**Date:** Tuesday 21 May 2013  
**Time:** 3:30 p.m.  
**Place:** Needles Hall, Room 3001

### OPEN SESSION

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<tr>
<td>3:30</td>
<td><strong>Consent Agenda</strong>&lt;br&gt;Motion: To approve or receive for information by consent items 1-4 below.</td>
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<tr>
<td>1.</td>
<td>Minutes of the 15 April 2013 Meeting</td>
<td>Decision</td>
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<td>2.</td>
<td>Reports from Councils&lt;br&gt;a. Graduate &amp; Research&lt;br&gt;b. Undergraduate</td>
<td>Information/Decision</td>
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<td>3.</td>
<td>Report of the President&lt;br&gt;a. Recognition and Commendation</td>
<td>Information</td>
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<td>4.</td>
<td>Reports from the Faculties</td>
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<tr>
<td>3:35</td>
<td><strong>Regular Agenda</strong>&lt;br&gt;5. Business Arising from the Minutes</td>
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<td>6.</td>
<td>Reports from Committees and Councils&lt;br&gt;a. Finance Committee&lt;br&gt;b. Long Range Planning Committee&lt;br&gt;c. Graduate &amp; Research Council&lt;br&gt;d. Undergraduate Council</td>
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<td>7.</td>
<td>Teaching Presentation: Professor Kelly Anthony, School of Public Health &amp; Health Systems</td>
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<td>4:50</td>
<td>8. Report of the President</td>
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<td>5:00</td>
<td>9. Q&amp;A Period with the President</td>
<td>Discussion</td>
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<td>5:25</td>
<td>11. Report of the Vice-President, University Research</td>
<td>Information</td>
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<td>5:35</td>
<td>12. Other Business</td>
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### CONFIDENTIAL SESSION

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<tr>
<td>5:40</td>
<td>13. Minutes of the 15 April 2013 Meeting</td>
<td>Decision</td>
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<tr>
<td>5:45</td>
<td>14. Business Arising from the Minutes</td>
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<td>5:50</td>
<td>15. Other Business</td>
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OPEN SESSION

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

1. MINUTES OF THE 25 MARCH 2013 MEETING
Senate approved the minutes of the meeting as distributed.

2. REPORTS FROM COMMITTEES AND COUNCILS
   Graduate & Research Council. Senate received the report for information.
   
   Honorary Degrees Committee [news release at senators’ places]. Senate received the news release for information.
   
   Undergraduate Council
   - Other Course Rules – Letter of Permission, Faculty of Mathematics. Senate approved the proposed changes to the faculty’s regulation.
   - English for Academic Success (EFAS) – Minimum Admission Requirements, Faculty of Mathematics. Senate approved the proposed changes to the faculty’s regulation.

Senate received the remaining items in the report for information.
3. **REPORT OF THE PRESIDENT**

   **Recognition and Commendation.** Senate received the report for information.

4. **REPORTS FROM THE FACULTIES AND RENISON UNIVERSITY COLLEGE**

   Senate received the reports for information.

   Busch and Hunt. Carried.

**Regular Agenda**

5. **BUSINESS ARISING FROM THE MINUTES**

   There was no business arising.

6. **REPORTS FROM COMMITTEES AND COUNCILS**

   **Executive Committee** [revised list of nominees at senators’ places]. Senate heard a motion to acclaim the membership of Senate committees and councils and the Board of Governors as follows:

   - **Executive Committee:** 2013-14 – Richard Wells (applied health sciences), Daniel O’Connor (arts), Anwar Hasan (engineering), Bruce Frayne (environment), Dan Brown (mathematics), Barry Warner (science), Susan Schultz Huxman (FUAC), Sacha Forstner (undergraduate student, mathematics), Sean Hunt (undergraduate student, at-large), Robert Henderson (incoming president, Graduate Student Association).

   - **Finance Committee:** 2013-14 – James Rush (applied health sciences), Lutz-Alexander Busch (arts), Paul Guild (engineering), Olaf Weber (environment), Michele Mosca (mathematics), David Rose (science), Katherine Bergman (FUAC), Chanakya Ramdev (undergraduate student, at-large), Nicollette Zaptse (undergraduate student, science), Boyd Panton (graduate student, engineering), Andrew Williams (alumnus).

   - **Long Range Planning Committee:** 2013-14 – Paul Eagles (applied health sciences), John Burbidge (arts), Marios Ioannidis (engineering), Alex Brenning (environment), Dong Eui Chang (mathematics), Sue Leat (science), Graham Brown (FUAC), David Collins (incoming president, Federation of Students), Coleen Even (graduate student, arts), Michael Makahnouk (graduate student, science).

   - **Nominating Committee for Honorary Degrees:** 2013-14 – Richard Wells (applied health sciences), Shelley Hulan (arts), George Freeman (engineering), Markus Moos (environment), Bruce Richter (mathematics), Bill Power (science), Glenn Cartwright (FUAC), Sacha Forstner (undergraduate student, mathematics), Allyson Francis (undergraduate student, engineering), Maya D’Alessio (graduate student, science).

   - **Graduate & Research Council:** 2013-15 – Tracy Peressini (FUAC), Coleen Even (graduate student, arts), Boyd Panton (graduate student, engineering), Maya D’Alessio (graduate student, science); 2013-14 – Nino Antadze (graduate student, environment).

   - **Undergraduate Council:** 2013-15 – Linda Jessup (applied health sciences), Emanuel Carvalho (arts); 2013-2014 – Ian McKenzie (environment).

   - **Committee on Student Appeals:** 2013-15 – Steve Smith (applied health sciences), Merrin Macrae (environment), David Wagner (mathematics), Christine Dupont (science), Nickta Jowhari (undergraduate student, applied health sciences), Renishaki Kamalanathan (undergraduate student, arts), Tyrone Ghaswala (graduate student, mathematics).
- **Board of Governors.** 2013-15 – Sean Hunt (undergraduate student, at-large), Robert Henderson (incoming president, Graduate Student Association); 2013-2014 – David Collins (incoming president, Federation of Students).

Hamdullahpur asked for additional nominations from the floor. There were none.

McBoyle and Hipel. Carried.

**Graduate & Research Council**
- **Thesis Editing Guidelines.** Senate heard a motion to approve new thesis editing guidelines as provided in the report.

Dixon and Power. Carried.

**Undergraduate Council.** The Associate Vice-President (Academic) Mario Coniglio presented the report from Undergraduate Council.

- **Bridge to Academic Success Program.** Senate heard a motion to approve the program as provided in the report.

McBoyle and Lavigne.

DeVidi asked for an explanation on the amount of effort required to allow for multiple entry points through necessary restructuring of programs. Coniglio replied by saying that this issue will be considered as pilot programs are first conducted. DeVidi reminded Senate that an assessment of the pilot programs ought to include the full resource implications, including the effort to make these adjustments.

The motion carried.

- **New Degree Titles.** Senate heard a motion to approve the rules re: degree titles as provided in the report.

Lavigne and DeVidi.

Hunt inquired as to whether there would be consideration of changing existing degree titles, and was advised that there were no plans in this respect.

The motion carried.

- **Honours Political Science – Public Policy and Administration Specialization, Faculty of Arts.** Senate heard a motion to approve the plan as provide in the report.


- **Honours Political Science (Administrative Studies), Faculty of Arts.** Senate heard a motion to approve the proposed inactivation of the plan.


7. **PRESENTATIONS**

**Research.** Dixon introduced Keith Hipel, professor of systems design engineering. Hipel reported on his research into decision-making methodologies from a systems engineering perspective.
He answered questions on the applicability of his methodology to particular problems, including the challenges with respect to the Aral Sea and the length of time it takes to develop the model for each research challenge.

Slides used in the presentation may be seen at https://uwaterloo.ca/secretariat/sites/ca.secretariat/files/uploads/files/research_4.pdf

**Federation of Students.** The president of the Federation of Students, Andrew Noble, provided a presentation on the work of the Federation of Students over the past year, on the reason for its existence, its ongoing projects and some plans for the immediate future.

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

8. **REPORT OF THE PRESIDENT**

Hamdullahpur presented a broad report covering a number of items, including a recent meeting of Council of Ontario Universities Executive Heads, related discussions with the newly appointed minister, the anticipated budgetary impact of changes in the grant and tuition formulae (especially as they may relate to staff and faculty levels), and the possibility of solutions emerging from the process of differentiation of institutions and the relationship that may have to the funding formulae.

He referred to the report of the academic colleague, Dan Brown, distributed to senators at their places.

The university strategic plan (currently under development) will ultimately articulate this university’s position on differentiation. The first draft of the plan will be placed on the planning website within a matter of days, and everyone will have an opportunity to provide input, leading to presentation of the plan to the meeting of Senate on 21 May, and then presentation to the Board of Governors meeting of 4 June.

Hamdullahpur thanked those senators completing terms for their role in university governance: faculty – Joseph Cheriyan (mathematics), Brian Dixon (science), Bruce Hellinga (engineering), Keith Hipel (engineering), Stephen McColl (applied health sciences), Diana Parry (applied health sciences), Metin Renksizbulut (engineering); undergraduate students – Brad Henry (applied health sciences), Andrew Noble (president, Federation of Students), Ben Selby (engineering); graduate students – Robert Henderson (science), Krista Mathias (applied health sciences), Hassan Nasir (president, Graduate Student Association), Mahdi Safa (engineering); alumni – Ryan Jacobs, Barbara Veale.

9. **Q&A PERIOD WITH THE PRESIDENT**

Hamdullahpur answered a number of questions arising from his report. He spoke to the implications of the process of differentiation for this university and the anticipated impact in financial terms. Hamdullahpur referred to models of differentiation at work in other jurisdictions, and indicated that this university is advocating for a model that privileges research intensive universities. This is a continuation of the process begun in 2012 with the strategic mandate agreements.

When asked about the possible risk to the humanities and social sciences in the process of differentiation, Hamdullahpur answered by emphasizing that this university’s research intensity is spread across the disciplines, including those in the Faculty of Arts. On the question of how productivity will be measured in this context, he answered that total research funding and total PhD students are the principal indicators. It was pointed out that the idea of differentiation was raised some years ago with a very limited understanding of research intensive universities, but Hamdullahpur confirmed that the idea includes this university and will continue to do so, both in the provincial setting and nationally.
Hamdullahpur was asked about the impact differentiation might have on the potential for raising funds for operations, especially in the area of international recruitment. He replied by referring to the need to develop the strategic enrolment management plan, but cautioned that we could not move to accepting so many international students that domestic students are prevented from attending.

In response to a question, Hamdullahpur confirmed that both teaching and research are central to the university’s mission, and that both will receive appropriate attention as budgeting adjustments are considered and differentiation explored.

When asked about the advisability of using the United Kingdom as a model on the use of differentiation, given its particular approach to higher education as a public good, he confirmed that the UK model has application only in terms of research support.

It was re-emphasized that differentiation will necessarily lead to difficult choices in supporting particular departments and particular programs. Hamdullahpur indicated that the discussion of the viability of particular programs must be undertaken, failing which our strategic plan could not be undertaken seriously. The matter was raised repeatedly during consultations on the mid-cycle review. There will be a number of factors influencing the development of the process, but it will not be undertaken in the immediate short term.

Hamdullahpur was asked about plans to staff the new equity office. The USG level has not yet been established for the director, but decisions about additional resources will not be made till after the new director is in place and has begun to execute the expected work plan in that office.

10. REPORT OF THE VICE-PRESIDENT, ACADEMIC & PROVOST
Report of the Task Force on Support for English Language Competency Development at the University of Waterloo. McBoyle provided a summary report to Senate, pointing out that the full report asked the university to adopt a commitment to English language competency as a core value. The initiative has been fully considered, and steps are underway toward implementation. The report was circulated to senators, and may be seen at http://uwaterloo.ca/provost/sites/ca.provost/files/uploads/files/EnglishLanguageCompetencyDevelopment_FinalReport_0.pdf

As chair of the Board of Governors at Renison University College, Hipel offered full support and enthusiasm for this initiative.

11. REPORT OF THE VICE-PRESIDENT, UNIVERSITY RESEARCH
Dixon reported on Paul Thagard’s receipt of a Killam Prize, and Senate acknowledged this accomplishment with applause. Over the past three years, this university has received three Killam Prizes, and colleagues deserve a great deal of credit for their career accomplishments.

He reported on the university’s successes with respect to the latest round of SSHRC grants, and on the university’s success rates in comparison to the sector generally.

12. OTHER BUSINESS
There was no other business.

Senate convened in Confidential Session.

Logan Atkinson
Secretary of the University
Senate Graduate & Research Council met on 15 April 2013 and agreed to forward the following items to Senate for information. These items are recommended for inclusion in the consent agenda.

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

FOR INFORMATION

PROGRAM REVIEW

Faculty of Engineering - Program in Electrical and Computer Engineering
On behalf of Senate, Council approved an academic review of the programs in Electrical and Computer Engineering offered by the Department of Electrical and Computer Engineering in accordance with the university’s Institutional Quality Assurance Framework.

Based on the material presented in the Final Assessment Report (Attachment 1), and the report of the reading subcommittee formed by council to review the self-study and program materials in depth, as well as to request additional information and provide recommendations, the programs were found to be of good quality.

CURRICULAR MODIFICATIONS
On behalf of Senate, Council reviewed and approved curricular modifications and minor program revisions for the Faculties of Arts (political science, master of public service), Engineering (management sciences; mechanical and mechatronics engineering; electrical and computer engineering) and Environment (school of planning; master of development practice; master of environment and business; master of sustainability management).

SCHOLARSHIPS AND AWARDS
On behalf of Senate, Council approved the creation of: Doctoral Experience Award; UW Provost Academic Scholarship; and Ontario Graduate Scholarship - UW.

/Sue Horton
Associate Provost, Graduate Studies

George Dixon
Vice President, University Research
Review Process

The self-study was produced with the assistance of a committee which included the Associate Chair, Graduate, two faculty members in ECE and two staff, who interacted with the faculty and staff in ECE. The majority of the faculty also participated in a review of the curriculum and its relationship to the Graduate Degree Level Expectations. Student input was sought through two student Town Hall meetings in the Department, and by the inclusion of a representative of the Graduate Student Association in the review of the report. The review was undertaken by Dr. Chris Damaren, Vice-Dean, Graduate Studies, Faculty of Applied Science and Engineering, University of Toronto and Dr. Douglas Williams, Senior Associate Chair, School of Electrical and Computer Engineering, Georgia Institute of Technology, and the site visit occurred on November 15-16, 2012.

The previous OCGS Program Review (2005) at the Graduate level for ECE made the following suggestions:

- Reduce the practice of hiring our own PhD graduates as tenure track professors.
- Strengthen the circuits and systems field by hiring additional faculty members.
- Find a better balance between undergraduate and graduate demands on faculty.
- Ensure comprehensive exams are held in a timely manner (within 12-16 months).

In addition during the approval process of the collaborative programs of Nanotechnology (2009) and Quantum Information (2010) the following action was recommended.

- The department should have sufficient administrative staff to support the new collaborative programs.

The Department responded to these suggestions as follows:

- Since 2005, of the 30 faculty hired, only 2 were University of Waterloo PhD’s, and both of these had held other positions prior to their appointment;
- In that period 7 additional faculty have been hired in the circuits and systems field;
- Teaching loads have been standardized as two undergraduate and one graduate course per faculty member, and the ratio of students to faculty at both undergraduate and graduate levels has decreased with the new appointments;
As part of the Vision 2015 planning exercise, the comprehensive exam will be split into two components (background, and proposal), with the former to be completed within the first 12 months in the program; and

- Graduate staff complement has doubled from three to six.

Characteristics of the Program

Program Objectives

The goal of the MASc program is to provide the necessary background to demonstrate the individual accomplishment of a high professional and academic standard. A student who graduates from the Department of Electrical and Computer Engineering with an MASc degree will have a strong theoretical and experimental background in his/her field of research plus a broad knowledge in related fields within Electrical and Computer Engineering. This preparation is intended to make students ready for industry needs and also to pursue further research in doctoral programs.

The objective of the PhD program is to train students to become independent researchers. The program is intended to give graduate students the required theoretical and experimental knowledge and research methodology to demonstrate accomplishment of independent and original research work.

The objective of the MEng program is to produce graduates who have a strong theoretical background and development skills which are appropriate for both analysis and design needs of industry. The objective of the specialized online power engineering program is to produce such graduates for the needs of the power industry in Canada, and internationally.

Specific Learning Outcomes

The research graduate programs each have five specific learning outcomes, and the two professional Masters each have four. The curricula have been mapped to the GDLEs.

Distinctiveness

The Department of Electrical and Computer Engineering is one of the largest in North America, with 78 tenure stream faculty as well as 5 lecturers and 18 adjunct faculty. It is the largest department at the University of Waterloo both in terms of faculty and graduate students. It has 652 graduate students, 454 in the research graduate programs (PhD and MASc) and the balance in the professional programs (on-campus and online MEng programs).

The Department has 17 research chairs (Canada Research Chairs, Industrial Research Chairs, and University Research Professors). In 2011, $25.8m was received in research grants. The Department acquired part of a large new building (Engineering 5) in 2010, to house the expansion. The Department has many associated research laboratories allowing for research in
a range of specialized areas. The research graduate program is among the largest in Canada: the PhD program has tripled in size over the last decade.

**Academic Programs Offered**

The first graduate program in Electrical Engineering began in 1959, two years after the first undergraduate program. This was merged in 1989 with the later-established graduate program in Computer Engineering.

Programs offered include:
- MASc in Electrical and Computer Engineering
- MASc in Electrical and Computer Engineering, specialization in Nanotechnology
- MASc in Electrical and Computer Engineering, specialization in Quantum Information

- MEng in Electrical and Computer Engineering
- MEng in Electrical Power Engineering (online only)

- PhD in Electrical and Computer Engineering
- PhD in Electrical and Computer Engineering, specialization in Nanotechnology
- PhD in Electrical and Computer Engineering, specialization in Quantum Information

The collaborative graduate programs in Nanotechnology and Quantum Information will be the subject of single reviews in the future. University of Waterloo participated until 2011 in the Consortium of Graduate Engineering in Software Engineering (ConGESE), which has now been phased out; this program is not reviewed here.

Interest in the on-campus MEng has been strengthened by the availability of four Type 2 Graduate diplomas, in Computer Networking and Security, Software Engineering, Sustainable Energy and Management Sciences. These were reviewed and changed from certificates to Diplomas in 2011, and are not reviewed further here. The online Masters also has an associated (Type 1) Diploma in Power Engineering.

There are 13 approved fields in the research programs, as follows:
- Antennas, Microwaves & Wave Optics
- Circuits and Systems including Computer-aided Design
- Communication & Information Systems
- Computer Hardware
- Computer Software
- Nanotechnology
- Pattern Analysis Machine Intelligence
- Power and Energy Systems
- Quantum Information
- Silicon Devices and Integrated Systems
- Systems and Controls
- Very Large Scale Integration
- Wireless Communications

**Students: Graduate**

The Department receives over 1500 applications annually for its programs and can only accept a fraction of qualified applicants. 20-25% of the applicants for the M.Eng, 10% of those for the MASc, and 3% of those for the PhD are Canadian or permanent residents of Canada. 55% of the Masters and 45% of the Doctoral students were Canadian or permanent residents in winter 2012. In 2010/11 17% of registered students were women: Waterloo uses outreach programs such as “Go Eng Girl” and “Women in Engineering” to try to attract more women into the discipline.

Completion times for the MASc and PhD are 5.9 terms and 13.4 terms respectively, which are quite reasonable for programs which require experimental results. Average completion times in the MEng are about 1.5 years (this combines full and part-time students); and in the Power Engineering program (where the majority of students are part-time) the average is around 2.5 years. Students are expected to publish: students currently in-program were surveyed, and on average current Masters students had one publication, and current doctoral students have on average four. According to a 2011 survey of faculty (enquiring about post-graduation placement of their students) 60% of Masters graduates go to work in industry, and the balance continue on to the PhD, 15% of all graduates going to another university, and 25% remaining at University of Waterloo. Of PhD graduates, 49% go to industry, 37% to academic positions, and 13% to postdoctoral positions.

**Faculty**

The Department currently has 80 regular faculty, with more than 5 open positions. More than 30 faculty have been hired since 2005, over a period of planned growth. Seventeen faculty hold prestigious research chairs. Another 30 hold prestigious awards and fellowships such as IEEE fellowships, Engineering Institute of Canada fellowships, Steacie Memorial Fellowships, Early Researcher Awards, Royal Society of Canada fellowships, etc. More than 25 serve or have served in editorial capacities in prestigious engineering journals, and all the faculty regularly review articles for journals. 61% are professional engineers, and another 13% are currently pursuing this designation.

The Department currently has 24 administrative staff and 27 technical staff, as well as some current staff vacancies.
Reviewers’ Report

1. Consistency with institution’s mission; are program requirements and learning outcomes clear?
   Reviewers were happy with all aspects of these topics.

2. Admission requirements: aligned with learning outcomes?
   Admissions requirements are appropriate.

   The 13 areas of specialization provide good coverage of state of the art. ECE has exhibited significant innovation and creativity with the power engineering online program.

4. Teaching and Assessment: methods of assessment appropriate? Do means of assessment demonstrate achievement of learning objectives and DLE’s?
   Reviewers were satisfied, but made some suggestions to improve timely completion of PhD (see specific recommendations below).

5. Resources: effective use of human, physical and financial resources?
   Faculty and staff have kept pace with student growth; labs are “world class facilities” and have “state of the art equipment”. However students would like additional funding support which reviewers feel should come from University Centre and not supervisor grants.

6. Quality Indicators: faculty, student and graduate?
   Assess faculty as “on the whole...excellent”. Students are well-qualified, the proportion female is above the average for the discipline, attrition rates are low; time to completion for PhD (13.4 terms) is a little long as funding guarantee is for 12 terms. That 37% of graduates secure academic jobs and 15% postdocs is considered impressive.

