PSYCHOLOGY

Review Process

This was the second undergraduate review of the Department of Psychology, the first one having been conducted in 2003. The self-study for this review was completed August 2010; the site visit was conducted November 14 to 16, 2010; the review team report was received February 18, 2011; and the Department’s and Dean’s responses were submitted February 7, 2012.

The evaluators in the first review were impressed and considered Psychology “one of the gems in the crown of the University of Waterloo.” Particular aspects of the program that were singled out included: community outreach in the Early Childhood Education Centre (ECEC) and the Psychology Clinic (now the Centre for Mental Health Research), and the exemplary education and training that was being offered to undergraduate students.

The reviewers did make several observations including: the absence of a course on the history of Psychology; students’ perception that some courses required greater mathematics or science background than was reflected in calendar prerequisites; limitations in course offerings at the senior levels; uneven demands in some of the methodology courses; a faltering Distance Education (DE) program; and the pressures of increasing enrolment likely to be produced by the double cohort. The double cohort occurred in mid-decade when two high school graduating classes sought admission to universities in the same year as a result of the Ontario secondary schools’ system being required to switch from a five-year to a four-year program.

The Department has addressed all the issues; a course in the history of Psychology is now offered; introductory level neuroscience courses have been redesigned; senior course offerings have been maximized; and the degree, fully by DE, has been terminated because of lack of resources, although some fully online courses will continue to be offered.

Faculty members, senior undergraduates, and the undergraduate Psychology Society were all consulted in the current self-study and their comments are included in the document. In addition, online surveys were administered to both current and graduated students from the Department. Their suggestions are mentioned in the self-study.

Characteristics of the Program

Historical Overview

At its inception in 1961, the Psychology Department’s primary goal was as a service teaching unit for undergraduates enrolled in science and engineering. However with the appointment of a Chair in 1962 and the hiring of four to five faculty members each year for the next four to five years the Department began to develop into one that was capable of offering a full set of programs at both the undergraduate and graduate levels. The undergraduate program in Psychology began in 1962-1963, and by 1964 the Department was offering both a three-year General BA and a four-year Honours BA in Psychology.

Over the ensuing 46 years, these programs have grown, complemented by the development of a large number of additional undergraduate programs and options. Of particular note is the Human Resources Management (HRM) program, administered by the Department. In addition, St Jerome’s University offers courses in Psychology that reflects their expertise in sexuality and educational psychology. Renison
University College also offers Psychology courses that focus on students in the Social Development Studies program.

At the graduate level the Department has nurtured the growth of six distinct programs focusing on: Cognition; Cognitive Neuroscience; Clinical Psychology; Developmental Psychology; Industrial/Organizational Psychology; and Social Psychology.

Program Objectives

Since its inception the Department has maintained a very strong focus in its strategic goal to maintain excellence both in undergraduate- and in graduate-level education in both basic and applied areas.

Distinctiveness/Benchmarking

The reviewers in 2003 described the Department as “one of the top Psychology departments in North America.” In an assessment based on performance of graduating students on the Examination for Professional Practice in Psychology (EPPP) – an international benchmark by which all Clinical Psychology programs can be compared – the University of Waterloo (UW) was ranked third in North America. This result was based on average scores over the period 1997 to 2006. The present reviewers acknowledged that “UW Psychology is most clearly a top-tier elite department, not just within Canada but also internationally where it competes successfully against many much better resourced departments.”

Academic Programs Offered

The Department of Psychology offers the following academic degree programs:

Three-year General BA in Psychology
Four-year General BA in Psychology
Four-year Honours BA in Psychology (regular and co-op)
Four-year Honours BSc in Psychology (regular and co-op)
Four-year Honours BA in Psychology and Arts and Business (regular and co-op)
Joint Honours BA in Psychology and a second discipline
A Minor in Psychology

Psychology offers a co-op degree for either the Honours BA or the Honours BSc in Psychology, and it also participates in the Arts and Business co-op program when the chosen discipline is Psychology. Because the work term sequence of the Arts and Business co-op degree is different for the Honours BA or BSc degree programs, it can be difficult at times for the Department to offer all the required courses.

