

# Final Assessment Report

## Psychology (BA, BSc, MA, MASc, PhD, Minor)

### December 2019

#### Executive Summary

External reviewers found that the Psychology programs (BA, BSc, MA, MASc, PhD, Minor) delivered by the Department of Psychology were in good standing.

*“..the undergraduate and graduate Psychology programs are in good standing. The programs provide students with excellent academic experiences that are well supported by outstanding faculty and staff.”*

A total of seven recommendations were provided by the reviewers, touching on improving communication and professional skills outcomes in the undergraduate program and providing increased support and opportunities for teaching and placement opportunities in the graduate program. In response, the program created a plan outlining the specific actions proposed to address each recommendation as well as a timeline for implementation. The next cyclical review for this program is scheduled for 2024-25.

#### Student Complement (All Years)\*

	Undergraduate Students						MA	MASc	PhD
	BA General	BA Honours	BA Honours Co-op	BSc Honours	BSc Honours Co-op	Minor			
Fall 2019	84	334	179	67	47	260	28	12	92
Fall 2018	99	327	168	59	37	260	25	7	82
Fall 2017	115	346	153	64	27	279	27	9	77

\*Active Students Extract pulled from Quest December 12, 2019

#### Background

In accordance with the University of Waterloo’s Institutional Quality Assurance Process (IQAP), this final assessment report provides a synthesis of the external evaluation and the internal response of the Psychology programs (BA, BSc, MA, MASc, PhD, Minor). A self-study (Volume I, II, III) was submitted to the Associate Vice-President, Academic and Associate Vice-President, Graduate Studies and Postdoctoral Affairs on September 19, 2017. The self-study (Volume I) presented the program descriptions and learning outcomes and an analytical assessment of the programs, including the data collected from a student survey, along with the standard data package prepared by the Office of Institutional Analysis & Planning (IAP). The CVs for each faculty

member with a key role in the delivery of the program(s) were included in Volume II of the self-study.

From Volume III, two arm's-length external reviewers were selected by the Associate Vice-President, Academic and Associate Vice-President, Graduate Studies and Postdoctoral Affairs: Dr. Patrick Bennett, Professor of Psychology, Neuroscience and Behaviour, McMaster University, and Dr. Beverly Fehr, Professor of Psychology, University of Winnipeg.

Reviewers appraised the self-study documentation and conducted a site visit to the University on March 26-27, 2018. An internal reviewer from the University of Waterloo, Dr. Gordon Stuble, Professor of Mechanical and Mechatronics Engineering and Associate Dean, Teaching in the Faculty of Engineering, was selected to accompany the external reviewers. The visit included interviews with the Vice-President, Academic & Provost; Associate Vice-President, Academic and Associate Vice-President, Graduate Studies and Postdoctoral Affairs; Dean of Arts; Arts Associate Dean of Undergraduate Studies; Chair of the Department of Psychology; faculty members and staff. The review team had the opportunity to meet with groups of current undergraduate and graduate students, visit the facilities associated with the programs, and meet with representatives from the Library and Co-operative Education.

This final assessment report is based on information extracted, in many cases verbatim, from the self-study, the external reviewers' report and the program response.

### **Program characteristics**

**3-year General BA in Psychology:** provides majors with a foundational understanding of core concepts, theoretical perspectives, and methodologies that psychologists use to understand mind and behaviour. In this program, students take a selection of discipline core courses, courses covering basic research methods and basic data analysis, and can select diverse upper-year electives to explore content domains of psychology in greater depth. Students may choose to restrict their electives to concentrate on courses within a particular content domain or they may opt to continue to explore the variety of content domains within the field.

**4-year General BA in Psychology:** provides greater exposure to the knowledge base of the discipline compared to the 3-year General program. In the 4-Year General program, students complete all six discipline core courses to ensure that they have a comprehensive understanding of psychology's various content domains and can recognize the shared and distinct theoretical perspectives and methodologies associated with these core areas. In this program, students also complete a larger set of advanced content courses and a capstone course that explores practical applications of psychological theory and research.