7. Quality of enhancement: initiatives to improve program quality, learning environment?
   Note that department has responded to suggestions from previous review, in particular doubling the admin staff, and changing the comprehensive structure.

8. Graduate program criteria: time to completion, quality/availability of supervision, program quality indicators for faculty, students, program, sufficiency of graduate-only courses
   Recommend making an effort to nominate more IEEE fellows among faculty. Although there are 60 plus graduate courses per year, some MASc students would like more courses in their specialty area (they need to take 5 courses).
9. Other issues (graduate)
Department has responded to issues raised in previous review.

Recommendations

The reviewers’ recommendations are listed below (RR), along with the Departmental response (DR). Both the comments and responses have largely been included verbatim, [but occasionally abridged].

- RR: The ECE department has a thriving, high quality graduate department. The review team was impressed with the people, facilities, and structure that make up the ECE graduate program. ECE is doing many things very well, and we did not identify any major problems with the graduate program. We do, however, have several suggestions where improvements could be made.

Faculty Development
- RR: Even taking into account the relative youth of the faculty, an ECE department as large and successful as this one should have more than 10 IEEE fellows among its faculty. [suggestions as to how to nominate more followed]
DR: an Associate Chair Research has been established to raise research profile, and initiate more faculty nominations for awards

- RR: As an observation, space does not currently appear to be a significant problem. However, the department is growing and its junior faculty have developing research programs. [Suggests strategic faculty growth, taking account of the opportunity of new space in the Quantum-Nano building].
DR: none, however does not seem to require a specific response.

- Students
- RR: We were asked to provide suggestions for increasing constructive interactions among the large number of graduate students in different ECE disciplines. A student association currently exists and increased support could provide dividends. Even something as simple as providing free coffee in the graduate student break room would help to bring students together on a more regular basis.
DR: Currently the Department together with the GSA representatives are helping to renovate the EIT Graduate student lounge (including new furniture, cupboards, coffee machine, etc)RR: Seminars can also help to encourage students’ interaction. The department hosts quite a few seminars, but in a large department people tend to only attend talks closely related to their interests. PhD students are currently required to give a seminar as part of their degree requirements. If interactions are a priority, the department could also require students to attend a certain number of those seminars, particularly outside of their own area. Good interdisciplinary research is already fairly common within the department. A challenge to encouraging such work is to avoid the siloing of research groups
DR: The Department has initiated a student seminar series which has $500 awards for best talks given by students. Additionally 5 new E&CE TA awards per term have been initiated to further reward excellent Graduate Student performance.

- RR: The department has an interest in recruiting more provincial and national students to its graduate program. This also appears to be a priority of the Dean’s Office, since they have recently hired a person to help with such efforts. Working with them to recruit at other universities in Ontario would be a good first step.

DR: Department is making efforts to encourage students in 3rd and 4th year undergraduate to continue, and working with Dean’s office to recruit more students from elsewhere in Ontario.

Program Structure

- RR: The current strategy of having core courses in the different disciplinary areas generally appears to work well as a means of encouraging MEng students to take those courses. Nonetheless, faculty expressed some concern about MEng students taking courses intended for MASc/PhD students and, as a result, changing the nature of those courses. Taking a look at where this has happened and why could give some indication of how to avoid these problems in the future.

DR: the Department has initiated changes to filter MEng students, and is also tracking the composition of classes (MEng/MASc/PhD students) to understand better class composition.

- RR: Students expressed concern about not being able to find enough graduate courses in their areas of interest. The stated departmental teaching load includes one graduate course per faculty member per year, but the number of courses that are offered in practice (~60) falls well short of the number of faculty (~80). The department has plans to increase the number of graduate offerings, and we encourage you to move closer to an average of one graduate course per faculty member.

DR: is discussing how to move closer to one graduate course per faculty member (may include hiring a lecturer in place of a tenure-stream faculty member).

- RR: The department is in the process of dividing its PhD comprehensive exam into two parts – an earlier preliminary exam followed by a proposal. This change should help to get students pass through the comprehensive exam earlier in their studies. Another issue has been that very few students fail the current comprehensive examination, which may be partly because faculty supervisors have so much time and funding invested in the students at that point. If the preliminary examination is intended to provide an accurate measure of a student’s background with the possibility of failure, decoupling the supervisor from the process would be recommended. Many programs have developed blind tests where the faculty who score written exam problems are not aware of whose papers they are grading.
DR: As a result of the external reviewers’ recommendations, the examination marking will be blind (so that the examination marker is unaware of the student who wrote the exam) in order to decouple the supervisor from this process.

- RR: Faculty also mentioned that the few PhD students who fail the comprehensive examination are required to leave the program immediately. Allowing those students to earn an MASc degree would give them a fallback position, as well as giving the student and faculty supervisor an opportunity to wrap up the research project.

DR: Agree that students who fail the qualifying exam may fall back into a MASc program as recommended by the external examiners. [note however that this is not an option if the student already has a MASc in ECE from University of Waterloo, and is not desirable if the student has the same degree already from another university in North America].

- RR: To further shorten the time necessary to complete the PhD, the department should consider methods to get students to give the required seminar earlier. Currently, many students present their seminars shortly before defending their dissertations. Since the seminar is not graded, there appears to be little hazard in having students present earlier, and getting constructive feedback on their presentation skills earlier in their program would be beneficial.

DR: The Department agrees that in future 1) students must give their PhD seminars no more than a year after passing their comprehensive and 2) the entire PhD committee must be present at the seminar, which would give an opportunity for it to discuss the quality and progress of the student’s work.

Alumni

- RR: The department expressed a desire for stronger ties to alumni. Instituting a departmental advisory board would be an excellent way to establish and maintain alumni connections. Such boards are fairly common, especially among programs of this size. Many alumni appreciate the opportunity to assist their alma mater. They are also likely to have good ideas of ways to engage alumni not on the board. The department is in the process of hiring a staff person to do external development, and working with the advisory board could fall under that person’s responsibilities.

DR: E&CE has not yet hired the staff Industrial liaison position but is actively moving in this direction. An advisory committee has not been established.

- RR: Other approaches to improve alumni engagement include distributing an annual report and hosting an annual dinner for alumni and graduate students.

DR: E&CE continues to help with the annual engineering alumni reports.
Two-Year Plan
By August 31 2015, the Department will report on the following steps/issues:
- Increase in number of prestigious faculty awards within the Department
- Improved E&CE website
- Development of E&CE brochure to attract top Graduate students and Industrial interest
- Renovate E&CE graduate student lounge to improve our graduate student environment
- Initiation of exit surveys for graduate students to monitor and improve our graduate studies
- Admissions analysis and tracking to improve our understanding of our new admits and their previous institutions

Program Structure
PhD
- An increase in one course credit unit will be required for a PhD student holding a MASc degree. The total course credit units will include at least 2 as core courses unless the student holds a MASc degree in ECE from Waterloo (where the list of core graduate courses is to be reviewed and updated by the department on an annual basis).
- A qualifying PhD examination will be conducted by the Department for each candidate. The objective of this examination is to satisfy the Department that the candidate has a broad knowledge of his/her field. It must be held within the first 3 terms after the initial registration for the PhD degree. A student may take this exam at most two times only within the first four terms.
- The Research Seminar should be given no more than three terms after completion of the PhD comprehensive [research proposal] examination

MASc
- ECE graduate students enrolled in our MASc program will be required to select at least 5 graduate courses (0.5 unit weight per course) where at least 2 are graduate core courses (from one or more of the OCGS research areas where the list of core graduate courses is to be reviewed and updated by the department on an annual basis)

MEng
- ECE graduate students admitted into the MEng program, will additionally have a conditional probationary requirement in their first term, specifying that they must take one of ECE.600 or ECE.650 and one other ECE 600 or 700 level course, and receive at least a grade of 75.
Timelines

Review visit by Dr. Chris Damaren, Vice-Dean Graduate Studies, Faculty of Applied Sciences and Engineering, University of Toronto and Dr. Douglas Williams, Senior Associate Chair, School of Electrical and Computer Engineering, Georgia Institute of Technology, November 15-16 2012.
Review received by GSO November 28 2012
Departmental response received by GSO March 6 2013
For discussion at Senate Graduate and Research Council April 23 2013
For approval Senate May 21 2013 (consent agenda)
Senate Undergraduate Council met on 9 April 2013 and on behalf of Senate, approved changes to academic plans, new courses, course changes and course inactivations. Council agreed to forward the following items to Senate for approval and information. Council recommends that these items be included in the consent agenda. Items recommended for inclusion in the regular agenda are contained in a separate report.

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

FOR APPROVAL

NEW ACADEMIC PROGRAM

Faculty of Science
Geomatics Option  [effective 1 September 2014]

1. Motion: To approve the following option for students in the science and aviation plans in the Faculty of Science:

   The requirements for the option are six courses (four core and two electives) with a minimum average of 65%.

   Required Courses:
   GEOG 181, 271, 281, 309

   Elective Courses:
   Two courses from: GEOG/PLAN 381, GEOG/PLAN 387, GEOG 310, GEOG 371

Rationale: This option will allow science and aviation students to earn a geomatics credential that was previously awarded by the Faculty of Environment. The Geomatics Option in science will be optional for science and aviation students in order for science students to accommodate science faculty minors or other credentials.

ACADEMIC PROGRAM CHANGES

Faculty of Environment
Geography & Environmental Management
Honours Geography and Aviation (Regular)  [effective 1 September 2014]

2. Motion: To approve the following changes to the plan (Note: new text = bold; deleted text = strikethrough):

   Plan-level requirements:
   Year One
   GEOG 101 Geography and Human Habitat
   GEOG 102 Geography and Our Planetary Environment
   GEOG 165 Computer Cartography: Principles and Design
   GEOG 181 Principles of GIScience
   GEOG 281 Introduction to Geographic Information Systems (GIS)
   GEOG 271 Earth from Space Using Remote Sensing
   ENVS 178 Introduction to Environmental Research Methods
   AFM 131 Introduction to Business in North America
   CS 115 Introduction to Computer Science
CS 100 Introduction to Computing through Applications
One Two electives* (0.5 1.0 unit)
AVIA 101 Professional Pilot Program Course I† (IB) (0.5 0.75 unit)

Year One (Spring)
AVIA 102 Professional Pilot Program Course II† (0.5 unit)
Total of 5.0 5.25 units

Year Two
GEOG 201 Fluvial Geomorphology
or GEOG 209 Hydroclimatology

GEOG 202 Geography of the Global Economy
or GEOG 203 Environment and Development in a Global Perspective
GEOG 271 Earth from Space Using Remote Sensing
GEOG 281 Introduction to Geographic Information Systems (GIS)
ENVS 201 Introduction to Canadian Environmental Law
ENVS 278 Advanced Environmental Research Methods

Students must take at least two courses from the following theme:
Development and Environment: one of GEOG 202, 203 and one of GEOG 206, 208
200-or higher-level GEOG course (0.5 unit)
AVIA 203 Professional Pilot Program Course III† (2A) (0.5 unit)
AVIA 204 Professional Pilot Program Course IV† (2B) (0.5 0.75 unit)
Two electives* (1.0 units)

Year Two (Spring)
AVIA 205 Professional Pilot Program Course V† (0.5 unit)
* Electives including a course in English, either one of ENGL 109, 129R, 140R taken in Year One or ENGL 210E, 210F taken in Year Two. A student who receives greater than 80% in ENG4U English is exempt from the English requirement.
Total of 4.75 units

Year Three
AVIA 310 Human Factors in Aviation
GEOG 210 Image Interpretation and Photogrammetry
GEOG 309 Physical Climatology
GEOG 310 Geodesy and Surveying
or GEOG 387 Spatial Databases
GEOG 371 Advanced Remote Sensing Techniques
or GEOG 381 Advanced Geographic Information Systems
GEOG 393 293 Approaches to Research in Human Geography
or GEOG 394 294 Approaches to Research in Physical Geography
Three-One electives (1.5 0.5 units)
AVIA 306 Professional Pilot Program Course VI† (3A) (0.5 0.75 unit)
AVIA 307 Professional Pilot Program Course VII† (3B) (0.5 0.75 unit)

Year Three (Spring)
AVIA 408 Professional Pilot Program Course VIII† (0.5 unit)
Total of 5.0 units

Year Four
GEOG 381 Spatial Analysis Using Geographic Information Systems or GEOG 387 Spatial Databases
GEOG 300- or 400 level (1.0 unit)
GEOG 471 Remote Sensing Project
GEOG 490A/B Honours Thesis
or two Fourth Year Geography courses (4.0 2.0 units)
Electives 2.0 units
Total of 5.0 units

Note:
For more information on rules governing this program, please see Geography and Environmental Management.

† Professional Pilot Program Courses: 3.0 5.0 units to be transferred upon completion of University of Waterloo core and elective course requirements. The Professional Pilot Program Courses will not count towards any other University of Waterloo program requirement.

Notes for the Honours Geography and Aviation Academic Plan
1. Minimum Required Units
Total: 20 units. University of Waterloo Core Courses: 11 units. Major Core Courses Geography/ENVS/AVIA: 10.5 units. Elective Courses: 6 4 units. Professional Pilot Program Courses: 3 5 units. Outside of the Faculty of Environment (including Professional Pilot Program Courses): 4 units.
All Geography, and Environmental Studies (ENVS), and Aviation (AVIA) units (see note 4.) are included in the cumulative major average.

2. Course Load
No more than 2.5 2.75 units may be taken in a term without departmental approval and overall average of 78%.

3. Maintaining Academic Status
In order to continue in the Aviation plan, students must maintain the University of Waterloo academic standards (described below) as well as achieve the flight component benchmarks set by WWFC for each semester. Students are expected to maintain passing grades (70%) in all WWFC flight components. Students may be allowed to achieve this by using a "competency-based" approach, so long as they achieve the established benchmarks on time.

4. Average Requirements
Students in an Honours Academic Plan must maintain an overall cumulative average of 65% and a Major cumulative average of 70%. Please see Note 1: Minimum Required Units, for major courses for your plan. In addition to these average requirements students must also maintain a cumulative average of 70% for all core courses.
AVIA 101, 102, 203, 204, 205, 306, 307 and 408 are Professional Pilot Program Courses and are not used in average calculations. Grading is Credit Granted (CR), or No Credit Granted (NCR), failure recorded.
All required courses must be passed.

5. Aviation Costs
All costs associated with the Professional Pilot Program Courses are paid directly to the Waterloo-Wellington Flight Centre (WWFC).

6. Materials and Costs
For some courses, extra fees may be required to cover field expenses/travel costs. Statements on extra costs, where required, will be found with the course descriptions.

7. Independent Study
Geography and Aviation Honours: Up to 3 independent study GEOG 475 courses may be taken.

8. Transfer Credit - Flight Training
Transfer consideration of previous flight training or Professional Pilot Program Courses will be at the discretion of the Waterloo-Wellington Flight Centre and not determined by the University of Waterloo.

Students will be granted advanced credits up to and including a Private Pilot Licence. Program hours will be granted up to licence sign off and the remaining hours will be logged as career, not program hours. Students are not accepted past the Private Pilot Licence or if they have acquired a Night Rating. Students entering the program with a Private Licence will be required to attend WWFC's Flight Management Basic Courses as a review. Students who apply with the flight qualifications that meet the standards set by WWFC are eligible for the BES degree upon successful completion of the plan curriculum and transfer of credit for the flight courses.

9. Transfer Courses - University of Waterloo Courses
   Transfer students are required to complete a minimum of 50% of their University of Waterloo course work and half their Geography units at the University of Waterloo.

10. Restriction on number of First-Year Courses
    A student must have at least 13.0 units at or above the 200-level.

11. Geomatics Option
    Students in Geography and Aviation Honours will automatically be approved for the Geomatics Option at time of graduation unless otherwise instructed by the student.

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

    Courses double counted to satisfy Geography and Aviation Honours academic plan requirements, as well as the Geomatics Option a Department of Geography and Environmental Management Specialization, cannot be applied to any other option, minor, diploma, or specialization.

13. Options/Minors/Diplomas/Specializations
    For more information on options, minors, diplomas or specializations that are available, please visit the Faculty of Environment Academic Plans or departmental section of this calendar.

14. All fourth year Geography courses will be restricted to third and fourth year Honours students.

**Rationale:** The aviation plan was a new academic plan in 2007. The plan is unique; the first of its kind in Canada to offer a BES in aviation (Faculty of Environment) and a BSc in aviation (Faculty of Science). Review of the program with feedback from graduates and current students identified three key points to improve success and retention in the program. First, increasing the number of transfer credits from 3.0 to 5.0 from the Waterloo Wellington Flight Centre will recognize the commitment students make with more than 500 hours of contact time during the flight classes, labs and training with the Flight Centre. Second, the addition of 8 courses to the university calendar (total 5.0 units) will allow the aviation courses to appear directly on the University of Waterloo official transcript and on the students’ class schedules. It will allow credit tracking and academic progression to be determined automatically rather than assigning transfer credits. Finally, the revisions of the plan and specializations will update the course offerings; allow more flexibility for students to take courses; and improve scheduling of 3.5 hour blocks for flight training during the week.
Faculty of Science
Science and Aviation
Honours Science and Aviation  [effective 1 September 2014]

3. Motion: To approve the following changes to the plan (Note: new text = **bold**; deleted text = strikethrough):

Science and Aviation – Important Information

**Advisors:** Professors John Lin (Earth Sciences), Rohan Jayasundera (Physics), Mario Coniglio (No specialization). Program Director – Ian McKenzie (Geography)

For Program Director and list of advisors see Science program advisors.

The Honours Science and Aviation Plan is designed to provide a strong science and technology base for careers in a very diverse array of aviation and aerospace industries. It consists of a Science Degree combined with a Commercial Pilot Program that provides advanced flight training, leading to a private and commercial pilot licence.

Core subjects in the Science and Aviation plans include those in the science specializations (Earth Science, Physics, or non-specialized options), several Geomatics courses, Management, Business Law, Programming Principles, as well as electives. The aviation component of the plans consists of the Professional Pilot Program delivered by the Waterloo Wellington Flight Centre (WWFC).

The WWFC component of the program provides advanced flight training leading to a commercial pilot licence. Coursework includes the essentials of aviation, as well as private and commercial pilot training, an instrument rating and multiengine rating. This instruction is provided by six eight courses in flight training as outlined at www.aviation.uwaterloo.ca. Costs related to the flight-training component are assessed as a separate fee paid directly to the WWFC.

Applicants must satisfy a screening process by WWFC that includes attending an intake briefing and obtaining a Category 1 Aviation Medical. Transport Canada Category 1 Medical Certification is required for admission to first year and all subsequent years. This requirement is monitored by the WWFC.

Honours Science and Aviation

Continuation in Honours Science and Aviation requires a cumulative overall average of 65% and a cumulative average of 65% in Science courses. Students who are no longer eligible, or elect not to continue in the Science and Aviation Program, may transfer into any other Science Program for which they are qualified. It should be noted that the Professional Pilot Program Courses are eligible for credit only for fulfillment of the requirements of a Science and Aviation Plan. Transfer consideration of previous flight training or Professional Pilot Program Courses will be at the discretion of the Waterloo-Wellington Flight Centre and not determined by the University of Waterloo.

In order to graduate in Honours Science and Aviation the following requirements must be met:

1. Successful completion of at least 21.0 units with a cumulative average of 65% and a 65% Science average. Of the 21.0 units required:
   - At least 3.0 units of Geography (Geomatics Option) as specified below.
   - 3.0 5.0 units of Professional Pilot Program Courses. Credits to be transferred when completed, upon completion of University of Waterloo core and elective course requirements. These courses are not used in average calculations.
AVIA 101, 102, 203, 204, 205, 306, 307 and 408 are Professional Pilot Program Courses and are not used in average calculations. Grading is CR (credit granted) or NCR (no credit granted, failure recorded).

2. Completion of the English Language Proficiency Examination (ELPE).
3. No more than 2.0 failed units of University of Waterloo courses are allowed. All WWFC courses must be passed.
4. Mandatory courses are listed below.
5. To be eligible for the Term Dean’s Honours List, students must achieve a minimum term average of 80%, with no failures, in any given term, with the total number of University of Waterloo courses determined by the recommended course load for that term.

Geomatics Option and Minors - Students in Science and Aviation will automatically may be approved for the Geomatics Option or other credential at the time of graduation unless otherwise with additional course requirements.

Rationale: Please see the rationale for motion #2.

FACULTY REGULATION CHANGES

Faculty of Engineering

Withdrawing and Returning [effective 1 September 2014]

4. Motion: To approve that the following additional information be added to the Engineering section of the undergraduate calendar (Note: some of this information appears in certain parts of the engineering section of the calendar; the faculty proposes combining it and new information into a new section common to all engineering undergraduate degrees):

Absences from a Program:
Students encounter situations that may interfere with their ability to complete a regularly scheduled term of study. In such cases a student may either consider a voluntary withdrawal or may not register for a given term. These situations are described in this section of the calendar.

Voluntary Withdrawals:
Students may withdraw from a term or from their program depending on the time of the term and depending on any extenuating circumstances for that student. In all cases the student must submit an Undergraduate Notice of Withdrawal form to the Registrar with the appropriate approval signatures. The following sections describe the criteria and constraints for each of these alternatives.

A student who voluntarily withdraws from the term is expected to return to his or her program of study within one year from the beginning of the term from which they are withdrawing. After this period, if the student has not enrolled in the program, he or she will be deemed to have withdrawn from the program Bachelor of Architectural Studies (BAS), Bachelor of Applied Science (BASc) or Bachelor of Software Engineering (BSE). Should the student wish to return at some later time, please refer to the Request to Complete Degree Requirements Following an Absence section of the calendar.