Students

An annual average of 171 students entered Psychology over the period from 2002-2003 to 2009-2010 inclusive. However, the numbers show a decline beginning in the 2006-2007 academic year. The average entrance high school grade for the 2002-2003 to 2009-2010 inclusive was 83.8% with 70% of entering students having a high school average of over 80%.

The Department has gone to considerable lengths to ensure that its strongest teachers are assigned to the introductory-level Psychology courses. This has generated a high level of retention of students and also places these students on a firm footing for training at more advanced levels.

From 2001-2002 to 2008-2009 there has been a steady increase in the annual (over three terms) number of Honours Psychology students enrolled, from 862 in 2001-2002 to 1,025 in 2008-2009, with a spike of
1,071 and 1,081 in 2005-2006 and 2006-2007 respectively. Of these enrolments, an annual average of 33.7% was from Psychology students studying in the co-op stream. These co-op enrolments show a steady increase from 265 in 2001-2002 to 352 in 2008-2009. Over the same period, the General degree enrolment count was 663 in 2001-2002, rose to 796 in 2006-2007, and since then has decreased 30% to 565 in 2008-2009. Some of this enrolment decrease may be accounted for by the fact that the Department terminated its Distance Education degree in 2007. In 2001-2002 the DE enrolment in Psychology courses accounted for 22.4% of the total enrolment but by 2008-2009 this had decreased to 15.1%. Of the total enrolment in Psychology courses, 90% was at UW, 8% at St Jerome’s, and the remainder at Renison.

In the period 2001-2002 to 2008-2009 inclusive, there was an average annual (over three terms) enrolment in Psychology course of 11,451 students of whom 80% were enrolled at UW, 17.5% at St Jerome’s, and 2.5% at Renison. Many of these students were not majoring in Psychology but were enrolled in Psychology courses as a result of their programs listing Psychology courses among their approved electives. The Department of Psychology does a significant amount of service teaching.

From Winter term 2005 to Winter term 2009 inclusive, there has been an upward trend in the number of Psychology students involved in work terms, from approximately 25 students a term in 2005 to about 32 a term in 2009.

Data for 2009 indicate that compared to co-op programs in other Departments at UW, Psychology students tend to be employed earlier in the job research process. In addition, overall rates of employment tend to be slightly higher for Psychology than for the overall UW average.

For the last five years co-op employers, on average, have rated 28.7% of Psychology co-op students as “outstanding”, with an additional 48.7% being rated as “excellent”.

In addition to co-op, the Department offers a large number of opportunities for students to receive experiential training in Psychology, in research courses, directed studies courses, apprenticeships, and the Honours thesis program. About 45 students per year engage in internship courses (PSYCH 264/464) in which they work for approximately eight hours per week in a research lab; about 100 undergraduates volunteer as research assistants; and an average of 15 students per year participate in directed studies courses (PSYCH 480 to 486) which often involves them in the design and completion of a small research project.

Entrance scholarships for Psychology students have been few. However, there have been 108 scholarships totalling $116,075 available every year from 2004-2005 to 2008-2009 to upper-year students. From 2001-2002 to 2009-2010 inclusive, Psychology averaged annually 11 NSERC Undergraduate Student Research Awards totalling $50,000. Over the past 10 years, 11 Psychology students received the President’s Circle Award for Volunteerism and six received the President’s Circle Award for Leadership.

From 2001-2002 to 2008-2009 inclusive, an annual average of 39 students from foreign universities came on international student exchanges to UW to study Psychology. Over this period students came from 19 different countries. UW Psychology students have participated in international exchanges but not to the same extent. Over the same period seven students each year went overseas on an exchange. The most popular universities overseas were the University of Sussex, Universitat Mannheim, University of Queensland, and the University of Ulster.

