SOC 370
   - two of AFM 231 or COMM 231; AFM 431 or PHIL 215/ARBUS 202; CLAS/HIST 210; ECON 451; ENGL 210I; ENVS 201, 401; HIST 236, 329; INTST 101; ISS 350G; LS 201/WS 206; LS 496, 498; PACS 323; PLAN 471; PSCI 226, 291; SDS 333R; SOC 249, 325

   Note: Students in the Faculty of Environment must take ENVS 201 and one of ENVS 401 or PLAN 471. Planning students must take PLAN 471.

   - one additional course from the above list

2. five Criminology courses:
   - two of PSCI 292; PACS 202; SOC 222, 227, 229
   - two of LS 496; PACS 329; PSCI 459; PSYCH 330; SOC 201, 223, 226, 228, 327, 428; SPCOM 430
3. of the ten eight courses, a minimum of five courses must be in different disciplines
4. a maximum of five courses can be taken in any one discipline
Note: Students in any Legal Studies academic plan are not eligible to take the Legal Studies Minor and Criminology Option.

1.3.4. Spanish
1.3.4.1. Latin American Literature and Cultures Minor
Students enrolled in any degree program may pursue a minor designation in Latin American Literatures and Cultures. Students will closely examine the literatures and cultures of Latin America from pre-Columbian times to the present. The analysis of individual works will be grounded in a deep understanding of their historicity. Students will become acquainted with the major trends in literary and cultural criticism, while developing strong research skills at the same time.

The Latin American Literatures and Cultures Minor requires successful completion of a minimum of five four academic course units (ten eight courses) with a minimum cumulative average of 65%, including:
- one of SPAN 217, 218
- two of SPAN 400, 410, 418, 430, 497
- seven five additional courses from the balance of the courses listed above and the following courses: SPAN 217, 218, 219, 227, 228, 333, 334, 366, 387, 388, 400, 410, 430, 497.

1.3.4.2. Spanish/English Translation Minor
Students enrolled in any degree program may pursue a minor designation in Spanish/English Translation.

The Spanish/English Translation Minor requires successful completion of a minimum of five four academic course units (ten eight courses) with a minimum cumulative average of 75%, including:
- SPAN 390, 401A, 401B, 450, 490
- one of SPAN 217, 218
- SPAN 445 or, if not offered, ENGL 306A
- one of SPAN 451W (see WLU calendar), 461W (see WLU calendar)
- LAT 101
- one of LAT 101, ENGL 376R
- Successful completion of a final examination in Spanish/English translation.

1.3.5. Interdisciplinary Plans
1.3.5.1. Cognitive Science Minor
Students enrolled in any degree program may pursue a minor designation in Cognitive Science.

The Cognitive Science Minor requires successful completion of a minimum of three four academic course units (seven eight courses) with a minimum cumulative average of 70% 65%, including:
- PHIL/PSYCH 256
- three of
  - PHIL/PSYCH 447 (strongly recommended)
  - one of PSYCH 207, 261
  - one of ENGL 306A, FR 303
  - one of CS 486; ECE 457A; PSYCH 420; SYDE 422, SYDE 556
• three four electives to be chosen, with no more than two in the same discipline, from:
  o ANTH 260, 403
  o CS 349, 484, 485
  o COGSCI 600 (Seminar in Cognitive Science)
  o ECE 457B, 486
  o ENGL 309A
  o KIN 356
  o PHIL 255, 363
  o SYDE 348, 372, 543, 558
  o Relevant advanced seminars and topics courses in the participating departments, approved by the Director of the Cognitive Science Advisory Board or the Philosophy Department Undergraduate Officer.

Notes:
1. Course selection must be approved by the Director of the Cognitive Science Option Minor or by the Philosophy Department Undergraduate Officer.
2. If students have taken more than the minimum number of required courses from the “three of” category, the extras may in some cases be counted as electives.

1.3.5.2. International Studies Minor
Students enrolled in any degree program may pursue a minor designation in International Studies.

The International Studies Minor requires successful completion of a minimum of 3-5 four academic course units (seven eight courses) with a minimum cumulative average of 70% 65%, including:
• INTST 101
• six seven courses from the Elective Courses list, of which:
  o only two can be from the student's own major
  o four must be at the 200-level or higher.
  o Elective Courses:
    ▪ ANTH 102, 233, 330, 351
    ▪ EARTH 121 & 121L, 122 & 122L
    ▪ EASIA 205R
    ▪ ECON 231, 304, 332, 355, 365, 436
    ▪ ENV 220
    ▪ ERS 360, 404
    ▪ FR 291, 292
    ▪ GEOG 224, 323, 426, 432, 459
    ▪ GER 271, 272
    ▪ HIST 102, 104, 111, 130, 200, 220, 221, 223, 239, 258, 263, 264, 358, 389
    ▪ HLTH 420
    ▪ ITALST 292
    ▪ JS 217
    ▪ MUSIC 245, 256, 334
    ▪ PACS 201, 202, 301, 302 311, 316, 318, 321, 324, 327
    ▪ PHIL 220, 224, 329
    ▪ PLAN 432
Notes:

1. Students are urged to register for the Minor at an early stage in their academic plan. However, provided they have kept up with the requirements on their own, they may register for the Minor as late as the start of the final term of their studies. Students taking the International Studies Option are advised to contact the Director at their earliest opportunity, although formal registration in the option may be postponed until, but not later than, entry into third year.

2. Students are also urged to contact the Director with regard to their course selection as the list is subject to change.

3. Students should also know that it is possible to have a course not currently listed count towards their Elective Course requirements, provided that the desired course has substantial international content. In this case, however, students must have the prior written approval of the Director.

4. With respect to the total number of courses permitted at any given level, students remain subject to the limitations imposed by the faculty and department in which they are registered.

2. ACADEMIC PLAN CHANGES

2.1. Requiring Changes to Calendar Text Only
2.1.1. Anthropology Minor
2.1.2. Classical Studies Minor, including Greek and Latin
2.1.3. Drama Minor
2.1.4. Economics Minor
2.1.5. German Minor
2.1.6. History Minor
2.1.7. Philosophy Minor
2.1.8. Political Science Minor
2.1.9. Religious Studies Minor

Example: “Students enrolled in any Honours or Four-Year General Major academic plan degree program may pursue a minor designation in Anthropology.

The Anthropology Minor requires successful completion of a minimum of five four academic course units (ten eight courses) in Anthropology with a minimum cumulative average of 65%, including: ...”

2.2. Conrad Grebel University College
2.2.1. Church Music and Worship
2.2.1.1. Church Music and Worship Minor

Students enrolled in any Honours or Four-Year General Major academic plan degree program may pursue a minor designation in Church Music and Worship.

...
The Church Music and Worship Minor requires successful completion of a minimum of five four academic course units (ten eight courses) with a minimum cumulative average of 65%, including:

- CMW 363/MUSIC 363/RS 357
- CMW 364/MUSIC 364/RS 358
- RS 240/HIST 235
- one of MUSIC 253, 254
- one of RS 235, 236
- two three of the following courses, one from each of two of the three groups:
  - Biblical: RS 130, 235, 236-335
  - Historical: HIST 235/RS 240, HIST 348/RS 344, HIST 379/RS 343; RS 248, 348
  - Theological: RS 151, 152, 250, 257, 286
- three two of the following (not already selected above):
  - CMW 201 and 202 (two terms of Worship Practicum)
  - MUSIC 116 and 117 (two terms of Chapel Choir)
  - MUSIC 222, 231, 245, 322, 334, 355, 376
  - MUSIC 253 or 254 (if not chosen above)

Note: Other elective Alternative courses may be approved by the Director.

2.2.2. Mennonite Studies

2.2.2.1. Mennonite Studies Minor

Students enrolled in any Honour or Four-Year General Major academic plan degree program may pursue a minor designation in Mennonite Studies.

The Mennonite Studies Minor requires successful completion of a minimum of five four academic course units (ten eight courses) with a minimum cumulative average of 65%, including:

- two of
  - ENGL 218
  - HIST 247
  - HIST 348/RS 344
  - RS 252
  - SOC 275
- two of
  - HIST 235/RS 240
  - RS 235
  - RS 236
  - RS 250
  - RS 335
- six four of
  - CMW 363/MUSIC 363/RS 357
  - CMW 364/MUSIC 364/RS 358
  - ENGL 218
  - HIST 379/RS 343
  - HIST 400A
  - PACS 201
  - PACS 203/HIST 232
  - RS 152
  - RS 256/PACS 320
  - RS 353
Note: Students may substitute a directed study for one of these, subject to the approval of the relevant instructor and the director of the plan.

2.2.2.2. Diploma in Mennonite Studies
Students enrolled in any non- or post-degree academic plan may pursue the Diploma in Mennonite Studies.

The Diploma in Mennonite Studies requires successful completion of a minimum of 2.5 academic course units (five courses) with a minimum cumulative average of 65%, including:

- two of
  - ENGL 218
  - HIST 247
  - HIST 348/RS 344
  - RS 352
  - SOC 275

- two of
  - HIST 235/RS 240
  - RS 235
  - RS 236
  - RS 250
  - RS 335

- one of
  - CMW 363/MUSIC 363/RS 357
  - ENGL 218
  - RS 256/PACS 320
  - RS 353

2.2.3. Music
2.2.3.1. Music Minor
Students enrolled in any Honours or Four-Year General Major academic plan degree program may pursue a minor designation in Music.

The Music Minor requires successful completion of a minimum of five academic course units (ten courses) in Music with a minimum cumulative average of 65%, including:

- MUSIC 100, 270
- eight six additional MUSIC courses selected in consultation with the Music Department
- plus participation in at least two terms of Music Ensemble (Music 116, 117, 216, 217, 316, 317). (Music ensembles may not be counted as part of the ten eight term-course requirement.)

2.2.4. Peace and Conflict Studies
2.2.5. Peace and Conflict Studies Minor
Students enrolled in any Honours or Four-Year General Major academic plan degree program may pursue a minor designation in Peace and Conflict Studies.

The Peace and Conflict Studies Minor requires successful completion of a minimum of five academic course units (ten eight courses) in PACS and Peace and Conflict Studies approved courses with a minimum cumulative average of 65%, including:

- two of PACS 201, 202, 203
- two 300-level PACS courses
• **six four** courses from the list of Peace and Conflict Studies approved courses or additional PACS courses.
  
  o list of Peace and Conflict Studies approved courses:
    
    ▪ Classical Studies: CLAS 210
    ▪ Drama: DRAMA 397
    ▪ English: ENGL 216, 309G
    ▪ Environment and Resource Studies: ERS 203, 215, 253, 294, 404
    ▪ Environmental Studies: ENVS 201, 401
    ▪ Fine Arts: FINE 378
    ▪ Geography and Environmental Management: GEOG 202, 203, 208, 212, 215, 426
    ▪ German: GER 383
    ▪ Music: MUSIC 334
    ▪ Philosophy: PHIL 216, 327, 328, 329, 422
    ▪ Sexuality, Marriage, and Family Studies: SMF 205, 307
    ▪ Social Development Studies: SDS 370R
    ▪ Speech Communication: SPCOM 430, 432, 434
    ▪ Women's Studies: WS 209, 331

2.2.6. **Diploma in Peace and Conflict Studies**

Students enrolled in any non- or post-degree academic plan may pursue the Diploma in Peace and Conflict Studies. This diploma may be of particular interest to students who wish to explore issues of peace and conflict.

The Diploma in Peace and Conflict Studies requires successful completion of a minimum of five four academic course units (ten eight courses) in PACS and Peace and Conflict Studies approved courses with a minimum cumulative average of 65%, including:

- two of PACS 201, 202, 203
- two 300-level PACS courses
- **six four** courses from the list of Peace and Conflict Studies approved courses or additional PACS courses.
  
  o list of Peace and Conflict Studies approved courses:
    
    ▪ Classical Studies: CLAS 210
    ▪ Drama: DRAMA 397
    ▪ English: ENGL 216, 309G
    ▪ Environment and Resource Studies: ERS 203, 215, 253, 294, 404
    ▪ Environmental Studies: ENVS 201, 401
    ▪ Fine Arts: FINE 378
    ▪ Geography and Environmental Management: GEOG 202, 203, 208, 212,
215, 426

- German: GER 383
- Music: MUSIC 334
- Philosophy: PHIL 216, 327, 328, 329, 422
- Sexuality, Marriage, and Family Studies: SMF 205, 307
- Social Development Studies: SDS 370R
- Speech Communication: SPCOM 430, 432, 434
- Women's Studies: WS 209, 331

2.3. English Language and Literature

2.3.1. English Minor

Studies enrolled in any Honours or Four-Year General Major academic plan degree program may pursue a minor designation in English Language and Literature.

The English Minor requires successful completion of a minimum of five four academic course units (ten eight courses) in English with a minimum cumulative average of 65%, including:

- two ENGL courses at the 100-level, excluding ENGL 119 and 129R (see Notes 1 and 4)
- no more than two ENGL courses at the 100-level (see Note 4)
- ENGL 200A/B (Survey of British Literature—see Note 3)
- ENGL 251A/B (Criticism 1 and Criticism 2—see Note 3)
- ENGL 200A, 200B, 251A, 251B (see Note 3)
- two one ENGL courses at the 200-level or above
- two one ENGL courses at the 300-level or above

Notes:

1. Students may only use two English courses at the 100-level to fulfill English plan requirements: additional 100-level English courses may count as degree electives. Courses transferred from other institutions without a specific course designation (e.g., ENGL 2XX) may only be counted towards the English electives.

2. Results from all English courses taken at the University of Waterloo are used to calculate the cumulative English average.

3. ENGL 200A, 200B, 251A, 251B are strongly recommended for second year. First-Year students are strongly advised not to enrol in English courses at the 300- or 400-level.

4. A maximum of two of the following courses may be used to fulfill English plan requirements: ENGL 210E-I, 309E, 376R, 377R. The following English courses do not fulfill English course requirements for any English plan, including the minor: ENGL 119 (formerly ENGL 109M), 129R, 240R, 241R. These courses are designed primarily to make students aware of the different functions of language in various contexts and to assist them in improving their writing.

5. Although the Department of English provides advisors to help students choose their
academic plans, arrange their courses and conform with the University, Faculty, and Department regulations, students are urged to study the Undergraduate Calendar very carefully because they are themselves responsible for failure to abide by these regulations.

2.4. **Fine Arts**

2.4.1. **Fine Arts Studio Minor**

Students enrolled in any Honours or Four-Year General Major academic plan degree program may pursue a minor designation in Fine Arts Studio.

The Fine Arts Studio Minor requires successful completion of a minimum of five four academic course units (ten eight courses) in Fine Arts with a minimum cumulative average of 65%, including:

- FINE 100, 112
- VCULT 101
- one additional FINE art history course
- four additional FINE studio courses
- two different topics under FINE 304

2.4.2. **Visual Culture in a Global Context Minor**

Students enrolled in any Honours or Four-Year General Major academic plan degree program may pursue a minor designation in Visual Culture in a Global Context.

The Visual Culture in a Global Context Minor requires successful completion of a minimum of five four academic course units (ten eight courses) in Fine Arts with a minimum cumulative average of 65%, including:

- VCULT 200, 300
- one of VCULT 100, 101
- 2.5 2.5 academic units (normally seven five courses), at least two courses of which must be above the 200-level, chosen from the following:
  - ANTH 303
  - ARCH 142, 143, 246 (1.0 unit), 247 (1.0 unit), 342, 343, 345, 425, 442, 443, 446, 448, 449
  - CLAS 241, 242, 341, 342
  - Any DAC course
  - DRAMA 318, 331, 332, 333, 334, 335, 341, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 392, 393, 394, 395, 396, 397, 402, 403, 405
  - ENGL 247, 319, 320, 392A, 392B
  - Any FINE course
  - GER 359
  - PHIL 331
  - RS 270R, 271R
  - SPAN 410
  - One of VCULT 100, 101
  - WS 262

2.5. **French Studies**

2.5.1. **French Minor**

Students enrolled in any Honours or Four-Year General Major academic plan degree program may pursue a minor designation in French.
The French Minor requires successful completion of a minimum of five academic course units (ten eight courses) in French with a minimum cumulative average of 65%, including:

- FR 197, 297
- one of FR 263, 276

The following may not be counted as French courses towards a French Minor: FR 151, 152, 291, and 292.

2.6. Germanic and Slavic Studies

2.6.1. Russian and East European Studies Minor

Students enrolled in any Honours or Four-Year General Major academic plan degree program may pursue a minor designation in Germanic and Slavic Studies.

The Russian and East European Studies Minor requires successful completion of a minimum of five academic course units (ten eight courses) in Russian and East European Studies (courses designated CROAT, POLSH, REES, and RUSS, and courses on the list of Russian and East European Studies approved courses) with a minimum cumulative average of 65%, including:

- RUSS 201, 202, 301, 302
- REES 271, 272
- two RUSS courses
- six courses from any of CROAT, POLSH, REES, RUSS, or courses on the list of Russian and East European Studies approved courses:
  - ECON 365
  - FINE 351
  - HIST 263, 265, 278, 316, 356
  - PSCI 253, 355, 451

2.7. Management Studies

2.7.1. Management Studies Minor

Students enrolled in any Honours or Four-Year General Major academic plan degree program may pursue a minor designation in Management Studies.

The Management Studies Minor requires successful completion of a minimum of five academic course units (ten eight courses) with a minimum cumulative average of 70% 65%, including:

- AFM 123
- AFM 131
- ARBUS 200, 300, 400
- ECON 101
- ENGL 109 or any ENGL 210
- MSCI 211 or PSYCH 338
- PHIL 215
- one statistics course: a course in statistics (available in several departments) ARTS 280; ECON 221; ENVS 278; KIN 222; LS 280; PSCI 314; PSYCH 292; REC 371; SDS 250R; SMF 230; SOC 280; STAT 202, 206, 211, 220, 221, 231, 241
- one communication course: ENGL 109, 210F; SPCOM 100, 223, 325
- four of: AFM 101 or 123; CS 100; ECON 102, 220; HRM 200 or PSYCH 339; MSCI 311 or SOC 232; PHIL 145 or 216; SOC 241 or 243; a business language course
- one of AFM 131, 231; ECON 344; HRM 200; MSCI 211 or PSYCH 338; PACS 202; PHIL 145, 215, 216; PSYCH 339; SOC 340

(Students should check for course prerequisites)

Notes:
1. The Management Studies Minor, Option, or Diploma, is not available to students currently enrolled in or who have graduated from university business programs, plans, or subplans, including UW Waterloo "X and Business" academic plans.
2. Students in academic plans in Human Resources Management are precluded from taking Management Studies plans.

2.7.2. Diploma in Management Studies

Students enrolled in any non- or post-degree academic plan may pursue the Diploma in Management Studies.

The Diploma in Management Studies requires successful completion of a minimum of five four academic course units (ten eight courses) with a minimum cumulative average of 70% 65%, including:

- AFM 123
- AFM 131
- ARBUS 200, 300, 400
- ECON 101
- ENGL 109 or any ENGL 210
- MSCI 211 or PSYCH 338
- PHIL 215
- one statistics course: a course in statistics (available in several departments) ARTS 280; ECON 221; ENV 278; KIN 280; PSCI 314; PSYCH 292; REC 371; SDS 250; SMF 230; SOC 280; STAT 202, 206, 211, 220, 221, 231, 241
- one communication course: ENGL 109, 210F; SPCOM 100, 223, 325
- four of: AFM 101 or 123; CS 100; ECON 102, 220; HRM 200 or PSYCH 339; MSCI 211 or SOC 232; PHIL 145 or 216; SOC 241 or 243; a business language course
- one of AFM 131, 231; ECON 344; HRM 200; MSCI 211 or PSYCH 338; PACS 202; PHIL 145, 215, 216; PSYCH 339; SOC 340

(Students should check for course prerequisites)

Notes:
1. The Diploma in Management Studies Minor, Option, or Diploma, is not available to students currently enrolled in or who have graduated from university business programs, plans, or subplans, including UW Waterloo "X and Business" academic plans.
2. Students in academic plans in Human Resources Management are precluded from taking Management Studies plans.

2.8. Psychology

2.8.1. Human Resources Management

2.8.1.1. Human Resources Management Minor

Students enrolled in any Honours or Four Year General Major academic plan degree program may pursue a minor designation in Human Resources Management.