A student who withdraws from his or her program (BAS, BASc or BSE), or is deemed to have done so, will be required to apply for re-admission in order to be considered for continuation of his or her program of study. If the absence exceeds one year, please refer to the Request to Complete Degree Requirements Following an Absence section of the calendar.
Students may withdraw from the (entire) term, without academic penalty at any time prior to the drop no penalty time (see the list of important dates provided by the registrar). Students must notify their advisor and complete the appropriate forms. The courses taken by students who withdraw from a term during the drop, penalty 1 period (see the list of important dates provided by the registrar) remain on the transcript and are recorded as WD (Withdrew after the drop deadline, no credit granted). The term decision for such a term is recorded as Not Applicable. Students may request to return to their studies one year after the start of the term withdrawn from. The courses taken by students who withdraw from a term during the drop, penalty 2 period (see the list of important dates provided by the registrar) remain on the transcript and are recorded as WF (Withdrew/Failure, no credit granted). The term decision for such a term is Required to Withdraw. Students may apply for re-admission one year after the start of the term withdrawn from. For students in the 1A term, additional leniency may be permitted depending on the circumstances leading to the decision to withdraw. See the Fees section of the calendar with respect to eligibility for refund of fees paid for the term.

**Failure to Register:**
A student who does not enrol in the courses for the term to which he or she would normally be expected to return and who does not submit an Undergraduate Notice of Withdrawal form or otherwise obtain the permission of the department, prior to the Final Registration date as defined in the Fees section of the calendar, will be deemed to have withdrawn from the program Bachelor of Architectural Studies (BAS), Bachelor of Applied Science (BASc) or Bachelor of Software Engineering (BSE). Permission to return to classes is considered according to the following rules:
1. If the absence has not exceeded one year and the student had an acceptable standing (Promoted: Excellent, Good, Satisfactory) then he or she is permitted to return to study at a time appropriate to his or her studies. If the student had a negative decision (such as Required to Repeat) then the date of return is subject to the constraints associated with that standing.
2. If the absence exceeds one year, then the student will be required to apply for re-admission in order to be considered for continuation of his or her program of study. See the Request to Complete Degree Requirements Following an Absence section of the calendar.

**Degree Completion Following 4B:**
Students that have completed a 4B term but have not yet met their degree requirements are normally expected to complete their degree requirements as soon as possible following the 4B term. This would mean that they are expected to take courses (if required) starting in the term immediately following 4B (if the course is available) and to complete any (permitted) co-op work terms in the term following 4B. Furthermore it is expected that degree completion will occur as soon as possible after the 4B term.

In the event that more than one year has elapsed since the completion of 4B and there has been no progress towards completing the degree, please see the Request to Complete Degree Requirements Following an Absence section of the calendar.

**Request to Complete Degree Requirements Following an Absence:**
This section of the calendar describes the requirements and expectations for students wishing to return to their degree after a period away. These requirements are for students who left their degree in a good standing. (Good standing refers to a situation where a student was permitted to return to his or her degree during his or her last academic term. It specifically does not include students who are required to withdraw from engineering.) Note: these requirements apply to all previously enrolled students in the Faculty of Engineering.
1. If a student has not registered in classes for a period of less than one year then the promotion rules associated with that degree describe the return requirements. Refer to the Voluntary Withdrawals section of the calendar.

2. If a student has been away from study in his or her program for a period of one year or more, then his or her return is to be governed by the following alternatives:
   - If a student has been away for a period of less than six years then he or she can apply to complete the degree requirements that were in place at the time he or she left his or her degree. However, as programs evolve some courses may have changed and there may be a need to modify the exact sequence of the material but not to increase the normal load required to complete the degree. (It may be to a student’s advantage to repeat some material prior to starting new material.)
   - If a student has been away for a period of six years or more and was no more than 1.5 units (weight) from completing his or her original degree requirements, then he or she can apply to complete the degree requirements that were in place at the time he or she left his or her degree. Again due to the evolution of our programs there may be a need to modify exactly which courses are required to complete the degree.
   - If a student has been away for a period of six years or more and he or she has more than 1.5 units (weight) to complete his or her degree then he or she is required to complete the degree requirements in effect at the time of his or her re-admission.

**Rationale:** Each year a small number of former students seek permission to complete their degree after a period away from studies. There is a secondary challenge in that the current calendar makes no comment on whether a student can continue. To resolve this, the faculty proposes the calendar revisions described here. Please note that the faculty is making the additional request to Senate that these changes be approved for all students enrolled in Faculty of Engineering undergraduate degrees since 1957.

**Faculty of Environment**

**Planning and Knowledge Integration**

**Transfer Credits [effective 1 September 2014]**

5. **Motion:** To approve lowering the external transfer credit grade requirement from 65% to 60% for planning and knowledge integration (Note: new text = bold; deleted text = strikethrough):

   **Internal and External Transfer Credits**

   Any course taken at the University of Waterloo for which credit is granted, but the grade is not calculated in the cumulative averages, will be considered an Internal Transfer Credit. Students are encouraged to see their undergraduate advisor(s) for further guidance on what constitutes an internal transfer credit.

   Any course taken at an accredited post-secondary institution, except Wilfrid Laurier University (see information below), will be considered for External Transfer Credit and, if approved, may be counted towards degree requirements. External transfer credits can be acquired through studies completed prior to admission to the University of Waterloo, through a University of Waterloo approved International Exchange agreement, or through courses taken on Letter of Permission (see information below).

   For courses to be considered for external transfer credit a grade of 60% or better is required. The exception is Planning and Knowledge Integration, which require a grade of 65% or better.

   **Rationale:** This change brings planning and knowledge integration in line with the rest of the university.
FOR INFORMATION

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CURRICULAR MODIFICATIONS

Changes to academic plans, new courses, course changes and course inactivations were approved for Renison University College (English as a second language; social work) and the faculties of: applied health sciences (applied health sciences; gerontology; health studies; kinesiology; recreation and leisure studies); arts (accounting & financial management; drama & speech communication; economics; English; French; German; history; legal studies; music; political science; psychology; religious studies; Russian; sexuality, marriage & family studies; social development studies; sociology; women’s studies); engineering (electrical & computer engineering; management sciences; systems design engineering); environment (aviation; environment & business; environment & resource studies; environmental studies; geography & environmental management; geomatics; international development; planning; sustainable local development option); and science (biology; earth sciences; general science; physics; science and aviation).

/ees
25 April 2013

Mario Coniglio
Associate Vice-President,
Academic Programs
FOR INFORMATION

Recognition and Commendation

Emily Peat, fourth year civil engineering student and owner of EcoPlace Organics, a local organic food delivery service, won first place at the Nicol Entrepreneurial Awards held in Ottawa on 26 March. Peat represented the University of Waterloo at the national competition after being selected in a cross-campus competition held at the Conrad Centre in February. Her win marks the first time since 2007 that the University of Waterloo has taken the top prize at the Nicol Awards. “The Nicol competition provided me with the opportunity to discuss my business plan with successful entrepreneurs and experts in different areas of business,” said Peat. “It forced me to think through exactly what my plan is for moving forward and growing. I am grateful for the experience.” She completed a co-op term in Conrad’s Enterprise Co-op program and also took BET 300: Foundations of Venture Creations, run out of the Conrad Centre. Peat also recently won $20,000 at the Ontario Centres of Excellence Social Enterprise Student Competition on 21 March and was a top four finalist at the National Business and Technology Conference on 8 March.

The winners of the 2013 Evolve Sustainable Design Competition were announced recently, with Waterloo architecture and engineering students Renee Hum-Hsiao, Elaina Poleto, Keegan Steeper, Joanne Yau and Thomas Yuan receiving first prize for their design of an environmentally sustainable bank branch of the future. The winning team received $5,000 and an opportunity to meet with some of Canada’s top architecture professionals at B+H Architects. In addition, the University of Waterloo student team of Alice Chen, Alan King Bowden, Andrea Ng, Alice Song and Mina Vedut received an honourable mention and a $2,500 prize. The competition challenged architecture and engineering students to work together in interdisciplinary teams to design a net-zero energy and water-wise bank branch of the future that incorporates innovative yet practical concepts for achieving extreme energy efficiency, includes renewable power and minimizes the branch’s water. Students were asked to explore the design and function of a typical bank branch and develop ways to minimize its energy and water use, while providing a platform for employees, clients and the community to learn about how sustainable building practices can be made part of everyday life. “The winning submissions used a great balance of technology and passive design – strategies that maximize the benefits of natural light, heat and ventilation – to meet the goals of the competition,” said Douglas Birkenshaw, principal at B+H. “The dedication and quality of submissions by all of the students was inspiring.” The winning team’s design features included hydronic radiant floors powered by geothermal systems to heat the building, photovoltaic cells integrated into windows to generate electricity, grey water filtration systems, and a system that distributed natural sunlight through fibre optic tubing to interior spaces. The contest was sponsored by RBC and B+H.

A team of four Waterloo environmental engineering students took first place in Task 3 at the 22nd annual International Environmental Design Contest held early April at New Mexico State University. The competition was organized by the WERC Consortium and the Institute for Energy & the Environment. Held annually since 1991, the contest draws hundreds of college and university students from across the United States and around the world. Student teams design solutions for real-world problems while developing fully operational bench-scale solutions that are then presented to panels of judges comprised of environmental professionals. The teams prepare four different presentations: written, oral, poster and a
bench-scale model. The team also received 2nd place among all tasks when judged by the other contestants for the bench-scale and poster presentations. Team members included Lindsay Bowman, Victoria Chennette, Beth Hamley and Laurel Hoffarth. The team was supported by Shoeleh Shams, a PhD candidate in civil & environmental engineering, and Jon Sykes, who was the faculty advisor. The team’s project, entitled “Nitrate Removal in Rural Drinking Water Using Electrocoagulation,” presented the design, testing and implementation of a treatment system for nitrate removal from groundwater. The project details the prominence of groundwater used as a source of drinking water, the potentially devastating health effects when contaminated by nitrate, and alternative methods to remove nitrate. The team’s solution to use electrocoagulation as the preferred alternative was an innovative choice that proved to be successful within the competition. [22 April 2013 Daily Bulletin]

Chau-Minh Phan, PhD student in the School of Optometry and Vision Science, placed third at the provincial finals of the Three-Minute Thesis competition, held recently at Queen’s University. Thirty graduate students from 16 Ontario universities were competing to become the first to win the championship trophy for their school. The winner of the provincial finals was University of Toronto medical biophysics PhD student Jasdeep Saggar, who presented “Hypoxia-activated pro-drugs: A novel approach for breast cancer.” She received $1,000. In second place was University of Toronto computer science PhD student Abraham Heifets with “How can we make better medicines? Computer tools for chemistry.” Five judges were enlisted to score each participant in three categories – comprehension, communication and engagement. The judging panel included Rob Baker, guitarist for the Tragically Hip, marathon swimmer Vicki Keith, lawyer Hugh Christie, economist Donald Drummond, and Peter Gooch of the Council of Ontario Universities. Chau-Minh Phan’s presentation was entitled “Treatment of Fungal Eye Infections using contact lenses and nanoparticles.” [23 April 2013 Daily Bulletin]
FOR INFORMATION

A. APPOINTMENTS

Probationary-term Appointment
LAIRD, Brian, Assistant Professor, School of Public Health and Health Systems, July 1, 2013 to June 30, 2016. [BSc (Hon), University of Guelph, 2005; PhD, University of Saskatchewan, 2010]. Dr. Laird’s expertise in the field of exposure assessment, nutritional toxicology and risk assessment is an outstanding fit with the School’s current and future needs.

Probationary-term Reappointment
GARCIA, John, Associate Professor, School of Public Health and Health Systems, July 1, 2013 to June 30, 2016. [BSc. (Honours, Health Studies), University of Waterloo, 1974; MSc (Health Behaviour), University of Waterloo, 1984; PhD (Health Studies and Gerontology), University of Waterloo, 2008.]

Adjunct Appointments

Graduate Instruction
CHRISTIDIS, Tanya, Lecturer, School of Public Health and Health Systems, May 1, 2013 to August 31, 2013.

Graduate Instruction, Supervision and Research
McDONALD, Paul, Professor, School of Public Health and Health Systems, April 1, 2013 to March 31, 2014.

Cross Reappointment
ROJAS-FERNANDEZ, Carlos, Assistant Professor, School of Pharmacy to School of Public Health and Health Systems, September 1, 2013 to June 30, 2016.

Postdoctoral Fellow to Research Appointment
VILLAR, Rodrigo, Department of Kinesiology, July 1, 2013 – December 31, 2013.

B. RESIGNATION

McDONALD, Paul, Professor, School of Public Health and Health Systems, effective April 1, 2013.

C. SABBATICAL LEAVE

MOCK, Steven, Assistant Professor, Department of Recreation and Leisure Studies, January 1, 2014 to June 30, 2014 at full salary.

Susan J. Elliott
Dean, Applied Health Sciences
A. APPOINTMENTS

Probationary-term Appointment

RISKO, Evan (BA 2004, MA 2006, PhD 2008, University of Waterloo), Assistant Professor, Department of Psychology, July 1, 2013 to June 30, 2016. Dr. Evan will be joining the cognitive area after stints as assistant professor at Arizona State University and the University of Memphis, strengthening the group in the areas of attention, education, and embodied cognition. In this domain, he has published over 30 articles on the topics of word recognition and reading, individual differences, and broader aspects of cognition. His current major area of research is embodied or embedded cognition—the close ties between the mental and the physical. Waterloo has one of the top cognition programs in Canada.

Definite-term Appointment

SEEDS, Pamela (BSc 2005, Queen’s University; MSc 2007, PhD 2012, University of Western Ontario), Lecturer, Department of Psychology, September 1, 2013 to August 31, 2015. Dr. Seeds will be joining the clinical area as a clinical lecturer, following her internship at Hamilton Health Sciences. She will extend the clinical area’s expertise in the areas of child and family treatment, with particular focus on the problems of depression. She has several publications in graduate school, all in visible outlets. Dr. Seeds is an experienced teacher and will strengthen both undergraduate and graduate teaching in the high-demand clinical area. Western has one of the top programs in clinical psychology in Canada.

Adjunct Appointments

Instruction

GEWURTZ, Michelle, Lecturer, Women’s Studies, May 1, 2013 to August 31, 2013.

KNIGHT, Alison, Lecturer, School of Accounting and Finance, May 1, 2013 to August 31, 2013.

Adjunct Reappointments

Instruction

ABBOTT, William, Professor, Independent Studies, May 1, 2013 to August 31, 2013.

AFROS, Elena, Lecturer, Department of English Language and Literature, May 1, 2013 to August 31, 2013.

ANDRES, Greg, Lecturer, Department of Philosophy, May 1, 2013 to August 31, 2013.

BORONKA, Irina, Lecturer, Department of Germanic and Slavic Studies, May 1, 2013 to August 15, 2013.

BRIGGS, Catherine, Assistant Professor, Department of History, May 1, 2013 to August 31, 2013.

CHAPUT, Louise, Lecturer, Department of French Studies, March 25, 2013 to April 30, 2013.
CUMMINGS, Ruth, Lecturer, School of Accounting and Finance, May 1, 2013 to August 31, 2013.

CYR, Dylan, Lecturer, Department of History, May 1, 2013 to August 31, 2013.

DAGG, Anne Innis, Associate Professor, Independent Studies, May 1, 2013 to August 31, 2013.

DELAMERE, D’Arcy, Lecturer, School of Accounting and Finance, May 1, 2013 to August 31, 2013.

DUCHARMERE, Robert, Lecturer, School of Accounting and Finance, May 1, 2013 to August 31, 2013.

FLERAS, Augie, Lecturer, Department of Sociology and Legal Studies, May 1, 2013 to August 31, 2013.

GEORGE, Ryan, Lecturer, Department of Economics, May 1, 2013 to August 31, 2013.

HARRIGAN, Patrick (Distinguished Professor Emeritus), Professor, Department of History, May 1, 2013 to August 31, 2013.

HARTLING, Shannon, Lecturer, Department of English Language and Literature, May 1, 2013 to August 31, 2013.

HOCHSTEIN, Eric, Lecturer, Department of Philosophy, May 1, 2013 to August 31, 2013.

HOOD, Kevin, Lecturer, Department of Economics, May 1, 2013 to August 31, 2013.

IV, Kieng, Lecturer, School of Accounting and Finance, May 1, 2013 to August 31, 2013.

KUMASE, Wokia, Lecturer, Department of Economics, May 1, 2013 to August 31, 2013.

MAES, Nick, Lecturer, Department of Classical Studies, May 1, 2013 to August 31, 2013.

MCARTHUR, Kathryn, Lecturer, Department of English Language and Literature, May 1, 2013 to August 31, 2013.

MCGEE, Edward, Professor, Independent Studies, May 1, 2013 to August 31, 2013.

MOCK, Steven, Lecturer, Department of Political Science, May 1, 2013 to August 31, 2013.

NAG, Sharmistha, Lecturer, Department of Economics, May 1, 2013 to August 31, 2013.

RAHMAN, Fiona, Lecturer, Department of Economics, May 1, 2013 to August 31, 2013.

ROGOZYNSKI, Daniel, Lecturer, School of Accounting and Finance, May 1, 2013 to August 31, 2013.

ROTH, Wendy, Lecturer, Department of Economics, May 1, 2013 to August 31, 2013.

SCHWEITZER, David, Assistant Professor, Department of History, May 1, 2013 to August 31, 2013.

SICA, Emanuele, Lecturer, Department of History, May 1, 2013 to August 31, 2013.
SIEBEL-ACHENBACH, Sebastian, Lecturer, Department of History, May 1, 2013 to August 31, 2013.

STUMPF, Andrew, Lecturer, Department of Philosophy, May 1, 2013 to August 31, 2013.

TELL, Edmond, Lecturer, Department of Drama and Speech Communication, May 1, 2013 to August 31, 2013.

WENSLEY, Karen, Lecturer, School of Accounting and Finance, May 1, 2013 to August 31, 2013.

Miscellaneous (research, consultations, etc.)

HOLMES, Richard, Associate Professor, Department of Philosophy, January 1, 2013 to December 31, 2013.

Staff to Faculty Appointment

MITTELSTAEDT, Walter (Department of Psychology), Assistant Professor, Department of Psychology, January 1, 2013 to December 31, 2015.

Graduate Student to Part-time Lecturer Appointments

ATEGOMO YMELE, Martial, Department of French Studies, May 1, 2013 to August 31, 2013.

CHRISTELIS, Angela, Department of Philosophy, May 1, 2013 to August 31, 2013.

DEFRAEYE, Julien, Department of French Studies, May 1, 2013 to August 31, 2013.

DEMAN, Andres, Department of English Language and Literature, May 1, 2013 to August 31, 2013.

EDWARDS, Lucie, Department of Political Science, May 1, 2013 to August 31, 2013.

FINN, Tracy, Department of Philosophy, May 1, 2013 to August 31, 2013.

GEE, Catherine, Department of Philosophy, May 1, 2013 to August 31, 2013.

HANCOCK, Michael, Department of English Language and Literature, May 1, 2013 to August 31, 2013.

HOLUKOFF, Kurt, Department of Philosophy, May 1, 2013 to August 31, 2013.

JONKER, Tanya, Department of Psychology, May 1, 2013 to August 31, 2013.

JORDAN, William, Department of Philosophy, May 1, 2013 to August 31, 2013.

KEEFNER, Ashley, Department of Philosophy, May 1, 2013 to August 31, 2013.

MCEWAN, Michael, Department of Philosophy, May 1, 2013 to August 31, 2013.

NELSON, Benjamin, Department of Philosophy, May 1, 2013 to August 31, 2013.

PETRESCU, Maria, Department of French Studies, May 1, 2013 to August 31, 2013.

SIMARD SMITH, Paul, Department of Philosophy, May 1, 2013 to August 31, 2013.
SVENSON, Stephen, Department of Sociology and Legal Studies, May 1, 2013 to August 31, 2013.

WEIMER-STUCKMANN, Gerlinde, Department of Germanic and Slavic Studies, May 1, 2013 to August 31, 2013.

B. ADMINISTRATIVE APPOINTMENTS
BRUCE, Gary, Chair, Department of History, January 1, 2014 to June 30, 2017.

HELLEINER, Eric, Acting Chair, Department of Political Science, July 1, 2013 to June 30, 2014.

HOEPPE, Götz, Associate Chair, Undergraduate Studies, Department of Anthropology, July 1, 2013 to June 30, 2016.

MACDOUGALL, Heather, Acting Chair, Department of History, July 1, 2013 to December 31, 2013.

ADMINISTRATIVE REAPPOINTMENTS
PARK, Robert, Associate Chair, Graduate Studies, Department of Anthropology, July 1, 2013 to June 30, 2014.

PARK, Robert, Associate Dean, Computing, July 1, 2013 to June 30, 2014.

SEN, Anindya, Associate Chair, Graduate Studies, Department of Economics, July 1, 2013 to June 30, 2015.

ADMINISTRATIVE APPOINTMENT DATE CHANGE
BOYCHUK, Gerard, Chair, Department of Political Science, from January 1, 2012 to December 31, 2015 to January 1, 2012 to June 30, 2013 and July 1, 2014 to December 31, 2015.

C. RETIREMENTS
GREENBERG, Joel, Professor, Department of Drama & Speech Communication, effective July 1, 2014.

LAU, Eva, Lecturer, Department of Economics, effective July 1, 2014.

NOVAK, Joseph, Associate Professor, Department of Philosophy, effective August 1, 2014.

D. RESIGNATION
SMITH, John, Professor, Department of Germanic and Slavic Studies, effective June 30, 2013.

ZIMMERMAN, Amber, Assistant Professor, Department of Drama & Speech Communication, effective April 30, 2013.

E. ADMINISTRATIVE LEAVE
For Approval by the Board of Governors
SILLATO, Maria del Carmen, Professor, Department of Spanish and Latin American Studies, September 1, 2014 to December 31, 2014 at full salary.
F. SABBATICAL LEAVES
For Approval by the Board of Governors

DANCKERT, James, Professor, Department of Psychology, September 1, 2013 to February 28, 2014 at full salary.

