

**GUIDELINES FOR  
REVIEWS OF ONGOING AND NEW ACADEMIC PROGRAMS  
AT THE  
UNIVERSITY OF WATERLOO**

**Effective September 1 2010**

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**May 7, 2010**

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## **A. Purpose and Scope of Reviews**

Consistent with good educational practice, the University of Waterloo regularly reviews its academic programs. The current guidelines are consistent with recommendations of the Ontario Universities Council on Quality Assurance (the Quality Council), and are effective July 1 2011. The new guidelines replace the previous ones, namely guidelines for undergraduate programs (originally approved by Senate February 1997), and those for graduate programs (the Ontario Council for Graduate Studies – OCGS – guidelines originally implemented in 1982).

The review processes are subject to regular audit by the Quality Council. The threshold framework for degree expectations are the UW Guidelines for University Undergraduate Degree Level Expectations (UUDLES: adopted by Senate 2008), and the UW Guidelines for University Graduate Degree Level Expectations (adopted by Senate 2010). These in turn conform to the OCAV Guidelines for Degree Level Expectations (adopted by OCAV in 2005: Appendix 1).

In addition to the UUDLEs, the University of Waterloo intends its graduating students at the Bachelor's level to be able to articulate their learning from experiential or applied opportunities, and to demonstrate an understanding of the intellectual, social, cultural, and political diversity of the world in which we live.

The OCAV framework for degree expectations, together with the University of Waterloo enhancements, will support departments and academic units in planning or revising curricula and in communicating program goals and outcomes to students and stakeholders. As of July 2011, departments and faculties engaged in program review shall use these guidelines as base expectations while retaining the flexibility to add objectives unique to their specialties.

The Quality Council Framework (2010) defines a program as “(a)n identified set and sequence of courses, and/or other units of study, research and practice within an area of disciplinary or interdisciplinary study, which is completed in full or partial fulfilment of the requirements for the awarding of a degree, and is recorded on the graduate's academic record”. Programs are not necessarily congruent with academic organizational units, and provision should be made to include joint programs and multi- or inter-disciplinary programs in a way appropriate for the institution. (Note that while University of Waterloo student information system often uses the term “plan” to refer to a program, the term “program” will be used throughout this document to avoid confusion).

Following the Quality Council Framework (2010), the scope of academic reviews at University of Waterloo covers “new and continuing undergraduate and graduate degree/diploma programs whether offered in full, in part, or conjointly by any institutions federated and affiliated with the university.” This also extends “to programs offered in partnership, collaboration or other such arrangement with other postsecondary institutions including colleges, universities, or institutes, including Institutes of Technology and Advanced Learning...”

At UW, the fundamental purposes of the review process are to help (1) each program to achieve and maintain the highest possible standards of academic excellence, through systematically reflecting on its strengths and weaknesses, and looking forward to determine what

actions would further enhance quality in the program; (2) assess the quality of the program relative to counterpart programs in Ontario, Canada and internationally, and (3) meet public accountability expectations through a credible, transparent, and action-oriented review process.

Another key purpose is to create an institutional culture which understands and values the benefits of program reviews, while recognizing the significant workload implications of preparing a Self Study, hosting a site visit, and providing a Two-year Progress Report.

At the University of Waterloo, the responsibility for undergraduate academic reviews rests with the position of Associate Vice President Academic, created in 1998. The responsibility for graduate academic reviews rests with the Associate Provost, Graduate Studies. Policy since 1998 has been that: (1) the reviews would be treated as “whole of Program reviews”, in the belief that undergraduate and graduate programs should be considered together, (2) Interdisciplinary Programs are reviewed under the same arrangement as for single-discipline reviews except for the composition of the Review Committee, and (3) review processes for professional accreditation would be examined to determine if they met the UW and the Quality Council requirements for a Program Review. The design of the Program Review process is intended to be as streamlined as possible, while ensuring its accessibility and transparency to the UW community.

At the University of Waterloo, many students complete their degrees in the Faculty rather than in a Department or School. Faculty-based programs are treated similarly to Department or unit-based reviews.

A schedule for Undergraduate Program Reviews based on a seven year cycle is being used, and has been organized to place undergraduate program reviews in the same year as, or one year before or after, the scheduled Graduate Program Reviews, in order to allow information from one review to be used in the other review. Units are also encouraged where desired and appropriate to undertake combined undergraduate and graduate reviews (i.e. augmented reviews). However, it also is recognized that accreditation for professional programs more often occurs on a five year cycle. In the latter case, the UW schedule of reviews has been modified to allow the UW Program Review to occur simultaneously with the professional accreditation review. The schedule for Undergraduate and Graduate Program Reviews 2010/11 to 2016/17 can be found in Appendix 2. Units are encouraged to combine reviews of undergraduate and graduate programs, and may do so by moving the dates for review, subject to the interval between reviews of individual programs not exceeding eight years.

The Self Study process is started during the preceding academic year with a joint meeting called by the Associate Vice President Academic – AVPA - (undergraduate reviews) and the Associate Provost Graduate Studies – APGS - (graduate reviews). The AVPA and APGS meet with the chairs/directors and administrative assistants of the Programs scheduled to submit their Self Study the following June, so that the Site Visit could be scheduled for either the following fall or winter terms (Appendix 3). In cases where the academic unit chooses to submit an augmented review, either the AVPA or APGS is assigned primary responsibility for overseeing the particular review (allocation is made in such a way as to share workload appropriately). At the first meeting, the nature of the review process is discussed, and opportunity is provided for

questions. After that first meeting, the AVPA/APGS is available to meet with faculty and staff in each Program beginning its Self Study, to discuss matters particular to that Program.

The following Sections outline the expectations for Program Reviews, and indicate how the University of Waterloo deals with them. Throughout the UW guidelines, summaries/explanations/suggestions are written in *italics*.

## **B. Reviews of Existing Academic Programs not related to Professional Accreditation**

The Quality Council Framework (2010) specifies the key elements for the institutional Quality Assurance Process. These are identified below, followed by the UW approach to each. After discussing the basic process, information is provided regarding the processes for the Self Study and Site Visits.

According to the Quality Council, the institutional review policy should:

- (1) identify an authority responsible for application of the policy (*UW: responsibility allocated to the AVPA for undergraduate reviews, and APGS for graduate ones*).
- (2) define the unit to be reviewed, i.e., which program or programs will be covered (*UW: outlined in the Guidelines for Self Study for Academic Department/School/Program Reviews in the Appendices*).
- (3) include a self-appraisal by professors, staff and students participating in the program (*UW: each Program prepares a reflective, self-critical and analytical Self Study. The guidelines for those reports are provided in the Appendices*).
- (4) have an evaluation, including a site visit by at least two external reviewers including one from universities outside Ontario. One internal reviewer is also mandated, from outside the discipline under review (*UW: each Site Visit involves two external reviewers, at arm's length [not collaborators, supervisors or supervisees, relatives, etc.] from the program under review, normally with one from a university in Ontario and one from a university from outside Ontario*). Each Site Visit Team also involves one internal UW reviewer, chosen from a different Faculty than the one in which the program under review is located). Guidelines for Site Visits are provided below.
- (5) describe the process of assessment of the Self Study and review within the university, and describe how a Final Assessment Report will be drafted, including an implementation plan for recommendations. (*UW: the Program Chair/Director, in collaboration with the Faculty Dean, submits a Chair/Director's Report to the AVPA/APGS, indicating actions to be taken as a result of what has been learned from the Self Study and the Site Visit. Two years after the entire review process is complete, a Two-year Progress Report is*

*submitted to the AVPA/APGS in which progress is documented regarding actions taken by the Program, the Faculty and the University. Both the Final Assessment Report and the Two-year Progress Report are commented on and evaluated by Senate Undergraduate Council (undergraduate reviews) or Senate Graduate and Research Council (graduate reviews). Any comments and/or concerns raised by Senate Undergraduate Council/Senate Graduate and Research Council, together with the program's response, will be incorporated into the Final Assessment Report or the Two-year Progress Report prior to it being presented to Senate. The AVPA/APGS subsequently reports to Senate, and provides a one-page summary for all programs which the Provost uses for reporting to the Board. At the time of the next Program Review, the Program is accountable for commitments made in response to the previous Program Review).*

- (6) describe reporting requirements (*UW: the Final Assessment Report is presented at Senate, and hence available publicly on the web in the Senate Minutes; a copy is also sent to the Quality Council. Similarly the Two-year Progress Report is presented to Senate and hence available publicly in the Senate Minutes).*)
- (7) Provide an institutional manual (*UW: this document*).

### **The Quality Council Evaluation Criteria**

The curricular content, admission requirements, mode of delivery, bases of evaluation of student performance, commitment of resources and overall quality of any program and its courses are all necessarily related to its goals, learning objectives and learning outcomes. Goals provide an overview for students, instructors and program/course evaluators of what the program or course aims to accomplish. Learning objectives are an expression of what the instructor(s) intends that the student should have learned or achieved by the end of the program or course. Learning outcomes are what the student has actually learned or achieved in the program or course.