The Human Resources Management Minor requires successful completion of a minimum of five four academic course units (ten eight courses) with a minimum cumulative average of 70%, including:

- AFM 123/ARBUS 102, or both of AFM 101 and 102
• HRM 200
• at least two of HRM 301, PSYCH 338, 339, 340
• three of HRM 301, 303, 305, 307
• Remaining courses (to a total of ten) from:
  o CS 100 or 200
  o ECON 351
  o ENGL 210F
  o HRM 303
  o HRM 305
  o HRM 307
  o MSCI 311
  o PACS 202
  o PHIL 215/ARBUS 202
  o one of SOC 241, 243
  o statistics course
  o HRM 400
  o PSYCH 439
  o PSYCH 467
  o one of MSCI 311; PACS 202

Notes:
1. Students in academic plans in Management Studies are precluded from taking Human Resources Management plans.
2. Please refer to the Admission section for the Faculty of Arts for details regarding the residency requirements.
3. Please check the prerequisites for the courses listed above.
4. Students are encouraged to complete HRM 200 before enrolling in PSYCH 339 or PSYCH 340. Note that second-year students are given priority enrolment in HRM 200.
5. Students who have completed a Diploma in Human Resources Management or the course requirements for the Certified Human Resources Professional (CHRP) designation, or who have graduated from a college or university HR or Business program are precluded from enrolling in the Human Resources Management Minor, Option, or Specialization or Diploma at Waterloo.
6. Students interested in pursuing the CHRP designation are advised to review the CHRP requirements and consult with the HRM program advisor before finalizing their HRM course selections.

2.8.1.2. Human Resources Management Diploma

Students enrolled in any non- or post-degree academic plan may pursue the Diploma in Human Resources Management.

The Diploma in Human Resources Management requires successful completion of a minimum of five four academic course units (ten eight courses) with a minimum cumulative average of 70%, including:
• AFM 123/ARBUS 102, or both of AFM 101 and 102
• HRM 200
• at least two of HRM 301, PSYCH 338, 339, 340
• three of HRM 301, 303, 305, 307
• Remaining courses (to a total of ten) from:
  o CS 100 or 200
  o ECON 351
Notes:
1. Students in academic plans in Management Studies are precluded from taking Human Resources Management plans.
2. Please refer to the Admission section for the Faculty of Arts for details regarding the residency requirements.
3. Please check the prerequisites for the courses listed above.
4. Students are encouraged to complete HRM 200 before enrolling in PSYCH 339 or PSYCH 340. Note that second-year students are given priority enrolment in HRM 200.
5. Students who have completed a Diploma in Human Resources Management or the course requirements for the Certified Human Resources Professional (CHRP) designation, or who have graduated from a college or university HR or Business program are precluded from enrolling in the Human Resources Management Minor, Option or Specialization or Diploma at Waterloo.
6. Students interested in pursuing the CHRP designation are advised to review the CHRP requirements and consult with the HRM program advisor before finalizing their HRM course selections.

### 2.8.2. Psychology Minor

Students enrolled in any Honours or Four-Year General Major academic plan degree program may pursue a minor designation in Psychology.

The Psychology Minor requires successful completion of a minimum of five four academic course units (ten eight courses) in Psychology with a minimum cumulative average of 65%, including:
- PSYCH 101
- three of PSYCH 207, 211, 253, 257, 261 including at least one of PSYCH 207, 261
- two PSYCH courses from the following: PSYCH 304 through 380 (excluding PSYCH 323R), 420, 439
- four two additional PSYCH courses at any level

### 2.9. Religious Studies

#### 2.9.1. Jewish Studies Minor

Students enrolled in any Honours or Four-Year General Major academic plan degree program may pursue a minor designation in Jewish Studies.

The Jewish Studies Minor requires successful completion of a minimum of five four academic course units (ten eight courses) with a minimum cumulative average of 70% 65%, including:
• **five four** of JS 120, 125, 130, 150*, 203, 205**, 210, 211, 217, 233, 250, 350, 450
• the remaining courses chosen, in consultation with the Chair, from:
  o CLAS 210; CLAS 325/RS 315
  o ENGL 202A/B
  o HIST 223, 263, 341; HIST/CLAS 237
  o JS 301; JS 105A/RS 131, JS 105B/RS 132, JS 306A/RS 331, JS 306B/RS 332
  o PHIL 236; PHIL 237/RS 261; PHIL 380/CLAS 361
  o RS 110, 121, 222, 224-258, 260, 284, 336, 337, 384
  o SPD 270/RS 263

*offered online only
**offered on campus and online

2.10. **Renison University College**
2.10.1. **Applied Language Studies**
2.10.1.1. **Diploma in Applied Language Studies**

Students enrolled in any non- or post-degree academic plan may pursue the Diploma in Applied Language Studies. This diploma may be of particular interest to students who wish to explore issues of second or foreign language teaching and acquisition.

The Diploma in Applied Language Studies requires successful completion of a minimum of **five four** academic course units (**ten eight** courses) in APPLS Core, Approved Language, and Approved Applied Language Studies courses with a minimum cumulative average of 65%, including:

• APPLS 205R, 301, 306R
• four Approved Language Courses (all in one language that is not the student's first language, or two in each of two languages that are not the student's first language):
  o CROAT 101, 102, 201, 202
  o DUTCH 101, 102, 201, 202
  o ESL 101R, 102R, **129R**
  o ENGL 129R
  o FR 151, 152, 192A, 192B, 203, 250A, 251, 252, 255, 300A, 351, 352, 353, 400, 452
  o GER 101, 102, 201, 202, 203, 204, 303, 304, 307, 308
  o GRK 101, 102, 105, 133, 134, 201, 202, 233, 234, 351, 451
  o ITAL 101, 102, 155, 201, 202
  o JAPAN 101R, 102R, 201R, 202R, 301R
  o JS 105A, 105B, 306A
  o KOREA 101R, 102R, 201R, 202R
  o LAT 101, 102, 201, 202, 351, 451
  o POLSH 101, 102, 201, 202
  o PORT 101, 102
  o RS 131, 132, 133, 134, 233, 234, 331
  o RUSS 101, 102, 201, 202, 301, 302
  o SPAN 101, 102, 201A, 201B, 301A, 301B, 401A, 401B
• **three one** Approved Applied Language Studies Courses:
  o APPLS 304R
  o ARTS 303
  o CLAS 230
2.10.2. *East Asian Studies*

2.10.2.1. **East Asian Studies Minor**

Students enrolled in any Honours or Four-Year General Major academic program may pursue a minor designation in East Asian Studies.

The East Asian Studies Minor requires successful completion of a minimum of *five* academic course units (ten eight courses) with a minimum cumulative average of 65%, including:

- **EASIA 201R**
- four East Asian language courses as follows:
  - two 100-level and two 200-level courses from any one of CHINA, JAPAN or KOREA, or
  - two 100-level courses from any two of CHINA, JAPAN or KOREA
- **five three** courses from the following:
  - **two one** courses from the following social sciences courses: EASIA 277R, 300R, 301R; GEOG 212, 215; SOC 250; PSCI 259, 358
  - **two one** courses from the following humanities courses: CHINA 272R; EASIA 205R/RS 201 or RS 100; EASIA 206R/RS 206 or RS 304; EASIA 207R/RS 207; EASIA 220R/HIST 231R; EASIA 330R/RS 301 or RS 204 or RS 205; HIST 239; JAPAN 272R; KOREA 272R; RS 303, 320
  - one course from the balance of optional courses above or the following courses: EASIA 210R, 250R, 375R; FINE 354; any relevant course approved by the Director of East Asian Studies and acceptable as credit at the University of Waterloo (e.g., WLU History 228 Survey of Modern Asian History (see WLU calendar), WLU History 307 Modern Japan (see WLU calendar); etc.)

**Notes:**

1. Course selection should be made only after consultation with the Director of East Asian Studies.

2. **Students may petition the Director of East Asian Studies for permission to have a course not on the list accepted as an elective. This should happen before registration in the course is finalized. Please consult the Director for details.**

2.10.2.2. **Diploma in East Asian Studies**

Students enrolled in any non- or post-degree academic plan may pursue the Diploma in East Asian Studies.

The Diploma in East Asian Studies requires successful completion of *five four* academic course units (ten eight courses) with a minimum cumulative average of 65%, including:

- **EASIA 201R**
four East Asian language courses as follows:
  o two 100-level and two 200-level courses from any one of CHINA, JAPAN or KOREA, or
  o two 100-level courses from any two of CHINA, JAPAN or KOREA
• five three courses from the following:
  o two one courses from the following social sciences courses: EASIA 277R, 300R, 301R; GEOG 212, 215; SOC 250; PSCI 259, 358
  o two one courses from the following humanities courses: CHINA 272R; EASIA 205R/RS 201 or RS 100; EASIA 206R/RS 206 or RS 304; EASIA 207R/RS 207; EASIA 220R/HIST 231R; EASIA 330R/RS 301 or RS 204 or RS 205; HIST 239; JAPAN 272R; KOREA 272R; RS 303, 320
  o one course from the balance of optional courses above or the following courses: EASIA 210R, 250R, 375R; FINE 354; any relevant course approved by the Director of East Asian Studies and acceptable as credit at the University of Waterloo (e.g., WLU History 228 Survey of Modern Asian History (see WLU calendar), WLU History 307 Modern Japan (see WLU calendar); etc.)

Notes:
1. Course selection should be made only after consultation with the Director of East Asian Studies.
2. Students may petition the Director of East Asian Studies for permission to have a course not on the list accepted as an elective. This should happen before registration in the course is finalized. Please consult the Director for details.

2.10.3. Social Development Studies Minor
Students enrolled in any Honours or Four-Year General Major academic plan degree program may pursue a minor designation in Social Development Studies.

The Social Development Studies Minor requires successful completion of a minimum of five four academic course units (ten eight courses) in Social Development Studies with a minimum cumulative average of 65%, including:
• SDS 131R, 150R
• SOCWK 120R
• 3.5 2.5 units (seven five courses) at the 200-level or above, including at least one unit (two courses) in each of two different subject areas listed below:
• Note: Of the five units (ten courses) required for the Minor, no more than three units (six courses) may be taken in any one subject area.

Notes:
1. Course selection should only be made only after consultation with your Renison academic advisor.
2. For students in minor academic plans who do not have at least one course in statistics
and one course in research, and especially those considering graduate studies in Social Work, SDS 250R and SDS 251R are strongly recommended.

3. For further information regarding any of the academic plans, consult the Registrar’s Office, Renison University College, Waterloo, Ontario N2L 3G4, or contact ren-reg@renison.uwaterloo.ca.

2.10.4. Studies in Islam

2.10.4.1. Studies in Islam Minor

Students enrolled in any Honours or Four Year General Major academic plan degree program may pursue a minor designation in Studies in Islam.

Studies in Islam at the University of Waterloo seeks to situate Islam in the context of other religions, issues and topics. This program is housed at and administered by Renison University College.

The Studies in Islam Minor requires successful completion of a minimum of five four academic course units (ten eight courses) with a minimum cumulative average of 65%, including:

- SI 121R, 390R
- RS 110, 216

The remaining six four elective courses are to be chosen from the following three lists:

- Faculty of Arts courses: GEOG 101; GEOG/ERS 203; HIST 230/PSCI 257; ISS 240R; MUSIC 245; PACS 326/RS 380; PSCI 252; PSYCH 222R; RS 125; RS 284/WS 261; RS 325; SDS 240R; SI 101R, 102R, 201R, 202R, 301R, 302R; SOC/HLTH 253
- Faculty of Environment courses: ERS 404/PSCI 432; INDEV 100, 300
- Faculties of Mathematics and Engineering courses: CO 480; STV 100, 202, 203, 205, 302

Notes:

1. Following personal interest or an academic discipline, a student may put together any combination of these courses—across faculties—subject to course enrolment limits, degree requirements, approval from a department advisor, and prerequisites and/or antirequisites. The Director of Studies in Islam, at Renison University College, can help students develop an appropriate sequence of courses. Students may petition the Director of Studies in Islam for permission to have a course not on the list accepted as an elective. This should happen before registration in the course is finalized. Please consult the Director for details.

2. Students may take no more than two STV courses.

3. Letter of Permission: Subject to the usual University of Waterloo / Wilfrid Laurier University (WLU) procedures, up to four courses (no more than two language courses) may be substituted for University of Waterloo elective courses. Please see the Director of Studies in Islam at Renison University College for permission to count WLU courses.

2.10.4.2. Diploma in Studies in Islam

Students enrolled in any non- or post-degree academic plan may pursue the Diploma in Studies in Islam.

The Diploma in Studies in Islam requires successful completion of a minimum of five four academic course units (ten eight courses) with a minimum cumulative average of 65%, including:

- SI 121R, 390R
- RS 110, 216
The remaining **six four** elective courses are to be chosen from the following three lists:

- Faculty of Arts courses: GEOG 101; GEOG/ERS 203; HIST 230/PSCI 257; ISS 240R; MUSIC 245; PACS 326/RS 380; PSCI 252; PSYCH 222R; RS 125; RS 284/WS 261; RS 325; **SDS 240R**; SI 101R, 102R, **201R, 202R, 301R, 302R; SOC/HLTH 253
- Faculty of Environment courses: ERS 404/PSCI 432; INDEV 100, 300
- Faculties of Mathematics and Engineering courses: CO 480; STV 100, 202, 203, 205, 302

Notes:

1. Following personal interest or an academic discipline, a student may put together any combination of these courses—across faculties—subject to course enrolment limits, degree requirements, approval from a department advisor, and prerequisites and/or antirequisites. The Director of Studies in Islam, at Renison University College, can help students develop an appropriate sequence of courses. Students may petition the Director of Studies in Islam for permission to have a course not on the list accepted as an elective. This should happen before registration in the course is finalized. Please consult the Director for details.

2. Students may take no more than two STV courses.

3. Letter of Permission: Subject to the usual University of Waterloo / Wilfrid Laurier University (WLU) procedures, up to four courses (no more than two language courses) may be substituted for University of Waterloo elective courses. Please see the Director of Studies in Islam at Renison University College for permission to count WLU courses.

2.11. **Sociology and Legal Studies**

*2.11.1. Sociology Minor*

Students enrolled in any Honours or Four-Year General Major academic plan degree program may pursue a minor designation in Sociology.

The Sociology Minor requires successful completion of a minimum of **five four** academic course units (ten eight courses) in Sociology with a minimum cumulative average of 65%, including:

- SOC 101, 202, 321
- seven five SOC electives

2.12. **Spanish**

*2.12.1. Spanish Minor*

Students enrolled in any Honours or Four-Year General Major academic plan degree program may pursue a minor designation in Spanish and Latin American Studies.

The Spanish Minor requires successful completion of a minimum of **five four** academic course units (ten eight courses) in Spanish with a minimum cumulative average of 65%, including:

- No more than one 0.5 unit of SPAN courses taught in the English language may be counted toward the Minor in Spanish.

2.13. **Speech Communication**

*2.13.1. Speech Communication Minor*

Students enrolled in any Honours or Four-Year General Major academic plan degree program may pursue a minor designation in Speech Communication.

The Speech Communication Minor requires successful completion of a minimum of **five four** academic course units (ten eight courses) in Speech Communication core and approved courses with a minimum cumulative average of 65%, including:
• SPCOM 100, 223
• four two courses (two one courses in each of two areas of concentration):
  o Intercultural Communication: SPCOM 226, 401, 402, 404
  o Interpersonal and Organizational Communication: SPCOM 325, 432, 433, 475
  o Performance Studies: SPCOM 102, 220, 326, 440
  o Public and Digital Communication: SPCOM 228, 300, 323, 420, 430, 431, 434
• four approved courses (two courses each from two areas of concentration to match the chosen Speech Communication areas of concentration):
  o Intercultural Communication: ANTH 351; ENGL 407; FINE 255R; HIST 200, 213, 221, 321, 351; PHIL 202, 204J; PSCI 387, 456; PSYCH 222R, 352; RS 322 (taken after spring 2008); SOC 256, 315, 410; WS 102, 201, 202
  o Interpersonal and Organizational Communication: AFM 131; ENGL 210F; HRM 200; MSCI 211 or PSYCH 338, MSCI 311; PACS 201, 202, 313, 323; PHIL 215, 318J; PSYCH 253, 334, 339, 340, 353, 354; SMF 306, 307; SOC 234, 245, 243, 336; WS 207
  o Performance Studies: DRAMA 221, 222, 321, 322, 402, 405, 409, 421, 422; ENGL 210H

2.14.1. Italian Studies Minor

Students enrolled in any Honours or Four Year General Major academic plan degree program may pursue a minor designation in Italian Studies.

The Italian Studies Minor requires successful completion of a minimum of five four academic course units (ten eight courses) from the following set of Italian Studies core and approved courses with a minimum cumulative average of 65%, including:

- two of ITAL 101, 102, 155, 201, 202, 251; LAT 101 or 102
- three of (taught in English) ITALST 111, 260, 270, 271, 291, 292, 360; ITAL/ITALST 311, 312, 391, 392, 394*, 396, 397; ITAL/ITALST/WS 370
- six courses in ITAL or ITALST
- three two courses from the following list of Italian Studies approved courses: ARCH 247, 444*, 448*, 449*; CLAS/MEDVL 205 (taken after spring 2009), 232; CLAS/FINE 242; CLAS/HIST 252; CLAS 390 (when offered in Italy); FINE 212, 213, 353; HIST 351 (with permission of Italian Studies); LAT 101 or 102; MUSIC 261

Notes:
1. Before each term, students should consult the Italian Studies advisor at St. Jerome's University, or the Undergraduate Calendar, to make their course selection.
2. ITAL/ITALST 311, 312, 391, 392, 396, 397, and ITAL/ITALST/WS 370 are offered in English as part of the three Italian Studies academic plans. However, students enrolled in these courses who are pursuing an Italian Language Minor will have additional contact time, in Italian, and will be required to do their readings and assignments in Italian. Such students will enrol in "ITAL" rather than in "ITALST."
3. Students who have taken ITAL 101 and 102 are precluded from taking ITAL 155 and vice versa.

2.14.2. Sexuality, Marriage, and Family Studies Minor

Students enrolled in any Honours or Four Year General Major academic plan degree program may pursue a minor designation in Sexuality, Marriage, and Family Studies.
The Sexuality, Marriage, and Family Studies Minor requires successful completion of a minimum of five four academic course units (ten eight courses) in SMF and SMF approved courses with a minimum cumulative average of 65%, including:

- SMF 204/PSYCH 236
- SMF 206, 207, 310
- one of SMF/HIST 317, SMF/HIST 318, SMF 319
- one of SMF 205, 207
- two of SMF 304, 305, SMF 306/PSYCH 221R/PSYCH 354, SMF 307, 365, 366
- one course from each of the following areas:
  - Theory: ANTH 404; DRAMA 397/FINE 378; PHIL 210J, 318J; PSYCH 318; SMF 208, 308, 309, 311, 365, 366, 367; SMF 306/PSYCH 221R/PSYCH 354; SOC 369J; SOCWK 321R
  - Ethics: ANTH 350; ENGL 208N; ISS 350G, 350H; JS 120/RS 111; PHIL 219J; RS 150, 254; SMF 310; SOC 355J
- three additional courses (one must be at the 300-level or above) from the balance of those courses listed above and the following SMF and SMF approved courses: ANTH 261, 404; DRAMA 397/FINE 378; ENGL 108E, 208C, 208E, 208N, 217; GERON/HLTH 220; HIST 213, 277, 313; ITALST 111; JS 120/RS 111; PHIL 201, 202, 210J, 219J, 318J; PSYCH 235, 318; RS 150, 180, 254, 324, 325; SDS 353R, 354R; SMF 205, 208, 220, 230, 304, 305, 307, 308, 309, 311, 318-319, 365, 366, 367, 404, 406, 408-460; SMF/HIST 317, SMF/HIST 318; (taken after spring 2010); SMF 306/PSYCH 354R/PSYCH 354; SOC 200, 209, 275, 325, 355J, 369J; SOC 206/WS 209; one of SOCWK 321R, 355R, 357R, 390A, 390B; WS 101

2.15. Women’s Studies
2.15.1. Women’s Studies Minor

Students enrolled in any Honours or Four-Year General Major academic plan degree program may pursue a minor designation in Women’s Studies.

The Women's Studies Minor requires successful completion of a minimum of five four academic course units (ten eight courses) in Women's Studies with a minimum cumulative average of 65%, including:

- WS 101, 102, 201, 202, 302, 306
- three of WS 102, 202, 205, 206, 207, 306
- two additional courses from the balance of the courses above and the following Women's Studies courses:
- two additional WS courses
FOR APPROVAL

School of Optometry Name Change

Motion: That Senate approve the following name change: “School of Optometry” to “School of Optometry and Vision Science.”

Rationale: To adopt a name that more fully reflects the school’s academic programmatic activity.

The School of Optometry offers the following degree programs: Doctor of Optometry, Master of Science (Vision Science) and Doctor of Philosophy (Vision Science). The University of Waterloo began offering a Doctor of Optometry program in 1967. Optometry’s M.Sc. program was initiated in 1972 and the Ph.D. program commenced in 1980. From the school’s inception, a minimum of 60 optometry students have been admitted yearly, and 90 students since 2007. Initially, the school’s graduate program was very small. For example, in the 1980s, the graduate student complement typically involved less than five to six students at one time. Since then, the graduate program has grown substantially. This fall there are approximately 50 graduate students in optometry. To date, an indication of graduate program activity has not been described by the school’s name.