**Honours BA in Psychology:** has the same requirements as the 4-year general degree, but provides additional opportunities that are not available to 4-year general majors. Specifically, Honours BA majors have the option to complete a Research Intensive Specialization involving an additional

four courses that provide advanced training in research methods and design, information literacy, and quantitative analysis. Honours BA majors also have the option to enroll in co-operative education to gain work experience while pursuing their undergraduate studies and to explore the connections between psychology and diverse sectors of employment. For a capstone course, students enrolled in the Research Intensive Specialization enroll in an Honours seminar whereas other Honours students enroll in a fourth-year course that explores practical applications of psychology.

**Honours BSc in Psychology:** is similar to the Honours BA with the Research Intensive Specialization. However, the Honours BSc requires students to complete additional courses in mathematics and other science disciplines (e.g., biology, chemistry). This background in natural sciences can enrich students' understanding of the biological bases of cognition and behaviour and reinforce their appreciation of the value of studying the mind from a scientific perspective. This program is best suited to students with interests in neuroscience or cognition, or to students who anticipate postgraduate training in medicine. The Honours BSc in Psychology is offered as either a regular or a co-operative system of study.

**Psychology Minor:** provides a general overview of Psychology including a subset of the discipline core courses, some advanced content courses, and several electives within Psychology. However, unlike the General plans, basic methods and data analysis courses are not required.

**MA Program:** Depending on the area, completing the MA typically requires one or two years of full-time study. In most cases, the requirements for the MA are met by completing four one-term (0.5 credit) courses accepted for graduate credit by the Department, including at least one core statistics course, as well as the Master's Thesis, which must be passed by one to three readers in addition to the student's supervisor. Alternatively, a student may petition the Associate Chair, Graduate Studies, for permission to enter a Master's Research Paper option. This option requires the completion of eight one-term (0.5 unit) courses accepted for graduate credit by the Department, including at least one core statistics course, and the Master's Research Paper, which must be passed by two readers. The difference in number of required courses between these two streams reflects the greater research demands of the Master's Thesis compared to the Master's Research Paper.

There are differences in the role of the MA program that partly reflect important distinctions in how scholarship funding works in SSHRC-funded areas versus NSERC-funded areas. Unlike the MASc program, the MA program serves as the entry point to the PhD program. Students applying to work in the Clinical and Social Areas are first admitted to the MA and then ordinarily transfer into the PhD program once they have fulfilled the requirements for the MA. Students applying to the Cognitive Neuroscience or Industrial/Organizational Areas can be admitted either to the MA program or directly to the PhD program. Students in the Cognitive and Developmental Areas are admitted directly into the PhD program, but may obtain an MA along the way, when they have completed the requirements for it.

**MASc in Developmental and Communication Science:** is a one-year program offering advanced applied training with a specialization in social and/or cognitive development relevant to communicative development. It provides students with in-depth opportunities to observe communicative interactions between children in naturalistic settings and to develop skills related to the empirical measurement of communication such as transcription, coding strategies, and statistical analysis. The program includes both a Research Lab Internship and a Community Location Practicum, all within one year. The program's aims are (1) to augment a student's preparation for admission into postgraduate programs and/or (2) to increase employment opportunities in related professional fields.

**MASc Program in Applied Psychology:** is a two-year program designed to prepare students for careers in various capacities related to human resource management, including organizational consulting, organizational and policy research, training, and design of systems for personnel selection, job classification, and performance evaluation. It also prepares students for advanced studies in Industrial/Organizational Psychology at the doctoral level.

The program includes an Internship or Field Placement, usually completed by working full-time for four continuous months. Internship placements have occurred with major private corporations, crown corporations, consulting firms, and government agencies.

**PhD Program:** As outlined above, students who wish to complete the requirements for the PhD in the Cognitive and Developmental Areas are admitted directly to the PhD program, whereas students with the goal of completing the PhD in the Clinical or Social Areas are admitted first to the MA program and then transfer to the PhD. Students in the Cognitive Neuroscience and Industrial/Organization Areas may be admitted directly to the PhD program, but also can be admitted to the PhD upon first completing a Master's degree. Students typically complete their PhD degree in 4 to 5 years following their initial admission to the graduate program.