Prior to 2005 the Department employed its own course evaluation questionnaire, but as of 2004-2005 it adopted the Faculty of Arts’ instrument so as to be able to conduct global assessment of teaching across the Faculty. On a 5-point scale where 5 is the highest rating, the annual average evaluation of Psychology
courses from 2004 to 2009 was 4.26, slightly higher than that for the Faculty as a whole, 4.16, for the same period. Three members of the Psychology Department have won UW’s Distinguished Teacher Award, which is based heavily on student input. Within the Faculty of Arts only one other Department has received more of these awards than Psychology – History with four. The course evaluations and the Distinguished Teacher Awards provide strong evidence that undergraduate students receive a high level of instruction.

For the four cohort years, 2001-2002 to 2004-2005 inclusive, the percentage of students receiving a Psychology degree was 73.5%, with higher retention rates for students in the Honours co-op stream (86.5%) than the regular stream (72%), which includes both Honours and General students.

From 2002 to 2008, an annual average of 200 students graduated with a degree in Psychology, of these, 19.4% were on the Dean’s Honours List. Approximately 90% of the degrees granted over this period were to students in the Regular stream, yet 40% of students who graduated in the co-op stream were on the Dean’s Honours List compared to 17.1% from those in the Regular stream. This may be explained by the fact that the Regular stream includes both Honours and General students while all co-op students are in Honours programs.

From an online survey conducted by the Department and focus groups conducted by UW’s Centre for Teaching Excellence, current students gave their perception of the quality of instruction offered by the Department.

From the focus groups, key elements that students felt contributed to their training were: the research design courses, the undergraduate thesis, the co-op work placements, and the numerous opportunities to be involved in the research of the Department. Suggestions offered for improvement were earlier commencement of preparation for the thesis experience, more intensive instruction in ethics, and a wider variety of seminar offerings at the 400 level.

The online survey focussed on how students felt their education in Psychology related to the university’s undergraduate degree level expectations (UUDLEs). On a 5-point scale where 5 is strongly agree, current students gave ratings of over 4 to Depth and Breadth of Knowledge, Awareness of Limits of Knowledge, and Autonomy – Professional Capacity, and values of between 3.76 to 3.95 for Knowledge of Methodologies, Application of Knowledge, and Communication Skills. Communication Skills received the lowest value. Overall the results indicate that current students perceive their coursework to have provided them with excellent preparation in all the UUDLE areas that were surveyed. When stratified by year of study, Honours students suggested that they were already feeling well prepared in some areas, such as Depth and Breadth of Knowledge, Awareness of Limits, and Professional Capacity, as early as in their second year of study.

In a survey of alumni conducted in the Spring of 2009 by the Office of Alumni Affairs, Psychology alumni indicated that they were satisfied with the quality of their education and that the majority considered the program provided them with good preparation for employment.

**Faculty**

At the time of writing the self-study, the Department of Psychology, the largest Department in the Faculty of Arts, had 46 faculty members, 39 of whom were at UW, three at Renison University College, and four at St Jerome’s University. There were also 26 staff members, some administrative and others involved with ECEC, IT, and CMHR. The on campus Department had 14 full professors, 14 associate professors,
12 assistant professors, and one lecturer. St Jerome’s had one full professor and three associate professors while Renison had one associate professor and two assistant professors.

Within the next three years, three retirements are anticipated. However, there is the possibility of four more retirements. Currently there are five approved but frozen positions as well as two faculty members leaving to take up positions at other universities.

Over the last seven years, the Department has hosted eight post-doctoral fellows and five visiting scholars, all of whom conducted research with faculty members of the Department.

The normal teaching load for full-time UW faculty members is three courses per year, two undergraduate courses and one graduate course, with supervision of one to two undergraduate Honours thesis students, as well as one MA and two PhD students. The lecturer position has a normal teaching load of six courses. The normal teaching load for full-time faculty members at Renison University College and St. Jerome’s University is five courses per year.