Before a faculty vote was taken on the proposed name change, discussions were held at Optometry Faculty Council and Administrative Council meetings and input from staff and students (both undergraduate and graduate) was considered. The faculty-approved voting process involved requiring a support vote of 50% plus one of distributed ballots to change the school name. With 31 faculty members, 16 faculty were needed to support a name change. In June 2011, 31 ballots were distributed. Of the 24 returned ballots, 19 were in support and five were against the name change. The optometry faculty have supported changing the school’s name from School of Optometry to School of Optometry and Vision Science.

At the October 20, 2011 Science Faculty Council meeting, a motion to change the school’s name to School of Optometry and Vision Science was considered after consideration of the rationale for the change. A unanimous vote in support of the name change was recorded.

T.B. McMahon
Dean, Faculty of Science
Report

Committee on

Senate-approved Centres and Institutes

July 19, 2011
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Preface

This is the report of a committee formed in early 2011 for the purpose of collecting input from the University of Waterloo academic community concerning the research Centres and Institutes of the University. The committee was given a set of issues and questions to consider, and asked to discuss them, consulting with others where necessary, and to put forward recommendations. The committee interpreted the task at least in part as one of coming up with principles to guide the formulation of policies and procedures in the future.

The committee was appointed by the Vice-President, University Research, George Dixon, and consisted of the following members:

Steve Brown, Statistics and Actuarial Science
Arthur Carty, Waterloo Institute for Nanotechnology
Rick Culham, Mechanical and Mechatronics Engineering
Rob de Loë, Environment and Resource Studies
Peter Forsyth, Computer Science
David John, Germanic and Slavic Studies
Paul McDonald, Health Studies and Gerontology
Michele Mosca, Combinatorics and Optimization, Institute for Quantum Computing
David Moscovitch, Psychology
Donna Strickland, Physics and Astronomy
John Thompson, Associate Vice-President, Research
Mary Thompson, Statistics and Actuarial Science (Chair)
Erin Windibank, Secretariat

Elizabeth Harnum of the Office of Research served as Secretary to the Committee.

The organizations within the committee’s purview were Senate-approved Centres and Institutes. The main focus was on currently approved University of Waterloo internal research Centres and Institutes, or groups which might seek approval as Centres or Institutes in future. The committee also considered some general issues relating to separately incorporated or external Centres or Institutes.

It should be emphasized that the objective was not to review individual Centres or Institutes, but rather to try to come up with recommendations to assist the University and the whole collectivity of Centres and Institutes, current and future.

The committee did not attempt to draft policy, but instead set out to recommend the elements of policy.

For some of the issues raised at the outset it was relatively easy to come to consensus. Some other issues, such as how to ensure the sustainability of valued Centres and Institutes, are complex, multi-faceted and not susceptible to quick resolution. The committee hopes to have set the stage for continuing work to address these important problems. Some of the recommendations will be implementable by the writing of policy or
by administrative changes, and some may require formation of other committees to develop the details and monitor progress.

The committee solicited opinions from Directors of Centres and Institutes and from Chairs/Directors of Departments/Schools, as well as a number of other individuals, but not from the whole academic community. Thus the committee suggests that the final version of this report be made available for discussion more widely, as the work of implementing the recommendations is begun.
1. Background

1.1 Centres and Institutes involved in research

At the University of Waterloo, research collaborations in areas of importance within or crossing departmental boundaries often lead to the formation of Research Groups, Centres and Institutes. Research Groups, which are formed and dissolved by individuals and teams and are to be reported to Senate Graduate and Research Council (SGRC) when formed, are not within the scope of this review, except insofar as they might at some time be brought into the fold of formally organized and Senate-approved Centres or Institutes.

Senate has the power to approve or dissolve research Centres and Institutes. It considers recommendations for establishment or dissolution of Centres and Institutes, following review and examination by SGRC. Each Senate-approved Centre or Institute must be reviewed every five years by SGRC, and renewals are reported to Senate for information.

The operations of Centres and Institutes (or research “units”) are governed by University of Waterloo policies. There are also four documents in use by SRGC as it considers proposals to establish new units or to renew existing units. These documents appear in Appendix 2.

1) “University of Waterloo; Research Centres and Institutes; Administrative Centres; Outside Centres and Institutes Where UW is a Partner” (2008) (describes approval routes)
2) “Guidelines for the Establishment of Centres and Institutes” (2005) (describes content of proposal to SGRC)
3) “Guidelines for the Review of Centres/Institutes” (1992) (describes usual five-year review, and process in case a more thorough examination is required)
4) “A Template for the Organization and Management of UW Research Centres and Institutes” (2008) (describes roles and responsibilities of Directors, Executive Committees, and Boards)

Concerning the Centre and Institute nomenclature, the 2008 approval route document distinguishes the following:

- **Institute** (main focus is research);
- **Research Centre** (main focus is research);
- **Administrative Centre** (primarily administrative; however, some collateral research activities may be pursued from time to time).

The committee noted that there are also a few Centres or Institutes that are primarily academic in the sense of having administration of academic programs as their main function. One of the questions for the committee was whether there should be a greater distinction between Institutes and research Centres, going forward. The committee has chosen to recommend instead superimposing a new classification of research units into “Tier 1” and “Tier 2”, as detailed in Section 4 of this report.
According to the approval route document:

Institutes and research centres, including outside institutes and research centres where UW is a partner, require Senate Graduate & Research Council (SGRC) and Senate approval, and are subject to review every five years.

Administrative centres are the responsibility of the university officer with financial responsibility for the centre (usually the dean or deans when the centre is multi-faculty, or the vice-president, academic & provost when the centre is institutional).

The role and function of a research unit is described in the establishment guidelines:

A [research] centre/institute is normally formed to promote and encourage research and related activity in an area that is not accommodated conveniently within a single academic unit or when an affiliates program is involved. The area of academic activity may be broadly based and may include several related but independent research foci. The function of the centre/institute is to facilitate the development and promotion of the particular academic area and, in pursuit of this objective, the centre/institute may establish links inside and outside the University, organize seminars and symposia, solicit funds and maintain an appropriate infrastructure.

The Sixth Decade Plan of 2007 brought Centres and Institutes into prominence and signaled a fundamental shift in the research landscape by including among its goals the following (see also Appendix 3):

To create a critical mass of scholars and research support infrastructure, UW will promote the creation of Senate-approved research centres and institutes. By 2017, UW will have the following research support infrastructures in place:

- at least six research centres/institutes supported by institutional funding, recognized by peer evaluation to be among the several best in the world
- at least 20 research centres/institutes supported by institutional funding, recognized by peer evaluation to be among the several best in the country

In addition, it included the expectation that by 2017 the University will have "established partnerships, collaborative academic programs, and joint research centres with other prominent national and international institutions".

1.2 Impetus for review

With increasing numbers of Centres and Institutes emerging in recent years, some quite large and complex, the need for a review and updating of policy and practice has been expressed for some time in Senate, in SGRC and by the research units themselves. The Sixth Decade Plan highlights the importance of these units, and affirms the intention of the University to encourage and support their formation. Thus, there is a need to follow through with the development of a feasible plan for implementation.
Certain developments have raised additional questions. In one case, a high profile institute closure in 2010 brought into focus some of the risks associated with Centres and Institutes. Most recently, the report of the CAUT investigator looking into the removal of the Director of the Balsillie School of International Affairs called explicitly for the development of guidelines for the governance of Centres and Institutes:

UW and WLU should develop clear and comprehensive guidelines for dealing with current or potential donors and for collaborative initiatives such as BSIA, so as to ensure the academic autonomy and integrity of all university-associated institutes, centres, or schools.

1.3 Committee process

The terms of reference of the committee, which appear in Appendix 1, consisted of a wide-ranging set of questions for the group to consider. The committee was provided with the current set of policies for Senate-approved Centres and Institutes, and a list of current Senate-approved Centres and Institutes. (See Appendices 2 and 7.)

The full committee met eight times between the end of March and the middle of July 2011. In addition, the committee formed six subcommittees to study major issues identified in the terms of reference. Much of the time of the committee was spent in gathering information and in consultation with those most directly involved with Centres and Institutes, as described in this section.

One of the questions in the terms of reference was whether a repository of governance documents for approved Centres and Institutes should be maintained. It was soon agreed that this would be desirable, and hence such a repository was assembled by Erin Windibank of the Secretariat for the committee early in the process.

A collection of policy documents from other institutions was started. Its contents are summarized in Appendix 8.

An early decision of the committee was to survey the Directors of the currently active Centres and Institutes. A questionnaire was developed, and appears in Appendix 4. It was sent out on April 27. Over the next few weeks, responses were received from all 34 Directors of still-active Senate-approved Centres and Institutes. A few of the Directors were sent follow-up questions on May 29 concerning the involvement of their units in academic programming and training (see Appendix 4). Two Directors offered additional comments by telephone. The 100% response rate is evidence that the Directors understand the importance of these issues to the academic community, and the committee is very grateful to them for the care and thoughtfulness they devoted to this exercise.

---

1 Findlay, L. (2010) Investigation into the Termination of Dr. Ramesh Thakur as Director of the Balsillie School of International Affairs, affiliated with the University of Waterloo, Wilfrid Laurier University, and the Waterloo-based Centre for International Governance Innovation. Report to Canadian Association of University Teachers.
As a result of further discussions, a shorter questionnaire (appearing in Appendix 5) was proposed for Department Chairs and School Directors. This was sent out on May 19, and 23 responses of a possible 43 were received. One Chair provided additional comments by telephone.

The subcommittee on support and sustainability sent a questionnaire on May 9 to the Vice-Presidents of Research of the U15 top 15 research institutions in Canada. The questionnaire appears in Appendix 6, and the responses are summarized in Section 4.3.

Faculty Executive Assistants and/or Financial Officers were contacted informally about the types of operating support offered by their Faculties and how budgets are administered (e.g., as independent ORG units / departmental projects / Dean's Office projects). The responses are summarized in Section 2.6.

The committee was provided with a draft governance document for the Institute of Quantum Computing, written by the Chair of its advisory Board of Directors, Dr. T. A. Brzustowski.

Some members of the committee also discussed potential recommendations relating to staff with Janet Passmore, Associate Provost, Human Resources.

1.4 Organization of report

The remaining chapters of this report describe the input to the committee's discussions in greater detail, and put forward the results of those discussions. Chapter 2 is about the variety of existing Centres and Institutes: their size and reach, the reasons for their formation, the range of their activities, their governance, and their funding sources. Chapter 3 begins to highlight the issues, focusing on the stresses and strains associated with growth and change, and the barriers to formation and functioning of Centres and Institutes. In Chapter 4, the issues are grouped into six key areas for discussion: establishment of new Centres and Institutes; the role of Centres and Institutes in academic programs and training; University support and sustainability; governance; reporting and oversight; and separate incorporation of Centres and Institutes. Finally, the recommendations emerging from Chapter 4 are listed together in Chapter 5.

2. The Variety of Centres and Institutes in 2011

The content of this section is taken mainly from the questionnaires of the Centre and Institute Directors, supplemented by some material from Centre and Institute websites.

2.1 Numbers

At the time the committee began its work, there were 34 active Senate-approved Centres and Institutes on the Senate Graduate and Research Council List. The age distribution of the units is given in the following table.
<table>
<thead>
<tr>
<th>Year of approval</th>
<th>Centres</th>
<th>Institutes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980 - 1989</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>1990 - 1999</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>2000 - 2004</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>2005 - 2006</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>2007 - 2008</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>2009</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>2010 - 2011</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>23</td>
<td>11</td>
</tr>
</tbody>
</table>

In what one committee member termed an “explosion” of formation, 15 of the units are within four years of beginning, and most of these are still in the process of becoming established. Centres and Institutes by their nature have finite life spans; as new Centres and Institutes are formed, others come to the end of their mandate, perhaps with the retirements of their “champions”, or with a decision to become part of another group. Since 2002, while 21 units have been started and continue to this day, eight Centres and nine Institutes have been dissolved via Senate, one Centre is believed to have closed before its five year review, and one more Centre (not included in the 34) will have closed by the end of this year.

Senate-approved Centres and Institutes are spread across the University, with participation from all Faculties. In some universities, the term Institute connotes a unit in which researchers from several Faculties collaborate, while the term Centre connotes a unit with members primarily in a single Faculty. This distinction has not appeared at The University of Waterloo, where several Centres are multi-Faculty enterprises:

<table>
<thead>
<tr>
<th>Number of Faculties Involved</th>
<th>Centres</th>
<th>Institutes</th>
</tr>
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<tbody>
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### 2.2 Membership and resources

The current guidelines for establishment of Centres and Institutes suggest that the constitutions describe criteria for and categories of membership, and privileges and responsibilities of membership. Besides what we will call “regular” membership as a University of Waterloo faculty researcher, working in the area of the Centre or Institute and entitled to participate in its governance, the document mentions several possible
categories which can be defined: associate, corporate, affiliate, and external community membership. These categories, as well as external university memberships (institutional and individual) and student and post-doctoral memberships, are all in use, and interpreted in a variety of ways. (Section 2.5 of this report elaborates on corporate and external partnerships.) For some Centres or Institutes, membership involves solely being part of a network or mailing list; for some others, there may be core members and affiliate members, the former being the principal collaborators, in many cases bringing research funds to the collaboration. Some units have explicit criteria for regular membership, including a research program and publications in the area, and funding support for research.

The numbers of faculty members involved in the units ranges from 2 to 4 (3 units) to more than 100 (3 units). The four largest in terms of regular membership numbers (ICR, Water Institute, WatCAR and WISE) could be described as "umbrellas" for a collection of research groups and individuals working in a common area. There are 11 units with between five and 20 regular members, 11 with between 21 and 100 regular members, and six that do not have a formal category of individual faculty membership. While the number of faculty heavily involved in Centre or Institute work may be small, it is likely that most faculty members belong to, or at least receive information from, at least one network, Centre or Institute. Many belong to two or more.

For the 34 units, revenue for 2010-2011 ranged from nothing or a few thousand dollars, all the way to several million dollars. For the majority, revenue was between $100K and $500K for the year. Predictably, numbers of staff members paid by the units are higher for units with larger budgets. Six of the responding units have no paid staff, and eight others have one FTE staff or fewer. Space allocation tends to be higher for established units; the range is from one office to several floors. However, seven of the responding units have no dedicated space.

2.3 Reasons for formation

Three of the Senate-approved units (CBET, CCMIC, IBMB) had been formed for the purposes of delivering or shepherding or providing visibility to academic programs. Another Senate-approved Centre (CEMC) has no research component, but manages outreach activities, and is thus closer to being an Administrative Centre. We discuss here the cases of the remainder, which are research Centres or Institutes.

The Directors of Centres and Institutes were asked about the benefits of having Senate-approved status. The one cited most often was the legitimacy conferred upon the enterprise through recognition by the University. This leads to greater visibility of the research and of the University, an increased potential for success in grant applications and donations, and an enhanced ability to attract partners. Several pointed to the advantages of oversight and quality control, or said that the five-year review was helpful for planning.

Most saw no disadvantages to Senate-approved status. Some pointed to the need for more paperwork connected with the approval and renewal process, and an almost equal number
appreciated the usefulness of the 5-year review for planning. A few others perceived some loss of agility or flexibility because of control by the University.

A committee member put forward several reasons for formation of research Centres and Institutes:

- **Branding** - desire to have an organization that will allow for letterhead, newsletters, a history of achievement to refer to. The brand is better known when it is used by different people in different settings. All benefit from the history.
- **Focus** - on an area of current interest within or between academic units where academic unit names are too broad or narrow and where current structures are not relevant.
- **Opportunity** - bringing together researchers with interests in similar problems increases the opportunity for successful grant applications, and other opportunities; in particular, bringing different expertise and skills from various disciplines can stimulate collaboration on grand challenges beyond the scope of a single department.
- **Profile** - raising the national and international profile of Waterloo by establishing a centre of excellence in an emerging disciplinary area.
- **Staffing** - staff can be hired and trained for specific tasks and be "under the control" of the Centre, not a Department/School. A stable staff complement means less hiring, training, supervision. This can lead to the development of a strong cadre of research staff who can work across different grants (e.g. specialized staff can be employed 1/3 time on three different grants held by different faculty members) thus improving research productivity.

The questionnaire responses tend to confirm this list. The initial reasons for formation of the Centres and Institutes have indeed been many and varied. There are some trends that can be discerned over the past 30 years.

Traditionally, research groups associated with professions (actuarial, accounting, engineering) have formed Centres to foster liaison with industry and government, to showcase the education and training that the University provides, and to attract and carry out research contracts. Several of the older established Centres and Institutes at the University of Waterloo were formed for these purposes, and are still fulfilling these functions.

In the 1990s, with the introduction of new granting programs emphasizing research partnerships, first by NSERC and then through CFI and ORDCF, some Centres and Institutes were formed as focal points for funding from these kinds of sources matched by contributions from industrial partners, governments, community agencies and private donors. Some 1990s units were established in part to provide research services, or support in applying to the new funding programs. This kind of impetus for formation is still prevalent.

In the past decade, there has been added an emphasis on forming Centres and Institutes for the purpose of bringing researchers working on aspects of a common problem together across Faculties in a "critical" mass -- in the hope that "the whole will be greater than the sum of the parts", because the participants will be able to share energy, ideas, resources, and services. Forming a Centre provides branding and increased visibility for the
collaboration, and for partnerships that may develop, so as to form a basis potentially for
-growing the research force. Since Centres and Institutes are less permanent than
Departments/Schools, the capacity to form these kinds of structures allows the University
to respond with nimbleness to opportunities in emerging areas. At the same time, to
perhaps a greater extent than formerly, these developments affect and shape the profiles of
Departments/Schools to which the regular members of the Centres and Institutes also
belong.

With growing recognition that the largest societal problems need the expertise of
researchers in many disciplines, increasing opportunities for collaboration arising out of
advances in communication technology, and proliferation of programs and stakeholder
organizations, collaborative problem solving itself becomes a research area. Some more
recently formed Centres and Institutes are engaged at least in part in studying how societal
change and progress can be facilitated by the kind of engagement with academia they
represent.

Until relatively recently, most Senate-approved research units were initiated by individuals
or small groups of faculty members who saw opportunities to highlight particular research
efforts, so as to attract collaborators, students and funders. There was little in the way of
central coordination. However, with the Sixth Decade Plan, the University is beginning to
identify areas of strategic importance and to see the emergence of very strong Centres and
Institutes to address them.

2.4 Range of activities

In keeping with the reasons for their formation, UW Centres and Institutes have a wide
range of activities. Many exist mainly to provide services to researchers. At the very least,
these include networking and external visibility of the research activity. Centres and
Institutes are instrumental in disseminating research results, by putting on seminars and
conferences, and publishing newsletters and journals.

They are points of contact for community and industry interface. They may also provide
infrastructure for large scale research ventures, including administration and carrying out
of contract research, facilitation of grant proposals, acquisition of labs and equipment, data
access, and technical assistance. The larger ones tend to be engaged heavily in seeking out
new sources, programs and opportunities for acquiring research funding. Building
university and international partnerships with industry and the public and non-profit
sectors to facilitate collaboration is also a valued activity.

Centres and Institutes, though research-based, contribute to academic programs. Some
employ students as researchers and assistants; others initiate or support new academic
programs, and provide a gathering point for students pursuing interdisciplinary programs
(see Section 2.6); still others engage in mentoring, and promotion of student activities and
clubs; Centres and Institutes may offer scholarships and research assistantships for study
in their areas.
Finally, several Centres or Institutes provide research and education services to industry, or health or educational services to the community at large.

2.5 Reporting and governance structures

All responding units are accountable to a Dean or Deans, or the Vice-President Academic and Provost (VPAP), or the Vice-President, University Research (VPUR). Most of the variety in their governance lies in the structures and roles of their “Boards”, namely their governing and advisory bodies.

For one Centre, the membership of the Centre is the governing body, voting on Centre matters at an annual meeting. Sixteen of the units have a governing body (a Board or Steering Committee or equivalent) with only internal (University of Waterloo) members. Another 13 have a governing body composed of internal and external members; in most but not all cases, the majority are internal. Four have advisory Boards which are mainly external, and at least two have external scientific advisory panels.

Several kinds of external partnerships were reported in the unit responses. Some units have a fairly large number of corporate or government members, who may be paying an annual membership fee. Others have corporate or government partners who may be providing matching funds for grants of Centre or Institute researchers. Some other units are funded at least in part by private and/or corporate donations.

In all cases, the external partners are represented either on the governing body or an advisory body.

2.6 Funding sources

The funding of an established research Centre or Institute may come from the University, an endowment, from donor support, from grants which allow infrastructure support, or from the proceeds of contract research, educational programs, or charges for research services. Many established Centres and Institutes rely on a mix of these sources for sustainability.