Completion of the PhD degree in Psychology requires the following:

- 1) A minimum of two courses in statistics or quantitative methods and four breadth courses (from outside the area of specialization)
- 2) A series of required core courses in the student's field  
(<https://uwaterloo.ca/psychology/current-graduate-students/degree-requirements>)
- 3) Successful defense of a dissertation describing original research carried out under the supervision of a faculty member having Approved Doctoral Dissertation Supervisor (ADDS) status.

In addition, students in Clinical Psychology must also complete a four-month fieldwork summer placement in a local clinical setting and a one-year internship at an approved clinical setting in North America.

## Summary of strengths, challenges and weaknesses based on self-study

### Strengths

- Faculty members are world-class researchers and superb teachers
- Graduate program is vibrant and Psychology graduate students are successful both in the program and upon graduation
- Undergraduate program is extremely well subscribed and well-reviewed both by outsiders and by the students themselves.
- Exceptional staff who are both very knowledgeable and very devoted, and who go out of their way to help students and faculty alike in many ways.

### Challenges – Undergraduate Program

- A key challenge for the undergraduate programs is the expansion of availability of Co-op to a much larger pool of students. Formerly the class size for Co-op was capped and enrolment was limited to students whose Psychology averages exceeded 78%. As of Fall 2016, any Honours Psychology major can enroll in Co-op. This means that any Honours Arts student who has a minimum Psychology average of 70%, and any Honours BSc student who has a minimum Psychology average of 75%, is automatically accepted into Psychology Co-op. These enrolment averages are considerably lower than the standard for admission to Co-op. It remains to be seen whether students with lower averages will struggle more with the challenges of Co-op, which may increase attrition from the program. Also, with more students competing for Co-op positions, we might observe a lower rate of employment for Co-op students, possibly coupled with less relevant employment options.
- A second challenge for the undergraduate program is the Arts First initiative being rolled out in the Faculty of Arts. All first-year students in Arts are required to take two small (25-student) seminar courses, one aimed at communication, one aimed at analysis. The goals are laudable—to provide students with seminar experiences, to emphasize and develop writing and presentation skills as well as critical analysis skills, and to permit students to be part of a couple of small-course cadres, connecting them to each other. The challenge, is finding instructors for these courses, which draws instructors away from other courses. If Psychology faculty are required to teach these new courses there will be implications for the other courses offered in the program. Coupled with the need for more Spring courses to accommodate the additional Co-op students expected, these joint pressures will strain Psychology's already stretched instructor resources, particularly given the Faculty of Arts simultaneously requiring that departments reduce the number of sessional instructors being employed.

### Challenges – Graduate Program

- The University makes one of its highest aspirations “international recognition”, yet in Arts, departments are simultaneously being discouraged from admitting international students, who do not receive government funding. It is hoped that this situation will be resolved in the near future so that the Department can admit some of the excellent international students who currently apply to our program and cannot be admitted.
- At present, the university guarantees \$15,000 for a maximum of two years to domestic students admitted to a Master’s program, and \$22,600 for a maximum of four years to students admitted to a PhD program. It is peculiar to offer a considerably lower value in the early years, given the goal of attracting top applicants. This has been especially hard on the MASc programs. As a consequence of this low funding, for example, the formerly very successful Industrial/Organizational MASc program, where students always obtain very good jobs in the business/consulting sector, has difficulty attracting students. For at least five years, the Department has been hearing that a plan has been presented to the Provost for a 5-year, \$25,000 package, which would significantly improve our attractiveness. Our chief competitors have longer periods of guaranteed support (e.g., 6 years at York, 5+ years at Toronto and Western), recognizing the need for 5 years of funding to allow students to build up sufficient CVs to be competitive for postdocs and other positions. The fervent hope is that the new funding package will finally be approved and put into place, and that attention will be given to both Master’s and PhD funding.