The Quality Assurance Framework (2010) specifies that the review of programs should at a minimum cover the following areas (see Quality Council, 2010, for more detailed explanation):

**(1) Objectives**

- Consistency of the program with the institution's mission and academic plans;
- Clarity and appropriateness of the program's requirements and associated learning objectives in addressing the Degree-Level expectations;
- Appropriateness of degree nomenclature;

**(2) Admission requirements**

- Appropriateness of admission requirements for the learning objectives established for those completing the program;

- Sufficient explanation of alternative requirements, if any, such as minimum grade point average, additional languages or portfolios, along with how the program recognizes prior work or learning experience;
- (3) appropriateness of the program's **structure** and curriculum to meet its learning objectives and degree-level expectations;
  - (4) appropriateness of program **content**;
  - (5) appropriateness and effectiveness of the **mode of delivery** (including where applicable, distance or online delivery) to meet the program's learning objectives and degree expectations;
  - (6) appropriateness of the methods used for **assessment** of student progress;
  - (7) appropriateness and effectiveness of the utilization of the existing human/physical/financial **resources**, and participation of a sufficient number and quality of faculty;
  - (8) for **graduate** programs, sufficient **resources** in terms of faculty expertise, financial support for students (where appropriate to the program) and availability of supervision;
  - (9) for **undergraduate** programs, sufficient **resources** in terms of faculty, staff, supervision of experiential learning opportunities (if required).

The guidelines at UW for the Self Study (Appendix 4) have been arranged to reflect the points identified by the Quality Council Framework. The UW guidelines note major headings involving self assessment, of the past and the future, the organization and the people involved, research, service, teaching (with special attention to co-operative education and online learning), the students and the support available (human, physical and financial).

The UW guidelines are broad in scope, so that each Program can emphasize those aspects which are most relevant. The review will cover the last seven fiscal years (spring/fall/winter), with emphasis on the last several. The UW Department of Institutional Analysis and Planning (IAP) will provide much of the historical data to each Program.

Under each heading in the UW guidelines are suggested areas that could be discussed and critically examined. In some cases, a topic may fit just as well under another heading. It is not necessary to repeat information in several sections, and generally it will be up to the Program to decide where information should be included in the Self Study.

All component parts of the self-appraisal process should be **reflective and searching**. In the Self Study, attention should be given to (1) describing and (2) explaining core features which contribute to academic excellence, (3) evaluating the effectiveness of initiatives to achieve academic excellence, (4) demonstrating that graduates meet degree level expectations, (5)

articulating the relationship of the learning objectives/outcomes to the degree expectations and (6) prescribing additional initiatives to enhance quality.

Key characteristics of the Self Study include: identification of core features of the Program; balanced and critical review of strengths and weaknesses; systematic representation of different perspectives (faculty, staff, students, alumni, employers); intended learning objectives and outcomes at both the program and course level; demonstrated achievement of expectations by graduates; what the Program aspires to become; and if information is available where it sits relative to counterpart programs in Ontario, Canada and internationally.

All faculty members should be provided the opportunity to participate in the self-appraisal process and to comment on the Self Study. Faculty from the UW Colleges and part-time faculty who regularly teach in the program are to be given this opportunity. If there are differing views among the faculty these should be noted. Also all faculty members should have the opportunity to participate in the program's response to the Review Team Report. Again the response should note differing views if there is no consensus among faculty. It is also very desirable to include staff and student participation in the self-appraisal process, and to inform staff and students (for example at a Town Hall meeting) of the Review Team's findings.

### **Guidelines for Site Visits**

The following guidelines have been prepared to assist Departments/Schools in making arrangements for the Site Visit related to their Program Reviews.

The Program under review will have the lead role in making arrangements for the schedule for the Site Visit. However, arrangements should be prepared in consultation with the Office of the AVPA or the Graduate Studies Office as appropriate. For augmented reviews (reviews combining both undergraduate and graduate offices), one Office will be assigned primary responsibility, and consultation with the other will occur as needed. Contact the relevant Administrative Assistant.

The schedule for the Site Visit should be prepared at least one month in advance of the visit, so that the Review Team can see the schedule, and have an opportunity to suggest changes.

#### **1. Prior to the Site Visit**

- 1.1 The Chair/Director of the Program under review arranges for completion of a Self Study with input from the Dean, faculty members, staff and students, and in consultation with the Dean of the Faculty, develops a proposed list of reviewers (including phone numbers and email addresses and a brief biography) which is submitted to the AVPA/APGS. Two External Reviewers and one Internal Reviewer are required. Five names should be proposed, and ranked in order of preference, for each of (1) an External Reviewer who will normally come from a university in

- Ontario; (2) an External Reviewer who will normally come from a university outside Ontario but at the undergraduate level usually within Canada. One External Reviewer may be a non-university appointee (e.g. someone from government or the private sector), provided that she/he has appropriate qualifications to fulfill the Reviewer role. An Internal Reviewer, who will come from UW but from outside the home Faculty, will be selected by the AVPA/APGS.
- 1.2 The proposed Reviewers should be at arm's length from the program, meaning not relatives, collaborators, supervisors/supervisees, etc. The AVPA/APGS will make the final choice of members for the Review Team.
  - 1.3 The Chair/Director identifies several two-day blocks suitable to the Program under review for the Site Visit, and provides those to the AVPA/APGS.
  - 1.4 The Office of the AVPA/the Graduate Studies Office contacts the proposed External and Internal Reviewers, to invite them to serve as Reviewers.
  - 1.5 The Office of the AVPA/the Graduate Studies Office confirms the time and arrangements for the Site Visit with the Reviewers, and obtains the Social Insurance Numbers from the External Reviewers.
  - 1.6 The Office of the AVPA/Graduate Studies Office co-ordinates arrangements for travel and accommodation for the External Reviewers.

## **2. The Site Visit**

- 2.1 The External Reviewers arrive by not later than the evening before the Site Visit activities are to begin.
- 2.2 An initial meeting with the AVPA/APGS is held at the start of the visit. The AVPA typically hosts a meeting on the evening before the Site Visit activities begin, for the two External Reviewers and the Internal Reviewer, as well as the Undergraduate Chair/Director of the Program under review and the Dean of the Faculty (or his or her delegate) in which the Program is based. The APGS similarly has an initial meeting with Reviewers at the beginning of the site visit. The purpose of the meeting is to review the purposes of the Program Review, discuss the schedule and activities during the next two days, identify any further information needs for the Review Team, confirm logistical arrangements for the visit, and review the process for preparing the report from the Review Team. In addition, it provides the opportunity to identify issues for which suggestions from the Review Team would be helpful regarding the Program.
- 2.3 The Review Team will have two days to meet with key participants in the Program under review. The Chair/Director should make arrangements for the Review Team to meet at a minimum with the:
  - 2.3.1 Dean and Associate Dean(s) (subject to availability) relevant to the Program under review.
  - 2.3.2 Chair/Director and Associate Chairs.
  - 2.3.3 Faculty (including adjuncts and Federated University and Affiliated University Colleges' faculty where applicable), in groups, or, if feasible, individuals when that is requested.

- 2.3.4 Staff.
  - 2.3.5 The relevant Librarian.
  - 2.3.6 Department of Co-operative Education and Career Services (if there is a Co-op stream).
  - 2.3.7 Undergraduate students (recommended more than one time slot be identified for undergraduates to ensure that adequate opportunity is provided to meet with the Review Team). These meetings should be arranged without faculty present, to facilitate frank and open discussion. It is good practice to ask the Departmental/School Undergraduate Student Association (where one exists) to invite students to participate in this meeting.
  - 2.3.8 Graduate students, with particular attention to ensuring Teaching Assistants are well represented. As with the undergraduates, these meetings should be arranged without faculty present, and it is good practice to ask the Departmental/School Graduate Student Association (where one exists) to invite students to participate in this meeting.
  - 2.3.9 Vice President Academic and Provost (subject to his/her availability).
  - 2.3.10 Graduate reviews will conclude with a second meeting with the Associate Provost Graduate Studies; undergraduate reviews will include the Associate Vice President Academic.
- 2.4 If possible, the Review Team should be provided by the Program under review with an office in which the Reviewers can leave their belongings, and have discussions among themselves.
  - 2.5 The host Program should discuss with the Review Team if, over lunch periods, the Review Team would like to be by itself, in order to discuss what has been learned, or whether it would appreciate the opportunity to meet with other people.
  - 2.6 The Program should allocate time in the evening after the first day of the Site Visit, and in the latter part of the second day, for the Review Team members to discuss among themselves what they have been learning, how they will structure their report, and how they will divide the tasks for writing the report. UW expects that the Review Team will submit its report within two weeks of the Site Visit. Thus, the Review Team members must be given sufficient time to make arrangements for the preparation of the report before they finish the Site Visit and depart from UW.

### **3. Guidelines for the Report from the Review Team**

- 3.1 The Review Team will prepare a report with separate sections for each program (undergraduate and graduate) evaluated, which should be submitted to the University of Waterloo within two weeks of the completion of the Site Visit. There is no fixed format for the report, provided that it covers the evaluation criteria identified in the Quality Council (2010) Framework, and summarized above. It is recommended that the report should include at least the following:

**Executive Summary:** brief summary of findings and all recommendations, which can be made available publicly

**Part 1:** The Review Process

- time of visit.
- documents reviewed.
- individuals and groups met.
- adequacy of Site Visit arrangements.

**Part 2: Findings, Conclusions and Recommendations**

In preparing its report, the Review Team should be aware that the Quality Council (2010) Framework specifies that a review of Programs should address the following points:

- consistency of the program with the general objectives of the institution's mission and development plan and with the standards, educational goals and learning objectives/outcomes of the degree, so that graduates may demonstrate achievement of its degree level expectations.
- appropriateness of the admission requirements, e.g., achievement and preparation, for the educational objectives of the institution and the program.
- appropriateness of the program's structure and curriculum for its educational objectives.
- appropriateness of the mode of delivery and the methods used for the evaluation of student progress.
- appropriate utilization of the existing human/physical/financial resources.
- appropriateness of the Department's or School's self assessment relative to other departments/schools, provincially, nationally and internationally.
- the effectiveness of the Department or School in meeting its Program goals.
- strengths and weaknesses of the Department or School, with special regard to its: (1) monitoring and judging effectiveness of teaching; (2) assuring quality in the educational experience offered to students; (3) undergraduate and graduate plans; (4) distance and continuing education; (5) demonstrating that graduates achieve the degree level expectations; (6) research and creative activity; and (7) professional service and community outreach.
- quality of faculty (qualifications, research and scholarly record).
- students: applications and registrations, attrition rates, average time-to-completion, graduation rates, academic awards.
- graduates: post-graduation employment and admission to further study, alumni reports on program quality.
- for graduate programs: evidence that time-to-completion is consistent with regard to the program's defined length; quality of graduate supervision, critical mass of students and faculty sufficient to sustain the program intellectually, and sufficient

graduate courses that students can take two-thirds of their courses at this level.