At the University of Waterloo, start-up funding is available on a selective basis. In the Faculty of Arts, Senate-approved Centres and Institutes can receive $8,000 seed money for each of their first three years. Amounts of $20,000 to $50,000 for several years are typical in some other Faculties. Start-up funding is now fairly standard in Engineering. In Environment and Mathematics, start-up funding can be negotiated on a case-by-case basis. Applied Health Sciences and Science do not provide start-up funding. A few new units with strategic importance have received significant initial funding of the order of $200,000 per year or more from the VPAP.

The question of long term central University support looms large, particularly for the larger units. Currently, funding support for continuing Centres and Institutes may be available for
specific purposes, for example through Faculty FICR funds, if a sufficiently strong case can be made.

The Faculties have varying policies on the assignment of ORG units; a small number of Centres or Institutes which cross Faculties or have more financial activity do have their own ORG units, but many do not, and for accounting purposes are considered to be departmental projects.

2.7 Involvement with academic programs and training

As noted earlier, according to the survey of Directors, three of the units have delivery or "shepherding" of academic programs as their main focus. Of the research Centres and Institutes, several are involved with academic programs that are administered by academic Departments/Schools. Two Senate-approved Centres provide graduate clinical training. Others are connected with specialized Master's programs, graduate specializations or diploma programs. The Centre or Institute involvement may take the form of catalyzing the formation of the program, providing courses and mentoring, or supplying scholarships and assistantships for the students. In at least one case, a Centre expects to "promote or market the program externally, while assisting the Departments with program administration".

Provision of professional development (non-credit) programs and courses is not as prevalent as it used to be, perhaps because of a fall-off in demand. A small number of units still consider this kind of activity as part of their mandate.

3. Issues for Centres and Institutes

3.1 The changing landscape

In the past few years, the rate of formation of new Centres and Institutes has increased, and some of the newer units such as WIN, the Water Institute and WISE, are larger in scope and ambition than their earlier counterparts. Some are drawing on new funding sources, with external partnerships providing a major funding component. A few are seeking new kinds of arrangements such as separate incorporation. With more complexity and a higher level of activity, the risks (financial and reputational) for Centres and Institutes which were always there are magnified. These developments lead to the need for more prescriptive policies, greater clarity, and more attention to accountability. Perhaps the higher institutional aspirations also require the institution to consider new kinds of support.

The support most needed may be as much administrative as financial. One Institute Director wrote:

I believe that one of the major challenges to [a major Institute] is communication. From its size and its mandate, the demands that arise from the Institute are multiple, diverse and sometime unique. Plans or strategies are devised, decisions taken that are not communicated because
there is not the right structure or forum. This has led to some confusion, frustration, some
waste of energy and loss of opportunities. [The Institute] would benefit from
  o an official collaborative structure between [the Institute] and Departments for faculty
    appointments and promotion
  o greater independence from Department and Faculty in hiring [into positions which are
    not tenured or tenure-track faculty positions], including administration staff.
  o flexibility when competing internationally for researchers and nationally for technical
    and administrative personnel
  o additional flexibility to tailor infrastructure (lab space, HR, IT, Finance) needs to the
    Institute level

The formation of a major new Centre or Institute will inevitably have impact on the
associated Departments/Schools. Ideally, the relationship of the research unit and the
Departments/Schools should be cooperative and collaborative, rather than competitive. It
is important that thought be given, even in advance of formation of a new research unit, to
how cooperative relationships can be achieved. The Chairs of Departments and Directors
of Schools are in a unique position to report on some of the stresses and strains associated
with Centres and Institutes, and thus the observations among their responses are
summarized here.

Most Department Chairs/School Directors who responded were very positive about
Centres and Institutes, and said that they supported and gave credit for the participation of
faculty members in research units. At the same time, several cited concerns about the
relationships between their Departments/Schools and Centres and Institutes:

  • There is some worry, especially with larger Centres, that faculty members can be
drawn away, both physically and in terms of their involvement, from the
  Department/School
  • Greater clarity is needed regarding performance review of staff, distribution of
overhead, space allocation, links to Departments/Schools, competition for
development funds, coordination of fund-raising initiatives
  • When Centres are research-focused, it can be harder for Departments/Schools to
promote research advancement
  • Financial arrangements can be difficult to disentangle
  • When Centres/Institutes are being set up, Departments/Schools may not be
consulted sufficiently on resources and governance matters, and overlap with
their own missions
  • The high profile of some Centres or Institutes and their attempts at branding
may be perceived as drawing attention from the attempts of
Departments/Schools to brand and promote themselves to prospective students,
faculty, staff and external partners

An additional observation from the committee is that teaching buyouts associated with
Centres and Institutes may impose hardship on Departments/Schools, and may be hard to
allocate in a way that is seen to be equitable.
Responses to the question of the extent to which Centres and Institutes should have budgetary autonomy were mixed, with some Chairs/Directors expressing concern that Centres and Institutes have too much autonomy, budgetary and otherwise. Most agreed that when a Centre/Institute is sufficiently large or complex it would make sense for it to have an ORG unit. It was pointed out that Departments /Schools and Faculties must be consulted during the set-up of a Centre or Institute and should be involved in its review.

The committee also noted other areas where changes in the Centre and Institute landscape and culture suggest the need for more attention. For example, Centres and Institutes are important in the education of students; the evolving role in academic programming and teaching needs examination, so that the full potential benefit can be reached without compromising quality.

There was general agreement on the committee and from the respondents that with the increased numbers of units to monitor, the reporting system for Centres and Institutes is not as effective as it might be. The typical Centre or Institute reports to a responsible Dean, but in practice, the Dean may be too busy to keep a close eye on the activities of all Centres and Institutes in her/his purview. Thus there are occasional cases of units failing to fulfill their mandates or constitutional obligations over a lengthy period. Not all Centres and Institutes report annually to their responsible Deans or officers. (The Faculty Financial Officers do monitor their finances. However, one Financial Officer pointed out that discontinuities in oversight could occur where there is a rotation of responsibility for a Centre or Institute among two or more Faculties.) The required five-year renewal process catches some problem cases, but in the meantime, the University and its faculty members may be incurring risk, either financial or reputational or both. It is important to have systematic oversight of the financial viability, the vitality and the quality of activities of the units.

The committee saw some advantages of central reporting, to the Provost or the Vice-President, University Research, particularly when a unit crosses Faculties, but there was also a sense that requiring all Centres and Institutes to report to one of these officers would not be practical. Instead, committee members suggested that this kind of central reporting should be reserved for special cases, such as multi-Faculty units of strategic importance.

3.2 Barriers to formation and functioning of Centres and Institutes

The Directors were asked to comment on what might be the barriers to the effective functioning of Centres and Institutes, and many wrote at some length.

Some of the barriers are perceived to be cultural, while others have to do with a scarcity of resources, and what might be called growing pains.

According to several respondents, and in the words of one of them, "one of the major impediments is the culture of individual creativity in the university due to a reward system based on individual as opposed to collaborative performance." Another wrote in the same vein:
The central barrier to long term success of Institutes and Centres is [the absence of] an academic model that truly promotes multi-disciplinary research. The UNIVERSITY, written large, needs to nurture, enhance, promote and provide tangible performance based incentives for active participation in multi-disciplinary research initiatives. The promotion and performance pay of faculty members is still strictly determined within the confines of a model and a vision of university departments that focuses on expertise within a specific discipline. Given the complexity of applying relevant knowledge to the resolution of important societal problems ... integrating multiple disciplines must be fully endorsed and supported by the Senate and this will allow Institutes, and in turn the University to thrive in a world that demands a more comprehensive perspective.

Another wrote:

The main [hurdle] is the ability (or inability) of the Centres/Institutes to demonstrate their value to the Faculties and the faculty members such that they are not seen as a competitive element or an unnecessary additional level of bureaucracy. A major barrier is associated with motivating very busy and (understandably) self-focused faculty members to support and participate in activities of the Centre/Institute for their own sake and for the sake of the institution. For the most part these entities will function on the backs of dedicated volunteers and in many cases this involves some serious participation and heavy lifting.

In addition, some respondents referred to tensions between Centres and Institutes and Departments/Schools, when their missions and activities overlap. A related issue is that, while it seems widely understood that tenure track faculty are to be hired into Departments/Schools, or occasionally Faculties, rather than into Centres or Institutes, a Department/School may be reluctant to accept a funded tenure track position associated with an interdisciplinary venture, because of a fear that it may weaken the case for a position in the primary discipline of the Department/School down the road.

A few saw insufficient clarity in the roles and purposes of Centres and Institutes, particularly when so many are being formed. One suggested:

I would see the major concern being the rash of [units] set up within Waterloo that has (in my mind) diminished the relevance of the ones that are here that are very well run and afforded high levels of respect externally. I have been at meetings recently where ALL centres/institutes have been criticized across the board. I feel that units such as ours have been negatively impacted by the disorganized way that some units have been allowed to develop.

Some pointed to difficulties navigating university policies and procedures, and handling bureaucratic processes. For example, it is often difficult for Centres and Institutes to keep track of their finances, because of the current system of invoicing for services. If a Centre or Institute has multiple sources of funds, having its own ORG unit is helpful, but this may not be standard practice in all Faculties. For units which cross several Faculties, there are the additional complexities of the allocation of space and utilities, the housing of research staff within Departments/Schools, and the sharing of credit for grants obtained and research
There are also issues surrounding the hiring of staff. According to one committee member:

There are several HR policies that should be examined insofar as they affect Centres and Institutes. Hiring of skilled research staff is difficult when HR controls the USG levels, but has no real comparators on campus and lacks the expertise to judge the skill set required for particular jobs; contract employees have two year limits on appointments, but research grants are often of three years' duration; "soft money" employees are eligible for all University benefits, but some are charged back to the research groups (e.g. maternity leaves, tuition benefits, severance) who have no ability to create a fund to cover them.

There were pleas for simplicity of governance, one such being expressed as follows:

If things become too bureaucratic and there is interference, the Institutes will suffocate.... Avoid too much 'governance', if you want to see Institutes flourish and do well. Put a core of good researchers together, get them enthused (preferably start with a small, mobile, focused group), and good things will happen.

Limitations of University support, in terms of funding, space and infrastructure, were mentioned by many respondents. It was pointed out that most grants, donations and contracts do not provide funds that can be used for administrative support. (The committee noted that this situation may be starting to change. The large MRI-ORF-RE grants now provide a mechanism for hiring a "program manager". The budgets for these projects are usually several million dollars, and a manager is deemed necessary to ensure program completion in a timely manner.) It may also be difficult to find money to hire a full time staff member to build relationships with industry. Several respondents called for a system of support for units important to the strategic priorities of the University:

Institution funded [Centres and Institutes] ... require a fixed funding formula to be established so that proper planning with known, consistent allocations for program delivery and staffing can put in place.

... need for clear and consistently applied criteria, and application of them, for the continued support of Institutes that can be counted on in the planning and administration of the institutes.

In some cases it appears that promised start-up support has been slow to materialize.

Finally, some felt that University policies are not highly conducive to fostering research relationships with industry partners. One Director suggested that competing with Centres in other universities for contracts would be considerably easier if there were a possibility of charging a lower overhead rate to companies conducting a very large amount of business with the UW Centre. Another felt that it was becoming more and more difficult administratively to use services to industry partners as a source of revenue. A third suggested that there is insufficient incentive (particularly of the monetary variety) for individual Faculty members to take the time and effort required to negotiate and develop
ultimately beneficial relationships with industrial partners, working through Centres and Institutes.

4. Discussion and Recommendations

Despite the issues and concerns elaborated in Section 3, the committee found widespread recognition of the value of Centres and Institutes to the University and the community of scholars and researchers. Centres and Institutes are an important feature of the modern university landscape, and the committee recommends an affirmation of the University's commitment to Centres and Institutes.

Recommendation 1: The University should maintain its commitment to the fostering of high quality Centres and Institutes that enhance the research and scholarship of the institution.

Recommendation 2: While recognizing that the Sixth Decade Plan goals are not prescriptive, the University should turn its attention to developing a plan to fulfill these aspirations.

This proposal is discussed further in Section 4.3.4.

The University of Waterloo has administrative Centres, academic Centres and Institutes (administering academic programs) and research Centres and Institutes. Although it is widely understood that Senate approval is required for the use of Centre or Institute in the name of a unit, not all research Centres and Institutes are Senate-approved. The committee agreed that the Centre and Institute designations should be reserved for units that are Senate-approved, except in the case of non-academic administrative Centres.

The committee proposes that, whatever their provenance, research groups or entities which satisfy the criteria for Senate approval should be encouraged to make application to become Centres or Institutes. It will be beneficial for a research group to do so if it wishes to highlight an important problem area, or draw together researchers to pool expertise and resources and attract funding, or to use the designation "Centre" or "Institute" with the associated certification of quality.

Recommendation 3: University research groups that have the characteristics of Centres or Institutes, and which would benefit from that designation, should be encouraged to pursue formal approval from Senate as Centres or Institutes. University research groups that are already representing themselves as research Centres or Institutes, but are not Senate-approved, should be required by the VPUR to seek that approval, or to apply for a dispensation.

At the University of Waterloo, for academic and research units, the terms Centre and Institute have been used almost interchangeably. At the same time, many other universities have tried to make a distinction between Centres and Institutes in terms of their size, reach, purposes or funding sources, in order to reflect differences in their administrative needs and governance structures. (See Appendix B.) Usually, in universities that have made a distinction, Institutes are thought of as larger research-focused units with significant
external funding and membership in more than one Faculty. The committee agreed that it would be useful to move toward such a distinction at the University of Waterloo, but allowing exceptions of the types which already exist.

The committee also agreed that the governance needs of research units depend on size and complexity, and proposes a division into two tiers:

A Tier 1 Centre or Institute is a significant organizational grouping that is cross-Faculty and multi-disciplinary in nature and one of relatively few such entities within the University; it provides a coordinated, University-wide focus for a major area of research and as such receives institutional support.

A Tier 2 Centre or Institute is one which is not in Tier 1. It may be cross-Faculty and multi-disciplinary, but is smaller in scope and reach than in the case of Tier 1, and is typically formed at the initiative of individual faculty members or small groups.

It is noted that a Centre or Institute could move from one tier to the other without having to change its name.

Recommendation 4: The University should classify Centres and Institutes into Tier 1 (for a cross-Faculty, multidisciplinary, University supported unit in a major area of research) and Tier 2.

4.1 Guiding principles and practices for establishment

There was consensus that for Senate approval of new Centres or Institutes to be meaningful, it should be reserved for those with a strong case for establishment. For a case to be strong, it should demonstrate the potential for significant "added value" to the University, appropriate governance and management structures, and the potential for financial sustainability.

The primary role of SGRC is to examine for approval the potential contribution of the Centre or Institute to the advancement of research at the University. SGRC addresses the potential for risk of duplication of effort, and the possibility of reputational risk if a high academic standard is not achieved. Historically, SGRC has been less concerned with examining the prospects for financial viability of the unit, or assessing the real requirements in terms of resources for the purpose of evaluating financial risk. Particularly in the case of large and complex units, there is a need for detailed assessment of resource requirements and associated risks. It has been suggested that a "business plan" might be required by SGRC at the time of approval. In some cases this could consist, as it does now, of a non-binding five-year budget with an indication of secured and potential sources of funding, a plan for hiring needed personnel, and a specification of space and equipment and service requirements. For some fledgling units the business plan could be as simple as a proposal for a group of faculty to collaborate with their existing grants. The responsible Dean would (as now) sign off on the proposal. In cases of large and complex proposals involving significant space and infrastructure commitments, however, it might
be advisable to have expert assistance in determining whether or not the plan of the unit is affordable and attainable.

Recommendation 5: When considering the approval of new Centre or Institute, SGRC should take into account the potential academic importance of the work, the governance structure, the degree of financial support/financial risk involved in start-up, and the continuing costs.

The concept of "added value" depends very much on context. The community of Centres and Institutes currently at the university is a diverse one, because each Centre and Institute operates in a unique context that relates to its reason for establishment and its current guiding mission. However, the committee agreed that adding academic value should be an over-arching criterion for establishment of Centres and Institutes.

In practice, adding academic value to the UW community may be achieved in a number of ways, including:

- Providing a means for fostering an enriching collaborative environment for the promotion of research, education, and training
- Providing sustainable cutting-edge infrastructure, equipment, and resources (money, staff, space, etc.) that uniquely facilitate and enhance research, education, and training
- Catalyzing new interdisciplinary collaborations
- Providing a means for the promotion and dissemination of new research to the international academic community and consumers
- Providing a means for attracting new funding to the university
- Providing a means for attracting new highly qualified personnel (HQP) to the university
- Providing a means for training new HQP, including undergraduate and graduate students, post-doctoral fellows, research assistants/associates, and volunteers
- Serving as a focal point for the specialized education and professional development of its members and affiliates, and, potentially, its partners in both private and public sectors, as well as members of the general public
- Providing a means for the enhancement of the academic reputation of the university

Recommendation 6: The University should require that Centres and Institutes add academic value to the University, recognizing the diverse and varied ways in which this principle might be achieved.

Proponents of a new Centre or Institute should expect to have its progress measured at renewal time in terms of what was intended at the time of establishment. Where changing circumstances alter the original vision, an application for renewal should be able to make the case that the revised mission or direction of the Centre or Institute still adds value.
Despite the academic setting, in some ways starting up a Centre or Institute is like starting a business. It needs sufficient start-up and baseline funding, and adequate infrastructure. It needs strong operational leadership, particularly at the outset. Sections 4.3 and 4.4 will say more about support and leadership.

4.2 Roles of Centres and Institutes in academic programs and training

The subcommittee examining this issue first looked at the University regulations and obligations related to oversight and implementation of academic programs at the University of Waterloo.

The structure and powers of the Senate are spelled out in the University of Waterloo Act, 1972. Below are snipped excerpts related in some way to academic programs and education; italics are added.

a. to make recommendations to the Board of Governors relative to the creation, establishment, maintenance, modification, or removal of organizational structures such as faculties, schools, institutes, departments or chairs within the University;

b. subject to the approval of the Board of Governors, in so far as the expenditure of funds is concerned, to establish, maintain, modify or remove, curricula of all courses of instruction including extension courses;

c. to determine policies concerning the qualifications of faculty members within the University with respect to appointments or promotions in rank, or to the granting of tenure, in connection with research or teaching or academic administration;

e. to consider and determine the conduct and results of examinations in all faculties or academic units;

g. to confer degrees, diplomas and certificates or other awards in any and all branches of learning and in any subject taught in the University or its federated or affiliated colleges;

k. to consider and to recommend to the Board of Governors policies concerning the internal allocation or use of University resources.

The initiation and delivery of academic programs approved by Senate are usually the responsibility of Departments/Schools. Curricula and courses are proposed to Faculty undergraduate and graduate committees, and then if approved to the undergraduate and graduate councils of Senate. A small number of academic programs are initiated and delivered at the level of Faculties, following the same kind of approval route. For example, the undergraduate program in Computational Mathematics is designed by the undergraduate committee of CCMIC, which sends changes to the Mathematics Faculty undergraduate committee. Students in the graduate program in Computational Mathematics register in the program itself, which is overseen by the Mathematics Faculty graduate committee; they do not satisfy the degree requirements of a departmental
program, but are supervised by faculty who belong to Departments/Schools in the Mathematics Faculty.

The question may arise whether an interdisciplinary program can be initiated and delivered by a cross-Faculty Centre or Institute. The committee believes that it should not. Since there is no central body which would be able to give such a program the same kind of expert attention and oversight that it would receive within a Department/School or Faculty, it would seem to make sense that the program should be delivered under the auspices of a permanent academic unit, or such units in collaboration.

Considering the questions originally posed to the committee (see Appendix 1), and the responses of the Directors of Centres and Institutes, the committee suggests that the following recommendations are consistent with University of Waterloo policy and most of current practice.

**Recommendation 7:** Centres and Institutes should not have autonomy to administer UW academic programs or degrees. The infrastructure and members of Centres and Institutes could be used to enhance or deliver/facilitate such programs, but in matters of academic programming, all Centres and Institutes must function under the auspices of Departments/Schools or Faculties and be subject to University policies and Department/School or Faculty regulations. Approval of new credit courses must come from Senate, and University regulations must apply to all credit courses and degrees. Oversight of academic programs should rest with Departments/Schools and Faculties under the direction of Senate and the Deans. Interdisciplinary academic programs should be overseen by the Deans or approved delegates (e.g., Chairs/Directors) from participating Departments/Schools and Faculties.

**Recommendation 8:** Centres and Institutes should serve as catalysts for new interdisciplinary collaborations, which might develop into university-sanctioned academic programs based in one or more academic units. Faculty members in a Centre or Institute should represent their academic disciplines, areas, and/or “problem foci” on program advisory committees under the supervision of the Deans or designated Chairs/Directors. These committees would help shape and define the nature of the interdisciplinary academic programs and the envisioned role of the Centre or Institute in helping to implement these, and attract students and funding, within the constraints of University regulations.