DEA, Shannon, Associate Professor, Department of Philosophy, September 1, 2013 to August 31, 2014 at 85% salary.

MICHELA, John, Associate Professor, Department of Psychology, January 1, 2014 to December 31, 2014 at 85% salary.

PACKALEN, Mikko, Assistant Professor, Department of Economics, September 1, 2013 to February 28, 2014 at full salary.

SILLATO, Maria del Carmen, Professor, Department of Spanish and Latin American Studies, January 1, 2014 to June 30, 2014 at 85% salary.

SPENCER, Steven, Professor, Department of Psychology, July 1, 2013 to June 30, 2014 at full salary.

THOMPSON, James, Assistant Professor, September 1, 2013 to February 28, 2014 at full salary.

G. LEAVES OF ABSENCE DATE CHANGE

TAN, Hongping, Assistant Professor, School of Accounting & Finance, from August 15, 2012 to August 14, 2013 to August 15, 2012 to May 14, 2013, unpaid leave.

Douglas M. Peers
Dean, Arts
A. APPOINTMENTS

Probationary-term Reappointment

Definite-term Reappointment
CHAN, Ariel, Lecturer, Department of Chemical Engineering, March 19, 2013 – March 18, 2014. PhD Queen’s University 2009; MSc Queen’s University 2003; BSc Queen’s University 2001.

Visiting Appointments
BOUHIER, Alexandre, Scholar, Department of Mechanical & Mechatronics Engineering, May 1, 2013 – August 31, 2013.


BRINATTI ANTONIO, Cesar, Scholar, Department of Chemical Engineering, May 1, 2013 – April 30, 2014.

CHEN, Youfang, Scientist, Department of Chemical Engineering, August 1, 2013 – July 31, 2014.

CHEN, Wang, Scientist, Department of Chemical Engineering, September 1, 2013 – November 30, 2013.

FIGUEIREDO, Juliana, Scholar, Department of Chemical Engineering, March 15, 2013 – August 31, 2013.


KHANDELWAL, Tarun, Researcher, Department of Management Sciences, May 1, 2013 – August 31, 2013.


LI, Qiuyang, Scholar, Department of Systems Design Engineering, September 1, 2013 – August 31, 2014.

MCGILL, Thomas, Scholar, Department of Chemical Engineering, May 1, 2013 – August 31, 2013.

MEHBOOB, Nazia, Scholar, Department of Chemical Engineering, March 18, 2013 – August 31, 2013.


NAVARCHIAN, Amir, Scholar, Department of Chemical Engineering, February 28, 2013 – February 27, 2014.


SHAREEFDEEN, Zarook, Researcher, Department of Chemical Engineering, January 1, 2014 – April 30, 2014.

YANG, Jinfu, Researcher, Department of Systems Design Engineering, June 1, 2013 – May 31, 2014.

Adjunct Appointments

Instruction

AL-HAMMOUD, Rania, Lecturer, Department of Civil & Environmental Engineering, May 1, 2013 – August 31, 2013.

ALAM, Shahedul, Lecturer, Department of Management Sciences, May 1, 2013 – August 31, 2013.

GAUDETTE, Darrell, Lecturer, Department of Electrical & Computer Engineering, May 1, 2013 – August 31, 2013.

GUTTLE, Barbara, Lecturer, Department of Chemical Engineering, May 1, 2013 – August 31, 2013.

KEATS, Brian, Lecturer, Department of Electrical & Computer Engineering, May 1, 2013 – August 31, 2013.

REIDEMEISTER, Thomas, Lecturer, Department of Electrical & Computer Engineering, May 1, 2013 – August 31, 2013.

SAAD, John, Lecturer, Department of Electrical & Computer Engineering, May 1, 2013 – August 31, 2013.

WASEF, Albert, Lecturer, Department of Electrical & Computer Engineering, May 1, 2013 – August 31, 2013.

Adjunct Reappointments

Graduate Supervision and Research

AMY, Gary, Professor, Department of Civil & Environmental Engineering, April 1, 2012 – March 31, 2014.

Graduate Student to Part-time Lecturer Appointments


GHAHREMANI, Kasra, Department of Civil & Environmental Engineering, May 1, 2013 – August 31, 2013.

HASSEL, Katharina, Department of Chemical Engineering, May 1, 2013 – August 31, 2103.
KREM, Slamah, Department of Civil & Environmental Engineering, May 1, 2013 – August 31, 2013.


PIRNIA, Mehrdad, Department of Management Sciences, May 1, 2013 – August 31, 2013.

SPANJERS, Mark, Department of Civil & Environmental Engineering, May 1, 2013 – August 31, 2013.

B. ADMINISTRATIVE APPOINTMENT
WRIGHT, John, Deputy Chair, Department of Mechanical & Mechatronics Engineering, May 1, 2013 – April 30, 2016.

ADMINISTRATIVE REAPPOINTMENT
LOUCKS, Wayne, Associate Dean, Undergraduate Studies, July 1, 2013 – December 31, 2015.

ADMINISTRATIVE APPOINTMENT DATE CHANGE
CASCANTE, Giovanni, Associate Chair, UAE Program, Department of Civil & Environmental Engineering, from May 1, 2012 – April 30, 2015 to May 1, 2012 – April 30, 2013.

C. RESIGNATION
BIGLARI, Mazda, Assistant Professor, Department of Chemical Engineering, effective April 30, 2013.

D. SABBATICAL LEAVES
For Approval by the Board of Governors
BASIR, Otman, Professor, Department of Electrical & Computer Engineering, September 1, 2013 – August 31, 2014 at 85% salary.

CALAMAI, Paul, Professor, Department of Systems Design Engineering, September 1, 2013 – August 31, 2014 at 100% salary.

CANIZARES, Claudio, Professor, Department of Electrical & Computer Engineering, March 1, 2014 – August 31, 2014 at 100% salary.

DOUGLAS, Peter, Professor, Department of Chemical Engineering, September 1, 2013 – August 31, 2014 at 100% salary.

E. SPECIAL LEAVE
DOUGLAS, Peter, Professor, Department of Chemical Engineering, September 1, 2014 – December 31, 2014 at 100% salary.

Pearl Sullivan
Dean, Engineering
FOR INFORMATION

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A. APPOINTMENTS

Probationary-term Appointments

McLEVEY, John, Assistant Professor, Faculty of Environment (Centre for Knowledge Integration), September 1, 2013 to June 30, 2016. [BA, Memorial University of Newfoundland, 2008; MA, McMaster, 2009; PhD, McMaster, anticipated July 2013.] Currently ABD at McMaster, Mr. McLevey has much expertise and experience with qualitative methods; he studies the way scientific knowledge is created and put into practice both inside and outside academia (focusing on climate science research and policy). He will be a major resource in helping CKI to fulfill its vision of facilitating cross-disciplinary research within the faculty and uWaterloo more generally.

SCHWEIZER, Vanessa, Assistant Professor, Faculty of Environment (Centre for Knowledge Integration), September 1, 2013 to June 30, 2016. [BS, University of Nevada (Reno), 2001; MES, The Evergreen State College, 2007; PhD, Carnegie Mellon University, 2010.] Dr. Schweizer comes to Waterloo from the National Center for Atmospheric Research (Integrated Science Program) in Boulder, Colorado. She is skilled at analyzing and applying quantitative methods and has already established an international profile around her use of cross-impact balance analysis in climate science research. With her background in physics, engineering and public policy, she and McLevey complement each other well and will bring considerable strengths to CKI and the faculty.

Probationary-term Reappointments

DRESCHER, Michael, Assistant Professor, School of Planning, July 1, 2013 to June 30, 2016. [BSc, Ruhr-University, Bochum (Germany), 1994; MSc, Utrecht University, 1998; PhD, Wageningen University, 2003.]

FLETCHER, Christopher, Assistant Professor, Department of Geography and Environmental Management, July 1, 2013 to June 30, 2016. [BSc, Manchester, 2000; MSc, Reading, 2001; PhD, University College London, 2005.]

YOUNG, Steven, Associate Professor, School of Environment, Enterprise and Development, July 1, 2013 to June 30, 2016. [BASc, Alberta, 1987; MASc, Toronto, 1989; PhD, Toronto, 1996.]

Adjunct Appointments

Instruction

JENSEN, James, Lecturer, Faculty of Environment (Centre for Knowledge Integration), September 1, 2013 to April 30, 2014.

PHAN, Thang Chau, Assistant Professor, School of Environment, Enterprise and Development, May 1, 2013 to August 31, 2013.

Graduate Supervision

BOOTY, William, Professor, Department of Geography and Environmental Management, March 1, 2013 to February 28, 2016.

SCHUSTER-WALLACE, Corinne, Assistant Professor, Department of Geography and Environmental Management, March 1, 2013 to February 28, 2018.
Graduate Supervision and Research
KEVAN, Peter, Professor, Department of Environment and Resource Studies, January 1, 2013 to December 31, 2015.

Graduate Student to Part-time Lecturer Appointment
ASHPOLE, Sara, School of Environment, Enterprise and Development, May 1, 2013 to August 31, 2013.

B. SABBATICAL LEAVE
For Approval by the Board of Governors
DRESCHER, Michael, Assistant Professor, School of Planning, July 1, 2013 to December 31, 2013, at 100% salary.

André Roy
Dean, Environment
A. APPOINTMENTS

Tenured

BAUCH, Christopher (BS 1994, University of Texas at Austin; MAST 1995, University of Cambridge: Trinity College; PhD 2000, University of Warwick), Professor, Dept. of Applied Mathematics, July 1, 2013. Dr. Bauch currently is an associate professor at the University of Guelph where he holds a research chair in biomathematics. Dr. Bauch has held visiting positions at Princeton University and McGill University and is currently an affiliate researcher of the Waterloo Institute for Complexity and Innovation. Dr. Bauch’s research involves mathematical modelling and analysis of coupled human-environment systems using techniques from dynamical systems and game theory. He has been at the forefront of investigating how human behaviour affects the efficacy of vaccination programs. His work is very tied to real data and making predictions that can be used by medical policy makers. As such he has been involved in consulting for agencies from the Ontario Government to the World Health Organization and has influenced policy in Quebec and Ontario. Dr. Bauch’s research is funded by both NSERC and CIHR, including a prestigious CIHR New Investigator Award.

COOK, William (BA 1979, Rutgers University; MS 1980, Stanford University; PhD 1983, University of Waterloo), Professor, Dept. of Combinatorics and Optimization, June 1, 2013. Dr. Cook is the John Swanson Endowed Chair and Professor of Industrial Engineering at the University of Pittsburgh. From 2002-2012 he was the Chandler Family Professor in the H. Milton Stewart School of Industrial & Systems Engineering at Georgia Tech. Prior to joining Georgia Tech, he held appointments at Cornell University, Columbia University, Bell Communications Research, University of Bonn, Rice University, and Princeton University. Dr. Cook’s research interests are in integer programming and combinatorial optimization. He is best known for his work on the traveling salesman problem, and authored the 2012 book “In Pursuit of the Traveling Salesman: Mathematics at the Limits of Computation.” Dr. Cook will serve as chair of the Mathematical Optimization Society from 2013-2016, and is presently chair of the INFORMS Computing Society. He is editor-in-chief and founding editor of “Mathematical Programming Computation,” and has served as editor-in-chief of “Mathematical Programming, Series A” and “Mathematical Programming, Series B.” He is a member of the National Academy of Engineering, a SIAM Fellow, a 2010 INFORMS Fellow, and received the 2000 Beale-Orchard-Hays Prize from the Mathematical Programming Society.

Probationary-term Appointments

HAN, Peisong (BS 2006, University of Science & Technology of China; MS 2008, PhD 2013 (exp), both from Michigan University), Assistant Professor, Department of Statistics and Actuarial Science, July 1, 2013 – June 30, 2016. Mr. Han is currently completing his PhD at the University of Michigan under the supervision of Professor Peter Song and Professor Lu Wang. His research interests include empirical likelihood, missing data problems, longitudinal data analysis, and semiparametric efficiency. Mr. Han impressed several people in the department during his visit with his energy, great communication skills, and maturity in research. The latter is nicely demonstrated by the fact that he already has a single-authored paper in his list of publications. We are very pleased to have him join our biostatistics group.

LI, Bin (BS 2005, MS 2008, both from Xi’an Jiaotong University; MS 2009, PhD 2013 (exp), both from Iowa University), Assistant Professor, Department of Statistics and Actuarial Science, June 1, 2013 – June 30, 2016. Mr. Li is currently completing his PhD at the University of Iowa under the
supervision of Professor Qihe Tang and Professor Lihe Wang. His research interests include quantitative risk management, default risk modeling, and financial instruments pricing. Mr. Li’s enthusiasm for research was obvious during his visit and seminar. His research program skillfully combines strong analytical skills with an interest for practical problems in finance and insurance. He is also working toward actuarial qualifications. Mr. Li is a great addition to our actuarial science group.

**SHEN, Yi** (BS 2005, Tsinghua University; Engenieur in Quantitative Economics and Finance 2008, Ecole Polytechnique; PhD 2013 (exp), Cornell University), Assistant Professor, Department of Statistics and Actuarial Science, July 1, 2013 – June 30, 2016. Mr. Shen is currently completing his PhD at Cornell University under the supervision of Professor Gennady Samorodnitsky. His research interests include stationarity, random fields, extreme value theory, ergodic theory, and financial mathematics. During his visit, Mr. Shen gave an impressive seminar in which he was able to explain very abstract results with an amazing clarity. His expertise brings strength to our applied probability group and has the potential to contribute to our finance and risk theory groups as well. We are very pleased that he is joining us.

**ZHU, Yeying** (BS 2006, East China Normal University; MS 2008, National University of Singapore; PhD 2013 (exp), The Pennsylvania State University), Assistant Professor, Department of Statistics and Actuarial Science, July 1, 2013 – June 30, 2016. Ms Zhu is currently completing her PhD at Penn State University under the supervision of Professor Debashis Ghosh. Her research interests include causal inference, data mining, machine learning, and mediation analysis. During her visit, she was found to be doing innovative work of high technical quality, with the potential of having important impact in several application areas. Ms Zhu brings expertise that nicely complements several research groups in the department. We are thrilled to have been able to recruit her.

**Define-term Appointment**

**ADCOCK, James** (BSc Hons 1997, MSc 2000, both from the University of Western Ontario, Lecturer, Dept. of Statistics and Actuarial Science, September 1, 2013 – August 30, 2015.

Mr. Adcock will teach six courses per year and participate in departmental activities as required.

**Define-term Reappointment**

**PEI, Martin**, Lecturer, Dept. of Combinatorics and Optimization, January 1, 2014 – December 30, 2015. Dr. Pei will teach six courses and perform student advising for the Mathematics Undergraduate Office and miscellaneous service duties for the Dept. of Combinatorics and Optimization.

**Visiting Appointments**


**ROSELLI, Vincenzo**, Scholar, David R. Cheriton School of Computer Science, May 1, 2013 – August 31, 2013.

Adjunct Reappointments

Instructor


KASHEF, Rasha, Lecturer, Dept. of Applied Mathematics, May 1, 2013 – August 31, 2013.

LIN, Hao, Lecturer, David R. Cheriton School of Computer Science, May 1, 2013 – August 31, 2013.

QIN, Rubin, Lecturer, Dept. of Applied Mathematics, May 1, 2013 – August 31, 2013.


Research

MENDIVIL, Franklin, Professor, Dept. of Applied Mathematics, April 1, 2013 – March 31, 2016.

NESTEROV, Yurii, Professor, Dept. of Combinatorics and Optimization, July 1, 2013 – June 30, 2018.

RICHMOND, Bruce, Professor, Dept. of Combinatorics and Optimization, July 1, 2013 – June 30, 2016.

Graduate Student to Part-time Lecturer Appointments


Graduate Student to Part-time Lecturer Reappointments

BEG, Mirza, David R. Cheriton School of Computer Science, May 1, 2013 – August 31, 2013.

NAEEM, Nomair, David R. Cheriton School of Computer Science, May 1, 2013 – August 31, 2013.

Postdoctoral Fellow to Part-time Lecturer Reappointments

AHMED, Reaz, David R. Cheriton School of Computer Science, April 1, 2013 – March 31, 2014.


B. ADMINISTRATIVE APPOINTMENTS


BROWN, Dan, Director, Undergraduate Studies, David R. Cheriton School of Computer Science, July 1, 2013 – June 30, 2014.

CLARKE, Charlie, Associate Director, Undergraduate Studies, David R. Cheriton School of Computer Science, July 1, 2013 – June 30, 2015.

GODFREY, Mike, Director of Student Engagement, David R. Cheriton School of Computer Science, July 1, 2013 – June 30, 2015.

LANK, Edward, Associate Director, David R. Cheriton School of Computer Science, July 1, 2013 – June 30, 2015.


POULIN, Francis, Associate Chair, Undergraduate Studies, Dept. of Applied Mathematics, July 1, 2013 – June 30, 2015.

ADMINISTRATIVE APPOINTMENT DATE CHANGE
ORCHARD, Jeffrey, Director of Student Engagement, David R. Cheriton School of Computer Science, from July 1, 2012 – June 30, 2014 to July 1, 2012 – June 30, 2013.

C. RESIGNATIONS
CHAMPAIGN, John, Lecturer, David R. Cheriton School of Computer Science, effective April 30, 2013.

TANG, Yang, Research Associate, David R. Cheriton School of Computer Science, effective April 10, 2013.

D. SABBATICAL LEAVE
For Approval by the Board of Governors
MA, Bin, Professor, David R. Cheriton School of Computer Science, September 1, 2013 – August 31, 2014 at 85% salary.

E. SPECIAL LEAVES
ABOULNAGA, Ashraf, Associate Professor, David R. Cheriton School of Computer Science, July 1, 2013 – June 30, 2014, unpaid leave.

BUHR, Peter, Associate Professor, David R. Cheriton School of Computer Science, June 1, 2013 – July 31, 2013, unpaid leave.

Ian P. Goulden
Dean, Mathematics
FOR INFORMATION

A. APPOINTMENTS

Probationary-term Appointments

BEAZELY, Michael, Assistant Professor, School of Pharmacy, July 1, 2014 to June 30, 2016. [B.Sc., University of Saskatchewan (2000); Ph.D., Purdue University (2004).]

WANG, Xiaosong, Associate Professor, Department of Chemistry, July 1, 2014 to June 30, 2017. [B.Sc., Zhejian University (1990); M.Sc., Zhejian University (1994); Ph.D., East China University of Science and Technology (1998).]

Visiting Appointment

YACOBY, Amir, Professor, Department of Physics and Astronomy (IQC), April 1, 2013 to March 31, 2016.

Adjunct Appointments

Graduate Supervision

PARK, Young-Jin, Assistant Professor, Department of Earth and Environmental Sciences, February 1, 2013 to January 31, 2016.

Graduate Instruction and Supervision

SULLIVAN, Donald E., Professor, Department of Physics and Astronomy, March 1, 2013 to February 29, 2016.

Research and Other

LI, Hui, Professor, Department of Chemistry, March 1, 2013 to August 31, 2016.

Adjunct Reappointments

Graduate Supervision

CONDON, Peter, Professor, Department of Earth and Environmental Sciences, March 1, 2013 to February 28, 2016.

DEVLIN, J.F. (Rick), Professor, Department of Earth and Environmental Sciences, April 1, 2013 to March 31, 2016.

GOOD, David J., Professor, Department of Earth and Environmental Sciences, November 1, 2012 to October 31, 2015.

SAMSON, Iain M., Professor, Department of Earth and Environmental Sciences, January 1, 2013 to December 31, 2015.

SIBLEY, Paul K., Professor, Department of Biology, April 1, 2013 to March 31, 2016.

Graduate Supervision and Research

LEÓN, Luis F., Assistant Professor, Department of Biology, June 1, 2013 to May 31, 2016.
McGEER, James C. (Jim), Associate Professor, Department of Biology, April 1, 2013 to March 31, 2016.

Cross Appointments
BIZHEVA, Kostadinka, Associate Professor, Department of Physics and Astronomy cross appointed to School of Optometry and Vision Science, March 25, 2013 to March 24, 2016.

DMITRIENKO, Gary Igor, Associate Professor, Department of Chemistry cross appointed to School of Pharmacy, May 1, 2013 to December 31, 2015.

DUNCKER, Bernard P., Associate Professor, Department of Biology cross appointed to School of Pharmacy, May 1, 2013 to December 31, 2015.

HEIKKILA, John J., Professor, Department of Biology cross appointed to School of Pharmacy, May 1, 2013 to December 31, 2014.

HONEK, John Frank, Professor, Department of Chemistry cross appointed to School of Pharmacy, May 1, 2013 to December 31, 2015.

KARTTUNEN, Mikko, Professor, Department of Chemistry cross appointed to Department of Physics and Astronomy, April 1, 2013 to March 31, 2016.

ROSE, David R., Professor, Department of Biology cross appointed to School of Pharmacy, May 1, 2013 to December 31, 2015.

Cross Reappointments
CORY, David, Professor, Department of Chemistry cross appointed to Department of Physics and Astronomy, June 1, 2013 to May 31, 2016.

GUILLEMETTE, J. Guy, Associate Professor, Department of Chemistry cross appointed to Department of Biology, May 1, 2013 to April 30, 2016.

Staff to Faculty Appointment
MEMON, Kashif, Lecturer, Faculty of Science, May 1, 2013 to July 31, 2013.

Graduate Student to Lecturer Appointments
JONES, Darryl, Lecturer, Department of Biology, May 1, 2013 to August 31, 2013.

NAZARI NEJAD, Saman, Lecturer, School of Pharmacy, May 1, 2013 to August 31, 2013.

Postdoctoral Fellow to Lecturer Appointment
LONG, Zijian, Lecturer, Department of Physics and Astronomy, May 1, 2013 to August 31, 2013.

B. ADMINISTRATIVE APPOINTMENTS
HILL, Robert, Associate Chair, Department of Physics and Astronomy, September 1, 2013 to August 31, 2016.