The Department of Psychology takes great pride in being able to mount a full range of programs across the entire spectrum of Psychology. This has been accomplished largely by maintaining research strength in each of the six academic divisions of the Department, most notably by maintaining a minimum of five core faculty members in each field, although two fields currently are at four faculty members due to approved but frozen positions

Apart from the six academic divisions, there are other research groups and labs within the Department – the Centre for Mental Health Research, the Synaesthesia Research Group, the Waterloo Decision Research Group, the International Tobacco Control Policy Evaluation Project, the Waterloo Organizational Research and Consulting Group, and the Problem Gambling Research Team, as well as the Anxiety Research Lab, the Human Sexuality Lab, the Relationship Research Lab, the Cognitive Development Lab, and the Research Lab for Immersive Virtual Environments.

Over the last seven years the average annual research funds awarded to faculty members in Psychology were $1,535,000 of which 46.9% came from Tri-Council grants. Since 2003 the department has received 243 external grants totalling $65,146,000.

The research output from the department since 2003 has been 14 authored books; 30 edited books; 187 book chapters; and numerous technical reports. Since 2003 faculty members of the department have published 1,054 refereed journal articles and made 1,143 conference presentations. This averages an annual output per faculty member of 3 refereed journal articles and 3.2 conference presentations.

Faculty members in the Department of Psychology are actively involved in professional service in the form of service on editorial boards for journals in Psychology, including some of the highest impact journals in the field such as Advances in Experimental Social Psychology, Psychological Review, Psychological Science, the Journal of Experimental Psychology and the Journal of Personality and Social Psychology. Over the past seven years, faculty members have served on a total of 30 editorial boards with a further six Editor or Associate Editor positions.

Faculty members have also been very busy serving professional organizations including: President of the Canadian Society for Brain, Behaviour, and Cognitive Science, Chair of the Canadian Psychology Association (CPA) section on Clinical Psychology, Ontario Ministry of Education Research Panel, Membership Committee for the Society for Industrial and Organizational Psychology, Governing Board for the Psychonomic Society, Executive Board for the Society for Judgment and Decision Making,
Council Member for the Society for the Psychological Study of Social Issues, and Executive Committee Member for the Society for Experimental Social Psychology.

Faculty members have provided consulting to government or NGO organizations including the Ontario Ministry of Education Research Panel, the World Health Organization, and the US Surgeon General.

Faculty members have also participated as organizers or chairs of conferences including the International Association for Conflict Management, the Lake Ontario Visionary Establishment, the Annual Meeting of Theoretical and Empirical Neuroscience, the International Society for Justice Research, the Decision Conference, and the Ontario Symposium of Personality and Social Psychology.

Faculty members in the Department are frequently called upon as reviewers or committee members for granting councils, including NSERC, SSHRC, and CIHR annual competitions, Canada Research Chair selection panels, Canadian Foundation for Innovation reviewers, Heart and Stroke Foundation grant selection committees, WELLCOME Trust, the National Science Foundation, and the Israeli and Irish Science Foundations.

Faculty members are involved with many community outreach services such as: the ECEC which provides exceptional programs to pre-school and kindergarten aged children; the International Tobacco Control Policy Evaluation project which provides information about how national-level tobacco policies influence smoking in 20 different countries; and The Canadian Centre for Knowledge Mobilization (CCKM) which runs a project called Science Shop from which NGOs are able to request assistance in knowledge translation from the academic to the public sector.

Main Strengths

The reviewers indicate that the faculty members of the Department are world-class; that both undergraduate and graduate students show clear evidence of academic achievement due to a well-developed curriculum with abundant opportunities for research involvement; that the academic programs and scholarly efforts of the faculty members are clearly focused on addressing a wide range of pressing social needs, and serve the province and the country well.

Concerns/Opportunities for Improvement

The reviewers made 15 recommendations for the Department and three for the University. They are:

Recommendation 1: That the department institutes a formalized system of assigning senior-professor mentors for tenure-track faculty members.