It is desirable for graduate students in an interdisciplinary program to have a home base in a Department/School or Faculty, so as to receive adequate assistance, oversight, and peer support.

**Recommendation 9:** A tenured or tenure track faculty member belonging to a Centre or Institute must have a home Department/School. Graduate students following a Centre or Institute associated program must be registered in an academic Department/School or Faculty. If the faculty member wishes to supervise a graduate student in the Centre or Institute associated program, the supervision must have the approval of the academic unit in which the student is registered.
Although the committee is suggesting that faculty and students must belong to home academic units, there need not be the same requirements for post-doctoral and staff positions, supported by research funds associated with the Centre or Institute. (See Section 4.5.)

The few current continuing education offerings by Centres and Institutes may or may not be within the purview of Senate, depending on the pre-requisites, the level of instruction, and the kinds of credit or certificate which may be earned. At the same time, the Centres and Institutes could benefit from more clarity and standardization of the administration of these activities.

Recommendation 10: The handling and disbursement of fees paid by participants in continuing (non-degree) education programs arranged by Centres and Institutes must be defined by the University, with consistency across the University.

4.3 University support and sustainability

4.3.1 Costs and requirements of Centres and Institutes

Centres and Institutes vary widely in terms of their needs for support. The requirements for a small interdisciplinary Centre where the research is funded by individual grants and the activities can be run by volunteers are very different from the requirements for a large Institute with specialized laboratories and equipment, a large research staff, and multiple funding sources.

At the University of Waterloo, the following are typically provided by way of basic support to Centres and Institutes: space, heat, power, availability of information and technology expertise, insurance, legal expertise, contract and intellectual property expertise, human resources services, financial services, research administration services, ethics review services, and in some cases Office of Development services.

What remain to be covered by a combination of University and Centre and Institute funding include: (i) funding for salary and benefits to cover enough staff and faculty time to be able to operate effectively (and in compliance with policy) and to seize opportunities for advancement; (ii) costs of IT support, equipment, furnishings and supplies; (iii) costs of seminars, workshops and publications.

Financial sustainability is critical for the health of Centres and Institutes, but almost as important is an environment in which Centres and Institutes can function smoothly, making best use of the time and energies of their members and personnel.

In the rest of Section 4.3, we look at the extent to which other Canadian universities provide support to their Centres and Institutes, and assess the situation at the University of Waterloo.
4.3.2 Survey of Vice-Presidents of Research

The subcommittee on support and sustainability distributed a questionnaire to the VP’s Research at Canada’s top 15 research oriented universities (U15) on May 9, 2011. Thirteen universities provided information.

(1) Core Funding

Only three universities (Montreal for all units, and McMaster and Ottawa for major or interdisciplinary Institutes) indicated that in general core operating funds (i.e., not linked to overhead) were provided from a budget controlled by the central administration. Laval indicated that most received small amounts of core funding. Some universities provided modest start-up funds as a matter of course (Western, Saskatchewan). In other cases where funds were provided from the university, it was most common for Deans of Faculties/Colleges to be the source (e.g. Alberta, Dalhousie, Calgary, McGill). At Toronto, Centre and Institute funding is controlled by the Divisions. Queens indicated that it was uncommon for funds to be provided by the university (either centrally or from Deans).

Importantly, the responses also pointed to numerous exceptions to general trends, based on the type of Centre/Institute and its relationship to the university in question. Special arrangements were common in cases where the Centre/Institute was viewed as a university priority. Centres/Institutes associated with hospitals also were identified as a special case because they were less subject to control by the university.

(2) Sharing in Overhead

Responses to this question revealed several different approaches to sharing. The University of Montreal indicated that no sharing of overhead took place (but Montreal provides base funding). Queens maintains a central fund from overhead to which Centres/Institutes may apply. It was common for universities to distribute a share of overhead to the Faculties, which were then free to share (or not) with Centre/Institutes. Examples in this group included Alberta, Dalhousie, UBC, Laval Calgary, McGill and Ottawa. In three cases, a formula exists for sharing overhead generated from contracts (25% at McMaster, 12.5% at Western, and an unspecified amount at Saskatchewan, where the amount is negotiated on a case-by-case basis). Several respondents specifically distinguished between overhead from grants and contracts, and funds generated from Federal Indirect Costs of Research (FICR). McMaster does not share any FICR funds with Centres/Institutes. Western provides FICR funds to the Faculties, which may choose to share with Centres/Institutes, while at Saskatchewan Centres/Institutes may negotiate to receive a share of FICR funds directly.

(3) Other Methods for Sustainable Funding

Endowments were identified by several universities as a potential source of funding for Centre/Institutes (e.g., Alberta, UBC, Montreal, McMaster, McGill). More commonly respondents indicated that no additional sources of sustainable funding existed, and/or drew attention to the importance of grants/contracts, etc., generated by individual
researchers. Ottawa noted that some research Centres also have access to IOF-CFI money (Infrastructure Operating Fund).

(4) Other Types of Support

Most respondents pointed to general kinds of support typical for university entities, e.g., space, legal guidance, financial advice. A few respondents emphasized that larger Centres/Institutes that aligned with university priorities received preferential treatment (e.g., in Calgary, access to strategic planning services; in Saskatchewan, staff provided by the university; in Laval, staff provided by Departments or Faculties; at Ottawa, external recruitment of a Director).

4.3.3 Overhead sharing at UW

The UW Department Chairs and School Directors were asked whether their Departments/Schools receive a share of the overhead that is collected by the University on grants and contracts. From the responses it appears that the practice varies from Faculty to Faculty, with Science and Engineering units receiving a share (<=25%) calculated by a formula, and Math and Environment units receiving a share on an ad hoc basis. Only in a couple of responding Departments/Schools is overhead passed to the principal investigators.

In answer to the question of whether Centres and Institutes should receive a share of the overhead collected on grants and contracts, there were four quite decided "no" answers, essentially on the grounds that the Departments/Schools, providing space and services, had more need of the overhead funds. There were eight respondents who thought there were circumstances when it could be appropriate for Centres and Institutes to receive a share – for example, if the Centre or Institute had put most of the effort into raising the funds, or if it had borne the indirect costs.

One Institute has negotiated a special arrangement whereby 1/3 of the overhead on grants and contracts it initiates goes to the Institute, while the University keeps 1/3 and distributes 1/3 to the Faculties. The overhead share is used to cover the salary of the full-time (staff) Director, much of whose position entails raising research funds.

This has led to a proposal, discussed within the Engineering Faculty, that Centres and Institutes with ongoing operational expenditures on staff share in overhead in proportion to their role in obtaining or facilitating grants or contracts. For example, for new research grants or contracts initiated by or involving heavy stewardship by a Senate-approved Centre or Institute, the Centre or Institute might receive 30% of the overhead, the rest to be allocated appropriately to the University and the Faculty and Department/School of the principal investigator; for new research grants or contracts requiring a moderate level of stewardship by a Senate-approved Centre or Institute, the Centre or Institute might receive 10% of the overhead. The proposal has been rejected (not only in Engineering but throughout the University, Departments/Schools are feeling the effects of annual budget
cuts over several years) but the committee sees potential in the idea of tying support for Centres and Institutes to performance in bringing in research projects and funding.

4.3.4 Financial support

There seems to be general agreement, at the University of Waterloo and some other U15 universities, that start-up financial support should be provided to new Centres and Institutes satisfying appropriate criteria, that a Centre or Institute should become mainly sustainable after a few years, and that some support should be made available to continuing Centres and Institutes under some conditions. However, at the University of Waterloo there is not yet a clear and transparent University-wide mechanism for Centre and Institute support. The committee thinks that further study of this issue would be fruitful.

In particular, it might be in order to review the analysis which led to the Sixth Decade Plan targets, in the light of the experience of the last few years, and revisit the costs of meeting such targets. It might be useful to consider the collection of Centres and Institutes as a kind of system: how many of these units should the University of Waterloo have at a time, in the internationally recognized class and the nationally recognized class, in start-up phase, in “maturity” phase, in winding-down phase? What are the costs of the system as a whole, and how much of these costs should be covered by external funds raised by the Centres and Institutes themselves? What funds does the University have to support strategically important initiatives, and how should they be allocated?

How much of the overhead generated by personnel of Centres and Institutes can justifiably be returned to Centres and Institutes, bearing in mind the incentive this would provide for generating more? If the technicalities could be worked out, what would make a Centre or Institute eligible for this kind of arrangement?

To what extent can FICR funds be used, as at the University of Saskatchewan, to pay for the work of Centres and Institutes supporting Tri-Council funded research?

Smaller Centres and Institutes sometimes have difficulty funding one-time expenditures of a few thousand dollars, but for this kind of contingency also, a system approach might be helpful. Would it be feasible to assist Centres and Institutes by finding a way to pool their contributions toward occasional staff benefits such as maternity leave, severance pay and tuition benefits?

The answers to these kinds of questions could lay the foundation for sustainability of the collectivity of Centres and Institutes.

Recommendation 11: The University should carry out an analysis of the support required by the system of Centres and Institutes, and the real costs, in order to develop a University-wide policy for support.
Recommendation 12: The University should consider supporting continuing Centres and Institutes through incentives to bring in funding. For example, a scheme for sharing part of overhead generated by Centre or Institute initiatives should be entertained.

Recommendation 13: The University should consider developing a mechanism for allocating some central FICR funds on a competitive basis to Centres and Institutes.

Recommendation 14: A fund should be considered to which Centres and Institutes pay a regular premium, with amount of premium depending on use of the fund, to cover contingencies such as maternity leave payments, staff tuition and severance.

One committee member noted that the insurance scheme of Recommendation 14 could create a moral hazard with respect to severance.

4.3.5 Administrative support

The areas mentioned most frequently (by Centre and Institute Directors and committee members) in which additional administrative support is needed by Centres and Institutes were (i) financial tracking and reporting, and (ii) the processes for hiring specialist staff, particularly the assignment of grades (and hence compensation levels) to positions.

Most Centres and Institutes do not rely fully on the data in the financial system, but keep their own books, in order to satisfy their reporting requirements. There is some benefit to this situation, since it implies two parallel systems of financial tracking for which the results must be reconciled periodically. However, there is also some inefficiency in the duplication of effort. A more serious problem lies with the current invoicing system, under which it is often difficult or impossible for a Centre or Institute to find out in good time whether or not a particular invoice has been paid.

Recommendation 15: Better tools and processes are needed for tracking the funding of Centres and Institutes. The University should put more resources into the tracking of invoices issued for contract work, membership dues and conference registration.

Some Centres and Institutes need to be able to hire specialist and technical staff, in a highly competitive market. They need to be able to move quickly to advertise a position with appropriate compensation. With these kinds of positions, there are not always clear comparators within the Faculty of the Centre or Institute, or even University-wide. The amount of compensation has historically been tied to the grade of the position, which is based on criteria which do not allot many points to highly technical responsibilities. Thus grading the position and negotiating the appropriate compensation are challenging. The time required to grade specialist staff positions has been greatly reduced over the last few months. However, there is a need to find a way for determining the compensation levels for these positions in a way that values specialist skills at their worth to the research unit, while maintaining equity of treatment of staff positions across the University.
Recommendation 16: Centres and Institutes and Human Resources should work together to determine the appropriate compensation levels for specialist staff in a short time frame.

In cases where Centres and Institutes have a need for ongoing support staff, a potential solution might be to work with Departments/Schools to create joint positions.

The committee heard that for a major new Centre or Institute, besides financial support, there is a need to provide general administrative assistance, making University practices and procedures easier to find and understand, and facilitating their application.

Three possible mechanisms for providing this kind of support were suggested:

- A periodic (annual or bi-annual) survey, similar to the one sent out by this committee, to get a sense directly from the Centres and Institutes about what their challenges are, and suggestions to overcome them.
- Assignment of a senior university officer (perhaps reporting to the VPAP or the VPUR) with primary responsibility to assist Centres and Institutes in establishing successful practices and advising them on problems. It is critical that this role not be bureaucratic, or part of the oversight of the Centres and Institutes. Rather, the aim of the role is to be an advisor, to help find solutions to problems, and to help Centres and Institutes achieve their full potential.
- Some other informal forum for Directors of Centres and Institutes to meet and discuss their experiences, and perhaps even find opportunities to collaborate or leverage resources. For example, the proposed senior university officer could set up informal meetings between Directors or key Centre or Institute staff who might be able to benefit by sharing experiences.

Recommendation 17: The University should provide adequate initial administrative support for Tier 1 Centres and Institutes. This means helping to find appropriate leadership, providing assistance in navigating bureaucracy, and maintaining careful oversight.

Recommendation 18: The University should consider appointing an officer to provide advice on administrative and governance matters to Centres and Institutes.

Recommendation 19: A periodic (annual or bi-annual) survey of Directors and/or a forum for sharing experiences might provide additional administrative support.

4.4 Policies for governance

As one Department Chair wrote:

... it is extremely important that governance policy and processes are extremely clear at all levels (department, centres/units, faculty, university). The lack of such policy, paired with administrators making decisions about roles and areas of responsibility in the
absence of faculty input, can be extremely problematic resulting in long-lasting consequences that can compromise faculty contributions.

At the same time, most universities have somewhat informal guidelines for governance of Centres and Institutes, rather than detailed and prescriptive policies. If the University of Waterloo decides to write and adopt more formal policies, there will be few models to follow. The committee attempted to formulate a set of guiding principles for governance, as expressed in the following recommendation.

Recommendation 20: The University should develop a policy for the governance of Centres and Institutes formed for the advancement of research, respecting the following principles.

- The governance for a research Centre or Institute must support and facilitate the attainment of excellence and realization of the mission of the unit.
- A research Centre or Institute should have a defined category of regular members who are University faculty conducting research in the area of the Centre or Institute.
- The governance structure must safeguard appropriately the independence of scholarship associated with the Centre or Institute, and the academic freedom of its researchers.
- A Centre or Institute must operate with transparency, accountability and consistency with University policies.
- The regular members of a Centre or Institute are entitled to participate in its governance.
- Since a Senate-approved Centre or Institute is part of the University, the University must have appropriate and sufficient authority over it.
- The governance model for a Centre or Institute should be one of a small number of models generally agreed to satisfy the preceding conditions.
- Each Centre or Institute must have a governance document, a constitution or charter.

These principles are applied to research Centres and Institutes in the suggestions below, using the definitions of Tier 1 and Tier 2 units introduced at the beginning of Section 4. See Section 4.4.6 for more discussion of constitutions and the policy of Recommendation 20.

4.4.1 Centre or Institute leadership

A Centre or Institute requires both scientific or academic leadership and operational leadership. For some smaller Tier 2 Centres or Institutes, a single faculty member could provide both, often with a part-time commitment. In the case of a Tier 1 Centre or Institute, it is advisable to have two directorship positions, one in charge of the research agenda, and the other in charge of operations. The titles may vary. For example, the director in charge of the research agenda, typically a faculty member, could be called the Research Director, the Scientific Director, the Academic Director, or the Executive Director. The director in
charge of operations could be called the Director of Operations or the Managing Director. The Managing Director of a Tier 1 unit should be full-time. The roles and accountability of the directors must be defined carefully. It should be possible to have the Managing Director reporting to the Research Director.

Recommendation 21: A Tier 1 Centre or Institute should have both a Research or Scientific or Academic or Executive Director and a full-time Managing Director, while a Tier 2 Centre or Institute could have a Director who combines the functions, normally a member of the Centre or Institute seconded on a part-time basis to the Directorship.

The Research or Scientific or Academic Director is responsible for guiding the research agenda of the Centre or Institute, with input from its membership. He/she is responsible for seeing that research carried out under the explicit auspices of the Centre or Institute complies with University policy, including guidelines for research ethics. He/she is responsible for reporting the activities (and perhaps the finances) of the Centre or Institute to the membership, the partners and funders, and the University.

The Managing Director is responsible for the overall management of the Centre or Institute, the preparation of its annual budget, and the supervision of its employees.

Either director could have assistant or associate directors. It should also be possible for someone with a “director” title to report to another person with a “director” title.

4.4.2 Appointment, renewal and removal of Directors

According to the current guideline:

[A Director] ... is appointed by the VPAP, on the advice of the relevant Dean. The Centre charter may specify that there be a nominating committee that is chaired by the Dean, or her/his delegate, and which provides advice to her/him on the appointment or reappointment of the Director. If a nominating committee is required by charter, a process for its establishment must be part of the Centre charter.

The appointment of a faculty Director of a Centre or Institute is typically for a fixed term of three to five years, renewable at least once. (If the Director is a staff member, the appointment could be indefinite.) The initial appointment is usually part of the proposal to form the initial unit. Once a Centre or Institute is established, and the initial term of a faculty Director is several months from its end, the relevant reporting authority (VPAP, VPUR or Dean) should be required to advise regular members of the unit that the Director's term is near completion, and inform them of the appointment or reappointment process. All regular members and stakeholders of the Centre or Institute should be invited to provide input to the (re)appointment, in a process similar to the one followed to appoint a Department Chair (Policy 40).

http://secretariat.uwaterloo.ca/Policies/policy40.htm
The committee agrees that the grounds and process for removal of a faculty Director also should be similar to those for removal of a Department Chair in Policy 40. The grounds and process for removal of a staff Director should be consistent with those of Policy 18: Staff Employment. In both cases, consistency with Policy 33: Ethical Behaviour is also relevant.

http://secretariat.uwaterloo.ca/Policies/policy18.htm
http://secretariat.uwaterloo.ca/Policies/policy33.htm

The Policy 40 removal process entails concerns being brought by Department/School members to the Dean, followed by mediation and attempted reconciliation by the Dean, followed if necessary by a formal inquiry set up by the VPAP, to report to the President with a recommendation. The committee of inquiry consists of three senior faculty members from outside the Department/School in question. Thus the Policy 40 process is entirely internal to the University. Since Centres and Institutes are different from Departments/Schools in organizational structure, it will be necessary for the policy of Recommendation 20 to clarify, particularly for Tier 1 units, the roles of the membership, the governing body (Section 4.4.3), the advisory bodies (Section 4.4.4), and external partners of the Centre or Institute in such a process. Presumably, stakeholders could be consulted at both the informal mediation stage and the formal inquiry stage.

For some Centres and Institutes there will be an annual or periodic evaluation of the Director(s). If this is the case, the Institute or Centre should invite its members to provide input to the evaluation. In general, members should be aware of the performance criteria, so that any comments are in proper context. The performance criteria should be clearly tied to the expectations set out at the time of appointment or reappointment.

Recommendation 22: The processes for appointment, renewal, reviews, and removal of faculty and staff Directors should be addressed in the policy described in Recommendation 20; for faculty Directors they should be modeled on those for a Department Chair in Policy 40, for staff Directors they should be consistent with Policy 18, and in both cases they should respect the principles of Policy 33.

Recommendation 23: Where there is an annual or periodic review of the Director(s), all regular members of the Centre or Institute should be invited to provide input to the evaluation.

4.4.3 Governing body

Recommendation 24: Each Centre or Institute should have a governing body, such as a Board of Directors or a Steering Committee, which will serve as its primary executive authority and oversee its activities.
The governing body would normally be chaired by the responsible Dean or Vice-President. Functions of the governing body include:

- reviewing reports of activity, in the context of the mission of the unit
- monitoring the financial and operational health of the unit
- approving financial reports and budgets
- managing the appointment, renewal and reviews of the Director(s).

**Recommendation 25:** For a Tier 1 unit, the governing body should be chaired by or report to the VPAP or the VPUR. Normally, the governing body for a Tier 2 unit should be chaired by a Faculty Dean (or alternating Deans if multiple Faculties are responsible). The Chair of the governing body (VPAP, VPUR or Dean) should be responsible for oversight of financial viability of the unit and oversight of compliance by the unit with policies and procedures.

Because of the necessity for the University to have financial authority over the Centre or Institute, a majority of voting members of the governing body should be from the University of Waterloo. The governing body may also include external members (drawn from the private sector, government or the community) as appropriate. Regular members of the Centre or Institute should be represented sufficiently on the governing body. It is advisable also to include at least one Chair/Director of an associated Department/School.

**Recommendation 26:** A majority of voting members of the governing body of a Centre or Institute should be from the University of Waterloo. Regular members of the Centre or Institute should be represented sufficiently on the governing body.

**Recommendation 27:** The governing body of a Centre or Institute should meet at least annually; meeting at least twice annually is preferable in the case of units with complex budgetary and/or reporting requirements.

**Recommendation 28:** The business of the governing body should be conducted transparently, with minutes available to the members of the Centre or Institute.

The governing body may create other committees such as a committee for day-to-day management (e.g. an Executive Committee), an academic committee, and/or a nominating committee. (Note that this use of the term “Executive Committee” does not correspond to the use of that term in the current document on organization of Centres and Institutes.)