MURPHY, Paul, Director, School of Optometry and Vision Science, April 1, 2013 to March 31, 2017.
SPAFFORD, Marlee, Associate Dean, Undergraduate Studies, Faculty of Science, April 1, 2013 to March 31, 2016.

ADMINISTRATIVE REAPPOINTMENTS
DAYEH, Vivian, Associate Chair, Undergraduate Studies, Department of Biology, July 1, 2013 to June 30, 2016.

CHRISTIAN, Lisa, Interim Associate Director, Clinical Programs, School of Optometry and Vision Science, March 1, 2013 to August 31, 2013.

LABRECHE, Tammy, Interim Clinic Director, School of Optometry and Vision Science, March 1, 2013 to August 31, 2013.

C. SABBATICAL LEAVES
For Approval by the Board of Governors
MEIERING, Elizabeth, Professor, Department of Chemistry, July 1, 2013 to December 31, 2013, 100% salary arrangement.

POWER, Michael, Professor, Department of Biology, September 1, 2013 to February 28, 2014, 100% salary arrangement.

T.B. McMahon
Dean, Science
The Senate Finance Committee met on 13 February 2013 to receive an update on the 2012/13 Operating Budget and consider 2013/14 Operating Budget scenarios.

On 8 May 2013, the committee considered the proposed 2013/14 Operating Budget (Attachment 1), and endorsed the budget as presented.

1. **Motion:** To recommend that the Board of Governors give favourable consideration to the 2013/14 Operating Budget, as described in Attachment 1.

\[
\text{/mg} \\
\text{Feridun Hamdullahpur} \\
\text{Chair}
\]
# UNIVERSITY OF WATERLOO

## 2013/14 Operating Income Budget

<table>
<thead>
<tr>
<th></th>
<th>2012/13 Base $000</th>
<th>Estimated 13/14 % Increase</th>
<th>Estimated 13/14 $000</th>
<th>2013/14 Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>INCOME</strong></td>
<td></td>
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<tr>
<td>Operating Grant</td>
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<tr>
<td>Basic Grant</td>
<td>209,572</td>
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<td>209,572</td>
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<tr>
<td>Policy Levers</td>
<td>(2,157)</td>
<td>(2,157)</td>
<td>(979)</td>
<td>[1]</td>
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<tr>
<td>International Student Recovery</td>
<td>(979)</td>
<td>(979)</td>
<td>[2]</td>
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<td>Graduate Growth</td>
<td>7,148</td>
<td>676</td>
<td>7,824</td>
<td>[3]</td>
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<td>Undergraduate Growth</td>
<td>8,128</td>
<td>2,360</td>
<td>10,488</td>
<td>[4]</td>
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<td>Quality Improvement Fund</td>
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<td>9,494</td>
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<td>Transfers to Colleges</td>
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<td>(400)</td>
<td>(11,476)</td>
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<td>23,118</td>
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<td>5,782</td>
<td>54,233</td>
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<tr>
<td>Transfers to Colleges</td>
<td>(13,229)</td>
<td>(840)</td>
<td>(14,069)</td>
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<td>Student Services Fee</td>
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<td>Services to Colleges</td>
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</table>

### NOTES TO 2013/14 OPERATING INCOME

**[1]** This 0.95% decrease applies to the basic grant and the graduate and undergraduate growth funds per the 2012 Ontario Budget.

**[2]** In the 2012 Ontario Budget, the provincial government announced a reduction to the operating grant of $750 for each undergraduate and Masters level international student.

**[3]** The allocation is based on projected Fall 2013 FTE growth over the Fall 2007 FTE base. We assume that the Ministry of Training, Colleges and Universities (MTCU) will fund all growth up to the graduate enrolment growth targets and the university anticipates converting 20 PhD spaces to Masters.

**[4]** The allocation is based on receiving full funding for the actual growth in 2013/14. There is a risk that the provincial government may not provide full funding per student for enrolment growth. We expect a 5% discounting on growth since 2011/12.

**[5]** The $23.1M increase in undergraduate tuition reflects continued international growth and modest domestic growth. On March 28, 2013, MTCU instituted a new 4-year tuition framework. Maximum tuition rate increases for new domestic students are: 3% in regulated programs and 5% in deregulated programs, with an overall average increase of 3%. Tuition rate increases for international undergraduates is 3% plus an additional 1.2% to offset International Student Recovery and the reduction to the Grant in lieu of Taxes.

**[6]** The $5.8M increase in graduate tuition reflects the following: 2% rate increase for domestic students; 3% plus an additional 1.2% rate increase for most international professional Masters students; 3% rate increase for Research Masters and PhD international students; and, continued enrolment growth to meet the MTCU grant targets and the sixth decade goals.

**[7]** Interest estimate is based on projected cash available to invest and interest rates.

**[8]** MTCU will discontinue funding for full-time international undergraduate and Masters students at $75 each; however, the university is still required to pay this amount to local municipalities.

**[9]** Miscellaneous income estimates are based on 2012/13 actuals plus known changes in 2013/14. The total includes: Health Services and Optometry OHIP and professional services income, application processing fees, non credit tuition, other student related fees, rental income, parking income, and other general revenues. Many of these items have offsetting expenses.
## UNIVERSITY OF WATERLOO
### 2013/14 Operating Expense Budget

<table>
<thead>
<tr>
<th></th>
<th>2012/13 Base</th>
<th>Estimated % Incr (Decr)</th>
<th>2013/14 $ Incr (Decr)</th>
<th>2013/14 2013/14 One-Time</th>
<th>2013/14 Total</th>
<th>% of Income</th>
<th>Notes</th>
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<tr>
<td><strong>EXPENSES</strong></td>
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<td>319,000</td>
<td>319,000</td>
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<td>(1,000)</td>
<td>(1,000)</td>
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<td>Salary increases</td>
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<td>Student Support</td>
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<td>Graduate incentive fund</td>
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<td>Income Sharing</td>
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<td>591</td>
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<td>[3]</td>
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<tr>
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<td>Graduate international growth</td>
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<td>2,905</td>
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<td>2,905</td>
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<td>Estimated % Incr (Decr)</td>
<td>2013/14 $ Incr (Decr)</td>
<td>2013/14 2013/14 One-Time Total Income</td>
<td>% of Income</td>
<td>Notes</td>
<td></td>
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<td>---------------------------------------------------------</td>
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<td>-----------------------</td>
<td>---------------------------------------</td>
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<tr>
<td>Academic development fund</td>
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<td>Base budget adjustment to reflect overhead costs</td>
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<td>1,635</td>
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<tr>
<td>Graduate programs holdback</td>
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<td>8,481</td>
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<td>Insurance</td>
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<tr>
<td>Library acquisitions</td>
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<td>Municipal taxes</td>
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<td>Undergraduate programs holdback</td>
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<td>23,880</td>
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<td>Sub-total</td>
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<td>Supplies and expenses</td>
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<td>62,769</td>
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<td>[7]</td>
<td></td>
</tr>
<tr>
<td>Expenditure reduction at 2.5%</td>
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<td></td>
<td>(6,096)</td>
<td>(6,096)</td>
<td>(1.0)</td>
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<td>Gross expenses</td>
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<td>598,521</td>
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<tr>
<td>Cost recoveries and chargeouts</td>
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<td>(2.0)</td>
<td>(11,535)</td>
<td>(11,535)</td>
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<td>Estimated net expenses</td>
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<td>Estimated income</td>
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<td>586,814</td>
<td>586,814</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Excess income over expenses</td>
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<td>328</td>
<td>328</td>
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<td></td>
</tr>
</tbody>
</table>
NOTES TO THE 2013/14 OPERATING EXPENSE BUDGET

[1] The increase to salary and wages includes funding for new faculty and staff positions, estimated salary increase costs based on salary settlements in place for 2013/14 and ongoing clawback savings on faculty terminations/retirements, net of estimated over F costs.

[2] The 8.7% increase in current benefits costs include: benefits costs for new faculty and staff positions - 2.5%; rate and premium changes in employer contributions for extended health coverage, dental coverage, life insurance, CPP, employment insurance and workplace safety insurance - 3%; and, costs associated with salary increases - 3.2%.

[3] The ongoing income sharing balances represent additional amounts available in 2013/14 for distribution. Income sharing for existing programs is allocated to the faculties on a slip-year basis. New graduate growth allocations were introduced in 2006/07 to recognize growth in intake and overall FTEs and are funded on a calendar-year basis. The ongoing cumulative income sharing amounts, including additional amounts for 2013/14, from inception to date, are as follows:

<table>
<thead>
<tr>
<th>Description</th>
<th>$000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Differential tuition</td>
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</tr>
<tr>
<td>Graduate expansion (ended 2004/05)</td>
<td>2,727</td>
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<tr>
<td>Graduate growth (started 2005/06)</td>
<td>7,263</td>
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<tr>
<td>Graduate international growth</td>
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<tr>
<td>Undergraduate enrolment expansion</td>
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<td>International tuition</td>
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<tr>
<td>Graduate course based masters</td>
<td>6,781</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100,216</strong></td>
</tr>
</tbody>
</table>

To accommodate growth, academic support units receive supplemental budget increases.

[4] Graduate programs holdback is a portion of the grant and tuition related to growth and held at the centre to support graduate expansion.

[5] Undergraduate programs holdback relates to emerging programs which are considered to be incremental to the current activity of the institution/faculty. Grant and tuition generated from the program during the start-up period is held at the centre and managed by the Provost. Funds are released as required to support the start-up costs. Once the program is determined to have reached steady-state, budget for the program will be transferred to the home faculty through the current income sharing mechanisms in place. In 2013/14 the emerging programs are Nanotechnology Engineering, Management Engineering, Pharmacy, International Development, Knowledge Integration, Global Business and Digital Arts (Stratford), and WatPD.

[6] The utilities increase is due to new buildings and rate changes for electricity.
NOTES TO THE 2013/14 OPERATING EXPENSE BUDGET

[7] Supplies and expenses is the total of non-salary budgets in faculties and academic support units that are not specifically identified elsewhere in the budget. Based on 2011/12 actual expenses, included in this number are the following items:

<table>
<thead>
<tr>
<th>Item</th>
<th>Millions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equipment, maintenance and rentals</td>
<td>17.4</td>
</tr>
<tr>
<td>Travel and hospitality</td>
<td>10.6</td>
</tr>
<tr>
<td>Supplies</td>
<td>9.5</td>
</tr>
<tr>
<td>Contracted services</td>
<td>6.3</td>
</tr>
<tr>
<td>Computing, including software</td>
<td>5.2</td>
</tr>
<tr>
<td>Purchases for resale</td>
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<tr>
<td>Consulting</td>
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<td>Telephone</td>
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</tr>
<tr>
<td>Printing</td>
<td>2.4</td>
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<tr>
<td>Postage</td>
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</tr>
<tr>
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[8] A 2.5% expenditure reduction is allocated across all academic units resulting in a savings of $6.1M.
University of Waterloo Senate Finance Committee

2013-2014 Operating Budget

Supplementary Data

Fall Year One Enrolments and Targets ................................................................. SD1 †
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Summary of FTEs Graduate Enrolment ................................................................. SD3
Historical and Projected BIU Teaching Units (BTU) by Faculty ................................ SD4 ‡*
Summary of Home Enrolment and Teaching Activity Indicators ............................ SD7
Comparison of Current Budget and BIU Teaching Units (BTU) .............................. SD9 **
Comparison of BIU Teaching Units (BTU) per FTE Faculty ................................. SD10
Summary of Regular Faculty Appointments ....................................................... SD11
Faculty Complement by Department ................................................................. SD12
Academic Support Staff Positions by Department .............................................. SD13
Glossary of Terms ......................................................................................... SD17

Notes:
† The table includes data for the Federated University and Affiliated University Colleges. Throughout the tables the symbol ° is used to identify terms defined in the Glossary.
* Historical and Projected BIU Teaching Units (BTU) Graphs.
** SD9: IAP is analyzing the supporting data for this report. Its publication has been deferred to a later date.

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**Notes:**
The report includes full-time 1A and 1B students registered in the fall term only. Students admitted in the winter and spring, ESL students and new admits to non-degree are excluded.

**FUAC students are included in the Faculties of Arts and Mathematics. Bachelor of Social Work, Optometry and Pharmacy are excluded as they are 2nd entry programs.**

**Totals may not add due to rounding.**

**Term is defined in Glossary.**

Source: Undergraduate Forecast - Institutional Analysis & Planning
Prepared By: Institutional Analysis & Planning
### Summary of Undergraduate FTEs°

**as at February 2013 (Including University Colleges)**

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### Notes:

Monitoring of the accuracy of the undergraduate forecast over the past decade indicates that the forecast underestimates enrolment by about 2.8%. Adjusted 12.13 enrolments are: Total 28,018 Co-op 14,725 Part-Time 958 (adjusted totals are reflected in graph SD2a). Income projections are similarly adjusted.

Renison data are Bachelor of Social Work.

Totals may not add due to rounding.

*Term is defined in Glossary.

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Source: Undergraduate Forecast - Institutional Analysis & Planning
Prepared by: Institutional Analysis & Planning
University of Waterloo

Summary of Undergraduate FTEs°

Undergraduate Enrolment

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Source: Undergraduate Forecast - Institutional Analysis & Planning
Prepared by: Institutional Analysis & Planning
University of Waterloo

Summary of FTE Graduate Enrolment

as at February 2013 (Including Federated University and Affiliated University Colleges)

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<td>248</td>
<td>274</td>
<td>266</td>
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Notes:

Graduate FTE enrolment in 2012.13 increased by 5.3% and is projected to increase 7.7% in 2013.2014.
Master's enrolment includes graduate-level, non-degree, diploma and certificate programs and Year 1 of 3-Year PhD.
Students enrolled in the former full-cost recovery Masters programs are included and actual historical data are restated.
Graduate programs offered at the Federated University and Affiliated University Colleges are included with their home Faculty.
Master of Social Work is included in AHS Faculty
Master of Peace and Conflict Studies is included in Arts Faculty
13.14 Forecasted enrolment figures used in the budgeting process are 1% less than what is presented above.

Totals may not add due to rounding.
* Term is defined in the Glossary.

Source: Graduate Forecast - Institutional Analysis & Planning
Prepared by: Institutional Analysis & Planning

T:\S\SenateFinancePackage\2013\[SD3sfgrads2013.xlsx]\SFC_table
### University of Waterloo

**Historical and Projected BIU Teaching Units (BTUs)**

by Faculty (Including Federated University and Affiliated University Colleges)

<table>
<thead>
<tr>
<th>Total BTUs</th>
<th>04.05</th>
<th>05.06</th>
<th>06.07</th>
<th>07.08</th>
<th>08.09</th>
<th>09.10</th>
<th>10.11</th>
<th>11.12</th>
<th>12.13</th>
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<td>13,521</td>
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<td>8,584</td>
<td>9,765</td>
<td>10,886</td>
<td>11,420</td>
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<td>11,356</td>
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<td>12,859</td>
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<td>8,193</td>
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<td>9,624</td>
<td>10,468</td>
<td>10,609</td>
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<td>9,184</td>
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<td>9,296</td>
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<td>129</td>
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<td>316</td>
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### Undergraduate BTUs

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<th>10.11</th>
<th>11.12</th>
<th>12.13</th>
<th>13.14</th>
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<tbody>
<tr>
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<td>8,967</td>
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<td>8,994</td>
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<td>1,243</td>
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<tr>
<td>Social Work (BSW)</td>
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<td>135</td>
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### Graduate BIUs

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<th>10.11</th>
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<td>1,319</td>
<td>1,243</td>
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<td>10,507</td>
<td>10,552</td>
<td>10,481</td>
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BIU Teaching Unit (BTU): BTUs are funding units defined by the University of Waterloo for internal use. They are a measure of the government operating grant generating capacity of a Faculty. In contrast with the BIUs claimed to government in which the Faculty receives credit for students registered, BTUs give undergraduate credit for student term courses taught. Student term courses taught are converted to BTUs using the average course load and BIU weight for students registered in that Faculty. Graduate BIUs* and BTUs are equivalent.

Actual BTUs are based on undergraduate courses taught and graduate enrolments. Preliminary BTUs are based on estimated undergraduate courses taught and final graduate enrolment data. Projected BTUs are based on forecasted enrolments and historical BTUs generated per FTE registered.

Fall year one enrolment excludes new year one admits for winter and spring. ESL and non-degree students admitted to second-entry programs. Undergraduate BTUs in Computing and Financial Management and Software Engineering are credited to the Faculty instructing the students. In 2005.06, Architecture moved from Environment to Engineering, and Independent Studies and Interdisciplinary Studies moved to Arts. In 2006.07 the Centre for Business, Entrepreneurship and Technology moved to Engineering. Historical data are restated.

Graduate BIUs include students in the former full-cost recovery programs and excludes ineligible students, both domestic and international.

Social Work (BSW), Master of Social Work (MSW), Master of Peace and Conflict Studies (MPACS) and Theology are included in the report in order to incorporate all programs at the Federated University and Affiliated University Colleges.

MSW and MPACS are new programs for 2012/13. Totals have been added to their respective faculties (AHS) and (Arts)

The responsibility for the Engineering PD program transitioned to WatPD beginning in winter 2011.

Totals may not add due to rounding.

**Sources:** Undergraduate and Graduate Forecasts, BTU Table - Institutional Analysis & Planning

Prepared by: Institutional Analysis Planning
2012.13 BTUs are based on estimated 2012.13 undergraduate courses taught and final graduate enrolment. 2013.14 BTUS are based on projected enrolments.

Undergraduate BTUs in Computing and Financial Management and Software Engineering are credited to the Faculty instructing the students and exclude ineligible international students. In 2005.06 Independent Studies and Interdisciplinary Studies moved to Arts.

The responsibility for the Engineering PD program transitioned to WatPD beginning in winter 2011.

Historical data are restated.
2012.13 BTUs are based on estimated 2012.13 undergraduate courses taught and final graduate enrolment. 2013.14 BTUS are based on projected enrolments.
Undergraduate BTUs in Computing and Financial Management and Software Engineering are credited to the Faculty instructing the students.
Graduate BTUs include students in the former full-cost recovery programs and exclude ineligible international students.
In 2005.06 Independent Studies and Interdisciplinary Studies moved to Arts.
The responsibility for the Engineering PD program transitioned to WatPD beginning in winter 2011.
Historical data are restated.
### University of Waterloo

**Summary of Home Enrolment And Teaching Activity Indicators**

by Faculty (Excluding Federated University and Affiliated Colleges)

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### Science, including Pharmacy

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2012.13 BIU Teaching Units (BTUs) and FTEs Taught are based on estimated 2012.13 undergraduate courses taught and final graduate enrolment data. Graduate BIUs include students in the former full-cost recovery programs and exclude ineligible international students. Undergraduate BTUs and FTEs Taught in Computing and Financial Management and Software Engineering are credited to the Faculty instructing the students. Computing and Financial Management Fall Year One and Home Enrolled FTEs are shown equally in Math and Arts. Software Engineering Fall Year One and Home Enrolled FTEs are shown equally in Math and Engineering. The responsibility for the Engineering PD program transitioned to WatPD beginning in winter 2011.

Totals may not add due to rounding.

* Term is defined in the Glossary.

Sources: Various student databases - Institutional Analysis & Planning
Prepared by: Institutional Analysis & Planning
### Comparison of BIU Teaching Units° (BTUs) per FTE Faculty° (Excluding Federated University and Affiliated University Colleges)

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**Notes:**

Graduate BIUs include students in the former full-cost recovery programs and exclude ineligible international students.

2011.12 BIU Teaching Units (BTUs) are based on estimated 2011.12 undergraduate courses taught and final graduate enrolment data.

Teaching ratios for Optometry are lower than for other departments due to the number of faculty required for clinical teaching.

Clinical teaching requires student:faculty ratios of 2:1 or 3:1.

The FTE for faculty is calculated as the operating expenditures on faculty salaries (from the Audited Financial Statement) divided by the average nominal salary of full-time faculty.

° Term is defined in the Glossary.

Sources: UW Financial Statements, various years - Finance; FTE Faculty - Human Resources Mgmt System; BTU Table - Institutional Analysis & Planning

Prepared by: Institutional Analysis & Planning
# University of Waterloo

## Summary of Regular Faculty Appointments (Excluding Federated University and Affiliated University Colleges)

### Number of Full-Time Faculty

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### Percentage of Total Salary Dollars

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<tr>
<td>2009/10</td>
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<tr>
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### Total Full-Time Faculty Salary Costs

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### Notes:

- Full-time faculty as at April 1st of the year. Includes Faculty Deans.
- Excludes those on less than 100% load except leaves where the faculty member receives full salary. Excludes full-time senior administrators.
- Percentage of total salary dollars figures have been suppressed where the count is less than 6 to ensure confidentiality.
- This summary differs from SD12 (Faculty Complement) as this report does not include open positions but does include definite term appointments.