### **Weaknesses**

- The program wishes that the budgetary support for the Department was greater, but recognizes the constraints on the Faculty of Arts. Enhanced budget would enrich instructional innovation at both the undergraduate and graduate levels (e.g., in allowing more laboratories associated with courses and in providing more tutorials by graduate students; in permitting more graduate students to have at least one experience as sole instructor). The program is certainly grateful that faculty positions have not thus far been lost to budget cutting.
- The primary weakness financially is the graduate funding packages, both the too-small Master’s package (\$15,000 annual), and the too-short PhD package (4 years only).

### **Summary of key findings from the external reviewers**

*“..the undergraduate and graduate Psychology programs are in good standing. The programs provide students with excellent academic experiences that are well supported by outstanding faculty and staff.”*

*“The overall picture is one of high calibre students being attracted to the Psychology program at the University of Waterloo and exceling while they are in it. Following graduation, these students are extremely successful in finding employment.”*

### **Program response to external reviewers’ recommendations**

## Recommendations

1. Increase the emphasis on the development of communication and professional skills in the undergraduate program.

### Response

To enhance Psychology majors' training in communication skills, the program will integrate a writing lab component into the second-year research methods course (PSYCH 291). This writing lab will focus on the process of communicating psychological research in academic reports as well as popular media. The writing lab will include activities and assignments that reinforce and extend written and oral communication skills that are introduced in the first-year intensive communication courses (ARTS 130, ARTS 140, SCCOM 100) that launched in Fall 2018. The plan is for activities to include scaffolded research proposal assignments, peer review, and workshops on topics such as APA style. PSYCH 291 is an ideal context in which to deliver this writing-intensive lab because it is required for all majors, who normally take it during their first term following admission to the major. Learning how to communicate research designs and findings effectively is integral to research methods training so overall the writing lab will be a good fit with the timing and content of PSYCH 291.

All psychology instructors will be informed about the foundation of communication and analytic skills that students are expected to develop in the new first-year communication-intensive courses. Instructors of second- and third-year courses will be encouraged to consider incorporating activities and assignments that progressively build on this foundation of skills, and will be provided whatever resources possible to support such additions to their courses.

Psychology instructors who teach sections of ARTS 130 and 140 will be encouraged to discuss their experiences with colleagues to provide insights into the skills that students gain in these courses and to share ideas about implementing innovative instructional techniques to further develop and assess these skills. The ARTS 130/140 instructors have already begun to meet as a group to share insights and teaching resources with one another as they plan their outlines for these courses. Faculty are open to working together to strengthen the quality of undergraduate curriculum in terms of skill development. The program intends to encourage this collaboration and to promote the involvement of more faculty members in these discussions.

- 1a. *Consider how to better address UDLE 6 (Autonomy & Professional Capacity) for students who are not in the Co-op program.*

### Response

The curriculum mapping process and student consultation sessions identified gaps in coverage of autonomy and professional capacity for regular-stream students (i.e., students not enrolled in co-op). The program is taking a number of steps to address these gaps.

In May 2018, Psychology began to revamp the Applied Apprenticeship courses (PSYCH 465 and 467). These courses provide experiential learning opportunities in professional settings for students who are not enrolled in the co-op program. PSYCH 465 is intended for all psychology students; PSYCH 467 is available to students enrolled in the Human Resources Management (HRM) Minor. These experiential learning courses involve: (1) completing 60 hours of volunteer internship work for a community partner, and (2) participating in a seminar where students (a) discuss their internship experiences with each other and with a faculty instructor, (b) set professional development goals, and (c) review relevant resources and literature. In the past few years, the program had not been able to offer PSYCH 465 and 467 because there were insufficient resources to invest in the recruitment of potential community partners. This year, however, the Faculty of Arts secured a grant to hire a staff member to co-ordinate this recruitment process, to process student applications, and to conduct interviews to match students with partners. This has made it feasible for the courses to be re-introduced and to expand the enrollment to more students. Re-launching these courses will allow regular-stream students both to explore how their psychology training prepares them for careers and to make contributions to the community. These students will also have opportunities to practice and get feedback on their interview skills. The associated seminar challenges students to reflect on their work experiences, to identify and articulate career-relevant skills, and to draw connections between their internship experiences and their academic studies. The program is very excited to be offering these courses again and anticipate that they will go a long way toward addressing the gaps in coverage of autonomy and professional capacity within our curriculum. Importantly, students who are not enrolled in co-op will be given priority for enrollment in PSYCH 465/467.