- recommendations for the future.

The suggested points to be included in the Review Team Report were prepared with regard to the Quality Council (2010) Framework. However, the Review Team is welcome to add other topics, or to use another structure for its report as long as attention is given to the points highlighted above.

3.2 The most useful report for UW will be one which is “constructively critical”, identifying strengths which should be protected and enhanced, weaknesses that deserve attention, and new opportunities. When weaknesses are identified, the report will be more helpful if suggestions are presented regarding how the weaknesses could be addressed.

3.3 The Review Team Report will lose credibility within UW if it is perceived primarily to be a “booster report” for a discipline or profession, and only recommends providing more funding to the Program. A more helpful report will consider what could be done by the Program, by itself or in collaboration with its Faculty and UW, in using limited resources more efficiently and effectively, along with considering where new resources would represent a strategic investment to allow a Program to grow with quality.

3.4 The Review Team Report, if necessary, may include a confidential letter of transmittal to cover personnel issues. This letter would only be available to the Dean, AVPA/APGS, and the Vice President Academic and Provost.

#### **4 After the Site Visit**

4.1 The Review Team Report is submitted to the AVPA/APGS, and then copies are distributed to the Vice President Academic and Provost, the Dean of the Faculty, and the Chair/Director of the Program.

4.2 The external Review Team members submit their travel and accommodation expense claims to the Office of the Associate Vice President Academic/Office of Graduate Studies. The honoraria for the External Reviewers will be paid after the final report from the Review Team has been received.

4.3 The Program under review is invited to provide comments, verbally or in writing, regarding the experience with the Site Visit, and especially to identify aspects of the Site Visit which could be modified to make the experience more productive. It is important that students also have an opportunity to provide comments related to the Site Visit. Such comments should be sent to the AVPA/APGS.

4.4 The Chair/Director and the faculty members of the Department/School have an opportunity to provide comments on factual errors in the Review Team Report. Comments should be sent to the AVPA/APGS within four weeks of receiving a copy of the Report. If no comments are received within that time period, unless other

- arrangements have been made it will be concluded that the Program has no initial comments to make about the Report.
- 4.5 The Chair/Director, in consultation with the Faculty Dean, will submit a report to the AVPA/APGS outlining what was learned through the Self Study and the Review Team Report. The Chair's/Director's Report should be submitted within 10 weeks of the Program receiving its copy of the Review Team Report. The other documents (Self Study, Review Team Report, Chair/Director's Report) are however not public documents).
  - 4.6 The AVPA/APGS will provide a Final Assessment Report to the Vice President Academic and Provost, outlining the nature of the review process, the main findings, conclusions and recommendations from the Review Team Report, and the main conclusions and proposed actions proposed by the Program. This report will be submitted within four weeks of receiving the Chair's/Director's Report described in 4.5 above. The Final Assessment Report will be presented to Senate Undergraduate Council/Senate Graduate and Research Council for approval.
  - 4.7 The AVPA/APGS will report to Senate that the Program Review has been completed, and highlight main findings and conclusions. The Provost will report to the Board once a year as to which programs were reviewed the previous academic year. The Final Assessment Report referred to in Section 4.6 above is made available publicly in the Minutes of Senate.
  - 4.8 The Vice President Academic and Provost, or designate, will have responsibility for ensuring that all recommendations and issues arising from the reviews are dealt with in a manner that brings closure to the process.
  - 4.9 It is good practice for the Chair/Director to arrange a town hall meeting with staff and students to provide feedback on the review findings.
  - 4.10 The Chair/Director is responsible for a Two-year Progress Report which is presented to Senate Undergraduate Council/Senate Graduate and Research Council (for approval) and Senate (for information), on steps taken to follow up from the Review.

## **C. Reviews of Existing Academic Programs Relative to Professional Accreditation**

The Quality Council (2010) Framework (section 4.2.7) states that “The Institutional Quality Assurance Process may allow for and specify the substitution or addition of documents or processes associated with the accreditation of a program, for components of the institutional program review process, when it is fully consistent with the requirements established in this framework. A record of substitution or addition, and the grounds on which it was made, will be eligible for audit by the Quality Council.”

The AVPA/APGS as relevant reviews the guidelines for the accreditation process, meets with the person(s) at UW responsible for the professional accreditation together with the Director of the Program, to review the guidelines for the accreditation and UW reviews, and to determine what additional information, if any, is required for the UW review. Such discussions occur at the time when work begins by a Program to prepare for the accreditation process, and a memo is filed determining the decision taken. If necessary, the Program under review will be asked to

provide supplemental information to meet the needs of the UW review process.

When the Review Team is appointed by an accreditation organization, UW will seek to have a UW faculty member included as a member of the Review Team. If this is not possible, then UW may arrange to have a UW faculty member conduct interviews and examine documents related to the UW program review process to provide his or her perspective, and prepare a written report to supplement the accreditation Review Team Report. For master's programs which are subject to accreditation reviews, it is usually necessary to review the research components of the program. These aspects can be reviewed in conjunction with a review of the PhD program (if one exists) or research master's in the same unit (if one exists). If the only graduate program in the unit is a professional master's subject to accreditation, then a separate review of the research components is required.

#### **D. Combined Reviews of Undergraduate and Graduate Programs**

UW encourages combined reviews (augmented reviews). Augmented reviews can be more efficient and also have academic merit, since there are frequently interactions between the undergraduate and graduate programs. Academic units proposing an augmented review should indicate their intention to the AVPA/APGS in good time (prior to the end of the previous calendar year). The AVPA/APGS will then allocate one of their two Offices as having primary responsibility for the logistics of the review. The review will then follow the normal process appropriate to that Office. Augmented reviews will be presented both at Senate Undergraduate and Senate Graduate and Research Councils. The Chair/Director will be invited to both meetings to respond to questions, the AVPA will be invited to Senate Graduate and Research Council, and the APGS to Senate Undergraduate Council, to ensure coherence in the response to the reviews of the undergraduate and graduate components.

#### **E. Reviews of Multi- or Inter-disciplinary Programs**

The previous UPRAC Review and Audit Guidelines (COU, 2006: 3.5) specify that “the review of undergraduate, interdisciplinary and multidisciplinary programs, however they are managed, must be clearly shown to have effectively considered such programs as entities distinct from the larger academic units within which they may be included.”

Reviews of interdisciplinary programs which lead to a degree should follow the same procedures as those for single discipline programs described above. The review of an interdisciplinary program (including collaborative graduate programs) can be, where appropriate, combined with the review of a larger program. One of the considerations in such combined reviews is whether a Review Team can be assembled which has expertise in both disciplinary and interdisciplinary programs. Separate report sections must also be written for each program.

Where the interdisciplinary undergraduate program does not lead to a separate degree (for example undergraduate options), the composition of the Review Committee is different. The Committee is composed of two University of Waterloo faculty members and one external reviewer. The Director of the interdisciplinary program and the Dean who provide oversight of the program will be invited to suggest individuals to serve on the review committee. The composition of the review committee will be determined by the AVPA.

The process of the Review follows the same arrangement as for single-discipline reviews.

## **F. Reviews Involving Programs at the Federated or Affiliated Institutions**

The revised UPRAC Review and Audit Guidelines (COU, 2006: 3) stipulate that the “institution granting a degree is responsible for ensuring the quality of all components of programs of study, including those offered: i) in full or in part by its federated and affiliated institution, and ii) in partnership with other higher education institutions (colleges and universities) through collaborative or other affiliation agreements.”

The University of Waterloo has one Federated University (St. Jerome’s) and three Affiliated University Colleges (Conrad Grebel, Renison, St. Paul’s). UW has made arrangements with the colleges to ensure that Program reviews are completed in a coordinated manner. Two major considerations are being addressed. First, when a Program is primarily based within one of the colleges, the lead role for the Program review is taken by the College, with the Self Study submitted to the Associate Vice President Academic at UW. Second, during their Program reviews, academic departments at UW are directed to identify when there are complementary disciplinary or program activities at one or more of the Colleges, to ensure that such activities are considered in the Self Study.

The Colleges may opt to have the program reviews considered at the relevant College Council, in parallel to consideration at Senate Undergraduate Council/Senate Graduate and Research Council.

## **G. Reviews of New Programs**

FOR INFORMATION ONLY: REMAINS TO BE FINALIZED

At University of Waterloo, reviews of new programs follow a similar procedure to reviews of existing programs, with appropriate modifications to the program proposal documentation and the external review (for example, there are no current students to interview or for whom to provide statistics).

For new undergraduate programs, the AVPA has responsibility for the review, while for new graduate programs it is the APGS. Appendix 5 describes in more detail the procedures for preparing the proposal. Appendix 5 also sets out what is defined as a new program, and how the procedure varies according to the scope of change envisaged (i.e., what is required for a completely new program, what is required for a significant change to an existing program, what is required for a new field of a graduate program, what is required for a new collaborative graduate program, etc.).

All new programs will be evaluated using the same criteria as existing programs, as described in Section B above (section headed: OUQCA Evaluation criteria).

The steps for approval for new programs are laid out in detail in Appendix 5. The steps are similar to those for review of current programs.