Source: Human Resources Mgmt System; Institutional Analysis & Planning
Prepared by: Institutional Analysis & Planning
## Applied Health Sciences

<table>
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<tr>
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## Environment

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## Total Faculty Complement

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* Significant changes:
  2012.13
  No significant changes
  2011.12
  Effective September 2011 Health Studies & Gerontology became the School of Public Health & Health Systems
  Effective June 2010 Sociology became Sociology & Legal Studies
  Effective May 2010 Centre for Knowledge Integration (CKI) was established
  Effective July 2009 the School of Environment, Enterprise & Development (SEED) was established

Prepared by Finance
### University of Waterloo

**Academic Support Staff Positions by Department**

(Including Open Positions)

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### General Notes:

- Excludes Ancillary Enterprise staff.
- * Significant changes:
  - 2012.13 Effective May 2012 Vice-President, External Relations was split into 2 roles; Vice-President, Advancement and Vice-President University Relations
  - Effective 2012 WatPD staff complement was established
  - 2011.12 Effective September 2011 Health Studies & Gerontology became the School of Public Health & Health Systems
  - Effective September 2011 Stratford Programmes staff complement was established
  - Effective August 2011 the Student Life Office, English Language Proficiency Program (ELPP) and International Student Office now report to the Student Success Office
  - In 2011 the position Director of Business Operations was dissolved
  - 2010.11 Effective June 2010 Sociology was renamed Sociology & Legal Studies
  - Effective July 2010 Conrad Business, Entrepreneurship and Technology (CBET) staff complement was established
  - Effective May 2010 School of Environment, Enterprise & Development (SEED) staff complement was established
  - Effective May 2010 Centre for Knowledge Integration (CKI) was established
  - Effective November 2010 the Registrar’s office reports to the Vice-President Academic & Provost
  - Effective November 2010 the Associate Provost, Academic & Students Affairs was renamed Associate Provost Resources
  - Effective November 2010 the Associate Vice-President Academic was renamed Associate Vice-President Academic Programs
  - Effective November 2010 the Associate Provost Student Services was renamed Associate Provost Students
  - In 2010 Career Services changed its name to Centre for Career Action
  - Effective October 2010 the Student Success Office was established
  - 2009.10 Effective 2009 Mature Students Office was dissolved
  - Effective January 2010 Distance & Continuing Education was renamed Centre for Extended Learning
  - Effective July 2009 the Associate Provost Human Resources and Student Services was split into separate units; Associate Provost Human Resources and Associate Provost Student Services
  - Effective September 2009 the Dean of Graduate Studies became Associate Provost Graduate Studies

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* see notes on page 1
## University of Waterloo
### Academic Support Staff Positions by Department
(Including Open Positions)

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* see notes on page 1
University of Waterloo Senate Finance Committee  
2013-2014 Operating Budget  
Supplementary Data - Glossary of Terms

Student

Basic Income Unit (BIU)
BIUs are funding units defined by the Ministry of Training, Colleges and Universities (MTCU). Each student reported to the government for funding purposes generates a specified number of funding units (BIUs) depending on the program of registration and the level of study. Undergraduate weightings in non-medical programs are from 1.0 to 3.0; masters, 3.0 to 4.0; and doctoral, 6.0.

BIU Teaching Unit (BTU)
BTUs are funding units defined by the University of Waterloo for internal use. They are a measure of the government operating grant generating capacity of a Faculty. In contrast with the BIUs claimed to government in which the Faculty receives credit for students registered, BTUs give undergraduate credit for student term courses taught. Student term courses taught are converted to BTUs using the average course load and BIU weight for students registered in that Faculty. Graduate BIUs and BTUs are equivalent.

Full-time Equivalent (FTE) Graduate Enrolment
Graduate students normally register for three terms per year. With three terms of registration a full-time student generates 1.0 FTE and a part-time student 0.3 FTE.

Full-time Equivalent (FTE) Undergraduate Enrolment
Full-time undergraduates normally register for two terms per year. Full-time students generate 1.0 FTE with two terms of registration. Part-time FTEs are calculated by dividing the total courses taken by 10, the expected average two-term course load.

Full-time Equivalent (FTE) Undergraduates Taught
This is a measure of the number of full-time equivalent students taught by a Faculty. It is calculated as the number of term courses taught by a Faculty divided by the average course load of full-time students registered in that Faculty.

Home Enrolled Undergraduate
Home enrolled undergraduates is the full-time equivalency of students registered in the Faculty.

Year One Enrolment
Year one enrolment is the count of full-time students registered in the full term at the year one level. This includes students who are repeating, have changed from part-time to full-time, or have transferred from another program. This excludes students admitted in the winter and spring, ESL students, new admits to non-degree and students admitted to second-entry programs.

Year One Enrolment Target
The year one enrolment target is the total number of year one students expected to be registered on November 1. The year one target, applications and applicant confirmation/registration history are used to determine the number of offers of admission to be issued. These targets are reviewed annually by the Faculty deans and associate deans.
Faculty

Average Salary - Fiscal
The fiscal average salary is used in analyses involving fiscal year expenditures. When the salary year and fiscal year coincide, the nominal and fiscal average salaries are equivalent. When they do not coincide, the fiscal average salary is calculated as a weighted average of the nominal salaries paid during the fiscal year. For example, for a fiscal year beginning May 1 and a salary year beginning July 1, the fiscal average salary is 2/12ths of the May 1 nominal average salary plus 10/12ths of the July 1 salary.

Average Salary - Nominal
The nominal average salary is the average salary of full-time faculty, including lecturers and Faculty deans. Included are faculty with appointments of at least one year if the faculty member is supported by operating funds or is an instructor. The nominal salary (or base salary) excludes stipends, sessionals, and professional allowances. Faculty on leave are included in the average at full salary.

Faculty Complement
The faculty complement is the number of ongoing faculty positions (filled and open) for which the university has made a budgetary commitment. This number is distinct from other counts of full-time faculty such as those reported to Statistics Canada and in "Summary of Faculty Appointments" in this document. The latter two report full-time appointments of at least one year if the faculty member is supported by operating funds or is an instructor.

Full-time Equivalent (FTE) Faculty
The FTE for faculty is calculated as the operating expenditures on faculty salaries (from the Audited Financial Statement) divided by the average nominal salary of full-time faculty. The inclusion of all expenditures on faculty salaries adjusts for leaves, sessionals, and adjunct and part-time faculty.

Staff

Academic Support Staff Positions (Staff Complement)
The staff positions reported are ongoing positions (filled and open) supported by operating funds, for which the university has made a budgetary commitment. The full-time equivalency of part-time positions is calculated based on the annual hours worked.

Financial

Operating Expenditures
Operating expenditures used in the tables are those reported in the Financial Statement as expenditures from operating funds. In cases where the Financial Statement does not provide sufficient detail, these expenditure data have been obtained from detail reports that support the Financial Statement.

Budget
The budget is the ongoing operating budget as reported for financial planning purposes.

Total University Operating Income
The total operating income is budgeted income, excluding the grant in lieu of municipal taxes. The income is net of transfers with the UW Colleges.
Senate Graduate & Research Council met on 15 April 2013 and agreed to forward the following items to Senate for 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

CURRICULAR MODIFICATIONS – PSYCHOLOGY

1. **Motion:** To approve the revised numbering system, course inactivations, program description changes, new courses and course revisions for courses in clinical psychology in the Department of Psychology in the Faculty of Arts, as described in Attachment 1.

   **Rationale:** All graduate programs in clinical psychology undergo periodic reviews for reaccreditation by the Canadian Psychological Association, which includes a site visit of three experts in clinical programs. The report resulting from the site visit revealed that the department needed to better demarcate classroom courses and clinical practicums within the program, and to clarify the naming conventions for each.

   George Dixon      Sue Horton
   Vice-President, University Research     Associate Provost, Graduate Studies
Psychology – PhD in Clinical Psychology

- The main impetus for changing the numbering system of clinical graduate courses came out of a recent site visit.

  o Current numbering system:
    - program appears excessively course-heavy; too many required clinical practicums
    - large proportion of current clinical courses are practicums rather than classroom courses
    - many of the clinical practicums are actually options from which students choose only a limited subset
    - current letter suffixes have several different and inconsistent meanings – very confusing

  o Revised numbering system:
    - by eliminating obsolete and redundant course entries, there are now 22 fewer clinical courses in the calendar
    - all courses with no letter suffix are graded courses (core classroom courses)
    - all courses with a letter suffix are clinical practicums (graded as Cr/NCr)
    - the letter indicates the term of the practicum (A = fall, B = winter, C = spring)
    - all required practicums are now indicated by a separate course number for each year
    - in one of the courses, students received an INC for the first half of the course (633A/B); under the new system, students receive a grade in each term (717 and 718)
    - some courses have been retitled and renumbered to eliminate apparent redundancy and more accurately reflect the current content
    - the numbers used for the required in-house psychotherapy cases and for optional off-site clinical practicums has been revised

  o Course inactivations effective as of 1 September 2013

  o Program changes:
    - Name change from Psychology Clinic to the Centre for Mental Health Research (CMHR)
    - Program outline reflects number and title changes
MEMORANDUM

To: Graduate Affairs Group

From: Dr. Daniela O’Neill, Graduate Associate Chair, Department of Psychology

Date: February 6, 2013

Re: Rationale for the Changes in the Course Listings for Clinical Psychology

The main impetus for changing the system of clinical graduate courses came out of our recent site visit. (About every five years, all clinical graduate programs undergo review for reaccreditation by the Canadian Psychological Association, which includes a site visit of three experts in clinical programs.) The Site Visit Report (dated November 21, 2012) complained that our program, compared to other such programs in Canada, looked excessively course-heavy. When we reviewed this complaint, we could see that the program did indeed look very course-heavy; however, a large proportion of the clinical courses in the calendar were practicums rather than classroom courses, and many of those clinical practicums were, in fact, options from which students would choose only a limited subset. Moreover, in our course-numbering system it was difficult to distinguish regular classroom courses from clinical practicums because both tended to have the same kind of course number – e.g., 615A was a classroom course on Cognitive Behaviour Therapy (CBT), whereas 615B was a CBT practicum simply covering one term of students’ ongoing therapy work in our clinic. In short, this profusion of confusingly similar course numbers gave our site visitors, and presumably others who looked at our list of courses, the impression that our program was more course-heavy than it actually is. In addition, the letter suffixes on our courses, which had arisen at several times for various purposes, had several different and inconsistent meanings, which tended to be confusing to everybody, including our own students and faculty advisors.

In the new system, it is easy to distinguish clinical practicums from regular classroom courses:

- Any and all courses with a letter suffix are clinical practicums (which are graded as CR/NCR), and the letter always indicates in which term the practicum normally occurs: A = fall, B = winter, and C = spring. In addition, for all required practicums, there is now a separate course number for each year; thus, we will no longer need to scratch our heads about practicum course numbers like PSYCH 615H (which was a fall practicum in the fifth year of the program).

- All courses with no letter suffix are regular classroom courses, and all of these are graded. In other words, the courses with no letter suffixes are the core classroom courses that make up the clinical psychology program.

In addition, the new listing of clinical courses incorporates several other improvements over the old system, as follows:
1. In the old system, PSYCH 633A & B, the two terms of the first-year psychological assessment course, were graded such that the students had to receive an INC for 633A. In the new system, these are two distinct courses – PSYCH 717 Psychological Assessment I; and PSYCH 718 Psychological Assessment II – and students will receive number grades in each of them. This has the advantage of giving first-year students useful earlier feedback about how they are performing.

2. We have retitled some courses to eliminate apparent redundancy and more accurately reflect their current content. For example, we changed the course PSYCH 629 Psychopathology across the Lifespan to PSYCH 716 Adult Psychopathology, in order to eliminate redundancy with another required course, PSYCH 723 Child Psychopathology and Psychotherapy. We also amalgamated two courses, PSYCH 638B Measurement and Test Theory and PSYCH 638 Personality, into one new course, PSYCH 724 Personality & Measurement Theory. Finally, we changed the course PSYCH 625A Traditional and Contemporary Psychotherapies to PSYCH 728 Psychotherapy: Classical Roots and Contemporary Developments, because the new title more accurately reflects what the course’s new instructor (Dr. Allison Kelly) plans to cover in it.

3. We had too many course numbers for the required clinical practicums, which split hairs in ways that were confusing and not particularly accurate about the students’ experiences in the program. In particular, for the required in-house psychotherapy cases, there was a running distinction in the old system between PSYCH 615B through J, Cognitive Behaviour Therapy Practica; and PSYCH 625B through I, Traditional & Contemporary Psychotherapies Practica. In the new system these are amalgamated into the Adult Psychotherapy Practicum (Psych 730A, B, & C for the third year; Psych 733A, B, & C for the fourth year; and Psych 736A, B, & C for the fifth year).

4. We have revised the system of course numbers used for optional off-site clinical practicums so that they will be more generally useful. (The new series of optional practicum courses are Psych 738A, B, & C Clinical Fieldwork Placement II; PSYCH 739A, B, & C Clinical Fieldwork Placement III; PSYCH 740A, B, & C Senior Practicum I; Psych 741A, B, & C Senior Practicum II; and PSYCH 742A, B, C Senior Practicum III. Most clinical students will never use some of these course numbers, but this numbering system should be the most flexible arrangement to avoid inadvertently running out of practicum course numbers for senior students.)

5. By eliminating obsolete and redundant course entries, there are now 22 fewer clinical courses listed in the graduate calendar.
MEMORANDUM

To: Graduate Affairs Group
From: Dr. Daniela O’Neill, Graduate Associate Chair, Department of Psychology
Date: February 6, 2013
Re: Psychology Course Inactivations – Effective September 1, 2013

The Department of Psychology would like the following courses to become inactive, effective September 1, 2013. The rationale for the courses becoming inactive is due to the Canadian Psychological Association site visit and the change in the structure of our clinical program.

PSYCH 607S Efficacy and Program Evaluation
PSYCH 608A Child Psychopathology & Psychotherapy
PSYCH 608B Child Psychopathology & Psychotherapy Practicum
PSYCH 608C Child Psychopathology and Psychotherapy Practicum
PSYCH 608D Child Psychopathology & Psychotherapy Practicum
PSYCH 608E Child Psychopathology & Psychotherapy Practicum
PSYCH 608F Child Psychopathology & Psychotherapy Practicum
PSYCH 608G Child Psychopathology & Psychotherapy Practicum
PSYCH 608H Child Psychopathology & Psychotherapy Practicum
PSYCH 608I Child Psychopathology & Psychotherapy Practicum
PSYCH 608J Child Psychopathology & Psychotherapy Practicum
PSYCH 608K Child Psychopathology & Psychotherapy Practicum
PSYCH 608L Child Psychopathology & Psychotherapy Practicum
PSYCH 609A Practicum in Supervision
PSYCH 609B Practicum in Supervision
PSYCH 609C Practicum in Supervision
PSYCH 610A Practicum in Integrated Assessment 1
PSYCH 610B Practicum in Integrated Assessment 2
PSYCH 611 Ethics Diversity, & Professional Issues in Clinical Psychology
PSYCH 612A Private Practice Placement
PSYCH 612B Private Practice Placement
PSYCH 612C Private Practice Placement
PSYCH 613A Senior Practicum
PSYCH 613B Senior Practicum
PSYCH 613C Senior Practicum
PSYCH 614A Theory and Application in Couples’ Therapy
PSYCH 614B Practicum in Couples’ Therapy
PSYCH 614C Practicum in Couples’ Therapy
PSYCH 615A Cognitive Behaviour Therapy
PSYCH 615B Cognitive Behaviour Therapy Practicum
PSYCH 615C Cognitive Behaviour Therapy Practicum
PSYCH 615D Cognitive Behaviour Therapy Practicum
PSYCH 615E Cognitive Behaviour Therapy Practicum
PSYCH 615F Cognitive Behaviour Therapy Practicum
PSYCH 615G Cognitive Behaviour Therapy Practicum
PSYCH 615H Cognitive Behaviour Therapy Practicum
PSYCH 615I Cognitive Behaviour Therapy Practicum
PSYCH 615J Cognitive Behaviour Therapy Practicum
PSYCH 615K Cognitive Behaviour Therapy Practicum
PSYCH 616A Clinical Research Forum
PSYCH 616B Cross-Cultural Issues in Clinical Psychology
PSYCH 616C Practicum in Interviewing & Cognitive Assessment I
PSYCH 616D Practicum in Interviewing & Cognitive Assessment II
PSYCH 616E Psychotherapy Practicum I
PSYCH 616F Psychotherapy Practicum I
PSYCH 616G Psychotherapy Practicum II
PSYCH 616H Psychotherapy Practicum II
PSYCH 616I Psychotherapy Practicum II
PSYCH 616J Psychotherapy Practicum III
PSYCH 616K Psychotherapy Practicum III
PSYCH 616L Psychotherapy Practicum III
PSYCH 616M Psychotherapy Practicum III
MEMORANDUM

To: Graduate Affairs Group
From: Dr. Daniela O’Neill, Graduate Associate Chair, Department of Psychology
Date: February 6, 2013
Re: Calendar program change

Due to the major changes in the clinical program after the Canadian Psychological Association site visit, the program outline in the calendar needs to be updated to reflect the changes. The change in the description about the clinical program is to reflect the name change of the Psychology Clinic to the Centre for Mental Health Research.

Program Description Change:
The goal of the University of Waterloo Clinical Psychology Program is to offer our students fully integrated training in psychological research and clinical practice. Important features of our program are our in-house Psychology Clinic Centre for Mental Health Research, which serves as our main site for clinical training, and the close involvement of all our clinical faculty in clinical supervision and the teaching of clinical-skills courses, as well as academic courses and research. Another unusual feature of our program is its lifespan emphasis: we train all our students in the clinical assessment and treatment of both children and adults.

Program Outline - Currently:

Year I
Psych 618, 619, 621A & B, 629, 632, 633 A & B, 634, 637, Breadth Requirements

Year II
Psych 610 A & B, 611, 622 A & B, 635, 2nd Statistics course, Breadth Requirements

Year III

Year IV
Psych 607S, 617, 624A & B, 627 A, B, C, Unfulfilled Breadth Requirements

Program Outline – New Structure

Year One

Coursework:
Psych 716: Adult Psychopathology
Psych 632: Multiple Regression
Psych 717: Psychological Assessment I
Psych 718: Psychological Assessment II
Psych 719: Ethics, Diversity, and Professional Issues in Clinical Psychology

Breadth Requirements

Clinical Practice:
Psych 720A: Practicum in Interviewing & Cognitive Assessment I
Psych 720B: Practicum in Interviewing & Cognitive Assessment II
Psych 721A: Diagnostic Assessment Practicum I
Psych 721B: Diagnostic Assessment Practicum II
Psych 722C: Clinical Fieldwork Placement I

Research Activities
Psych 621:1 Advanced Clinical Research Forum I

Year Two

Coursework:
Psych 723: Child Psychopathology and Psychotherapy
Psych 724: Personality and Measurement Theory
Psych 725: Cognitive Behaviour Therapy

Breadth Requirements

Clinical Practice:
Psych 726A: Practicum in Integrated Assessment I
Psych 726B: Practicum in Integrated Assessment II

Elective – Psych 738A, B, C: Clinical Fieldwork Placement II (optional, by approval)

Research Activities
Psych 621:2 Advanced Clinical Research Forum II
Year Three

Coursework:
Psych 727: Efficacy and Program Evaluation
Psych 728: Psychotherapy: Classical Roots & Contemporary Developments

Breadth Requirements

Clinical Practices:
Psych 729A, B, C: Child and Adolescent Psychotherapy Practicum I, II, III
Psych 730A, B, C: Adult Psychotherapy Practicum I, II, III
Elective — Psych 738A, B, C: Clinical Fieldwork Placement II (optional, by approval)

Research Activities
Psych 6213 Advanced Clinical Research Forum III

Year Four

Coursework:
Psych 731: Theory and Application in Couples’ Therapy

Unfulfilled Breadth Requirements

Clinical Practices:
Psych 732A, B, C: Child and Adolescent Psychotherapy Practicum I, II, III
Psych 733A, B, C: Adult Psychotherapy Practicum I, II, III
Elective — Psych 737A, B, C: Couples’ Therapy Practicum
Elective — Psych 738A, B, C or Psych 739A, B, C: Clinical Fieldwork Placement II (optional, by approval)

Research Activities
Psych 6214 Advanced Clinical Research Forum IV

Year Five (and Beyond)

Clinical Practica:
Psych 734A, B, C: Practicum in Supervision (required of all students)
Psych 735A, B, C: Child and Adolescent Psychotherapy Practicum I, II, III
Psych 736A, B, C: Adult Psychotherapy Practicum I, II, III
Elective — Psych 737A, B, C: Couples’ Therapy Practicum
Elective — Psych 740A, B, C or Psych 741A, B, C or Psych 742A, B, C: Senior Practicum II (optional, by approval)
Faculty: Arts
Effective term: Term/Year Spring 2013

Course: Adult Psychopathology

Course Subject code: Psych
Course number: 716
Course Title (max. 100 characters incl. spaces): Adult Psychopathology
Course Short Title (max. 30 characters incl. spaces): Adult Psychopathology
Grading Basis: NUMERICAL
Course Credit Weight: 0.50
Course Consent Required: ☑

Course Description: This course will deepen students' understanding of important concepts, theory, and research in adult psychopathology. Students will familiarize themselves with basic diagnostic information for the major mental disorders, including clinical presentation and course. They will also learn to explain, evaluate, and apply a range of empirical and theoretical perspectives on the etiology and maintenance of mental disorders.

Instructor Consent Required

New course description (for revision only):

Meet Type(s): Seminar
Primary Meet Type: Seminar
Requisites:

Special topics course: ☑ Yes ☐ No ☐
Cross-listed: ☑ Yes ☐ No ☐

Course Subject(s) to be cross-listed with and approval status:
Sections combined/held with:

Rationale for request: See attached memo for rationale.

Prepared by: Rita Cherkewski
Faculty: Arts

Effective term: Term/Year Spring 2013

Course Subject code: Psych
Course number: 718
Course Title (max. 100 characters incl. spaces): Psychological Assessment II
Course Short Title (max. 30 characters incl. spaces): Psychological Assessment II
Grading Basis: NUMERICAL
Course Credit Weight: 0.50
Course Consent Required: □

Course Description: This course continues the topics introduced in PSYCH 717, including systems of clinical interviewing and observation, clinical use of self-report inventories and ability tests, principles of test interpretation and report writing, theories and measurement of intelligence, the conceptualization and assessment of learning disabilities and other academic problems, and basic neuropsychology, as they apply to the clinical assessment of both children and adults. This course is a requirement for all first-year clinical graduate students. Only students in the Clinical Psychology program are permitted to take this course.