Psychology instructors will be encouraged to incorporate into their courses more information about real-world applications of psychology as well as to build in assignments that cultivate professional skill development and autonomy. Some instructors already have course components that are highly relevant to professional development, but they may not explicitly articulate how the course material serves this learning objective. Making this more explicit should help students to better recognize how their coursework contributes to their career aspirations and other practical goals. To facilitate this, instructors will be provided with the American Psychological Association's recommendations for undergraduate learning outcomes and encourage them to describe in their course outlines how they deliver and assess these learning outcomes. In cases where learning outcomes related to autonomy and professional capacity are not currently present in a course, the plan is to ask instructors to consider adding course components that address these outcomes (to the extent that these are relevant and harmonizes with the instructor's other course objectives). For example, this



might include listing recommended readings or links to resources that provide students with information about practical applications of the course material or relevant career pathways. Or an instructor might include a guest lecture by a professional from a non-academic field who discusses how the concepts and skills that students are learning about in the course have practical applications within their profession.

Finally, the Department is launching a voluntary peer mentorship program for Psychology students in Winter 2019. In this program, third- and fourth-year Psychology majors volunteer to provide mentorship to a group of approximately 3 to 4 new majors who volunteer to receive mentorship. Peer mentors provide advice to incoming majors about setting goals, making connections with faculty and other psychology students, and balancing their studies with other activities. The experience of enabling the autonomy of less experienced students will contribute to the mentors' own professional development by promoting an ethic of responsibility and providing practice in communicating their experience and knowledge to peers. The mentors receive free training through the Student Success Office to provide them with relevant skills to take on this role. It is anticipated that the peer mentorship program will not only provide an opportunity for students to practice and develop skills related to autonomy and professional capacity but will also help to enrich the sense of community among our majors.

2. *Teach R and programming (e.g., Python) in the graduate program and offer a greater variety of statistics courses on a regular basis.*

### **Response**

The Department is working toward all of their graduate statistics courses being taught using R over the next few years. In Fall 2018, a new graduate course was offered on multi-level modelling which was taught exclusively using R. To ensure that students were up to speed, an R workshop was offered in the weeks preceding the course. Based on student feedback from the Fall 2018 course, the program will be developing an in-house workshop for R. This is anticipated to be complete by August 2020.

There is also a plan to introduce Bayesian analyses and other more contemporary statistical methods into current graduate course curriculum. In addition, on the programming front, there is discussion of offering a graduate course on Python and PsychoPy (developing experimental paradigms, statistical analyses, Data Visualization).

Also, there are several departments in Arts, led by Economics, collaborating on a Diploma in Computational Social Sciences. This will be geared toward providing graduate students with training in handling "big data" – including training in using Python. This still needs to be reviewed/approved by Economics but, if successfully initiated, will be useful for graduate

students in Psychology in that those choosing to pursue this diploma will receive additional training in skills relevant to industry.

- 3. Provide graduate students with more teaching opportunities. The implementation of the new university-wide writing requirement will require a re-structuring of the undergraduate Psychology program. It appears that the faculty resources that will need to be channeled into the writing program will free up courses that could well be taught by graduate students.*

### **Response**

The program certainly agrees with this goal and has devoted considerable discussion to the issue over the past couple of years. Psychology indicates that one problem is that support for sessional instructors has been decreasing, being one of the very few avenues left for tightening already very tight budgets at the level of the Faculty of Arts. At the same time, given the growth of Lecturer positions in universities, more of their graduate students will be pursuing these positions – positions that require demonstrable teaching experience. Students will need to be provided opportunities for that experience.