1. An initial proposal document is developed, addressing the topics outlined in the Quality Council criteria. This proposal goes to the appropriate Department/School and Faculty committees for discussion and approval. If the program includes co-op experience, a report from Co-op and Career Services is required.
2. If an external consultant review with site visit is required, this occurs following Faculty approval, and the unit concerned has the opportunity to respond to the review comments.
3. The proposal (modified if appropriate following the review) then goes to either Senate Undergraduate Council, or Senate Graduate and Research Council, and then Senate, for approval.
4. At this point the proposal is sent to the Quality Council for approval, if approval is required (minor changes do not require review).
5. The Board receives information once a year about programs approved to commence in the previous year (along with information on completed reviews of existing programs).
6. If MTCU approval of funding is required, a submission is made to MTCU.
7. As is the case for reviews of existing programs, a Two-year Progress Report is required also for new programs. The purpose of the Two-year Progress Report is to provide initial data on student progress and implementation of the program, and to respond to any issues raised by consultants. Copies of the Two-Year Progress Report are sent to the Quality Council for information (or, if required, for decision).
8. Thereafter the program enters into the regular review cycle.

## **H. Reviews of Programs Joint with other Universities**

For programs offered jointly with other Ontario universities, the procedure is that one individual (normally the Director or equivalent of the joint program) will prepare a Self Study following the template of his/her university, in consultation with faculty, staff and students at both institutions. The review visit will include both campuses. The response to the review can be written by the Director of the joint program in consultation with the appropriate Chairs and Deans at both participating institutions, and then sent through the regular process at both universities. If deemed more appropriate, two separate responses could be prepared, one for each participating institution, to follow the normal process at each university.

For programs joint with other universities outside Ontario, UW will follow the review process for Ontario universities. This would not necessarily require a site visit to the other university, provided that the Quality Council has determined that the partner university is also subject to an appropriate quality review process in its own jurisdiction. However UW would

obtain information about the components of the program completed outside Ontario as appropriate, and include this in the review within Ontario.

If, in future, UW develops partnerships to offer degree or diploma programs with other institutions such as colleges or institutes, these guidelines will be modified to include such programs.

## **I. Reviews of For-Credit Diploma and Certificate Programs**

Diplomas and certificates, where offered for credit, are reviewed on the same cycle as other programs. They will usually be reviewed in conjunction with a related degree program.

## **J. References**

Council of Ontario Universities, Ontario Council of Academic Vice Presidents (2006) *UPRAC Review and Audit Guidelines*, Toronto, Council of Ontario Universities, October 12, 13 pp.

Council of Ontario Universities, Ontario Council of Academic Vice Presidents (2005) *Guidelines for University Undergraduate Degree Level Expectations*, Toronto, Council of Ontario Universities, December 16, 3pp.

Quality Council (Ontario Universities Council on Quality Assurance) (2010) *Quality Assurance Framework*. Council of Ontario Universities, February, 37pp.

## APPENDIX 1: Ontario Council of Academic Vice Presidents’ (OCAV) Undergraduate and Graduate Degree-Level Expectations

	<b>Baccalaureate/Bachelor’s Degree</b>  <i>This degree is awarded to students who have demonstrated:</i>	<b>Baccalaureate/Bachelor’s Degree: Honours</b>  <i>This degree is awarded to students who have demonstrated:</i>
<b>1. Depth and Breadth of Knowledge</b>	<p>a) a general knowledge and understanding of many key concepts, methodologies, theoretical approaches and assumptions in a discipline</p> <p>b) a broad understanding of some of the major fields in a discipline, including, where appropriate, from an interdisciplinary perspective, and how the fields may intersect with fields in related disciplines</p> <p>c) an ability to gather, review, evaluate and interpret information relevant to one or more of the major fields in a discipline</p> <p>d) some detailed knowledge in an area of the discipline</p> <p>e) critical thinking and analytical skills inside and outside the discipline</p> <p>f) the ability to apply learning from one or more areas outside the discipline</p>	<p>a) a developed knowledge and critical understanding of the key concepts, methodologies, current advances, theoretical approaches and assumptions in a discipline overall, as well as in a specialized area of a discipline</p> <p>b) a developed understanding of many of the major fields in a discipline, including, where appropriate, from an interdisciplinary perspective, and how the fields may intersect with fields in related disciplines</p> <p>c) a developed ability to: i) gather, review, evaluate and interpret information; and ii) compare the merits of alternate hypotheses or creative options, relevant to one or more of the major fields in a discipline</p> <p>d) a developed, detailed knowledge of and experience in research in an area of the discipline</p> <p>e) developed critical thinking and analytical skills inside and outside the discipline</p> <p>f) the ability to apply learning from one or more areas outside the discipline</p>
<b>2. Knowledge of Methodologies</b>	<p>... an understanding of methods of enquiry or creative activity, or both, in their primary area of study that enables the student to:</p> <ul style="list-style-type: none"> <li>• evaluate the appropriateness of different approaches to solving problems using well established ideas and techniques; and</li> <li>• devise and sustain arguments or solve problems using these methods.</li> </ul>	<p>... an understanding of methods of enquiry or creative activity, or both, in their primary area of study that enables the student to:</p> <ul style="list-style-type: none"> <li>• evaluate the appropriateness of different approaches to solving problems using well established ideas and techniques;</li> <li>• devise and sustain arguments or solve problems using these methods; and describe and comment upon particular aspects of current research or equivalent advanced scholarship.</li> </ul>
<b>3. Application of Knowledge</b>	<p>a) the ability to review, present, and interpret quantitative and qualitative</p>	<p>a) the ability to review, present and critically evaluate qualitative and quantitative</p>

	<p>information to:</p> <p>i) develop lines of argument; ii) make sound judgments in accordance with the major theories, concepts and methods of the subject(s) of study; and</p> <p>b) the ability to use a basic range of established techniques to:</p> <p>i) analyse information; ii) evaluate the appropriateness of different approaches to solving problems related to their area(s) of study; iii) propose solutions; and</p> <p>c) the ability to make use of scholarly reviews and primary sources.</p>	<p>information to:</p> <p>i) develop lines of argument; ii) make sound judgments in accordance with the major theories, concepts and methods of the subject(s) of study; iii) apply underlying concepts, principles, and techniques of analysis, both within and outside the discipline; iv) where appropriate use this knowledge in the creative process; and</p> <p>b) the ability to use a range of established techniques to:</p> <p>i) initiate and undertake critical evaluation of arguments, assumptions, abstract concepts and information; ii) propose solutions; iii) frame appropriate questions for the purpose of solving a problem; iv) solve a problem or create a new work; and</p> <p>c) the ability to make critical use of scholarly reviews and primary sources.</p>
<b>4. Communication Skills</b>	... the ability to communicate accurately and reliably, orally and in writing to a range of audiences.	... the ability to communicate information, arguments, and analyses accurately and reliably, orally and in writing to a range of audiences.
<b>5. Awareness of Limits of Knowledge</b>	... an understanding of the limits to their own knowledge and how this might influence their analyses and interpretations.	... an understanding of the limits to their own knowledge and ability, and an appreciation of the uncertainty, ambiguity and limits to knowledge and how this might influence analyses and interpretations.
<b>6. Autonomy and Professional Capacity</b>	<p>a) qualities and transferable skills necessary for further study, employment, community involvement and other activities requiring:</p> <ul style="list-style-type: none"> <li>• the exercise of personal responsibility and decision-making;</li> <li>• working effectively with others;</li> </ul> <p>b) the ability to identify and address their own learning needs in changing circumstances and to select an appropriate program of further study; and</p> <p>c) behaviour consistent with academic integrity and social responsibility.</p>	<p>a) qualities and transferable skills necessary for further study, employment, community involvement and other activities requiring:</p> <ul style="list-style-type: none"> <li>• the exercise of initiative, personal responsibility and accountability in both personal and group contexts;</li> <li>• working effectively with others;</li> <li>• decision-making in complex contexts;</li> </ul> <p>b) the ability to manage their own learning in changing circumstances, both within and outside the discipline and to select an appropriate program of further study; and</p> <p>c) behaviour consistent with academic integrity and social responsibility.</p>

	<b>Master's Degree</b> This degree is awarded to students who have demonstrated the following:	<b>Doctoral Degree</b> This degree extends the skills associated with the master's degree and is awarded to students who have demonstrated the following:
<b>1. Depth and breadth of knowledge</b>	A systematic understanding of knowledge, including, where appropriate, relevant knowledge outside the field and/or discipline, and a critical awareness of current problems and/or new insights, much of which is at, or informed by, the forefront of their academic discipline, field of study, or area of professional practice;	A thorough understanding of a substantial body of knowledge that is at the forefront of their academic discipline or area of professional practice including, where appropriate, relevant knowledge outside the field and/or discipline.
<b>2. Research and scholarship</b>	<p>A conceptual understanding and methodological competence that</p> <p>a) Enables a working comprehension of how established techniques of research and inquiry are used to create and interpret knowledge in the discipline;</p> <p>b) Enables a critical evaluation of current research and advanced research and scholarship in the discipline or area of professional competence; and</p> <p>c) Enables a treatment of complex issues and judgments based on established principles and techniques; and,</p> <p>On the basis of that competence, has shown at least one of the following:</p> <p>a) The development and support of a sustained argument in written form; or</p> <p>b) Originality in the application of knowledge.</p>	<p>a) The ability to conceptualize, design, and implement research for the generation of new knowledge, applications, or understanding at the forefront of the discipline, and to adjust the research design or methodology in the light of unforeseen problems;</p> <p>b) The ability to make informed judgments on complex issues in specialist fields, sometimes requiring new methods; and</p> <p>c) The ability to produce original research, or other advanced scholarship, of a quality to satisfy peer review, and to merit publication.</p>