### 4.4.4 Advisory bodies

In addition to the governing body, a Centre or Institute may benefit from having internal, external or mixed advisory bodies. An internal advisory Council, with representation from regular members, other researchers, staff and students might be a useful vehicle for allowing these constituencies to participate in governance. External advisory bodies would be important for Centres or Institutes serving external communities, and for those seeking to be among the best in their areas nationally or internationally. They should be
compulsory for Tier 1 Centres or Institutes, in which the University is making a significant investment.

Recommendation 29: A Tier 1 Centre or Institute should have one or more advisory bodies, such as an Advisory Board or a Scientific Advisory Committee, made up primarily of external members; this is optional for a Tier 2 Centre or Institute. The advisory body or bodies should provide strategic and scientific advice to the Director(s) and the governing body. The advisory body or bodies should meet at least annually.

4.4.5 Example organization diagram

In accordance with one of the governance principles, despite the generality of the others, it would be desirable in practice to have only a small number of organizational models used across the University. The figure shows what might be thought of as one “normal” organizational structure.
4.4.6 Constitutions

It was generally agreed that more standardization of governance would be beneficial, with more attention to common language, and the completeness of what should be common elements of constitutions or charters.

The committee suggests that there be written two model constitution templates (one for Tier 1 units and one for Tier 2 units), to be approved by SGRC and Senate, on the understanding that they could be adopted with only minor modifications by units if they wished. Approval of specific constitutions would then require deliberation only if a Centre or Institute decided to deviate from the template. The idea would not be to constrain groups interested in other options (involving donors or outside partners for example), but to make the governance exercise simple for those who desire it, e.g., in routine cases and cases where proponents are uncomfortable with or not interested in writing a constitution.

The standard constitution templates would include options for specifying the roles, responsibilities and the term durations of the Directors and other officers, the governing and advisory bodies, and the various categories of members of the Centre or Institute. They would be written to refer to, and be consistent with, the policy of Recommendation 20. That policy would include among its sections a prescription for the appointment, renewal and removal of Directors, and guidelines with respect to the roles and influences of donors and public sector partners.

If the recommendations on governance of this report are adopted, there will be some existing Centres or Institutes whose constitutions are not in compliance. It seems reasonable in many instances to have the constitutions updated to be in compliance at the time of the five-year renewal. However, sometimes it may be advisable to make a change part way through a five year term, and in that case, there needs to be a procedure for having the change approved.

Recommendation 30: The constitution or charter of a Centre or Institute should normally be updated to be in compliance with these guidelines at the time of the five-year renewal. In cases where it is advisable to make a change part way through a five year term, the changes should be brought to SGRC and Senate.

4.5 Reporting and oversight

Formal oversight of a Centre or Institute is provided by the governing body (i.e. the "Executive Committee" as referred to in the current UW "Template" or the governing board or steering committee), chaired or overseen by the responsible Dean or Vice-President. Oversight is also provided by Senate through SGRC.

The committee believes that proper oversight of a Centre or Institute requires the overseers or their appointed delegates to be able to devote the necessary time and resources. Oversight can be greatly facilitated with a carefully designed system of reporting.
The oversight responsibilities of the governing body need to be clearly communicated and agreed upon, and central verification that oversight is occurring should be done regularly. It is generally agreed that an annual report should be requested, by the governing body of the Centre or Institute and the responsible overseer (Dean, VPAP or VPUR).

**Recommendation 31:** Each research Centre and Institute should file an annual report, approved by its governing body, with the responsible Dean, VPAP or VPUR. SGRC should receive a summary of this report for information.

The precise content of the annual report should be determined by the governing body and the Centre or Institute, so as to balance the effort and resources required to prepare the report and the value of the information provided. The reports should contain enough information to ensure that the Institute or Centre is progressing well and to identify serious problems sooner rather than later (so that there are no "surprises" at the 5-year review.) In many cases, this would consist of a collection of reports already prepared for the various supporters of the Centre or Institute, perhaps an executive summary, and, if needed, an addendum with additional items (e.g. an update on membership). SGRC might consider providing a reporting checklist that would ensure some uniformity.

Two additional recommendations are put forward concerning membership.

**Recommendation 32:** A Centre or Institute should update its posted membership list annually. It should define a term such as three years or five years for each category of membership; it should check with members as their terms end to see whether they still qualify for membership, and if so whether they wish to retain membership.

**Recommendation 33:** Regular members of the Centre or Institute must be informed of an impending 5-year SGRC review; they must be told how they can participate in the review process, and given access to a copy of the final report.

Producing the necessary reports will require administrative support as well as the participation of the Director and other members of the Centre or Institute. These are all precious resources. Thus it is critical that the oversight/reporting requirements of Centres and Institutes be as simple as possible, while covering all necessary aspects. It should be clear how/why the information being collected and reported is adding value to the oversight and success of the Centre or Institute, and thus worth the effort of assembling.

**Recommendation 34:** The oversight and reporting requirements for Centres and Institutes should be kept as simple as possible, while covering all necessary aspects.

It is useful to distinguish three kinds of oversight: financial and non-academic operations oversight, academic oversight, and what might be called external oversight.
(1) Financial and non-academic operations oversight

For Centres and Institutes whose operations are funded mainly by research grants or other income that has clear oversight structures, financial oversight is straightforward. For Centres and Institutes with substantial "other" income, appropriate processes are needed to ensure that standard accounting, reporting and financial practices are followed, and that there is compliance with all funding agreements. As indicated in Section 4.3, better tools and processes for tracking the funding of Centres and Institutes are needed. In some cases, assigning its own ORG unit to a Centre or Institute can be beneficial.

For Tier 1 units especially, clarity and agreement are needed on who are consulted, who are informed, and who make decisions regarding major financial affairs (e.g. management of major donations or grants, and major infrastructure expenditures).

Centres and Institutes with substantial non-academic operations beyond what would normally be conducted within a Department/School or Faculty may require proper processes for the execution of these activities. An appointed overseer should confirm to the VP or SGRC that appropriate processes are being followed.

Recommendation 35: The governing body of the Centre or Institute should ensure that there are processes in place to execute properly the operations (including academic and financial activities) of the Centre or Institute, in particular operations that are not already subject to oversight. They should also ensure that the processes are being followed, and confirm this in the annual report.

(2) Academic oversight

For most Centres and Institutes, academic oversight is provided by SGRC, in the approval and renewal process. It is also provided to some extent by the governing and advisory bodies, in the course of the annual review of activities. Another kind of oversight may be needed if the Centre or Institute is helping to teach or administer academic programs or training. In addition, communication and consultation between the Centre or Institute and associated Departments/Schools are important when the activities of the Centre or Institute may overlap with departmental activities. Perhaps the best way to bring this about is for representatives of the Centre or Institute and the Departments/Schools to meet together at least twice a year; representatives of the Departments/Schools could sit on Executive Committee or Academic Committee of the Centre or Institutes.

Academic oversight is more complex for Centres and Institutes with associated positions, and a general recommendation for these kinds of units can be framed as follows.
Recommendation 36: For Tier 1 and other large units which have associated faculty and research positions, hiring and reappointment processes should follow and be seen to follow relevant policies and involve Departments/Schools appropriately.

Hiring of tenured or tenure-track faculty is done through the usual processes of Departments/Schools. Postdoctoral researchers or other term research staff are usually also hired through Departments/Schools, where the usual oversight processes apply.

Research Professors (on term appointments) are also normally hired through a Department/School (Policy 76 on Faculty Appointments http://secretariat.uwaterloo.ca/Policies/policy76.htm ). The committee suggests that large Institutes/Centres with a sufficient critical mass of faculty (comparable to a Department/School) and with the resources to cover the associated financial, space and other relevant commitments, could have their own internal processes for the selection of Research Professors, and make recommendations to appoint Research Professors directly into the Centre or Institute. Such recommendations would proceed through the normal review processes of an appropriate Faculty, but not require the approval of a Department/School unless it is a joint appointment with the Department/School.

Recommendation 37: Tier 1 Centres or Institutes with the resources to cover the associated financial, space and other relevant commitments could have their own internal processes for the selection of Research Professors, and make recommendations to appoint Research Professors directly into the Centre or Institute, working through the normal review processes of an appropriate Faculty. It could be up to the relevant Faculties to decide if the Institute is able to make such recommendations directly.

For Tier 1 units making academic appointments, oversight of these processes could be provided by an academic committee.

A Centre or Institute can now hire staff (into contract or longer term positions contingent on funding), post-doctoral students and research assistants, through a Department/School. It might be reasonable in some cases to allow hiring into positions associated with the Centre or Institute, if they require no long-term commitment by the University.

Recommendation 38: The University should consider whether it might be possible to hire post-doctoral students, technicians, administrative staff and research assistants into a Centre or Institute rather than an academic Department/School. This might require a written agreement by the relevant Chair(s)/Director(s) and Dean(s) outlining the terms and accountabilities of these arrangements.

(3) External oversight

In some cases, additional external oversight or review is conducted by external funding bodies. Where appropriate, Centres and Institutes may benefit from the additional advice of external advisory boards or committees. Such external advisory boards can
assess the international standing of the Centres or Institutes, and provide strategic advice and information that would otherwise not likely be available in-house. These boards would normally also be consulted for input on reviews of the Centres or Institutes.

4.6 Criteria for and implications of separate incorporation

In the past, universities usually created related companies for fundraising purposes (e.g. university foundations) or to exploit intellectual property. The universities exercised control over these companies and completed their corporate filings, etc. Now, there is a trend towards incorporation of non-profit entities to facilitate research and outreach collaboration with other institutions or donors. Increasing reliance on private sector funds and governments encouraging R&D partnerships suggests that the issue of separately incorporated Centres and Institutes will arise more often in future. Separate incorporation of research Centres or Institutes may offer solutions to legal or administrative difficulties.

This section is mainly concerned with corporations that are related (UW owns more than 50% of shares if for-profit or controls appointment of more than 50% of Directors if non-profit) or affiliated (UW owns a significant number of shares, but not a majority, or controls appointment of some Directors, but fewer than 50%).

Separate incorporation of Centres and Institutes raises several issues for faculty who are involved:
• Terms and conditions of their service as Directors or officers of related/affiliated corporations
• Whether research or administration for such entities should be taken to be part of faculty workload, perhaps involving buyouts or secondments, or considered to be extra-university activity?
• Whether matters of academic freedom, intellectual property and ethics review requirements are sufficiently addressed in the relationship with the University

The committee believes that these issues can be addressed effectively if the principles implicit in the next recommendation are followed.

**Recommendation 39:** The following understandings should be put in place for a separately incorporated research Centre or Institute that is related or affiliated as defined above:

- If research or administration for the external Centre or Institute is requested or approved by the faculty member’s Dean, it would be taken to be part of faculty workload; with the agreement of the faculty member’s Department/School, the faculty member may be seconded to the external Centre or Institute, but remains fully employed by the University.
• The relationship or affiliation agreement between the University and the Corporation should specify that the terms and conditions of the service of faculty members include being covered by University policies on academic freedom, ethics review requirements and the like.
• The relationship or affiliation agreement between the University and the Corporation should include a process for appointment and removal of Directors or officers which is consistent with the University’s principles.
• Intellectual property agreements with faculty and students associated with the external Centre or Institute should be negotiated at the beginning of the association.

From the point of view of the University, there is also the question of whether research funding to related/affiliated corporations should be considered part of UW’s total research funding. The answer may depend on the purpose of reporting.

4.6.1 Key risks

Creating related/affiliated corporations exposes the university and its officers to potential risks in a number of areas:
• Strategic risk (corporation may not serve purpose for which it was created / meet UW objectives for it)
• Public accountability (corporation may not meet government standards and regulations re: freedom of information, protection of privacy, health, safety, environmental compliance, etc. that are required of UW)
• Reputational risk (activities and reputation of related company can reflect on UW; success of company depends on quality of individuals chosen to run it and quality of partners)
• Financial risk (related company may not be financially sustainable – winding up may create costs re: ongoing staff and contractual obligations that UW could eventually have to cover)
• Lost opportunities (company may compete with UW for donations, research funds, personnel and other opportunities)
• Liability (UW employees sitting on boards may be personally liable if they act in conflict of interest or if the corporation breaches certain laws/regulations; liability could also attach to UW if it is exercising control over a related company)
• Use of resources (UW employees sitting on boards or participating as members may be distracted from their UW responsibilities; inefficiencies may be created with companies hiring additional staff or expending funds to perform functions offered centrally by UW e.g., finance, payroll, corporate reporting, facilities maintenance...)
• Intellectual Property (faculty and students dealing with related/affiliated corporations may fail to understand and accept differences in treatment of intellectual property from UW policy)
4.6.2 Suggested strategies to minimize risks

In view of the risks, the committee would urge that the options for housing the Centre or Institute with the University, or somehow jointly within the partner institutions should be explored thoroughly before separate incorporation is pursued. The next recommendation applies when these options are found not to be workable.

Recommendation 40: The following measures are suggested to minimize the risks to the University of a separately incorporated research Centre or Institute:

- Ensure that a strategic plan is created to manage the University's relationship with any related/affiliated corporation, including provision for annual monitoring and review, and an exit strategy.
- Ensure that the creation/development process for related/affiliated corporations includes:
  - Consultation on and compliance with applicable regulatory frameworks (employment, tax, health and safety, legal)
  - A sustainable business plan
  - Development of an audit framework
  - Contract and service level agreements with UW, if any
  - Independent legal advice
  - Appropriate governance framework
- Nominate a University officer to participate on the related/affiliated corporation's board. The nominated officer would be the University's primary point of contact responsible for ensuring that the above items are completed and for monitoring and reporting back to the University. Ensure that the officer is appropriately insured by the insurance of the University and the related/affiliated corporation. Make the nominated officer aware of his/her responsibilities with respect to fiduciary obligation to the related/affiliated corporation and the potential for conflict of interest. A method for reporting conflicts of interest to UW should be established.
- Obtain agreement that it will be permitted to inspect the related/affiliated corporation's financial records.
- Obtain agreement that the related/affiliated corporation will report on academic issues to appropriate UW bodies for monitoring purposes.
5. List of Recommendations

Recommendation 1: The University should maintain its commitment to the fostering of high quality Centres and Institutes that enhance the research and scholarship of the institution.

Recommendation 2: While recognizing that the Sixth Decade Plan goals are not prescriptive, the University should turn its attention to developing a plan to fulfill these aspirations.

Recommendation 3: University research groups that have the characteristics of Centres or Institutes, and which would benefit from that designation, should be encouraged to pursue formal approval from Senate as Centres or Institutes. University research groups that are already representing themselves as research Centres or Institutes, but are not Senate-approved, should be required by the VPUR to seek that approval, or to apply for a dispensation.

Recommendation 4: The University should classify Centres and Institutes into Tier 1 (for a cross-Faculty, multidisciplinary, University supported unit in a major area of research) and Tier 2.

Recommendation 5: When considering the approval of new Centre or Institute, SGRC should take into account the potential academic importance of the work, the governance structure, the degree of financial support/financial risk involved in start-up, and the continuing costs.

Recommendation 6: The University should require that Centres and Institutes add academic value to the University, recognizing the diverse and varied ways in which this principle might be achieved.

Recommendation 7: Centres and Institutes should not have autonomy to administer UW academic programs or degrees. The infrastructure and members of Centres and Institutes could be used to enhance or deliver/facilitate such programs, but in matters of academic programming, all Centres and Institutes must function under the auspices of Departments/Schools or Faculties and be subject to University policies and Department/School or Faculty regulations. Approval of new credit courses must come from Senate, and University regulations must apply to all credit courses and degrees. Oversight of academic programs should rest with Departments/Schools and Faculties under the direction of Senate and the Deans. Interdisciplinary academic programs should be overseen by the Deans or approved delegates (e.g., Chairs/Directors) from participating Departments/Schools and Faculties.

Recommendation 8: Centres and Institutes should serve as catalysts for new interdisciplinary collaborations, which might develop into university-sanctioned academic programs based in one or more academic units. Faculty members in a Centre or Institute should represent their academic disciplines, areas, and/or “problem foci” on program advisory committees under the supervision of the Deans or designated Chairs/Directors. These committees would help shape and define the nature of the interdisciplinary academic programs and the envisioned role of
the Centre or Institute in helping to implement these, and attract students and funding, within
the constraints of University regulations.

Recommendation 9: A tenured or tenure track faculty member belonging to a Centre or
Institute must have a home Department/School. Graduate students following a Centre or
Institute associated program must be registered in an academic Department/School or
Faculty. If the faculty member wishes to supervise a graduate student in the Centre or
Institute associated program, the supervision must have the approval of the academic unit in
which the student is registered.

Recommendation 10: The handling and disbursement of fees paid by participants in
continuing (non-degree) education programs arranged by Centres and Institutes must be
defined by the University, with consistency across the University.

Recommendation 11: The University should carry out an analysis of the support required by
the system of Centres and Institutes, and the real costs, in order to develop a University-wide
policy for support.

Recommendation 12: The University should consider supporting continuing Centres and
Institutes through incentives to bring in funding. For example, a scheme for sharing part of
overhead generated by Centre or Institute initiatives should be entertained.

Recommendation 13: The University should consider developing a mechanism for allocating
some central FICR funds on a competitive basis to Centres and Institutes.

Recommendation 14: A fund should be considered to which Centres and Institutes pay a
regular premium, with amount of premium depending on use of the fund, to cover
contingencies such as maternity leave payments, staff tuition and severance.

Recommendation 15: Better tools and processes are needed for tracking the funding of
Centres and Institutes. The University should put more resources into the tracking of invoices
issued for contract work, membership dues and conference registration.

Recommendation 16: Centres and Institutes and Human Resources should work together to
determine the appropriate compensation levels for specialist staff in a short time frame.

Recommendation 17: The University should provide adequate initial administrative
support for Tier 1 Centres and Institutes. This means helping to find appropriate
leadership, providing assistance in navigating bureaucracy, and maintaining careful
oversight.

Recommendation 18: The University should consider appointing an officer to provide advice
on administrative and governance matters to Centres and Institutes.

Recommendation 19: A periodic (annual or bi-annual) survey of Directors and/or a forum for
sharing experiences might provide additional administrative support.
Recommendation 20: The University should develop a policy for the governance of Centres and Institutes formed for the advancement of research, respecting the following principles.

- The governance for a research Centre or Institute must support and facilitate the attainment of excellence and realization of the mission of the unit.
- A research Centre or Institute should have a defined category of regular members who are University faculty conducting research in the area of the Centre or Institute.
- The governance structure must safeguard appropriately the independence of scholarship associated with the Centre or Institute, and the academic freedom of its researchers.
- A Centre or Institute must operate with transparency, accountability and consistency with University policies.
- The regular members of a Centre or Institute are entitled to participate in its governance.
- Since a Senate-approved Centre or Institute is part of the University, the University must have appropriate and sufficient authority over it.
- The governance model for a Centre or Institute should be one of a small number of models generally agreed to satisfy the preceding conditions.
- Each Centre or Institute must have a governance document, a constitution or charter.

Recommendation 21: A Tier 1 Centre or Institute should have both a Research or Scientific or Academic or Executive Director and a full-time Managing Director, while a Tier 2 Centre or Institute could have a Director who combines the functions, normally a member of the Centre or Institute seconded on a part-time basis to the Directorship.

Recommendation 22: The processes for appointment, renewal, reviews, and removal of faculty and staff Directors should be addressed in the policy described in Recommendation 20; for faculty Directors they should be modeled on those for a Department Chair in Policy 40, for staff Directors they should be consistent with Policy 18, and in both cases they should respect the principles of Policy 33.

Recommendation 23: Where there is an annual or periodic review of the Director(s), all regular members of the Centre or Institute should be invited to provide input to the evaluation.

Recommendation 24: Each Centre or Institute should have a governing body, such as a Board of Directors or a Steering Committee, which will serve as its primary executive authority and oversee its activities.

Recommendation 25: For a Tier 1 unit, the governing body should be chaired by or report to the VPAP or the VPUR. Normally, the governing body for a Tier 2 unit should be chaired by a Faculty Dean (or alternating Deans if multiple Faculties are responsible).
governing body (VPAP, VPUR or Dean) should be responsible for oversight of financial viability of the unit and oversight of compliance by the unit with policies and procedures.

Recommendation 26: A majority of voting members of the governing body of a Centre or Institute should be from the University of Waterloo. Regular members of the Centre or Institute should be represented sufficiently on the governing body.

Recommendation 27: The governing body of a Centre or Institute should meet at least annually; meeting at least twice annually is preferable in the case of units with complex budgetary and/or reporting requirements.

Recommendation 28: The business of the governing body should be conducted transparently, with minutes available to the members of the Centre or Institute.

Recommendation 29: A Tier 1 Centre or Institute should have one or more advisory bodies, such as an Advisory Board or a Scientific Advisory Committee, made up primarily of external members; this is optional for a Tier 2 Centre or Institute. The advisory body or bodies should provide strategic and scientific advice to the Director(s) and the governing body. The advisory body or bodies should meet at least annually.