Response: The department has over the years informally, but quite consistently, provided mentoring to new faculty and new instructors. It is, therefore, a small step to make this process more formal, thereby ensuring its consistency. Henceforth, mentoring of new faculty members will be coordinated by the Chair, who will identify a tenured faculty member to serve as mentor for each new faculty member. A “mentoring manual” will be developed and provided to each mentor. The department will also formalize mentoring of new instructors (e.g. graduate students or part-time/adjunct instructors) by assigning them an experienced faculty member as a resource.

Recommendation 2: That members of the department collectively develop a strategic plan that articulates and justifies future directions, particularly regarding faculty member hiring.
Response: The department will revise its strategic plan for mission-critical hiring in light of recent hires and anticipated changes.

Recommendation 3: That the department ensures measures are in place to continue its trajectory of research excellence, and to provide faculty members (particularly young faculty members) with the support they need to ensure their success in external grant competitions.

Response: Junior faculty members will benefit from consultation with their mentors, particularly in the realm of granting – from being made aware of available funding sources to receiving detailed input on grant proposals prior to submission. The department will also continue to strive for optimal start-up funds for new faculty members, and to assist them at the beginning by providing reduced teaching so that they may properly develop both their courses and their research.

Recommendation 4: That the department considers hiring one or more continuing lecturers.

Response: The department has considered this course of action in the past, and will do so again in response to this recommendation. The department sees such continuing lecturer positions as valuable, but only if they are not at the expense of tenure-stream positions. Therefore, they would be of serious interest only if they were incremental positions – the department does not want to compromise graduate supervision. Given the department’s need to hire sessional instructors, the undergraduate program would certainly benefit from hiring one or two continuing lecturers.

Recommendation 5: That the department holds regular faculty meetings.

Response: The department intends to institute a once-a-term town hall meeting as a first step in response to this recommendation. The first one will take place in Fall 2011.

Recommendation 6: That the department ensures competitive offers can be made to PhD-track students in the Master’s program, and work to have more students transfer into the PhD program within one year.

Response: This is the most important challenge facing the department, and the department greatly appreciates the reviewers realizing it. The department is certain that the newly instituted graduate funding plan in the University will seriously erode the graduate program – the lifeblood of this department. With sharply reduced funding for Master’s students, the department’s ability to attract top undergraduates will plummet. With a shortened overall term of funding, the department’s ability to place graduate students in desirable positions upon degree completion will suffer dramatically. The department is dedicated to resolving this problem as soon as possible.

Recommendation 7: That the department abandons the requirement of gender balance in proctoring of mid-term examinations.

Response: The department has already abandoned the gender balance requirement for proctoring of midterms.

Recommendation 8: That the department encourage faculty members to include a library orientation session as a component of their courses, and make more effective use of the library liaison program.

Response: The department has begun discussions with the Departmental Liaison Librarian regarding the best ways to encourage faculty members to include orientation sessions in their courses (including the core methodology courses). The department has also updated its Faculty Teaching Handbook to emphasize the availability of such services. The discussion will likely continue in conjunction with the
response to Recommendation 12 (below) as the department considers ways to deepen student involvement in writing and literacy.

**Recommendation 9:** That the department be authorized to fill the position of research administrator.

**Response:** Psychology’s Administrative Officer will present a Mission Critical request and job description for the position of Research Finance Coordinator to the Dean and the Vice President. The plan for this position was reviewed with the Faculty of Arts Executive Officer and was given full support at that time.

**Recommendation 10:** That the department develops norms for typical grade distributions at each level and institute the reporting and monitoring of grade distributions in undergraduate courses.

**Response:** For the past several years, the department has employed an informal procedure for “vetting” grades where administrative staff, who collect grades data, “flag” cases that seem to be outliers so that they may be considered by the Associate Chair together with the course instructor. The department will consider methods to formalize this procedure, and the department has begun to collect grades data for courses offered over the past several years. When the department has examined the data, it will develop policy that will encourage instructors to maintain reasonable norms that are in accord with those of other departments in Arts and that maintain reasonably even grades distributions where multiple sections of the same courses are offered in the department.