	<b>Master's Degree</b> This degree is awarded to students who have demonstrated the following:	<b>Doctoral Degree</b> This degree extends the skills associated with the master's degree and is awarded to students who have demonstrated the following:
<b>3. Level of application of knowledge</b>	Competence in the research process by applying an existing body of knowledge in the critical analysis of a new question or of a specific problem or issue in a new setting.	The capacity to  a) Undertake pure and/or applied research at an advanced level; and b) Contribute to the development of academic or professional skills, techniques, tools, practices, ideas, theories, approaches, and/or materials.
<b>4. Professional capacity/autonomy</b>	The qualities and transferable skills necessary for employment requiring:  a) The exercise of initiative and of personal responsibility and accountability; and b) Decision-making in complex situations; c) The intellectual independence required for continuing professional development; d) The ethical behavior consistent with academic integrity and the use of appropriate guidelines and procedures for responsible conduct of research; and d) The ability to appreciate the broader implications of applying knowledge to particular contexts.	a) The qualities and transferable skills necessary for employment requiring the exercise of personal responsibility and largely autonomous initiative in complex situations; b) The intellectual independence to be academically and professionally engaged and current; c) The ethical behavior consistent with academic integrity and the use of appropriate guidelines and procedures for responsible conduct of research; and d) The ability to evaluate the broader implications of applying knowledge to particular contexts.
<b>5. Level of communications skills</b>	The ability to communicate ideas, issues and conclusions clearly.	The ability to communicate complex and/or ambiguous ideas, issues and conclusions clearly and effectively.
<b>6. Awareness of limits of knowledge</b>	Cognizance of the complexity of knowledge and of the potential contributions of other interpretations, methods, and disciplines.	An appreciation of the limitations of one's own work and discipline, of the complexity of knowledge, and of the potential contributions of other interpretations, methods, and disciplines.

**APPENDIX 2: Schedule of Program Reviews (2010/11 to  
2016/17)**

**University of Waterloo**

**January 2010**

**FOR INFORMATION**

Program Descriptor	Last Undergrad Review	Proposed Date for Self Study Submission for Next Review						
		July 2010	July 2011	July 2012	July 2013	July 2014	July 2015	July 2016
<b>Applied Health Sciences</b>								
Health Studies & Gerontology (BSc, MSc, MPH, PhD)	July 2005			☺ ▲				
Kinesiology (BSc, MSc, PhD)	July 2004		☺ ▲					
Recreation & Leisure Studies, Recreation & Business Management (BA, MA, PhD)	July 2004		☺ ▲					
Work and Health (collaborative PhD)	Began 2007		▲					
Ageing, Health and Well-being (collaborative PhD)			▲					

Program Descriptor	Last Undergrad Review	Proposed Date for Self Study Submission for Next Review						
		July 2010	July 2011	July 2012	July 2013	July 2014	July 2015	July 2016
<b>Arts</b>								
Accounting & Financial Management (BAFM, MTax, GDip, MAcc, PhD), Computing & Financial Management <sup>1</sup> (joint with Computer Science), Biotechnology/Chartered Accountancy (joint with Biology)	July 2008		▲ MTax		☺ ▲ GDip		▲ MAc cPhD	
Anthropology (BA, MA)	July 2004			☺			▲	
Applied Language Studies + Applied Language Studies Option (BA)	--					☺		
Classical Studies (BA: MA Ancient joint with WLU) , Medieval Studies*	July 2003	☺		▲				
Cognitive Science *	July 2005			☺				
Drama (BA)	July 2002	☺						
East Asian Studies *	--				☺			
Economics (BA, MA) + Environment and Economics *, Biotechnology/Economics (joint with Biology)	July 2008						☺ ▲	
English Language and Literature (BA 3MAs, PhD)	July 2002	☺						▲
Fine Arts + Fine and Performing Arts * (BA MFA)	July 2007				▲	☺		
French Studies (UG, MA, PhD)	July 2004		☺ ▲					
Geography (see Environment)	July 2007					☺		
Germanic and Slavic Studies (BA, MA, PhD) + Russian and East European Studies (BA, MA)	July 2007		▲ Ger	▲ Russ		☺		
Global Business and Digital Arts (Sept 2010)	--						☺	
Global Governance (MA; PhD joint with WLU)								▲

Program Descriptor	Last Undergrad Review	Proposed Date for Self Study Submission for Next Review						
		July 2010	July 2011	July 2012	July 2013	July 2014	July 2015	July 2016
<b>Arts (cont'd)</b>								
History (BA; MA, PhD joint with Guelph, WLU)	July 2003	☹			▲			
Human Resources Management *	July 2001	☹						
Independent Studies (BIS)	July 2009							☹
International Studies *	July 2000	☹						
Italian Studies (BA)	--		☹					
Jewish Studies *	July 2009							☹
Legal Studies + Legal Studies and Criminology *	July 2008						☹	
Liberal Studies (BA)	July 2004		☹					
Management Studies*	July 2008						☹	
Mennonite Studies *	July 2009							☹
Music + Church Music and Worship *, Music and Business (BA)	July 2006				☹			
Peace and Conflict Studies (BA)	July 2005			☹				
Philosophy (BA, MA, PhD); GCert Cognitive Science	July 2009							☹ ▲
Political Science (BA, MA)	July 2007					☹ ▲		
Psychology (BA, BSc with Psychology in Science) (MA, MAsc, PhD)	July 2002	☹						▲
Religious Studies + Spirituality and Personal Development *; PhD (joint with WLU)	July 2004	▲	☹					
Sexuality, Marriage and Family Studies (BA)	July 2003	☹						
Social Development Studies (BA)	July 2009							☹
Sociology (BA, MA, PhD); Sociology (Survey Methodology) (MA)	July 2006				☹ ▲			
Spanish and Latin American Studies (BA)	July 2003		☹					
Speech Communication (BA)	July 2003	☹						
Women's Studies (BA)	July 2006				☹			

Program Descriptor	Last Undergrad Review	Proposed Date for Self Study Submission for Next Review						
		July 2010	July 2011	July 2012	July 2013	July 2014	July 2015	July 2016
<b>Engineering</b>								
Architecture (BArch, BAS, MArch)	July 2005	☺		▲				
Society, Technology and Values *	July 2008						☺	
Business, Entrepreneurship and Technology (MBET, GDip)	-		▲					
Chemical Engineering <sup>2</sup> (BASC, MASc, MEng, PhD)	July 2007			☺			▲	
Civil and Environmental Engineering <sup>2</sup> (BASC, MASc, MEng, PhD; MEng infrastructure due 2014)	July 2007			☺ ▲		▲	Infra-struct	
Electrical Engineering, Computer Engineering (BASC, MASc, MEng, GCert X 4, GDip, PhD)	July 2007			☺ ▲				
Geological Engineering <sup>2</sup> (BASC: joint with Earth and Environmental Sciences)	July 2007			☺				
Management Engineering <sup>2</sup> (BASC)	--			☺				
Management Sciences (undergrad option, MASc, MMSc, PhD; Management of Technology MMSc)	July 2004		☺ ▲					
Mechanical Engineering <sup>2</sup> (BASC, GCert X 3, MASc, MEng, PhD); CONGESE (MASc/MMath) to be submitted by Western in 2013	July 2007			☺	▲	▲	CON Mech	
Mechatronics Engineering <sup>2</sup> (BASC)	--			☺				
Nanotechnology Engineering <sup>1,2</sup> (joint with Chemistry) (BASC) Nanotechnology Collaborative (MSc, MASc, PhD) (joint with Science)	--			☺ ? ▲				
Quantum Information Collaborative (MASc, MMath, MSc, PhD) joint with Science, Math							▲	
Software Engineering <sup>1</sup> (joint with Computer Science) BSE	--			☺				
Systems Design Engineering <sup>2</sup> (BASC, MASc, MEng, PhD)	July 2007			☺		▲		

Program Descriptor	Last Undergrad Review	Proposed Date for Self Study Submission for Next Review						
		July 2010	July 2011	July 2012	July 2013	July 2014	July 2015	July 2016
<b>Environment</b>								
Environment and Business (BES, MEB)	July 2009							☺
Environment and Resource Studies (BES, MES)	July 2007					☺ ▲		
Geography (BA, BES, MA, MSc, MES, PhD)	July 2007					☺ ▲		
Geography and Environmental Management, Geomatics, Geography and Aviation (BES)	July 2007					☺		
International Development (BES)	--						☺	
Knowledge Integration (BKI)	--						☺	
Local Economic Development (MAES)	-					▲		
Planning <sup>2</sup> (BES, MA, MES, MAES, PhD)	July 2005			☺		▲		
Tourism Policy & Planning collaborative MA/MES						▲		