Recommendation 30: The constitution or charter of a Centre or Institute should normally be updated to be in compliance with these guidelines at the time of the five-year renewal. In cases where it is advisable to make a change part way through a five year term, the changes should be brought to SGRC and Senate.

Recommendation 31: Each research Centre and Institute should file an annual report, approved by its governing body, with the responsible Dean, VPAP or VPUR. SGRC should receive a summary of this report for information.

Recommendation 32: A Centre or Institute should update its posted membership list annually. It should define a term such as three years or five years for each category of membership; it should check with members as their terms end to see whether they still qualify for membership, and if so whether they wish to retain membership.

Recommendation 33: Regular members of the Centre or Institute must be informed of an impending 5-year SGRC review; they must be told how they can participate in the review process, and given access to a copy of the final report.

Recommendation 34: The oversight and reporting requirements for Centres and Institutes should be kept as simple as possible, while covering all necessary aspects.

Recommendation 35: The governing body of the Centre or Institute should ensure that there are processes in place to execute properly the operations (including academic and financial activities) of the Centre or Institute, in particular operations that are not already subject to oversight. They should also ensure that the processes are being followed, and confirm this in the annual report.
Recommendation 36: For Tier 1 and other large units which have associated faculty and research positions, hiring and reappointment processes should follow and be seen to follow relevant policies and involve Departments/Schools appropriately.

Recommendation 37: Tier 1 Centres or Institutes with the resources to cover the associated financial, space and other relevant commitments could have their own internal processes for the selection of Research Professors, and make recommendations to appoint Research Professors directly into the Centre or Institute, working through the normal review processes of an appropriate Faculty. It could be up to the relevant Faculties to decide if the Institute is able to make such recommendations directly.

Recommendation 38: The University should consider whether it might be possible to hire post-doctoral students, technicians, administrative staff and research assistants into a Centre or Institute rather than an academic Department/School. This might require a written agreement by the relevant Chair(s)/Director(s) and Dean(s) outlining the terms and accountabilities of these arrangements.

Recommendation 39: The following understandings should be put in place for a separately incorporated research Centre or Institute that is related or affiliated as defined in Section 4.6:

- If research or administration for the external Centre or Institute is requested or approved by the faculty member's Dean, it would be taken to be part of faculty workload; with the agreement of the faculty member's Department/School, the faculty member may be seconded to the external Centre or Institute, but remains fully employed by the University.
- The relationship or affiliation agreement between the University and the Corporation should specify that the terms and conditions of the service of faculty members include being covered by University policies on academic freedom, ethics review requirements and the like.
- The relationship or affiliation agreement between the University and the Corporation should include a process for appointment and removal of Directors or officers which is consistent with the University's principles.
- Intellectual property agreements with faculty and students associated with the external Centre or Institute should be negotiated at the beginning of the association.

Recommendation 40: The following measures are suggested to minimize the risks to the University of a separately incorporated research Centre or Institute:

- Ensure that a strategic plan is created to manage the University's relationship with any related/affiliated corporation, including provision for annual monitoring and review, and an exit strategy.
- Ensure that the creation/development process for related/affiliated corporations includes:
Consultation on and compliance with applicable regulatory frameworks (employment, tax, health and safety, legal)
- a sustainable business plan
- development of an audit framework
- contract and service level agreements with UW, if any
- independent legal advice
- appropriate governance framework

- Nominate a University officer to participate on the related/affiliated corporation's board. The nominated officer would be the University's primary point of contact responsible for ensuring that the above items are completed and for monitoring and reporting back to the University. Ensure that the officer is appropriately insured by the insurance of the University and the related/affiliated corporation. Make the nominated officer aware of his/her responsibilities with respect to fiduciary obligation to the related/affiliated corporation and the potential for conflict of interest. A method for reporting conflicts of interest to UW should be established.
- Obtain agreement that it will be permitted to inspect the related/affiliated corporation's financial records.
- Obtain agreement that the related/affiliated corporation will report on academic issues to appropriate UW bodies for monitoring purposes
Appendix 1: Committee terms of reference

Senate approved Centres & Institutes; Issues for Discussion

Centre/Institute Reporting and Review
- Does the current reporting structure for Research Centres and Institutes continue to be effective?
- Are there alternative structures that might be more effective? For example, should reporting of Research Centres and Institutes be centralized (to the VP, Academic and Provost or the VP, Research)?

Centre/Institute Governance
- Should there be a distinction between Centres and Institutes on a go-forward basis?
- What guidance should be provided to proponents of new Research Centres & Institutes with respect to management and administration?
  - a standard constitution template setting out:
    - board structure;
    - selection, term and removal of directors;
    - voting;
    - categories of membership;
    - other?
  - a standard template for specification of
    - space requirements
    - funding
    - academically relevant matters
    - other?
  - a standard template for specification of a business plan?
  - standard language that ensures directors and board members are made fully aware of their administrative roles and responsibilities?
  - a central repository of approved documents (constitutions, business plans, review reports)?
  - guidelines with respect to the roles and influence of donors and public/private sector partners?
- Should the constitutions of existing Centres/Institutes be updated to be consistent with those of new Centres/Institutes

Centre/Institute Funding
- Should availability of funding be a prerequisite for the establishment of a Centre/Institute?
- Should there be centrally provided core funding for all Centres/Institutes? For some Centres/Institutes?
- Should Centres/Institutes share in the research overhead allocated to Faculties? If so, how?
Separately Incorporated Centres/Institutes

- What guidance should be provided to proponents of externally incorporated Centres/Institutes? E.g.,
  - under what conditions should UW consider separate incorporation of Centres/Institutes?
  - what should UW's stance with respect to separately incorporated Centres/Institutes be regarding:
    - academic freedom;
    - ownership of intellectual property;
    - administration of, or involvement in, academic programs;
    - access to tri-council funding;
    - provision of funding under tax law;
    - research funding - should research funding to separately incorporated Centres/Institutes be considered part of UW's total research funding;
    - research ethics;
    - provision of services e.g. Procurement?
  - Should there be Senate oversight and /or oversight by the Provost, the Vice-President, Research, Deans?
  - Should research/administration by UW faculty in separately incorporated Centres/Institutes be considered part of their normal workload?

Oversight of Academic Programs

- What role, if any, should Research Centres/Institutes have in oversight of academic programs?
- Does the relationship of Centres/Institutes that oversee interdisciplinary academic programs to Departments/Faculties need clarification? Is it appropriate to consider requiring a Faculty Dean to take primary ownership of interfaculty programs?
- What role could Research Centres/Institutes have in creating interdisciplinary programs?
- Should Centres/Institutes that offer professional development/executive education work more closely with the Centre for Extended Learning? If so, how?
- How should Centres that oversee academic programs, but are not involved in research, report and be reviewed?

Blue Sky

- What are the general trends with respect to Centres/Institutes? E.g., why they are formed, who are involved, what activities are they conducting, how are they changing? What do we know? What do we know that we don't know (certain uncertainty)? What don't we know that we don't know (uncertain uncertainty)?
Appendix 2: Current policy documents

University of Waterloo Research Centres and Institutes; Administrative Centres; Outside Centres and Institutes Where UW is a Partner

Definitions

- **Institute** (main focus is research);
- **Research Centre** (main focus is research);
- **Administrative Centre** (primarily administrative; however, some collateral research activities may be pursued from time to time).

"Research" and "administrative" do not need to appear in the name of the centre. Institutes and research centres will be listed on the Office of Research (ORA) website.

Approval Routes

Institutes and research centres, including outside institutes and research centres where UW is a partner, require Senate Graduate & Research Council (SGRC) and Senate approval, and are subject to review every five years.

Administrative centres are the responsibility of the university officer with financial responsibility for the centre (usually the dean or deans when the centre is multi-faculty, or the vice-president, academic & provost when the centre is institutional).

On behalf of Senate Graduate & Research Council (SGRC), the SGRC co-chairs are responsible for determining whether a centre is a research centre or an administrative centre. Proposals should be forwarded to the Secretary of SGRC for consideration.

Research Centres and Institutes

See Guidelines for the Establishment of Centres and Institutes
See Guidelines for the Review of Centres and Institutes
See a Template for the Organization and Management of Centres and Institutes

Administrative Centres

Deans are responsible for developing guidelines (criteria) for establishing administrative centres and requiring five-year reviews.

Approved by Senate
November 17, 2008
University of Waterloo Guidelines for the Establishment of Centres/Institutes

A centre/institute is normally formed to promote and encourage research and related activity in an area that is not accommodated conveniently within a single academic unit or when an affiliates program is involved [ref: item 3, Note 2]. The area of academic activity may be broadly based and may include several related but independent research foci. The function of the centre/institute is to facilitate the development and promotion of the particular academic area and, in pursuit of this objective, the centre/institute may establish links inside and outside the University, organize seminars and symposia, solicit funds and maintain an appropriate infrastructure.

Note 1: In accordance with University policy, centres/institutes may apply for grants or contracts or receive gifts in-kind only with prior approval of the appropriate University officer. [ref: Policy 7, http://www.adm.uwaterloo.ca/infosec/Policies/policy7.htm].

Official recognition and designation of all centres and institutes is at the approval of Senate following review of a proposal and recommendation to Senate by the Senate Graduate & Research Council (SGRC). Included are 'umbrella' or 'super' centres/institutes and their various sub-centres/institutes—the latter components, whether named in the original proposal or subsequently proposed and submitted.

Prior to the requisite review and approval, the centre/institute title should not be used for purposes of promotion (e.g., on a website, in a grant proposal), unless the centre/institute is clearly identified as "proposed" or "subject to Senate approval".

Proposals are submitted to the Vice-President, University Research, and are expected to include, identify or address the following:

1. Name of Centre/Institute (and any sub-centres/institutes under its 'umbrella').

2. Overview. Rationale; background; importance and benefit; mission; Director and expected interactions with other positions to be established; scope of activities envisaged, including an indication of opportunities (research; student) that are likely to result.

3. Constitution. Objectives; organizational structure, responsibilities and roles of the centre/institute committees and/or board, criteria for and categories of membership, privileges and responsibilities of membership, voting procedures; the terms and conditions of an affiliates program, if any.

Note 2 re: Affiliates Programs, External Members, Boards. A centre/institute may be established with or without an affiliates program; however, if the centre/institute has external members or an affiliates program, the centre/institute shall have a board. Subsequent introduction of an affiliates program by a centre/institute
requires submission to SGRC and approval by Senate. An affiliates program requires that external agencies contribute an annual fee in return for certain services and privileges available to all affiliate members.

4. **Management.** University officer(s), normally a Faculty Dean(s), to whom the Director and centre/institute will report and where financial responsibility is vested. Organization Template.

5. **Listing of Proposed Members.** Director designate; other members grouped according to category of membership, if applicable (e.g., associate, corporate, affiliate, external community). Abbreviated CVs (last five years) should be provided for each primary member.

6. **Research/Educational Component.** List benefits and opportunities (also, difficulties and challenges); for example: how will creation of the centre/institute advance the frontiers? what is the impact of that advancement expected to be? how will success be measured? Provide examples of specific research topics that will be studied, examples of collaborative (multi-disciplinary and multi-institutional) research, who will fund these research projects, who will receive and apply new learning from these studies.

7. **Facilities.** List available research facilities, identifying strengths and weaknesses in the inventory, future requirements and a proposed strategy for obtaining such facilities.

8. **Budget.** A detailed fiveyear table indicating how the centre/institute will sustain itself financially, and including anticipated income from all sources (university, government, industry, overhead, royalties) and proposed expenditures and disbursements.

9. **Statements of Sanction and Commitment**

   - **Department Chair/School Director and Dean.** Approval and support for the establishment of a centre/institute must be provided and signed by relevant Chairs/Directors and Faculty Deans. Any commitments or agreements to provide space, teaching relief or other resources, including overhead from contract research, should be documented and signed by those authorized to make such commitments.

   - **Library and other UW Service Departments.** A statement of anticipated requirements for UW must be prepared and signed by the senior administrator of any academic support unit(s) undertaking to fund their provision; in the absence of such statements, it will be assumed that there are no such requirements, commitments or agreements.

   - **IST Support Requirements.** Any new software or extraordinary network requirements associated with the centre/institute must be indicated, and a statement of support from the Associate Provost, IST included with the proposal.
Note re: Review and Renewal. All centres/institutes shall be reviewed at least once during each five-year period of existence. Notice of the review will be communicated to the Director of the centre/institute by the Vice-President, University Research at least nine (9) months prior to the end of the mandate of the centre/institute. See Guidelines for the Review of Centres/Institutes
http://www.research.uwaterloo.ca/main/cirq/uw/reviewcLhtml

If a report has not been received by the end of the centre/institute mandate, the Director (Chair, Dean, others, as appropriate) is informed that SGRC will recommend to Senate that the centre/institute be removed from the approved list. Reapproval could be sought via the SGRC and Senate route. Mitigating circumstances would be considered by SGRC on a case-by-case basis, and could result in the granting of an extension (up to 12 months) beyond the approval period.

Guidelines approved 1986

Note: Centre/Institute proponents are asked to send an e-version of the proposal to the Secretary. The Director designate is expected to attend the SGRC meeting at which the proposal is considered, to make some brief, introductory remarks and respond to members' questions [membership list provided upon request]. He/she is excused while Council deliberates, and is contacted by the Secretary after the meeting. If Council accepts the proposal, it then recommends that Senate approve the establishment of the centre/institute, normally for a five-year period. The Director is also invited to attend the relevant Senate meeting, not to make a presentation but to respond to Senators' questions.
University of Waterloo Guidelines for the Review of Centres/Institutes

A. All Centres/Institutes will be reviewed at least once during the five-year period of existence. Notice of the review will be communicated to the Director of the Centre/Institute by the Vice-President, University Research at least nine months prior to the end of the mandate of the Centre/Institute. In the first instance and at the discretion of the Vice-President, University Research, an initial evaluation of each Centre/Institute shall be conducted.

B. As a Centre/Institute comes up for review, its Director will be asked to prepare a report along the guidelines outlined in C.2. below; the report is to also include a reflection of the opinions of the members of the respective Centre/Institute concerning its operation. In addition, reports should include a summary of: (a) faculty involved in the Centre's activities; (b) numbers of graduate students involved in the Centre's activities (over the duration of the Centre and since the last review); (c) a list of publications from the Centre's activities (or other, appropriate, academic measures of research activity). The report is then to be submitted to the Senate Graduate Research Council, by a date established by the Vice-President, University Research, for consideration and determination as to whether a formal, independent review committee should be struck to conduct a full review of the Centre/Institute.

C. In the event that a more thorough examination is required, the following process will be observed:

1. The Review Committee will be appointed by the Vice-President, University Research in consultation with the Senate Graduate Research Council at least six months prior to the end of the mandate of the Centre/Institute; the membership of the Committee will include:
   - A senior researcher with administrative experience and no direct involvement in the Centre/Institute (preferably a former Dean or Department Chair), who shall chair the Committee;
   - The Director of another Centre/Institute;
   - An academic who is not a member of the Centre/Institute but is knowledgeable in the field of its research activity;
   - The Vice-President, University Research or her/his delegate to assess financial and corporate concerns;
   - Other appointments as may be deemed appropriate.

2. The Director of the Centre/Institute is required to provide the Chair of the Review Committee with the following information:
   - A progress report which includes a statement describing how and why the Centre/Institute has achieved or revised its original objectives; a detailed listing of
research accomplishments, a current membership list and a detailed financial statement;

- A five-year plan which identifies future research directions and development strategies;
- Statements from appropriate Department Chairs and Faculty Deans indicating continued support for the Centre/Institute;
- Names of individuals who could provide external assessments of the Centre/Institute.

3. The mechanism by which the Review Committee elects to conduct the review shall be at the discretion of the Committee in consultation with the Vice-President, University Research. It is recommended that the primary thrust of the review process involve meetings with the Director and members, and an assessment of activities, achievements and progress that has been made towards the fostering and promotion of the given field. In addition, it is suggested that the review process include solicitation of external assessments and discussion with non-members of the Centre/Institute from related departments.

4. The Review Committee is required to submit a written report to the Vice-President, University Research, normally within four months of being established. Before submission to the Vice-President, the Chair of the Review Committee will have provided a copy of the report to the Director of the Centre/Institute under review to ensure that the report contains no factual errors. The Director may submit a written commentary on the report to the Vice-President, University Research.

5. The Senate Graduate Research Council will consider the report of the Review Committee, consulting with the Committee and Director of the Centre/Institute as necessary before making a recommendation to Senate concerning the future of the Centre/Institute. The recommendation may be:
- Continuation with review in 5 years
- Continuation with review in 1, 2 or 3 years
- Termination

Approved by the Senate Research Council 890914.
Revised by the Senate Research Council 920228.
A Template for the Organization and Management of UW Research Centres and Institutes

This template is to be used as a guide when structuring the organization and management of Research Centres/Institutes. Provided the ultimate authority for the Centre/Institute rests with the University Officer with financial responsibility for the Centre/Institute (usually the Dean), details may vary. When a Centre's activities span two or more Faculties, authority may rest with a committee of two or three Deans, the Vice-President, Academic & Provost, or the Vice-President, University Research.

In what follows "Centre" means "Centre" or "Institute", "Dean" means "Dean" or "Deans" or "Vice-President, Academic & Provost" or "Vice-President, University Research".

The Director:
• May be a regular UW faculty or staff member, or an external appointee.
• Will be appointed for a fixed term of up to three years, normally renewable once.
• Is appointed by the Vice-President, Academic & Provost, on the advice of the relevant Dean. The Centre charter may specify that there be a nominating committee that is chaired by the Dean, or her/his delegate, and which provides advice to her/him on the appointment or reappointment of the Director. If a nominating committee is required by charter, a process for its establishment must be part of the Centre charter.
• Is ultimately accountable to the Dean, in some cases, through a department Chair/school Director.
• Is responsible for the overall management of the Centre, the preparation of its annual budget, supervision of Centre employees (if any), etc.
• May have an advisory committee to provide advice and guidance regarding the Centre's operation. The advisory committee should be representative of the Centre's membership, and there must be a prescription to provide for regular rotation of its membership. Normally, members of the advisory committee shall serve for non-renewable terms of up to three years.
• In the absence of a separate Scientific Director, is responsible for guiding the research agenda of the Centre, with input from its membership.

The Executive Committee:
• Is chaired by the Dean, or his/her delegate.
• Includes the Director, Scientific Director (if there is one), and others as determined by the Dean
• Provides advice to the Dean, Director and Scientific Director
• Reviews the annual budget and provides a recommendation to the Dean

The Board:
• Includes the Dean (or his/her delegate), Director, Scientific Director and, at the discretion of the Dean, selected members of the Executive Committee
• May include members external to the University
• Is advisory, providing advice on the general and financial management of the Centre, its
scientific direction, etc.

- The Chair is selected in a manner acceptable to the Board membership, and serves for a period of up to three years, normally renewable once.

Endorsed EC – Sept. 13, 2006; Approved SGRC – Sept. 18, 2006; slight modifications made August /08 /tlc
Appendix 3: Relevant portions of Sixth Decade Plan

PURSUING GLOBAL EXCELLENCE: SEIZING OPPORTUNITIES FOR CANADA
UNIVERSITY OF WATERLOO (UW)

2. Teaching and Research

Sixth set of goals:

To create a critical mass of scholars and research support infrastructure, UW will promote the creation of Senate-approved research centres and institutes. By 2017, UW will have the following research support infrastructures in place:

- at least six research centres/institutes supported by institutional funding, recognized by peer evaluation to be among the several best in the world
- at least 20 research centres/institutes supported by institutional funding, recognized by peer evaluation to be among the several best in the country
- a UW Research Fund worth 1% of UW's research revenue to support new large research initiatives with external support
- an internal research fund to support research and scholarly work in the humanities and social sciences
- 20% of FTE faculty members holding chairs (including endowed, industrial and Canada Research Chairs)
- 20 year-long visiting professorships to bring eminent national and international scholars to UW

14. National and International Presence

To facilitate the establishment of the University's global leadership, UW will expand its presence nationally and internationally and have:

- at least two international campuses with focused activities abroad
- physical presence in select key locations in Canada and abroad
- established partnerships, collaborative academic programs, and joint research centres with other prominent national and international institutions
### Appendix 4: Questions posed to Directors of Centres and Institutes

#### Questions for Directors of Centres and Institutes

Name of Centre/Institute:  
Name of Director:  

<table>
<thead>
<tr>
<th>Questions</th>
<th>Answers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. When were you first appointed Director?</td>
<td></td>
</tr>
<tr>
<td>2. How and why was the Centre/Institute started?</td>
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</tr>
<tr>
<td>3. What do you see as the benefits of being a Senate approved Centre/Institute?</td>
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<tr>
<td>4. Do you see any disadvantages of being a Senate approved Centre/Institute, rather than an informal association? If so, please elaborate.</td>
<td></td>
</tr>
<tr>
<td>5. In which Faculty or Faculties is the Centre/Institute officially housed?</td>
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<tr>
<td>6. To which University Officer (e.g. Dean, Vice-President) is the Centre/Institute officially accountable?</td>
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</tr>
<tr>
<td>7. Who chairs the board or analogous body of the Centre/Institute?</td>
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<tr>
<td>8. How is the board or analogous body composed?</td>
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<tr>
<td>9. What are the categories of membership in the Centre/Institute, and approximately how many members are in each category?</td>
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<tr>
<td>10. From which Faculties and Departments does the Centre/Institute’s membership come?</td>
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<tr>
<td>11. What is the vision of the Centre/Institute, and what is its mission?</td>
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<tr>
<td>12. What are the main activities of the Centre/Institute?</td>
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<tr>
<td>13. Does the Centre/Institute administer any academic programs? If so, what are they?</td>
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<tr>
<td>14. How would you say the Centre/Institute “adds value” to the academic community in research, training, or community services? To put it another way, if the Centre/Institute were disbanded this year, what would be lost?</td>
<td></td>
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</tbody>
</table>
15. What are the sources of revenue for the Centre/Institute, belonging to the Centre/Institute itself? For what period is each of these in place?