**Recommendation 11:** That the department phases out the three-year General BA degree program in Psychology.

**Response:** This is quite a reasonable recommendation. Because this is not a change that is completely under the control of the department, it will be drawn to the attention of the Associate Dean of Undergraduate Studies in the Faculty of Arts who will be asked to consider this change in light of the mandates of the Faculty.

**Recommendation 12:** That the department encourages increased emphasis on, and assessment of, written and oral communication skills in first, second and third year courses.

**Response:** The department agrees that there is a need to increase emphasis on literacy and communication skills in the undergraduate program. The Associate Chair will convene a subcommittee representing broad areas of departmental expertise so that the department can determine how best to increase writing requirements in courses. Although the department does not envision being able to find the substantial resources that would be required to include writing requirements in PSYCH 101, early thoughts include increasing writing requirements in PSYCH 291, one of the introductory methodology courses, but other innovative solutions will be sought such as the development of new online content or collaborative learning opportunities involving strong senior undergraduate students as tutors. The department will enlist the aid of the Centre of Teaching Excellence in these endeavors.

**Recommendation 13:** That the department either (a) drops the research apprenticeship programs or (b) revises the course requirements of the research apprenticeship program to include an intellectual product that would be graded on a percent basis and ensure a valuable research learning experience for the students (the latter is the preferred direction).

**Response:** The department agrees that its experiential learning courses require some scrutiny to ensure that students in these courses are able to produce worthwhile intellectual projects. The department is
currently compiling data so that it can understand how the apprenticeship courses are being used at present, and the department plans to revise the intent and the descriptions of these offerings so that not only will they be of greater benefit to the students but they will also help to address program weaknesses in communication and literacy, as per **Recommendation 12.**

**Recommendation 14:** That the department considers ways to better publicize thesis supervision opportunities and to match faculty members and student interests, and to ensure that all students have an equal opportunity to find optimal supervisor matches.

*Response:* The department has begun to review current practices related to supervision of PSYCH 499 theses, and the department has already made some changes to its Student Undergraduate Handbook that will make the supervisor selection process more transparent to students. The Associate Chair, in consultation with the PSYCH 499 coordinators, will develop a plan that will help to establish better norms for student-supervisor matches and that will provide new opportunities for students to become aware of which member of faculty are able to take on additional supervisions.

**Recommendation 15:** That the department considers ways to enhance flexibility in curriculum sequencing to accommodate better the needs of co-op and other students in Psychology.

*Response:* Over the past several years, the department has been paying very close attention to course sequencing issues and to the potential barriers that such issues might place before students attempting to streamline and to make as efficient as possible the courses offered. The department feels that it is managing these issues very well – in the sense that students who follow the many programs of study are, in the vast majority of cases, able to fulfill all course requirements without prolonging their term of study. The department agrees with the reviewers that this is an area that requires continuing close scrutiny and the Department is committed to doing the best job possible in this area.

**Recommendation 16:** That future self-study reports include assessment data regarding teaching activity to other academic units, and that CVs provide a brief indication of area of research interests and expertise.

*Response:* The department sees the merit in the recommended additions to future self-studies. This would require revising the self-study guidelines which is outside our department’s purview.

**Recommendation 17:** That the University rationalizes its classroom resources and quickly constructs, or makes available, classroom spaces that reflect and support demand.

*Response:* The department agrees with this recommendation. In the department, the dire shortage of classroom space for both large and smaller classes directly impedes the department’s ability to maintain flexibility in course offerings as per **Recommendation 15,** to meet the need of both students from Psychology and of those in other departments and Faculties who look to Psychology for service teaching. The department is glad that the reviewers have recognized the importance of this issue to the maintenance of program quality and the department will ask the Dean of Arts for assistance in obtaining adequate teaching space.

**Recommendation 18:** That the Registrar’s Office revises the format of student transcripts to include class size and class average grade.

*Response:* This is a quite reasonable recommendation, one with which the department agrees. Because such a change is not under the control of the department, it will be drawn to the attention of the Associate Dean of Undergraduate Studies in the Faculty of Arts.