Program Descriptor	Last Undergrad Review	Proposed Date for Self Study Submission for Next Review						
		July 2010	July 2011	July 2012	July 2013	July 2014	July 2015	July 2016
<b>Mathematics</b>								
Actuarial Science (BMath, MActSc)	July 2008						☺ ▲	
Applied Mathematics + Applied Mathematics Earth Sciences Option (BMath, MMath, PhD)	July 2008						☺ ▲	
Bioinformatics <sup>1</sup> (joint with Biology)	July 2008						☺	
Biology & Bioinformatics <sup>1</sup> (joint with Biology)	July 2008						☺	
Business Admin & Computer Science <sup>1</sup> (joint with WLU) (Sept 2010) (BBA/BCS)	--							☺
Combinatorics and Optimization, Operations Research (BMath, MMath, PhD)	July 2008						☺ ▲	
Computational Mathematics (BMath, MMath)	July 2001	☺					☺ ▲	
Computer Science (BCS, MMath, PhD) (Computing and Financial Management <sup>1</sup> – joint with Accounting and Finance: BCF, Software Engineering <sup>1</sup> – joint with Electrical and Computer Engineering: BSE), Computer Science and Business, Computer Science and Accounting	July 2006				☺ ▲			
General Mathematics (BMath)	July 2008						☺	
Mathematics Business Administration <sup>1</sup> (joint with WLU) (BMath/BBA)	July 2008						☺	
Mathematics / Information Technology Management (BMath)	--						☺	
Mathematical Finance <sup>1</sup> (joint with Pure Math and Statistics) Quantitative Finance (MQF)	--						☺ ▲	
Mathematical Physics <sup>1</sup> (joint with Physics and Astronomy)	July 2008						☺	
Mathematics/Chartered Accountancy <sup>1</sup> (joint with Accounting and Finance)	July 2008						☺	
Mathematics / Financial Analysis and Risk Management (BMath)	--						☺	
Mathematics / Teaching Option	July 2008						☺	
Mathematical Studies	--						☺	
Pure Mathematics BMath, MMath, PhD	July 2008						☺ ▲	
Scientific Computation / Applied Mathematics (BMath)	July 2008						☺	
Statistics (BMath); Statistics and Actuarial Science (MMath, PhD)	July 2008						☺ ▲	

Program Descriptor	Last Undergrad Review	Proposed Date for Self Study Submission for Next Review						
		July 2010	July 2011	July 2012	July 2013	July 2014	July 2015	July 2016
<b>Science</b>								
Biology (BSc, MSc, PhD), Biochemistry <sup>1</sup> (joint with Chemistry), Biomedical Sciences, Environmental Sciences/Ecology, Bioinformatics <sup>1</sup> (joint with Mathematics)	July 2009							☺ ▲
Biotechnology/Chartered Accountancy <sup>1</sup> (joint with Accounting and Finance)	July 2003	☺						
Biotechnology/Economics <sup>1</sup> (joint with Economics)	July 2003	☺						
Chemistry (BSc); (MSc, PhD joint with Guelph), Biochemistry <sup>1</sup> (joint with Biology), Chemical Physics <sup>1</sup> (joint with Physics and Astronomy), Geochemistry <sup>1</sup> (joint with Earth and Environmental Sciences)	July 2008						☺ ▲	
Computational Science (BSc)	July 2003	☺						
Earth and Environmental Sciences BSc, MSc, PhD, Geochemistry <sup>1</sup> (joint with Chemistry)	July 2004		☺ ▲					
Honours and General Science (BSc)	July 2003	☺						
Honours Science and Arts Major (BSc)	July 2003	☺						
Optometry <sup>2</sup> (OD, MSc, PhD)	July 2002					☺		▲
Pharmacy <sup>2</sup> (BScPhm, MSc, PhD)	--		☺ ?					
Physics and Astronomy (BSc), Chemical Physics <sup>1</sup> (joint with Chemistry), Mathematical Physics <sup>1</sup> (joint with Math) undergraduate; Physics (MSc, PhD) joint with Guelph	July 2005			☺ ▲				
Psychology <sup>1</sup> (joint with Psychology in Arts)	July 2002	☺						
Quantum Information Collaborative (MAsc, MMath, MSc, PhD) joint with Math, Engineering							▲	
Science and Aviation (BSc)	--					☺		
Science and Business (BSc)	July 2003	☺						

Program Descriptor	Last Undergrad Review	Proposed Date for Self Study Submission for Next Review						
		July 2010	July 2011	July 2012	July 2013	July 2014	July 2015	July 2016
<b>Other Units</b>								
<b>Conrad Grebel University College</b>								
Theological Studies (MTS)		▲						
<b>Renison University College</b>								
Social Work (BSW)	July 2006				●			
<b>St Jerome's University</b>								
Catholic Thought (MCT)		▲						
<b>Centre for Theoretical Neuroscience</b>								
GDip								▲

\* inter-disciplinary undergraduate offerings;

+ XXX\* the inter-disciplinary offering XXX will be reviewed with the program to which it is attached;

<sup>1</sup> these undergraduate plans will be reviewed by each department/school.

<sup>2</sup>U/G program review will occur at the same time as the accreditation

<sup>3</sup>All certificates from non-academic units will be reviewed as a group with one external reviewer and one internal

▲ Graduate Review

● Undergraduate review

## Appendix 3: Timelines for Review Process

**Table A3a: Current programs**

Fall, previous academic year	Meeting of those responsible in Department/School, with AVPA, APGS and resource persons; final decision as to whether review will be augmented or only undergraduate/only graduate
July 1	Self Study submitted
Fall/winter	Site Visit occurs
2 weeks after visit	Review Team submits Report
4 weeks after Review Team Report received	Chair/Director submits comments on factual errors/issues in Review Team Report to AVPA/APGS
10 weeks after Review Team Report received	Chair/Director's Report submitted on what was learned from Self Study and Review Team Report, and plans for future
4 weeks after Chair/Director's Report received	AVPA/APGS submits Final Assessment Report to Senate Undergraduate Council/Senate Graduate and Research Council for approval, and then to Senate for information. Copy of Final Assessment Report sent to the Quality Council.
February of subsequent academic year	Provost reports to Board names of all programs reviewed in previous academic year cycle
Two years after Site Visit	Two-year Progress Report submitted by Department/School to Senate Undergraduate Council/Senate Graduate and Research Council for approval, and Senate for information

**Table A3b: New programs/Major changes to current programs\***

Month 1	Approval by Department
Month 2	Approval by Faculty <ul style="list-style-type: none"> <li>- Co-op report commissioned</li> <li>- Library report commissioned</li> <li>- List of consultants sent to GSO/Office of AVPA</li> <li>- Proposal brief prepared for consultants (allow 1 month for consultants to read document)</li> </ul>
Month 5-6	Consultant site visit; Review Report received within 2 weeks Chair/Director ensures consultation and implementation of any changes recommended by consultants; submits revised brief
Month 6-7	Approval by Senate Undergraduate Council/Senate Graduate and Research Council
Month 7-8	Approval by Senate; advertizing permitted with qualification "subject to approval by the Quality Council"
Month 10	Approval by the Quality Council
Month 10	Submission to MTCU, if required
Two years after Site Visit	Two-year Progress Report submitted, as for current programs

\*Note that not all new programs require consultant visits (for example, graduate collaborative programs and undergraduate minors and options); if so, timeline will be shorter: otherwise these represent the minimum time required

## **APPENDIX 4: Guidelines for Self Study Reports**

\*Required for undergraduate reviews only

\*\*Required for graduate reviews only

Note that separate sections of the Self Study are required for undergraduate programs and graduate programs: information does not however need to be repeated (refer back to data provided in a previous section as appropriate).

### **1. Background**

- 1.1 Brief listing of programs offered: degrees offered; when program started; features e.g. collaborative programs, offered in different locations.
- 1.2 Program goals: explain goals and their relationship to Faculty's/University's degree expectations, with reference to degree expectations and learning objectives.
- 1.3 Fields in the program: indicate any recent changes.\*\*
- 1.4 Assessment relative to other departments or programs provincially/nationally/internationally as appropriate.
- 1.5 Previous Program Reviews: any concerns expressed in previous appraisal, and action taken
- 1.6 Process used to prepare Self Study: including role of students, faculty (full-time and part-time), alumni, staff, and employers (for co-op programs).
- 1.7 Special matters and innovative features: e.g. accreditation; role of Research Chairs; special research equipment, etc.

### **2 Human Resources**

- 2.1 Administrative organization of the unit, with reporting structures, including support staff.
- 2.2 List of faculty by field: full-time faculty (change since last review), vacant positions, impact of lost positions (if any), normal retirement dates of faculty, commitment to replacement of retirements (if any), cross-appointments from other units, adjunct faculty, clinical faculty. Table 1\*\* (Faculty members by field) from OCGS Template "Brief for the standard appraisal..." by OCGS Category (Category 1 through 6). Faculty CVs are required as a separate volume of the Self Study. No specific format is required as long as all CVs are provided in a consistent format, however departments are encouraged to use CVs in the common form as used by the Tricouncils, to minimize additional work.
- 2.3 External research funding of faculty (past seven years, by source (Table 2 from OCGS template); also by field (Table 2a, OCGS template)\*\*.
- 2.4 Graduate supervision: completed and current, master's, doctoral and post-doctoral students, by faculty member (Table 3, OCGS template).\*\*
- 2.5 Current teaching assignments by faculty member, showing number of courses, enrolments and administrative assignments (Table 4, OCGS template). Note that for graduate reviews, enrolments are needed for graduate classes; for undergraduate reviews, undergraduate enrolments, and augmented reviews require both.
- 2.6 Teaching evaluations for undergraduate courses, with comparison to the Faculty average.\*
- 2.7 Support staff.
  - 2.7.1 Number and type of staff.
  - 2.7.2 Change in staff complement over time.
  - 2.7.3 Profile of complement positions.
  - 2.7.4 Age and normal retirement date of staff: impact on program administration.