New course description (for revision only):

Meet Type(s): Seminar
Primary Meet Type: Seminar
Requisites:

Special topics course: Yes □ No □
Cross-listed: Yes □ No □
Course Subject(s) to be cross-listed with and approval status: Sections combined/held with:

Rationale for request: See attached memo for rationale.

Prepared by: Rita Cherkerewski Date: 6-Feb-13
Faculty: Arts
Effective term: Term/Year Spring 2013
Course Subject code: Psych
Course number: 720A
Course Title (max. 100 characters incl. spaces): Practicum in Interviewing & Cognitive Assessment
Course Short Title (max. 30 characters incl. spaces): Cognitive Practicum
Grading Basis: CREDIT/NO CREDIT
Course Credit Weight: 0.50
Course Consent Required: ☐
Course Description: This fall practicum develops basic clinical skills in interviewing, the administration and scoring of intelligence tests and other cognitive assessment techniques, the integration and interpretation of test information, and report-writing and client-feedback skills. Only students in the Clinical Psychology program are permitted to take this course. Graded on a Cr/Ncr basis.

New course description (for revision only):
Meet Type(s): Practicum
Primary Meet Type: Practicum
Special topics course: Yes ☐ No ☐
Cross-listed: Yes ☐ No ☐
Course Subject(s) to be cross-listed with and approval status: Sections combined/held with:
Rationale for request: See attached memo for rationale.

Prepared by: Rita Cherkwski
Date: 6-Feb-13
Course 181 supervised practice. Students will develop a diagnostic knowledge base that includes differential diagnoses, as assessment, decision making, and practice. This course includes didactic learning, reading, case conferencing and weekly intake meeting and the preparation of diagnostic summary sheets/reports) as well as clients (via observation of participation in diagnostic feedback sessions). Only students in the Clinical Psychology program are permitted to take this course. Graded on a Cr/NCr basis.

New course description (for revision only):

Meet Type(s): Practicum
Primary Meet Type: Practicum
Requisites:

Special topics course: Yes No
Cross-listed: Yes No

Course Subject(s) to be cross-listed with and approval status:
Sections combined/held with:

Rationale for request: See attached memo for rationale.

Prepared by: Rita Cherkewski Date: 6-Feb-13
Faculty: Arts
Effective term: Term/Year Spring 2013

Course: New Revision Inactivation
Milestone: New Revision Inactivation

New milestone title: Choose an item.

For course revisions, indicate the type(s) of changes: (e.g. consent, description, title, requisites)

Course Subject code: Psych Course number: 722C

Course Title (max. 100 characters incl. spaces): Clinical Fieldwork Placement I
Course Short Title (max. 30 characters incl. spaces): Clinical Placement I

Grading Basis: CREDIT/NO CREDIT
Course Credit Weight: 0.50
Course Consent Required: 0

Course Description: This spring practicum offers training in assessment and treatment procedures in a clinical setting. All clinical students are required to enrol for this course in the spring concluding their first academic year of the program. Prior to undertaking the placement, the student must submit to the Director of the Clinical Program a proposal that outlines the plans for the practicum (e.g., the nature and quantity of clinical work) and the arrangements for supervision. Only students in the Clinical Psychology program are permitted to take this course. Graded on a Cr/NCr basis.

New course description (for revision only):

Meet Type(s): Practicum
Primary Meet Type: Practicum

Special topics course: Yes No
Cross-listed: Yes No

Course Subject(s) to be cross-listed with and approval status:
Sections combined/held with:

Rationale for request: See attached memo for rationale.

Prepared by: Rita Cherkewski Date: 6-Feb-13

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Faculty: Arts
Effective term: Term/Year Spring 2013

Course: New Revision Inactivation
Milestone: New Revision Inactivation

New milestone title: Choose an item.

For course revisions, indicate the type(s) of changes: (e.g. consent, description, title, requisites)

Course Subject code: Psych Course number: 723

Course Title (max. 100 characters incl. spaces): Child Psychopathology and Psychotherapy
Course Short Title (max. 30 characters incl. spaces): Child Psychopathology/Therapy

Grading Basis: NUMERICAL
Course Credit Weight: 0.50
Course Consent Required: 0

Course Description: This course is designed to familiarize clinical students with a range of child psychotherapy modalities, such as behavioral and cognitive therapies, parental guidance, family and narrative therapies, and play therapy. Only students in the Clinical Psychology program are permitted to take this course.

New course description (for revision only):

Meet Type(s): Seminar
Primary Meet Type: Seminar

Special topics course: Yes No
Cross-listed: Yes No

Course Subject(s) to be cross-listed with and approval status:
Sections combined/held with:

Rationale for request: See attached memo for rationale.

Prepared by: Rita Cherkewski Date: 6-Feb-13
Faculty: Arts
Effective term: Term/Year Spring 2013

Course Subject code: Psych  Course number: 724
Course Title (max. 100 characters incl. spaces): Personality & Measurement Theory
Course Short Title (max. 30 characters incl. spaces): Personality & Test Theory
Grading Basis: NUMERICAL
Course Credit Weight: 0.50
Course Consent Required: No

Course Description: This course provides a survey of important theories of personality and a review of recent developments in personality research, with particular emphasis on current and emerging personality assessment methodologies and their application to clinical work. The course also covers classical test theory and SEM-based measurement models. Only students in the Clinical psychology program are permitted to take this course.

New course description (for revision only):
Meet Type(s): Seminar
Primary Meet Type: Seminar
Requisites:
Special topics course: ☐ Yes ☐ No ☐
Cross-listed: ☐ Yes ☐ No ☐
Course Subject(s) to be cross-listed with and approval status:
Sections combined/held with:

Rationale for request: See attached memo for rationale.

Prepared by: Rita Cherkewski  Date: 6-Feb-13

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Faculty: Arts
Effective term: Term/Year Spring 2013

Course Subject code: Psych  Course number: 725
Course Title (max. 100 characters incl. spaces): Cognitive Behaviour Therapy
Course Short Title (max. 30 characters incl. spaces): Cognitive Behaviour Therapy
Grading Basis: NUMERICAL
Course Credit Weight: 0.50
Course Consent Required: No

Course Description: This is an advanced skills-based course designed to provide students with a solid understanding of cognitive-behavioural theory and basic skills in applying theory to treatment of anxiety and mood disorders in adults. Only students in the Clinical Psychology program are permitted to take this course.

New course description (for revision only):
Meet Type(s): Seminar
Primary Meet Type: Seminar
Requisites:
Special topics course: ☐ Yes ☐ No ☐
Cross-listed: ☐ Yes ☐ No ☐
Course Subject(s) to be cross-listed with and approval status:
Sections combined/held with:

Rationale for request: See attached memo for rationale.

Prepared by: Rita Cherkewski  Date: 6-Feb-13
Faculty: Arts

Effective term: Term/Year Spring 2013

Course ☐ New ☐ Revision ☐ Inactivation ☐

Milestone ☐ New ☐ Revision ☐ Inactivation ☐

New milestone title: Choose an item.

For course revisions, indicate the type(s) of changes:
(e.g. consent, description, title, requisites)

Course Subject code: Psych  
Course number: 726A

Course Title (max. 100 characters incl. spaces): Practicum in Integrated Assessment I
Course Short Title (max. 30 characters incl. spaces): Integrated Practicum I

Grading Basis: CREDIT/NO CREDIT
Course Credit Weight: 0.50
Course Consent Required: ☐

Course Description: This fall course provides advanced practicum training in the integrated assessment of children, adolescents, and adults. It extends the experiences provided through Psych 720A & B, Practicum in Interviewing & Cognitive Assessment, by increasing student responsibility for the integration of assessment information, case conceptualization, report preparation and feedback, consultation, and supervision of junior students. Only students in the Clinical Psychology program are permitted to take this course. Graded on a Cr/NCr basis.

New course description (for revision only):

Meet Type(s): Practicum
Primary Meet Type: Practicum

Requisites:

Special topics course: Yes ☐ No ☐
Cross-listed: Yes ☐ No ☐
Course Subject(s) to be cross-listed with and approval status:
Sections combined/held with:

Rationale for request: See attached memo for rationale.

Prepared by: Rita Cherkewski  
Date: 6-Feb-13

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Faculty: Arts

Effective term: Term/Year Spring 2013

Course ☐ New ☐ Revision ☐ Inactivation ☐

Milestone ☐ New ☐ Revision ☐ Inactivation ☐

New milestone title: Choose an item.

For course revisions, indicate the type(s) of changes:
(e.g. consent, description, title, requisites)

Course Subject code: Psych  
Course number: 726B

Course Title (max. 100 characters incl. spaces): Practicum in Integrated Assessment II
Course Short Title (max. 30 characters incl. spaces): Integrated Practicum II

Grading Basis: CREDIT/NO CREDIT
Course Credit Weight: 0.50
Course Consent Required: ☐

Course Description: This winter course continues Psych 726A, providing further advanced practicum training in the integrated assessment of children, adolescents, and adults. It extends the experiences provided through Psych 720A & B, Practicum in Interviewing & Cognitive Assessment, by increasing student responsibility for the integration of assessment information, case conceptualization, report preparation and feedback, consultation, and supervision of junior students. Only students in the Clinical Psychology program are permitted to take this course. Graded on a Cr/NCr basis.

New course description (for revision only):

Meet Type(s): Practicum
Primary Meet Type: Practicum

Requisites:

Special topics course: Yes ☐ No ☒
Cross-listed: Yes ☐ No ☒
Course Subject(s) to be cross-listed with and approval status:
Sections combined/held with:

Rationale for request: See attached memo for rationale.

Prepared by: Rita Cherkewski  
Date: 6-Feb-13
Faculty: Arts
Effective term: Term/Year Spring 2013

Course Title: Efficacy & Program Evaluation
Course Short Title: Efficacy & Program Evaluation
Grading Basis: NUMERICAL
Course Credit Weight: 0.50
Course Consent Required: 0

Course Description: This is an advanced applied research course designed to provide students with skills for conducting research in applied settings. Most non-academic clinical psychologists work in a hospital setting for at least part of their career, where, in addition to clinical service delivery, they will be responsible for research and program evaluation. This course reviews relevant research designs and advanced data analytic strategies for research in such settings. Only students in the Clinical Psychology program are permitted to take this course.

New course description (for revision only):

Meet Type(s): Seminar
Primary Meet Type: Seminar

Prepared by: Rita Cherkewski  Date: 6-Feb-13
Faculty: Arts
Effective term: Term/Year Spring 2013

Course Subject code: Psych Course number: 729A
Course Title (max. 100 characters incl. spaces): Child and Adolescent Psychotherapy Practicum I
Course Short Title (max. 30 characters incl. spaces): Child Psychotherapy Pract I
Grading Basis: CREDIT/NO CREDIT
Course Credit Weight: 0.50
Course Consent Required: ☐

Course Description: This is a fall practicum in which third-year clinical students see child and adolescent clients with various disorders for cognitive-behaviour therapy (CBT) or other modes of psychotherapy. Students will meet with individual supervisors every week. Only students in the Clinical Psychology program are permitted to take this course. Graded on a Cr/NCr basis.

New course description (for revision only):
Meet Type(s): Practicum
Primary Meet Type: Practicum
Requisites:
Special topics course: Yes ☐ No ☒
Cross-listed: Yes ☐ No ☒
Course Subject(s) to be cross-listed with and approval status:
Sections combined/held with:
Rationale for request: See attached memo for rationale.

Prepared by: Rita Cherkewski Date: 6-Feb-13
Course: Arts  
Effective term: Term/Year Spring 2013

Course: New  Revision 0  Inactivation 0
Milestone: New  Revision 0  Inactivation 0

New milestone title: Choose an item.

For course revisions, indicate the type(s) of changes:
(e.g. consent, description, title, requisites)

Course Subject code: Psych  
Course number: 729C

Course Title: Child and Adolescent Psychotherapy Practicum III
Course Short Title: Child Psychotherapy Pract III

Grading Basis: CREDIT/NO CREDIT
Course Credit Weight: 0.50
Course Consent Required: 0

Course Description: This is a spring practicum in which third-year clinical students see child and adolescent clients with various disorders for cognitive-behaviour therapy (CBT) or other modes of psychotherapy. Students will meet with individual supervisors every week. Only students in the Clinical Psychology program are permitted to take this course. Graded on a Cr/NCr basis.

New course description (for revision only):

Meet Type(s): Practicum
Primary Meet Type: Practicum

Requisites:

Special topics course: Yes  No
Cross-listed: Yes  No

Course Subject(s) to be cross-listed with and approval status:
Sections combined/held with:

Rationale for request: See attached memo for rationale.

Prepared by: Rita Cherkewski  Date: 6-Feb-13
Faculty: Arts
Effective term: Term/Year Spring 2013

Course  □ New  □ Revision  □ Inactivation  □
Milestone □ New  □ Revision  □ Inactivation  □
New milestone title: Choose an item.

For course revisions, indicate the type(s) of changes:
(e.g. consent, description, title, requisites)

Course Subject code: Psych  Course number: 730B
Course Title (max. 100 characters incl. spaces): Adult Psychotherapy Practicum II
Course Short Title (max. 30 characters incl. spaces): Adult Psychotherapy Pract II
Grading Basis:  CREDIT/NO CREDIT
Course Credit Weight:  0.50
Course Consent Required:  □

Course Description: This is a winter practicum in which third-year clinical students see adult clients with various disorders for cognitive-behaviour therapy (CBT) or other modes of psychotherapy. Students will meet with individual supervisors every week. Only students in the Clinical Psychology program are permitted to take this course. Graded on a Cr/NCr basis.

New course description (for revision only):
Meet Type(s): Practicum
Primary Meet Type: Practicum
Requisites:
Special topics course:  Yes  □ No  X
Cross-listed:  Yes  □ No  X
Course Subject(s) to be cross-listed with and approval status:
Sections combined/held with:
Rationale for request: See attached memo for rationale.

Prepared by: Rita Cherkewski  Date: 6-Feb-13

Faculty: Arts
Effective term: Term/Year Spring 2013

Course  □ New  □ Revision  □ Inactivation  □
Milestone □ New  □ Revision  □ Inactivation  □
New milestone title: Choose an item.

For course revisions, indicate the type(s) of changes:
(e.g. consent, description, title, requisites)

Course Subject code: Psych  Course number: 730C
Course Title (max. 100 characters incl. spaces): Adult Psychotherapy Practicum III
Course Short Title (max. 30 characters incl. spaces): Adult Psychotherapy Pract III
Grading Basis:  CREDIT/NO CREDIT
Course Credit Weight:  0.50
Course Consent Required:  □

Course Description: This is a spring practicum in which third-year clinical students see adult clients with various disorders for cognitive-behaviour therapy (CBT) or other modes of psychotherapy. Students will meet with individual supervisors every week. Only students in the Clinical Psychology program are permitted to take this course. Graded on a Cr/NCr basis.

New course description (for revision only):
Meet Type(s): Practicum
Primary Meet Type: Practicum
Requisites:
Special topics course:  Yes  □ No  X
Cross-listed:  Yes  □ No  X
Course Subject(s) to be cross-listed with and approval status:
Sections combined/held with:
Rationale for request: See attached memo for rationale.

Prepared by: Rita Cherkewski  Date: 6-Feb-13
Course Title: Theory and Application in Couples' Therapy
Course Short Title: Couples' Therapy
Grading Basis: NUMERICAL
Course Credit Weight: 0.50
Course Consent Required: No

Course Description:

This course is designed to familiarize students with the theories and associated techniques of couples' therapy and to provide an overview of basic and applied research in the study of intimate relationships. A range of therapeutic perspectives will be surveyed but particular emphasis will be given to the cognitive-behavioral perspective. The first section of the course will focus on assessment and treatment of relationship distress; the second section will cover basic research on cognition, affect and behavior in material/dyadic relationships; the final section will cover specialized topics in couples' therapy such as multicultural relationships, same gender relationship, domestic violence, infidelity, and individual psychopathology. In addition to learning the theoretical and empirical basis of marital/couples' therapy, the course will prepare students to work with couples in distress. Only students in the Clinical Psychology program are permitted to take this course.

Meet Type(s): Seminar

Requisites:

Special topics course: Yes ☐ No ☒

Cross-listed: Yes ☐ No ☒

Course Subject(s) to be cross-listed with and approval status:

Sections combined/held with:

Rationale for request: See attached memo for rationale.

Prepared by: Rita Cherkewski
Date: 6-Feb-13
### Course Title Information

**Faculty:** Arts  
**Effective term:** Term/Year Spring 2013

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<td>Course Short Title (max. 30 characters incl. spaces):</td>
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**Course Description:** This is a winter practicum in which fourth-year clinical students see child and adolescent clients with various disorders for cognitive-behaviour therapy (CBT) or other modes of psychotherapy. Students will meet with clinical supervisors every week. Only students in the Clinical Psychology program are permitted to take this course. Graded on a Cr/NCr basis.

**New course description (for revision only):**

- **Meet Type(s):** Practicum  
- **Primary Meet Type:** Practicum  
- **Special topics course:** Yes  
- **Cross-listed:** Yes

**Rationale for request:** See attached memo for rationale.

### Course Title Information

**Faculty:** Arts  
**Effective term:** Term/Year Spring 2013

<table>
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<td>Grading Basis:</td>
<td>CREDIT/NO CREDIT</td>
<td></td>
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<tr>
<td>Course Credit Weight:</td>
<td>0.50</td>
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<tr>
<td>Course Consent Required:</td>
<td>No</td>
<td></td>
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</tbody>
</table>

**Course Description:** This is a spring practicum in which fourth-year clinical students see child and adolescent clients with various disorders for cognitive-behaviour therapy (CBT) or other modes of psychotherapy. Students will meet with clinical supervisors every week. Only students in the Clinical Psychology program are permitted to take this course. Graded on a Cr/NCr basis.

**New course description (for revision only):**

- **Meet Type(s):** Practicum  
- **Primary Meet Type:** Practicum  
- **Special topics course:** Yes  
- **Cross-listed:** Yes

**Rationale for request:** See attached memo for rationale.

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**Prepared by:** Rita Cherkewski  
**Date:** 6-Feb-13
Faculty: Arts

Effective term: Term/Year Spring 2013

Course Subject code: Psych
Course number: 733A
Course Title (max. 100 characters incl. spaces): Adult Psychotherapy Practicum I
Course Short Title (max. 30 characters incl. spaces): Adult Psychotherapy Pract I
Grading Basis: CREDIT/NO CREDIT
Course Credit Weight: 0.50
Course Consent Required: 0

Course Description: This is a fall practicum in which fourth-year clinical students see adult clients with various disorders for cognitive-behaviour therapy (CBT) or other modes of psychotherapy. Students will meet with clinical supervisors every week. Only students in the Clinical Psychology program are permitted to take this course. Graded on a Cr/NCr basis.

New course description (for revision only):

Meet Type(s): Practicum
Primary Meet Type: Practicum
Requisites:

Special topics course: Yes 0 No 0
Cross-listed: Yes 0 No 0
Course Subject(s) to be cross-listed with and approval status: Sections combined/held with:

Rationale for request: See attached memo for rationale.

Prepared by: Rita Cherkewski Date: 6-Feb-13

---------------
Faculty: Arts

Effective term: Term/Year Spring 2013

Course □ New □ Revision □ Inactivation □
Milestone □ New □ Revision □ Inactivation □
New milestone title: Choose an item.

For course revisions, indicate the type(s) of changes:
(e.g. consent, description, title, requisites)

Course Subject code: Psych Course number: 733C
Course Title (max. 100 characters incl. spaces): Adult Psychotherapy Practicum III
Course Short Title (max. 30 characters incl. spaces): Adult Psychotherapy Pract III

Grading Basis: CREDIT/NO CREDIT
Course Credit Weight: 0.50
Course Consent Required: □

Course Description: This is a spring practicum in which fourth-year clinical students see adult clients with various disorders for cognitive-behaviour therapy (CBT) or other modes of psychotherapy. Students will meet with clinical supervisors every week. Only students in the Clinical Psychology program are permitted to take this course. Graded on a Cr/NCr basis.

New course description (for revision only):

Meet Type(s): Practicum
Primary Meet Type: Practicum
Requisites:

Special topics course: Yes □ No □
Cross-listed: Yes □ No □

Course Subject(s) to be cross-listed with and approval status:
Sections combined/held with:

Rationale for request: See attached memo for rationale.

Prepared by: Rita Cherkewski Date: 6-Feb-13
Course Subject code: Psych  
Course number: 734B  
Course Title (max. 100 characters incl. spaces): Practicum in Supervision II  
Course Short Title (max. 30 characters incl. spaces): Practicum in Supervision II  
Grading Basis: CREDIT/NO CREDIT  
Course Credit Weight: 0.50  
Course Consent Required: ☐  
Course Description: The students in this spring course will serve as the primary supervisor for a case being seen by a junior therapist. Class will meet weekly to discuss assigned readings and to discuss the cases the students are supervising. The course instructor will also be following the supervised cases of the student therapists, although most of the supervision will be left to the senior trainee. Clinical students will be required to take the course in their fourth or fifth year. Only students in the Clinical Psychology program are permitted to take this course. Graded on a Cr/NCr basis.  

New course description (for revision only):  
Meet Type(s): Practicum  
Primary Meet Type: Practicum  
Requisites:  
Special topics course: Yes ☐ No ☑  
Cross-listed: Yes ☐ No ☑  
Course Subject(s) to be cross-listed with and approval status:  
Sections combined/held with:  
Rationale for request: See attached memo for rationale.  

Prepared by: Rita Cherkewski  
Date: 6-Feb-13
Course Subject code: Psych  Course number: 735A
Course Title (max. 100 characters incl. spaces): Child and Adolescent Psychotherapy Practicum I
Course Short Title (max. 30 characters incl. spaces): Child Psychotherapy Pract I
Grading Basis: CREDIT/NO CREDIT
Course Credit Weight: 0.50
Course Consent Required: □
Course Description: This is a fall practicum in which fifth-year clinical students see child and adolescent clients with various disorders for cognitive-behaviour therapy (CBT) or other modes of psychotherapy. Students will meet with clinical supervisors every week. Only students in the Clinical Psychology program are permitted to take this course. Graded on a Cr/NCr basis.