16. Approximately how much revenue has come from each source in 2010/2011?

17. How many staff members are employed and paid by the Centre/Institute?

18. What space, if any, is currently allocated to the Centre/Institute?

19. For how long do you foresee that the Centre/Institute will continue to exist? Please explain.

20. What do you see as the key barriers facing Centres and Institutes at the University?

21. Would you like to share any other thoughts about policies for Centres and Institutes with the Committee?

Thank you very much for your input!

Follow-up questionnaire on academic programming and involvement for Centre and Institute Directors (relevant subset sent to each of 7 units)

<table>
<thead>
<tr>
<th>Questions</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Are all of the teaching activities of your Centre/Institute for which participants receive academic credit in the form of a course credit, degree, certificate, or diploma approved by the UW Senate? If not, please describe the governance process.</td>
<td></td>
</tr>
<tr>
<td>2. Is _______ ultimately vetted and controlled by one or more academic Departments or Schools at UW and its/their Chair/s, and thereafter the Faculty Undergraduate or Graduate Council and Dean?</td>
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</tr>
<tr>
<td>3. Please describe the funding mechanisms for _______ i.e.: Which activities involve the payment of fees by participants? What is the level of these fees? To whom are the fees paid?</td>
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<tr>
<td>4. Please describe the minimal and usual teaching qualifications of the instructors in the courses or units comprising _______.</td>
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<tr>
<td>5. Who are the typical participants of _______? What academic qualifications, if any, are required to participate _______ and which governing body assesses and approves them, and admits participants?</td>
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<tr>
<td>6. Has _______ considered or pursued becoming a formal academic Department? Why or why not?</td>
<td></td>
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</tbody>
</table>
Appendix 5: Questions posed to Department Chairs/School Directors

Committee on Centres and Institutes
Questions for Chairs of Departments and Directors of Schools

Name: ____________________________
School or Department: ____________________________

<table>
<thead>
<tr>
<th>Questions</th>
<th>Answers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1a. During the faculty performance evaluation, do you count the contributions that faculty members make towards the functioning of centres and institutes in determining their scores for service?</td>
<td></td>
</tr>
<tr>
<td>1b. Do you consider service responsibilities to centres and institutes when assigning Department/School service responsibilities? Please explain.</td>
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<tr>
<td>2. Do you support the participation of faculty in your unit in centres and institutes? Please explain.</td>
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</tr>
<tr>
<td>3. Do you have any concerns regarding the relationship between your unit and University of Waterloo centres and institutes?</td>
<td></td>
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<tr>
<td>4. To what extent do you think centres and institutes should have budgetary autonomy? For example, do you believe they should have their own ORG Unit, or should they be treated as projects funded under either a Department/School or Faculty (as appropriate)?</td>
<td></td>
</tr>
<tr>
<td>5. Does your unit receive a share of the overhead that is collected on by the University on grants and contracts? If yes, please explain how this share is calculated.</td>
<td></td>
</tr>
<tr>
<td>6. Do you believe that centres and institutes should receive a share of the overhead that is collected by the University on grants and contracts? If yes, please explain how this share should be determined. If no, please explain why not.</td>
<td></td>
</tr>
<tr>
<td>7. Please add any further comments you may have about issues involving centres and institutes.</td>
<td></td>
</tr>
</tbody>
</table>
Appendix 6: Questions posed to Vice-Presidents of Research

1. Do you provide core funding for centres and institutes? Is this provided at the university level by the provost or at the faculty level by the deans?
2. Do centres and Institutes share in research overhead allocated to facilities or to individual members affiliated with the centres and institutes? If so, what is the mechanism for sharing of overhead?
3. Are there any other methods for providing sustainable funding to Centres and Institutes.
4. Does the university provide any other types of support to centres and institutes such as space, technical writers, web development, financial administration, legal guidance, etc.

Canada's Fifteen Leading Research Universities (U15)

University of Alberta
University of British Columbia
University of Calgary
Dalhousie University
Université Laval
University of Manitoba
McGill University
McMaster University
Université de Montréal
University of Ottawa
Queen's University
University of Saskatchewan
University of Toronto
University of Waterloo
University of Western Ontario
## Appendix 7: List of Centres and Institutes “in scope”

### Centre/Institute Name and responsible Faculty(ies)

<table>
<thead>
<tr>
<th>Centre/Institute Name and responsible Faculty(ies)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canadian Centre of Arts &amp; Technology (CCAT) (Arts)</td>
</tr>
<tr>
<td>Centre for Accounting Research &amp; Education (CARE) (Arts)</td>
</tr>
<tr>
<td>Centre for Advanced Materials Joining (CAMJ) (Engineering)</td>
</tr>
<tr>
<td>Centre for Advancement of Trenchless Technologies at Waterloo (CATT) (Engineering)</td>
</tr>
<tr>
<td>Centre for Applied Cryptographic Research (CACR) (Mathematics)</td>
</tr>
<tr>
<td>Centre for Business, Entrepreneurship &amp; Technology (CBET) (Engineering)</td>
</tr>
<tr>
<td>Centre for Computational Mathematics in Industry &amp; Commerce (CCMIC) (Mathematics)</td>
</tr>
<tr>
<td>Centre for Contact Lens Research (CCLR) (Science)</td>
</tr>
<tr>
<td>Centre for Control of Emerging Contaminants (CCEC) (Engineering)</td>
</tr>
<tr>
<td>Centre for Ecosystem Resilience &amp; Adaptation (ERA) (Environment)</td>
</tr>
<tr>
<td>Centre for Education in Mathematics &amp; Computing (CEMC) (Mathematics)</td>
</tr>
<tr>
<td>Centre for Internet Information Acquisition (CIIA) (Mathematics)</td>
</tr>
<tr>
<td>Centre for Mental Health Research (CMHR) (Arts)</td>
</tr>
<tr>
<td>Centre for Pattern Analysis and Machine Intelligence (CPAMI) (Engineering)</td>
</tr>
<tr>
<td>Centre for Pavement Engineering and Transportation Technology (CPATT) (Engineering)</td>
</tr>
<tr>
<td>Centre for the Study of Rapid Global Change (CSRG) (Environment &amp; Arts)</td>
</tr>
<tr>
<td>Centre for Theoretical Neuroscience (CTN) (Arts)</td>
</tr>
<tr>
<td>Heritage Resource Centre (HRC) (Environment)</td>
</tr>
<tr>
<td>Institute for Biochemistry &amp; Molecular Biology (IBMB) (Science)</td>
</tr>
<tr>
<td>Institute for Computer Research (ICR) (Mathematics &amp; Engineering)</td>
</tr>
<tr>
<td>Institute for Polymer Research (IPR) (Engineering)</td>
</tr>
<tr>
<td>Institute for Quantum Computing (IQC) (Science, with Engineering &amp; Mathematics)</td>
</tr>
<tr>
<td>Interdisciplinary Centre on Climate Change (IC3) (Environment)</td>
</tr>
<tr>
<td>Southwestern Ontario Research Data Centre (SWORDC) (Arts)</td>
</tr>
<tr>
<td>Survey Research Centre (SRC) (Mathematics &amp; Arts)</td>
</tr>
<tr>
<td>Water Institute (WI) (Office of Research)</td>
</tr>
<tr>
<td>Waterloo Centre for Automotive Research (WatCAR) (Engineering)</td>
</tr>
<tr>
<td>Waterloo Centre for German Studies (WCGS) (Arts)</td>
</tr>
<tr>
<td>Waterloo Institute for Complexity and Innovation (WICI) (Environment &amp; Arts)</td>
</tr>
<tr>
<td>Waterloo Institute for Hellenistic Studies (WIHS) (Arts)</td>
</tr>
<tr>
<td>Waterloo Institute for Nanotechnology (WIN) (Engineering &amp; Science)</td>
</tr>
<tr>
<td>Waterloo Institute for Social Innovation and Resilience (WISIR) (Environment)</td>
</tr>
<tr>
<td>Waterloo Institute for Sustainable Energy (WISE) (Engineering)</td>
</tr>
<tr>
<td>Waterloo Research Institute in Insurance, Securities &amp; Quantitative Finance (WatRISQ) (Mathematics &amp; Arts)</td>
</tr>
</tbody>
</table>
Appendix 8: Notes on policies at other institutions

Centres & Institutes - Policies & Procedures

University of Manitoba

Academic Centres & Institutes Policy
http://www.umanitoba.ca/admin/governance/governing_documents/academic/934.htm
Fairly similar to UW in terms of expectations and guidance

Academic Centres & Institutes Procedures
http://www.umanitoba.ca/admin/governance/governing_documents/academic/935.htm

University of Alberta

Centres & Institutes Policy
https://www.conman.ualberta.ca/stellent/groups/public/@academic/documents/policy/pp_cmp_062114.hcsp
Distinguishes between academic & affiliated; good distinction between centre & institute

Academic Centres & Institutes Establishment Procedure
https://www.conman.ualberta.ca/stellent/groups/public/@academic/documents/procedure/pp_cmp_062119.hcsp
Requires termination plans; statement of priority within faculty

Academic Centres & Institutes Operation Procedure
https://www.conman.ualberta.ca/stellent/groups/public/@academic/documents/procedure/pp_cmp_062121.hcsp
Separate annual reports to dean and provost; provost's office catalogues affiliated units; 5 year strategic review to dean

Academic Centres & Institutes Termination Procedure
https://www.conman.ualberta.ca/stellent/groups/public/@academic/documents/procedure/pp_cmp_062120.hcsp
Must include plans for physical resources, consultation with donors

Affiliated Centres & Institutes Establishment Procedure
https://www.conman.ualberta.ca/stellent/groups/public/@academic/documents/procedure/pp_cmp_062116.hcsp
Sets responsibility, need for budget, risks, affiliation agreement

Affiliated Centres & Institutes Operation Procedure
https://www.conman.ualberta.ca/stellent/groups/public/@academic/documents/procedure/pp_cmp_062118.hcsp
Requires annual reports and periodic review through affiliation agreement
Affiliated Centres & Institutes Termination Procedure, 
https://www.conman.ualberta.ca/stellent/groups/public/@academic/documents/procedure/pp_cmp_0 62117.hcsp 
Notification requirement, follow affiliation agreement 

Affiliated Centres & Institutes Agreement Requirements 
https://www.conman.ualberta.ca/stellent/groups/public/@academic/documents/procedure/pp_cmp_0 62115.hcsp 
Basic outline of what should be covered by the agreement; links to naming policy and contract mgmt & signing authority policy 

Queen's University 
Procedures Governing the Establishment, Reporting & Review of Research Centres, Institutes and Other Entities at Queen's University http://www.queensu.ca/secretariat/senate/policies/centinsen.pdf 
Revised in 2010; can be faculty or university based; apply for provisional approval, then advisory review committee struck; then Senate Research Committee then Senate; sets out term of initial director, upon Senate approval, normal term coincides with 5 year review cycle; annual reports reviewed by SARC which may appoint subcommittee; speaks to procedures for closures; secretariat maintains inventory; distinguishes between centres & institutes - institutes more formal and may offer courses/programs and function as an autonomous unit within the university; gives draft structure for constitution but fill in the blanks, template for reporting - worth looking at. 

Guelph University 
has a policy but link on website is broken 

University of New Brunswick, A Policy Governing Research Institutes and Centres at the University of New Brunswick http://www.unb.ca/research/documents/Policy_Inst_Cent.pdf 
Distinguishes between centres (within a faculty, report operationally to dean, also to VPR) and institutes (interfaculty, report to VPR); appointment of director is based on policy, made by Board on recommendations of VPR; interesting section on "undertaking risk ventures" 

University of Ottawa 
Procedures for the Establishment of Research Centres and Institutes http://www.research.uottawa.ca/pdf/PECI.pdf 
Distinguishes between centres (interdisciplinary research) and institutes (research and teaching, may be discipline based or interdisciplinary). Require board approval; report annually to VPR; must submit protocol for closure (plans to dispose of furniture, research equipment); VPR strikes committee to select director following approval 

Lakehead University 
Policies & Procedures for the Establishment of Centres and Research Institutes http://research.lakeheadu.ca/policies/centres.html 
Approved by Senate and Board; must be governed by internally appointment management committee and externally appointed advisory committee chaired by VPR; annual reports to VPR; proposals must address legal questions implicit in setting up the centre/institute (liability, insurance, IP, contracts with outside bodies) 

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Different research organizations may be formed to address certain types of research problems; to plan for, manage and optimally exploit certain common research infrastructure; and to otherwise advance the interests of a group of researchers. These will be organized into three groupings, hereafter referred to as Institutes, Centres, and Groups. It may be that at present there are research organizations which fit into one of these categories, but which do not carry with them the appropriate name (e.g. a research organization which is, and has been, referred to as an Institute, but which is structured and administered as a Centre as described below). Such organizations should consider the relative costs and benefits of changing their names to Institute, Centre and Group, as will be employed by the University, at the next occasion of their review. The onus is on the research organization to make a compelling case that a significant benefit will be lost by changing their names to one consistent with McMaster’s new structure for research organizations.

a. **Institutes** are the research organizations most closely aligned with the strategic interests of the university, by virtue of one or more of several criteria: their size, breadth, or national and international impact on their focus area of research. Institutes normally report to the VP (Research and International Affairs) (VPR). The VPR, in consultation with the Dean or Dean(s) most directly involved in the Institute, then reports annually on the status, progress and plans of the Institute to the University Planning Committee (UPC) and to Senate. In some cases, the Institutes would be expected to have membership spanning two or more faculties, and would be supported by major external funding. Their success may have significant financial implications for the University and they would often be responsible for the operation and oversight of central research infrastructure.

b. **Centres** are similar to Institutes, but their interests are less closely with the university’s strategic interests and they may have smaller budgetary implications for the university. Although their interests will often be largely internal to a particular Faculty, in some cases their membership will cross two or more Faculties. As such they would normally report to the appropriate Dean, to whom any requests for funding should be made. The faculty Dean then reports for information on their status, progress, and plans to the VPR. There may also be instances where a Centre would report directly to the VPR, by virtue of having membership across more than one faculty. The status, progress, and plans of Centres is **not** reported to Senate.

c. **Groups** are smaller research organizations, which can be as small as two members and their respective teams of highly qualified personnel. They may be expected to form, grow, and dissolve on a relatively short time scale, although, in some cases, they can also be stable for relatively long time periods. They may or may not receive financial support from the University, and would normally report to the appropriate faculty Dean, for groups whose research lies largely within the domain of a single faculty, or to the VPR for groups whose research interests span the domains of two or more faculties. Their status, progress, and plans are **not** reported to Senate."
Contains a definition of an Institute which includes:

- a significant organisational grouping, representing a number of different entities within the University, which provide a coordinated, university-wide focus for a major area of research and service to external or internal stakeholders;
- significant or complex longer term, multi-disciplinary research activity focussed across several faculties/schools;
- significant linkages and commitments/interests/relationships within external research, business and government groups;
- international recognition demonstrated by attraction of overseas postgraduate research students and staff (researchers or visitors) and the nature of research project collaborations;
- resourcing arrangements are variable and depend on the exact structure of the institute and its external linkages;
- usually have recognised space, equipment and facilities and employ a core of dedicated support staff; and
- a separate cost centre will be created.

Has school centres, Institute centres, faculty centres and university centres.
FOR INFORMATION

Report on Academic Colleagues (AC) and Council of Ontario Universities (COU) Meetings - Toronto
Oct. 13-14, 2011 - Paul D. Guild

The topics below were among those considered at this COU meeting of AC.

A. Academic Colleagues Update

A.1. Draft Opinion Papers Reviewed
Two papers, prepared by AC, were reviewed for comments at this meeting:
- What is a University? (more on this at future meetings)

A.2. Research Intensity
Several questions are used to frame a discussion paper being prepared by AC:
- How do we define and value research intensity at the micro, meso, and macro level?
  - How would we know if a professor is research intensive?
  - How would we know if a faculty within a university is research intensive?
  - How would we know if a university standing is at an international level?
- Should research intensity be measured by grant monies?
  - If so, how does this impact liberal arts?
- What are our current and ideal measures that could be used to evaluate research intensity?

A.3. Changes to Federal Granting Agency Practices: Toward Fewer, but Larger Awards
In early 2011, a meeting of the executive heads of COU received presentations from representative presidents of Canada’s Tri-Council Granting Agencies and Canada Foundation for Innovation (CFI). During the ensuing discussion, questions were raised concerning the impact of procedural changes for allocating awards to researchers. For example, should we expect to see: fewer but larger awards; declining support for large infrastructure grants; across the professoriate, significant variations in allocations from young to established researchers; among the institutions, a shift toward a higher proportion of research funds going to the more research-intensive universities? The executive heads asked that AC look into the situation and create a discussion paper. Greatest attention seemed to be directed toward NSERC Discovery Grants (DG) and CFI Leading Edge Fund (LEF) and New Initiatives Fund (NIF). Nevertheless, various sources of federal research funding were a concern and, therefore, CIHR and SSHRC programs will be considered too.

A.4. Ontario Online Institute
The MTCU-appointed special advisor Maxim Jean-Louis of Contact North issued his recommendations in April 2011 [http://www.secretariat.uwaterloo.ca/cou-acooi.pdf]. A report from the COU Online Learning Working Group, emphasizing some different concerns, was also issued to MTCU in April 2011 [http://www.secretariat.uwaterloo.ca/cou-acoidiscussionpaper.pdf]. To date, an MTCU decision on next steps remains “unannounced.”
Among the topics before COU at the October 14 meeting were the following:

B. COU Meeting

B.1. University Culture Shift: The Advent of Teaching-stream Faculty

In Ontario, rising enrolments, reduced per-student funding, and a growing focus on educational quality are putting pressure on higher education to find innovative solutions. One approach, being used in varying degrees in Ontario and around the world, is the advent of teaching-stream faculty, who focus solely on teaching and teaching-related activities. A new report [http://www.secretariat.uwaterloo.ca/cou-acteachingstreamfaculty.pdf] commissioned by the Higher Education Quality Council of Ontario [http://www.heqco.ca/en-CA/Research/Research%20Publications/Pages/Summary.aspx?link=64&title=Teaching-Stream%20Faculty%20in%20Ontario%20Universities] explores these and other questions about the use of teaching-stream faculty.

B.2. Amendment to COU Constitution

At the meeting, council approved an amendment to the COU Constitution pertaining to the term of appointment of academic colleagues. Previously, the constitution specified that a colleague “shall hold office for a term of two years, renewable.” With the approved amendment, it now specifies that a colleague “normally shall hold office for a term of three years, renewable.” The change to the term of appointment takes effect with the appointment of a new colleague or the reappointment of a current colleague. The amendment to the constitution also amends the Terms of Reference for Academic Colleagues. Both documents are available for download [http://www.secretariat.uwaterloo.ca/cou-acconstitution2011.pdf] and [http://www.secretariat.uwaterloo.ca/cou-acactermsofreference2011.pdf].


The Quality Council’s key achievement during its inaugural year was its in-depth review and ultimate approval of each university’s Institutional Quality Assurance Process (IQAP). In addition, important time was spent strengthening the foundations for the new Quality Assurance Framework. The report [http://www.secretariat.uwaterloo.ca/cou-acqannualreport201011.pdf] details these and other key activities from the past year.

B.4. COU 2011-12 Strategic Plan

This plan [http://www.secretariat.uwaterloo.ca/cou-acoustrategicplan.pdf] was developed following a retreat of COU’s Senior Management Committee and the Executive Heads Retreat in September. It sets out COU’s vision, mission, three key priorities, and eight core, strategic objectives for the Secretariat over the coming year.