### **3 Physical and Financial Resources**

- 3.1 Library resources: provided by library.
- 3.2 Laboratory facilities.
- 3.3 Computer facilities.
- 3.4 Space.
- 3.5 Financial support of graduate students\*\* (Table 5, 5a OCGS template).
- 3.6 Financial support of undergraduate students\*: scholarships, teaching and research assistantships.
- 3.7 Other external sources of funding for the program.\*

### **4 Teaching**

- 4.1 The intellectual development and educational experience for the student, related to degree outcomes and program learning objectives. Suggested topics for coverage include:
  - 4.1.1 Learning community \*\*: departmental seminars, workshops on professionalization for students, opportunities for students to present their own research;
  - 4.1.2 Internationalization and student exchanges;\*
  - 4.1.3 Co-operation with other programs, with interdisciplinary programs, service teaching;\*
  - 4.1.4 Student advising;\*
  - 4.1.5 Co-op: experiential education is one of the defining features of UW, particularly at the undergraduate level but also in some graduate programs: a meeting should be held with the program's representative in the Department of Co-operative Education and Career Services;
  - 4.1.6 Distance education (Extended learning) (where applicable); and
  - 4.1.7 Continuing education (where applicable): programs offered, relationship of curriculum to department goals, enrolment patterns, indicators of teaching and program quality.
- 4.2 Graduate program regulations\*\* (admission standards; degree requirements; progress reports for students primarily focusing on research; thesis evaluation procedures; language requirements).
- 4.3 Part-time studies: if program differs for part-time students, describe how delivery differs.
- 4.4 Courses offered (listing): for graduate courses\*\*, it is required to state whether enrolment is restricted to graduate students, or also open to undergraduates, and whether there is any policy restricting the number of undergraduate courses or mixed undergraduate/graduate enrolment courses which can be taken as part of a graduate program. Table 7\*\* (OCGS template) for graduate courses offered in past three years, with enrolments.

### **5 Student Outcomes**

- 5.1 Undergraduate:\*
- 5.1.1 For both regular and co-op streams of an undergraduate program; the applicant numbers, the first year enrolment numbers, attrition/retention rates, co-op employment rates by work term, employer evaluation of co-op students, co-op evaluation of employers, value of work term reports, graduation patterns, final year academic grades, and student employment after graduation. (Note that information on student employment should not be given by name due to FIPPA regulations);

- 5.1.2 Academic quality of students accepted into programs: appropriateness of admission requirements (as related to learning outcomes); source of students (e.g. Ontario, other provinces, international, transfers and mature students);
- 5.1.3 Entrance scholarships, student scholarships in upper years;
- 5.1.4 Evaluation of students with respect to intended learning outcomes; and
- 5.1.5 Student employment after graduation, and continued education.

5.2 Graduate\*\* (master's, doctoral, certificates/diplomas separately):

- 5.2.1 Academic quality of students accepted into the program, appropriateness of admission requirements (as related to learning outcomes), source of students (e.g. Ontario, other provinces, international, transfers and mature students, enrolments) and graduations, attrition/retention rates, time to graduate, Tables 8, 9, 10 and 11 of OCGS template (cohort analysis), entrance scholarships, student publications, student employment after graduation, projected graduate intake and enrolments etc. (Note that information on student employment cannot be given with the students' name due to FIPPA regulations);
- 5.2.2 Student publications\*\*: proportion of graduates from doctoral and research-oriented master's programs with at least one publication (excludes abstracts) emanating from their graduate work; and
- 5.2.3 Projected graduate intake and enrolments\*\*: were plans for past seven years fulfilled: describe targets for next seven years, and reasons for significant growth/decline in numbers.

**6 Professional and Community Service of faculty members, related to discipline or professional activities\***

- 6.1 Service to professional or disciplinary associations, such as elected officer, journal editor, associate editor, number of editorial boards.
- 6.2 Service as invited reviewers or committee members for national and international research competitions.
- 6.3 Service to other programs or research centres at UW or elsewhere.
- 6.4 Connection between service and teaching: e.g. service learning.
- 6.5 Other aspects of service.

**7 Topics on which advice is requested**

Issues on which Department/School desires advice: programs are encouraged to include up to five issues on which advice would be useful.

## APPENDIX 5: Procedures for Establishing New Programs and major modifications of existing programs

FOR INFORMATION ONLY: WILL BE SUBMITTED FOR APPROVAL IN 2010/11

### New Program:

A New Program is defined as a set of courses leading towards a degree, degree program, program of specialization, diploma, or certificate approved by Senate or equivalent body that has not been previously approved by the appropriate authorities<sup>1</sup>. At the undergraduate level it also includes a new option or minor, and at the graduate level it also includes new fields and new collaborative programs. Depending on the type of program, the levels at which approvals are required differ, as in Table A5.1 below. All programs require internal approval (up to the Senate level), and depending on whether Quality Council and/or MTCU approval is also required, additional approval steps are needed.

**Table A5.1 Level of approval required for new programs, and major changes to existing programs**

Program Type	Senate	External consultants	Quality Council	MTCU
Undergrad minor	Yes	No	No	No
Undergrad option	Yes	No	No	No
Graduate field	Yes	No	Yes*	No
Graduate collab. program	Yes	No	Yes*	Yes
New degree(undergrad or grad)	Yes	Yes	Yes	Yes in non-core areas
Certificate (undergrad or grad)	Yes	No	No	No
Diploma	Yes	No	Yes* (graduate) No (undergrad)	Yes (graduate) No (undergrad)
Major change to existing program	Yes	No	No (but notification required)	No

\*Follows Expedited Approval process defined by the Quality Council.

<sup>1</sup> The Quality Council defines a program (of specialization) as: “An identified set and sequence of courses, and/or other units of study, research and practice within an area of disciplinary or interdisciplinary study, which is completed in full or partial fulfillment of the requirements for the awarding of a degree, and is recorded on the graduate’s academic record.” The Quality Council further defines “full” fulfillment of the requirements when the program and degree program are one and the same, and “partial” fulfillment when the program is a subset of the degree program, eg a major, an honours program, a concentration or similar. (Quality Council 2010).

## Major modifications

The Quality Council (2010) defines a major modification as one or more of the following program changes::

- a) Requirements for the program that differ significantly<sup>2</sup> from those existing at the time of the previous cyclical program review
- b) Significant changes to the learning outcomes
- c) Significant changes to the faculty engaged in delivering the program and/or to the essential physical resources as may occur, for example, where there have been changes to the existing mode(s) of delivery<sup>3</sup>

Some substantive changes to existing programs (offering in a new location, in a new format) do not necessarily require approval but do require notification of the Quality Council. The Quality Council may in some cases determine that an external appraisal is required. For these changes, an abbreviated proposal with rationale is required. This requires approval at the Faculty and University level, and notification to Quality Council. Most curriculum changes require full internal approval, with the exception of existing courses which are offered in another UW campus, where the campus itself has already received Senate approval. In this particular case the proposal is sent through the usual committees for information (Department, Faculty, Senate Graduate and Research Council/Senate Undergraduate Council, Senate).

Notification to the Quality Council must occur in a timely enough manner such that if any concerns are identified, there is the opportunity to respond to/remedy these concerns prior to admission of new students in the new format, and, if necessary, to undertake an appraisal.

Other substantive changes do require both internal and the Quality Council approval (e.g. adding a graduate field, significant change in course requirements as defined above).

### Aims:

The procedures for assessing proposals for new programs should ensure:

- the program achieves UW's academic excellence goals;
- the program reflects UW distinctiveness, is technologically current, is creative and innovative in its curriculum content and delivery, and entrepreneurial and appropriately interdisciplinary in perspective;
- the program has the potential to be one of the best in Canada and at least among the top quarter of similar programs in North America;
- the program has the potential to attract excellent students;
- the program has sufficient resources committed to it.

## Planning

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<sup>2</sup> Significantly is here defined as a change in more than 40% of the required courses/required workload for the program

<sup>3</sup> Significant changes here are defined as offering on a different campus, in a different mode (on-line versus in-class) or with a new institutional partner

Wherever the origins of the idea of a new program, the detailed planning process takes place in the academic unit which will implement it. This planning is done in consultation with various groups, some of which are: the Registrar's Office; the Office of Institutional Planning and Analysis; other relevant academic Departments in the University; Co-operative Education and Career Services (CECS) (if a co-op plan is being proposed); the Offices of the Dean and Associate Dean (Undergraduate/Graduate as appropriate) of the Faculty. In addition it is the unit's responsibility to meet the degree level expectations approved by the University (Appendix 1) and by MTCU, for non-core programs undergraduate and all graduate programs which are requesting approval for specific funding for BIU entitlement (Appendices 6 and 7).

### **Program Proposal**

A program proposal document is required. This should follow a similar format to that for periodic reviews (Appendix 4), although there are some areas where information will not be available. The main differences are as follows:

Sections 1.3 and 1.4: omit (information will not be available)

Sections 3.5 and 3.6: describe anticipated support (information on actual support will not be available)

Section 4 should focus on what is anticipated rather than past experience

Section 5 should focus on anticipated numbers of students (information on other aspects will not be available)

Section 7 is only relevant if external consultants will be used

### **Criteria:**

Any proposed new program should meet the following minimum criteria and also the *requirements of Appendix 1, and MTCU, if needed:*

**Program's Name** –should be appropriate to the plan's content and recognisable to potential applicants and employers;

**Plan's Objective** – should be consistent with UW's mission; with the learning objectives of the degree; and should be designed, structured and delivered so that graduates may achieve the expectations of the degree (Appendix 1);

**Admission Requirements** – should be at a level to ensure the appropriate quality of student applicants for the learning objectives of the institution and the program;

**Learning Objectives** - procedures are to be set up to judge that students are meeting acceptable levels as they proceed through the program to graduation;

**Curriculum** – needs to be current, creative and innovative in content, and appropriate to the plan's learning objectives; the structure of the curriculum needs to be considerate of the number of mandatory to elective courses as well as the streaming of these courses especially if the proposed plan is co-op; needs to show how courses lead to undergraduate degree level expectations;

**Teaching** – the mode of delivery (including online) needs to be appropriate to meet the learning objectives of the program;

**Student Evaluation** – the methods of student evaluation should be appropriate for the plan;

**Human Resources** – the number, quality and academic experience of full-time appointments, teaching assistants, technical staff and administrative staff are sufficient to meet the plan's potential demands;

**Physical/Informational Resources** – space, computer, and library resources are appropriate for the plan;

**Financial Resources** – evidence is present or commitment has been given that there are sufficient financial resources to introduce the plan and maintain it for the foreseeable future;

**Societal Goals** – an analysis has been undertaken to ascertain the potential demand for the plan; if it is a proposed co-op program, a feasibility study is required by CECS. If the potential student demand and/or potential co-op placements are not judged sufficient the co-op component will not proceed.