New course description (for revision only):
Meet Type(s): Practicum
Primary Meet Type: Practicum
Requisites:
Special topics course: Yes □ No □
Cross-listed: Yes □ No □
Course Subject(s) to be cross-listed with and approval status:
Sections combined/held with:
Rationale for request: See attached memo for rationale.

Prepared by: Rita Cherkewski  Date: 6-Feb-13
Faculty: Arts
Effective term: Term/Year Spring 2013

Course: New Revision Inactivation
Milestone: New Revision Inactivation

New milestone title: Choose an item.
For course revisions, indicate the type(s) of changes:
(e.g. consent, description, title, requisites)

Course Subject code: Psych Course number: 735C
Course Title (max. 100 characters incl. spaces): Child and Adolescent Psychotherapy Practicum III
Course Short Title (max. 30 characters incl. spaces): Child Psychotherapy Pract III
Grading Basis: CREDIT/NO CREDIT
Course Credit Weight: 0.50
Course Consent Required: ☐

Course Description: This is a spring practicum in which fifth-year clinical students see child and adolescent clients with various disorders for cognitive-behaviour therapy (CBT) or other modes of psychotherapy. Students will meet with clinical supervisors every week. Only students in the Clinical Psychology program are permitted to take this course. Graded on a Cr/NCr basis.

New course description (for revision only):
Meet Type(s): Practicum
Primary Meet Type: Practicum
Requisites:
Special topics course: Yes ☐ No ☐
Cross-listed: Yes ☐ No ☐
Course Subject(s) to be cross-listed with and approval status: Sections combined/held with:

Rationale for request: See attached memo for rationale.

Prepared by: Rita Cherkewski Date: 6-Feb-13

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Faculty: Arts
Effective term: Term/Year Spring 2013

Course: New Revision Inactivation
Milestone: New Revision Inactivation

New milestone title: Choose an item.
For course revisions, indicate the type(s) of changes:
(e.g. consent, description, title, requisites)

Course Subject code: Psych Course number: 736A
Course Title (max. 100 characters incl. spaces): Adult Psychotherapy Practicum I
Course Short Title (max. 30 characters incl. spaces): Adult Psychotherapy Pract I
Grading Basis: CREDIT/NO CREDIT
Course Credit Weight: 0.50
Course Consent Required: ☐

Course Description: This is a fall practicum in which fifth-year clinical students see adult clients with various disorders for cognitive-behaviour therapy (CBT) or other modes of psychotherapy. Students will meet with clinical supervisors every week. Only students in the Clinical Psychology program are permitted to take this course. Graded on a Cr/NCr basis.

New course description (for revision only):
Meet Type(s): Practicum
Primary Meet Type: Practicum
Requisites:
Special topics course: Yes ☐ No ☐
Cross-listed: Yes ☐ No ☐
Course Subject(s) to be cross-listed with and approval status: Sections combined/held with:

Rationale for request: See attached memo for rationale.

Prepared by: Rita Cherkewski Date: 6-Feb-13
### Adult Psychotherapy Practicum II

- **Course Subject code:** Psych
- **Course number:** 736B
- **Course Title:** Adult Psychotherapy Practicum II
- **Course Description:** This is a winter practicum in which fifth-year clinical students see adult clients with various disorders for cognitive-behaviour therapy (CBT) or other modes of psychotherapy. Students will meet with clinical supervisors every week. Only students in the Clinical Psychology program are permitted to take this course. Graded on a C/NC basis.

- **Grading Basis:** CREDIT/NO CREDIT
- **Course Credit Weight:** 0.50

### Adult Psychotherapy Practicum III

- **Course Subject code:** Psych
- **Course number:** 736C
- **Course Title:** Adult Psychotherapy Practicum III
- **Course Description:** This is a spring practicum in which fifth-year clinical students see adult clients with various disorders for cognitive-behaviour therapy (CBT) or other modes of psychotherapy. Students will meet with clinical supervisors every week. Only students in the Clinical Psychology program are permitted to take this course. Graded on a C/NC basis.

- **Grading Basis:** CREDIT/NO CREDIT
- **Course Credit Weight:** 0.50

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**Prepared by:** Rita Cherkewski  
**Date:** 6-Feb-13
Faculty: Arts
Effective term: Term/Year Spring 2013

Course ☑ New ☐ Revision ☐ Inactivation ☐
Milestone ☑ New ☐ Revision ☐ Inactivation ☐

New milestone title: Choose an item.
For course revisions, indicate the type(s) of changes:
(e.g. consent, description, title, requisites)

Course Subject code: Psych
Course number: 737A
Course Title (max. 100 characters incl. spaces): Couples’ Therapy Practicum
Course Short Title (max. 30 characters incl. spaces): Couples’ Therapy Practicum
Grading Basis: CREDIT/NO CREDIT
Course Credit Weight: 0.50
Course Consent Required: ☐

Course Description: This is a fall practicum that involves closely supervised assessment and intervention with couples experiencing relationship distress. Only students in the Clinical Psychology program are permitted to take this course. Graded on a Cr/NCR basis.

Prepared by: Rita Cherewski
Date: 6-Feb-13
### Course 1: Clinical Fieldwork Placement II

**Course Subject code:** Psych  
**Course number:** 738A

**Course Title (max. 100 characters incl. spaces):** Clinical Fieldwork Placement II  
**Course Short Title (max. 30 characters incl. spaces):** Clinical Placement II  
**Grading Basis:** CREDIT/NO CREDIT  
**Course Credit Weight:** 0.50  
**Course Consent Required:** No

**Course Description:** This fall practicum offers advanced training in assessment and treatment procedures in a clinical setting. Students in the second or successive year of the program may enrol in this second four-month block placement in a community agency. A student wishing to pursue this possibility must submit to the Director of the Clinical Program a proposal that outlines the plans for the practicum (e.g., the nature and quantity of clinical work) and the arrangements for supervision. Only students in the Clinical Psychology program are permitted to take this course. Graded on a Cr/NCr basis.

**New course description (for revision only):**

- **Meet Type(s):** Practicum  
- **Primary Meet Type:** Practicum  
- **Requisites:**
  - Special topics course: Yes  
  - Cross-listed: Yes

**Sections combined/held with:**

- **Rationale for request:** See attached memo for rationale.

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**Prepared by:** Rita Cherkewski  
**Date:** 6-Feb-13

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### Course 2: Couples' Therapy Practicum

**Course Subject code:** Psych  
**Course number:** 737C

**Course Title (max. 100 characters incl. spaces):** Couples' Therapy Practicum  
**Course Short Title (max. 30 characters incl. spaces):** Couples' Therapy Practicum  
**Grading Basis:** CREDIT/NO CREDIT  
**Course Credit Weight:** 0.50  
**Course Consent Required:** Yes

**Course Description:** This is a spring practicum that involves closely supervised assessment and intervention with couples experiencing relationship distress. Only students in the Clinical Psychology program are permitted to take this course. Graded on a Cr/NCr basis.

**New course description (for revision only):**

- **Meet Type(s):** Practicum  
- **Primary Meet Type:** Practicum  
- **Requisites:**
  - Special topics course: Yes  
  - Cross-listed: Yes

**Sections combined/held with:**

- **Rationale for request:** See attached memo for rationale.

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**Prepared by:** Rita Cherkewski  
**Date:** 6-Feb-13
Faculty: Arts
Effective term: Term/Year Spring 2013
Course No New Revision ☐ Inactivation ☐
Milestone ☐ New Revision ☐ Inactivation ☐
New milestone title: Choose an item.
For course revisions, indicate the type(s) of changes:
(e.g. consent, description, title, requisites)
Course Subject code: Psych Course number: 738B
Course Title (max. 100 characters incl. spaces): Clinical Fieldwork Placement II
Course Short Title (max. 30 characters incl. spaces): Clinical Placement II
Grading Basis: CREDIT/NO CREDIT
Course Credit Weight: 0.50
Course Consent Required: ☐
Course Description: This winter practicum offers advanced training in assessment and treatment procedures in a clinical setting. Students in the second or successive year of the program may enroll in this second four-month block placement in a community agency. A student wishing to pursue this possibility must submit to the Director of the Clinical Program a proposal that outlines the plans for the practicum (e.g., the nature and quantity of clinical work) and the arrangements for supervision. Only students in the Clinical Psychology program are permitted to take this course. Graded on a Cr/Nc basis.

New course description (for revision only):
Meet Type(s): Practicum
Primary Meet Type: Practicum
Requisites:
Special topics course: Yes ☐ No ☑
Cross-listed: Yes ☐ No ☑
Course Subject(s) to be cross-listed with and approval status:
Sections combined/heldwith:
Rationale for request: See attached memo for rationale.

Prepared by: Rita Cherkewski Date: 6-Feb-13
| Faculty: Arts |
| Effective term: Term/Year | Spring 2013 |
| Course | New | Revision | Inactivation | |
| Milestone | New | Revision | Inactivation | |

New milestone title: Choose an item.
For course revisions, indicate the type(s) of changes:
(e.g., consent, description, title, requisites)

Course Subject code: Psych
Course number: 739A
Course Title (max. 100 characters incl. spaces): Clinical Fieldwork Placement III
Course Short Title (max. 30 characters incl. spaces): Clinical Placement III
Grading Basis: CREDIT/NO CREDIT
Course Credit Weight: 0.50
Course Consent Required: ○

Course Description: This summer practicum offers advanced training in assessment and treatment procedures in a clinical setting. Students in the third or successive year of the program may enroll in this second four-month block placement in a community agency. A student wishing to pursue this possibility must submit to the Director of the Clinical Program a proposal that outlines the plans for the practicum (e.g., the nature and quantity of clinical work) and the arrangements for supervision. Only students in the Clinical Psychology program are permitted to take this course. Graded on a Cr/NCR basis.

New course description (for revision only):

Meet Type(s): Practicum
Primary Meet Type: Practicum
Requisites:
Special topics course: Yes ○ No ○
Cross-listed: Yes ○ No ○
Course Subject(s) to be cross-listed with and approval status:
Sections combined/held with:
Rationale for request: See attached memo for rationale.

Prepared by: Rita Cherkewski Date: 6-Feb-13
Faculty: Arts
Effective term: Term/Year Spring 2013

Course Subject code: Psych Course number: 739C
Course Title (max. 100 characters incl. spaces): Clinical Fieldwork Placement III
Course Short Title (max. 30 characters incl. spaces): Clinical Placement III
Grading Basis: CREDIT/NO CREDIT
Course Credit Weight: 0.50
Course Consent Required: 

Course Description: This spring practicum offers advanced training in assessment and treatment procedures in a clinical setting. Students in the third or successive year of the program may enrol in this second four-month block placement in a community agency. A student wishing to pursue this possibility must submit to the Director of the Clinical Program a proposal that outlines the plans for the practicum (e.g., the nature and quantity of clinical work) and the arrangements for supervision. Only students in the Clinical Psychology program are permitted to take this course. Graded on a Cr/NCR basis.

New course description (for revision only):
Meet Type(s): Practicum
Primary Meet Type: Practicum
Requisites:
Special topics course: Yes [ ] No [x]
Cross-listed: Yes [ ] No [x]
Course Subject(s) to be cross-listed with and approval status: Sections combined/held with:
Rationale for request: See attached memo for rationale.

Prepared by: Rita Cherkewski
Date: 6-Feb-13
Faculty: Arts

Effective term: Term/Year Spring 2013

Course □ New □ Revision □ Inactivation □

Milestone □ New □ Revision □ Inactivation □

New milestone title: Choose an item.

For course revisions, indicate the type(s) of changes:
(e.g. consent, description, title, requisites)

Course Subject code: Psych Course number: 740B

Course Title (max. 100 characters incl. spaces): Senior Practicum I

Course Short Title (max. 30 characters incl. spaces): Senior Practicum I

Grading Basis: CREDIT/NO CREDIT

Course Credit Weight: 0.50

Course Consent Required: □

Course Description: This spring practicum offers students in the fifth or successive year of the clinical program advanced training in assessment and treatment procedures in a four-month block placement in either a private practice setting or in our on-site clinical setting at the Center for Mental Health Research (CMHR). A student wishing to pursue this possibility must submit to the Director of the Clinical Program a proposal that outlines the plans for the practicum (e.g., the nature and quantity of clinical work) and the arrangements for supervision. Only students in the Clinical Psychology program are permitted to take this course. Graded on a Cr/NCr basis.

New course description (for revision only):

Meet Type(s): Practicum
Primary Meet Type: Practicum

Requisites:

Special topics course: Yes □ No ☒
Cross-listed: Yes □ No ☒

Course Subject(s) to be cross-listed with and approval status:

Sections combined/held with:

Rationale for request: See attached memo for rationale.
Faculty: Arts
Effective term: Term/Year Spring 2013
Course Subject code: Psych
Course number: 741A
Course Title (max. 100 characters incl. spaces): Senior Practicum II
Course Short Title (max. 30 characters incl. spaces): Senior Practicum II
Grading Basis: CREDIT/NO CREDIT
Course Credit Weight: 0.50
Course Consent Required: 0

Course Description: This fall practicum offers students in the fifth or successive year of the clinical program advanced training in assessment and treatment procedures in a four-month block placement in either a private practice setting or in our on-site clinical setting at the Center for Mental Health Research (CMHR). A student wishing to pursue this possibility must submit to the Director of the Clinical Program a proposal that outlines the plans for the practicum (e.g., the nature and quantity of clinical work) and the arrangements for supervision. Only students in the Clinical Psychology program are permitted to take this course. Graded on a Cr/NCr basis.

New course description (for revision only):
Meet Type(s): Practicum
Primary Meet Type: Practicum
Requisites:
Special topics course: Yes 0 No X
Cross-listed: Yes 0 No X
Course Subject(s) to be cross-listed with and approval status: Sections combined/held with:
Rationale for request: See attached memo for rationale.

Prepared by: Rita Cherkewski
Date: 6-Feb-13

Faculty: Arts
Effective term: Term/Year Spring 2013
Course Subject code: Psych
Course number: 741B
Course Title (max. 100 characters incl. spaces): Senior Practicum II
Course Short Title (max. 30 characters incl. spaces): Senior Practicum II
Grading Basis: CREDIT/NO CREDIT
Course Credit Weight: 0.50
Course Consent Required: 0

Course Description: This winter practicum offers students in the fifth or successive year of the clinical program advanced training in assessment and treatment procedures in a four-month block placement in either a private practice setting or in our on-site clinical setting at the Center for Mental Health Research (CMHR). A student wishing to pursue this possibility must submit to the Director of the Clinical Program a proposal that outlines the plans for the practicum (e.g., the nature and quantity of clinical work) and the arrangements for supervision. Only students in the Clinical Psychology program are permitted to take this course. Graded on a Cr/NCr basis.

New course description (for revision only):
Meet Type(s): Practicum
Primary Meet Type: Practicum
Requisites:
Special topics course: Yes 0 No X
Cross-listed: Yes 0 No X
Course Subject(s) to be cross-listed with and approval status: Sections combined/held with:
Rationale for request: See attached memo for rationale.

Prepared by: Rita Cherkewski
Date: 6-Feb-13
Faculty: Arts
Effective term: Term/Year Spring 2013

Course (8)
New
Revision
Inactivation

Milestone (8)
New
Revision
Inactivation

New milestone title: Choose an item.

For course revisions, indicate the type(s) of changes:
(e.g. consent, description, title, requisites)

Course Subject code: Psych
Course number: 741C

Course Title (max. 100 characters incl. spaces): Senior Practicum II
Course Short Title (max. 30 characters incl. spaces): Senior Practicum II
Grading Basis: CREDIT/NO CREDIT
Course Credit Weight: 0.50
Course Consent Required: No

Course Description: This spring practicum offers students in the fifth or successive year of the clinical program advanced training in assessment and treatment procedures in a four-month block placement in either a private practice setting or in our on-site clinical setting at the Center for Mental Health Research (CMHR). A student wishing to pursue this possibility must submit to the Director of the Clinical Program a proposal that outlines the plans for the practicum (e.g., the nature and quantity of clinical work) and the arrangements for supervision. Only students in the Clinical Psychology program are permitted to take this course. Graded on a Cr/NCr basis.

New course description (for revision only):

Meet Type(s): Practicum
Primary Meet Type: Practicum
Requisites:

Special topics course: Yes No
Cross-listed: Yes No

Course Subject(s) to be cross-listed with and approval status:
Sections combined/held with:

Rationale for request: See attached memo for rationale.

Prepared by: Rita Cherkewski
Date: 6-Feb-13
Faculty: Arts
Effective term: Term/Year Spring 2013

Course ☐ New ☐ Revision ☐ Inactivation ☐
Milestone ☐ New ☐ Revision ☐ Inactivation ☐

New milestone title: Choose an item.

For course revisions, indicate the type(s) of changes:
(e.g. consent, description, title, requisites)

Course Subject code: Psych Course number: 742C
Course Title (max. 100 characters incl. spaces): Senior Practicum III
Course Short Title (max. 30 characters incl. spaces): Senior Practicum III
Grading Basis: CREDIT/NO CREDIT
Course Credit Weight: 0.50
Course Consent Required: ☐

Course Description: This spring practicum offers students in the fifth or successive year of the clinical program advanced training in assessment and treatment procedures in a four-month block placement in either a private practice setting or in our on-site clinical setting at the Center for Mental Health Research (CMHR). A student wishing to pursue this possibility must submit to the Director of the Clinical Program a proposal that outlines the plans for the practicum (e.g., the nature and quantity of clinical work) and the arrangements for supervision. Only students in the Clinical Psychology program are permitted to take this course. Graded on a Cr/NCr basis.

New course description (for revision only):
Meet Type(s): Practicum
Primary Meet Type: Practicum
Requisites:

Special topics course: Yes ☐ No ☐
Cross-listed: Yes ☐ No ☐
Course Subject(s) to be cross-listed with and approval status:
Sections combined/held with:

Rationale for request: See attached memo for rationale.

Prepared by: Rita Cherkewski Date: 6-Feb-13
Senate Undergraduate Council met on 9 April 2013 and agreed to forward the following items to Senate for approval. Council recommends that these items be included in the regular agenda. Items recommended for inclusion in the consent agenda are contained within a separate report.

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

FOR APPROVAL

ENGLISH FOR ACADEMIC SUCCESS ADMISSION REQUIREMENTS [effective 1 September 2013]

1. **Motion:** To approve changes to the English for Academic Success (EFAS) minimum admission requirements as follows:

   Current 2013 EFAS requirements:
   - Overall 80% in the 400 Level

   Revised 2013 EFAS requirements:
   - Overall 75% in each course (academic, oral and writing) at the 400 Level

   **Rationale:** The revised minimum EFAS requirement was established by referencing the following research:
   - Common European Framework of Reference for Languages (CEF) that has been developed to help standardize language requirements based on a functional approach to writing, reading, and speaking.
   - EFAS course scores at 75% are at the CEF level of C1 which is equivalent to an IELTS score of 7.0.
   - This is also formalizing what is currently in practice where faculties are individually considering admission to students who have provided an overall EFAS score of 75% to 79%.

   The revised minimum English Language Requirements will be monitored closely and adjusted if a significant trend is detected.

NEW ACADEMIC PROGRAM

Faculty of Science

Bachelor of Science (Materials and Nanoscience 2+2) [effective 1 September 2014]

2. **Motion:** To approve a 2+2 program in materials and nanoscience with Beijing Jiaotong University.

   **Rationale:** The faculty has had a very successful 2+2 program with Beijing Jiaotong University (BJTU). The existing agreement includes physics, chemistry and biochemistry in the Faculty of Science, as well as economics in the Faculty of Arts. The faculty proposes to add materials and nanoscience to the agreement. The program has been approved by the Ministry of Education of China and the faculty intends to accept 60 students each year, starting this fall. The students will start in a 2+1+1 program (years 1, 2 and 4 at BJTU, and year 3 at University of Waterloo) and will be given the option to join the 2+2 program. Waterloo will award a BSc degree to those who have met the degree requirements. The students will follow Waterloo’s curriculum for materials and nanoscience in years 1 and 2 in China. The faculty will strengthen English training. Many of the courses will be taught in English and Waterloo instructors will teach some courses in BJTU in years 1 and 2 in China. As a
result, the transition from China to Waterloo is expected to be smoother. Further, since 2009, the faculty has had 16 2+2 students from BJTU. Their Waterloo average overall GPA is 80% (median 81%), ranging from a low of 70% to a high of 94%. Of the 12 students who have graduated, 10 (83%) are in graduate schools in Canada and USA, including seven at Waterloo. Qiaoyuan Dong, winner of the 2012 Science Alumni Gold Medal, was a 2+2 student from BJTU.

ACADEMIC PLAN INACTIVATION

Faculty of Environment

Geomatics Option  [effective 1 September 2014]

3. Motion: To approve the inactivation of the plan.

Rationale: The majority of students receiving the Geomatics Option are in aviation plans. Students receiving the Geomatics Option (21 since 2010) include plans in environment and business (1), geography (5), and aviation (15). Aviation students now have a more flexible opportunity to complete the Geography and Environmental Management (GEM)/Geomatics Specialization. Geography students can also complete the Geomatics Specialization. A Diploma of Excellence in Geographic Information Systems meets the needs of students in the Faculty of Environment with 57 being awarded since June 2010 to mostly geomatics, planning, and geography and environmental management students. All units in the Faculty of Environment are eligible for the Diploma of Excellence in GIS.

/ees

25 April 2013

Mario Coniglio
Associate Vice-President, Academic Programs
FOR APPROVAL

Roster of Graduands
Since the roster of graduands will not be available until after the regular meeting of Senate in May and approval is required before the June meeting, the following motion is proposed:

Motion:
That Senate delegate such approval to its Executive Committee for its 3 June 2013 meeting.