### **Approval Process:**

The normal approval process is as follows (with some variations according to the organization of the academic unit, and whether one or more academic units are involved):

- approval by Departmental/School Curriculum Committee(s);
- approval by Department/School as a whole at a Department/School meeting;
- approval by the appropriate Faculty(ies) Undergraduate/Graduate Council(s);
- approval by the appropriate Faculty Council(s);
- site visit by external consultants (if required);
- Departments/School response to consultants and modifications of proposal (if required);
- approval by Senate Undergraduate Council or Senate Graduate and Research Council;
- approval by Senate; programs may be advertised once Senate approval has been granted, but should clearly state “subject to approval by the Quality Council”
- reports sent to the Quality Council for approval or information, whichever is appropriate;
- approval of funding by MTCU, if required;
- report to Board on new degrees/certificates/diplomas approved in previous year;
- Two-year Progress Report to Senate Undergraduate Council/Senate Graduate and Research Council and Senate, for new degrees, diplomas and certificates: should respond to any questions posed by initial reviewers and provide preliminary information on student numbers and progress;
- Two-year Progress Report to the Quality Council, if requested.

### **Site Visit (if required):**

The guidelines for the site visit for current programs should be used. The main difference is that there are no existing students who can be interviewed. However, it may be appropriate (for some new programs) to invite current students who are interested in the new program, to meet with reviewers. This can include students who are interested in transferring into the new program (at the undergraduate level) or applying for the new program (current undergraduates interested in applying to a new graduate program).

## **APPENDIX 6: Core and Non-Core Undergraduate Programs (MTCU)**

### **Undergraduate “Core Arts and Science” Programs:**

Programs that are in basic disciplines which might be expected to be offered at any university (and are) appropriate to the academic ethos and character of any university.

Biological Sciences (including Biochemistry)

English Language and Literature

French Language and Literature

General Arts and Science

Humanities (including Ancient and Classical Languages)

Mathematical Sciences and Computer Studies

Physical Sciences

Social Sciences (including Women’s Studies)

Theology

**Note:** “Core Arts and Science Programs” are **exempt** from the approval process.

### **“Non-Core” Programs:**

Accounting, Accountancy

Actuarial Science

Agricultural Business

Agriculture

Area Studies

Art Education, Conservation, Art Therapy

Clothing, Textiles, Design and Fashion

Commerce

Communications

Community, Urban and Regional Planning

Criminology

Dental Surgery

Dentistry

Dietetics

Drama

Education: Primary-Junior; Junior-Intermediate; Intermediate-Senior; Technological Studies;

French as a First Language

Engineering

Environmental Studies, Environmental Science

Family Studies, Family Science

Film, Cinema

Finance

Fine Art, Studio Art, Painting

Forest Technology

Forestry

Gerontology

Health Studies

Home Economics, Food Sciences  
Horticulture  
Industrial, Labour Relations  
Journalism  
Kinesiology  
Labour Studies  
Landscape Architecture  
Language and Literature Studies  
Law  
Law Enforcement  
Legal Studies  
Library Science  
Linguistics  
Management, Business Management  
Marketing  
Medical Illustration  
Medicine  
Midwifery  
Municipal Administration  
Music  
Native Studies  
Nursing  
Nursing Education  
Occupational Therapy  
Optometry  
Personnel and Administrative Studies  
Pharmacology  
Pharmacy  
Physical Therapy, Physiotherapy  
Physical Education  
Planning  
Public Administration  
Public Service Studies  
Radiation Therapy  
Recreation  
Resource Management  
Social Work  
Speech pathology and Audiology  
Survey Science  
Systems Design  
Theatre Arts  
Translation, Interpretation  
Urban Studies, Urbanism  
Veterinary Medicine  
War Studies

## APPENDIX 7: Information the University Should Consider in Certifying Criteria Have Been Met (MTCU Criteria)

Criteria	Institutional Check List
<b>1. Program Nomenclature (“Truth-in-Advertising”)</b>	<ul style="list-style-type: none"> <li>&lt; the University Senate or equivalent academic body should ensure that the program name and degree designation are appropriate to program content and consistent with current usage in the discipline</li> </ul>
<b>2. Academic Quality</b>	<ul style="list-style-type: none"> <li>&lt; Undergraduate: the University should ensure that the Senate or equivalent academic body has approved the undergraduate program</li> <li>&lt; Graduate: the University should ensure that the Dean of Graduate Studies (or equivalent) has received a letter indicating the date program passed OCGS appraisal without requiring improvements</li> </ul>
<b>3. Financial Viability</b>	<ul style="list-style-type: none"> <li>&lt; the Board of Governors or equivalent body should ensure the university has in hand the requisite resources to introduce the program within existing funding levels and is prepared to maintain the program for a reasonable period of time (The approval of a program is <b>not</b> grounds for a request for additional funding from the Ministry to initiate or sustain the program)</li> <li>&lt; where there is an increase in the minimum length of time required to complete an existing approved degree program, the institution should be able to justify the additional costs incurred to the institution, government and the student.</li> </ul> <p>In making these determinations, institutions should consider:</p> <ul style="list-style-type: none"> <li>&lt; the impact of the program on funding and how the institution intends to finance and staff the proposed program</li> <li>&lt; the additional costs (capital expenditures, additional faculty, etc), and the sources of additional funds (external grants, donations, government grants)</li> <li>&lt; how other programs will be affected (joint offerings, closure, rationalization, decreased in size, etc.), including how and whether or not any cost savings will be involved.</li> </ul>
<b>4. Institutional Appropriateness</b>	<ul style="list-style-type: none"> <li>&lt; the university should ensure the program is related to institutional mission, academic plans, and/or departmental plans</li> <li>&lt; the university should ensure the program fits into the broader array of program offerings, particularly areas of teaching and research strength, collateral areas of study, etc.</li> </ul> <p>In making these determinations, institutions should consider:</p> <ul style="list-style-type: none"> <li>&lt; notable resources available to the program demonstrating institutional appropriateness e.g. Chairs, institutes, centres; unique library collections or resources; facilities such as computer, laboratory, other acquisitions, etc.</li> <li>&lt; external financial support demonstrating strength such as facility/equipment donations, other external donations, grants, etc.</li> </ul>

Criteria	Institutional Check List
<b>5. Student Demand</b>	<ul style="list-style-type: none"> <li>&lt; the University should ensure there is convincing evidence of student demand for the program</li> </ul> <p>In making these determinations, institutions should consider:</p> <ul style="list-style-type: none"> <li>&lt; projected enrolment levels for the first five years of operation (If the program is in operation, use actual and projected data)</li> <li>&lt; intended steady-state annual enrolment and steady-state total enrolment projections and the year(s) in which they will be achieved</li> <li>&lt; evidence of student demand through application statistics, for example: number of enquiries, applications received, number of qualified applicants, use of macro-indicator data (graduate only)</li> <li>&lt; origin of student demand (% domestic and visa students; graduate only - the undergraduate or master's programs from which students would be drawn)</li> <li>&lt; duration of the projected demand (e.g. short, medium or long-term demand from specified sources)</li> <li>&lt; evidence of review and comment by appropriate student organization(s)</li> </ul>
<b>6. Societal Need</b>	<ul style="list-style-type: none"> <li>&lt; the University should ensure there is convincing evidence that graduates of the program are needed in specifically identified fields (academic, public and/or private sector)</li> <li>&lt; for professional program areas, the university should ensure congruence with current regulatory requirements of the profession</li> </ul> <p>In making these determinations, institutions should consider:</p> <ul style="list-style-type: none"> <li>&lt; dimensions of the societal need for graduates (e.g. socio-cultural, economic, scientific, technological)</li> <li>&lt; geographic scope of the societal need for graduates (e.g. local, regional, provincial, national)</li> <li>&lt; trends in societal need for graduates</li> <li>&lt; duration of the societal need (e.g. short, medium, or long-term)</li> </ul> <p>Examples of evidence for the above would be:</p> <ul style="list-style-type: none"> <li>&lt; letters from a variety of potential employers of graduates who have seen the curriculum and commented upon the need for graduates within their organization and, more broadly, in their field of endeavour</li> <li>&lt; professional society and/or association comments about the need for graduates based on a review of the curriculum</li> <li>&lt; employment surveys, survey of the number of positions advertised in, for example, the CAUT Bulletin, AUCC University Affairs, etc.</li> <li>&lt; statistics related to the number of Ontario students leaving the province to study in the same field elsewhere in Canada or abroad</li> </ul>

Criteria	Institutional Check List
<b>7. Duplication</b>	<ul style="list-style-type: none"> <li>&lt; the University should cite similar programs offered by other institutions in the Ontario university system</li> <li>&lt; the University should provide evidence of justifiable duplication based on societal need and/or student demand in cases where there are programs in the system that are the same or similar (Comments from other institutions regarding proposed new undergraduate programs will be sought by the Ministry. Comments regarding Health Science programs will also be sought from the Ministry of Health)</li> <li>&lt; the University should indicate innovative and distinguishing aspects of the program</li> <li>&lt; the University should indicate why the institution is offering the program on a “stand-alone” basis rather than merging its resources with another institution in a joint program</li> </ul>