The new Arts First initiative resulted in a few courses becoming available each year for graduate students to teach when faculty members who normally teach those courses are instead teaching in the Arts First program. Beginning in 2018-2019, graduate students have been offered teaching opportunities to replace faculty who are covering ARTS 130/140. The number of available courses will become clearer over the next couple of years as Arts First rolls out. It is also believed, however, that this alone will not generate enough opportunities to meet the demand.

One route presently being discussed by Psychology is to have two graduate students co-teach a course, obviously doubling the teaching opportunities. Another route would capitalize on skills developed by undergraduates in their Arts First courses by increasing writing in subsequent years (see the response to Recommendation 1). For example, in a course such as PSYCH 291 Research Methods, graduate instructors could run a parallel “tutorial” section where they work on developing undergraduate student skills in writing up research.

The Department is currently working to develop a teaching practicum course supervised by faculty (as service), with aims to have this course complete by Winter 2020.

- 4. Provide graduate students with more opportunities for placements in industry and other non-academic organizations.*

### **Response**

At the time of the site visit, three of the five non-clinical research areas had applied practicum/internship opportunities for graduate students. The Developmental and

Industrial/Organizational areas have had these applied opportunities for students for quite a number of years. Specifically, students in the Developmental Area have the option to complete a community-based practicum at a variety of locations (e.g., Early Childhood Education Centre (ECEC) at University of Waterloo, McLennan Speech and Language Services), and students in the Industrial/Organizational Area have the opportunity to gain applied experience through internships at a variety of locations (e.g., Bell Canada, The Mutual Group). More recently, the Cognitive Area has also developed a practicum where students gain research experience at non-academic organizations. There are three students who have completed these practica in the Cognitive area. One student completed a practicum at BEWorks, a behavioural economics inspired consultancy in Toronto. A second student completed a practicum at the Centre for Extended Learning at the University of Waterloo. Finally, a third student did a practicum at a local private school where she designed lesson plans and strategies to improve student engagement.

As of Fall 2019, practicum courses have been developed for Social, Developmental and Industrial/Organizational areas, with plans to create practicum courses for Cognitive Neuroscience by Fall 2020.

With respect to professional development (outside experiential learning), Psychology is working on putting together a professional development course for all graduate students which would involve discussing issues such as interviewing, applying for funding, job searches, etc. In addition, individual research areas are now annually bringing in speakers who have Psychology graduate degrees and who work in non-academic settings to talk about their experiences (e.g., how to apply their PhD to industry). Moreover, Psychology graduate students are informed about Centre for Career Action workshops, which are geared toward various professional development activities.

5. *Improve communication between the Dean of Arts' office and the Psychology Department. We also encourage Psychology faculty members to play a greater role in university governance.*

### **Response**

It was already noted in the submitted factual corrections to the External Reviewers' Report that both the Dean and the Department believe that this recommendation reflects something of a misunderstanding. The Dean and the Chair (and indeed individual faculty members in Psychology) see communication (in both directions) as actually very good between the Department and the Faculty.

In sum, the Department sees no issue in Psychology's service to the university community, either in the Faculty or in the wider university.

6. *Streamline and harmonize graduate admissions such that all entering students are either accepted into the Master's program to be followed by Ph.D. studies or accept all students directly into the Ph.D. program. This would eliminate inequities in student funding.*

#### **Response**

In the past, areas differed in whether they offered direct entry into the Ph.D. program. This unintentionally created inequities in funding over the course of students' graduate training programs. In order to address these inequities, as of 2019 we are initially accepting graduate students into the Master's program and then moving them on to the PhD (except for terminal MSc students). Funding provided by the University is equitable for all students (\$15,000 for two years at the MA level, and \$25,000 for 4 years at the PhD level, with some additional funding provided for students holding Tri-Council scholarships). The program will move away from direct entry PhD in all areas to maximize funding flexibility for students and to maintain equity across areas. We feel this decision is absolutely necessary to remain competitive with our peer institutions across North America who routinely guarantee 5 years of funding to direct entry Ph.D. students (vs. UW where only 4 years of funding are guaranteed). In a research intensive program like ours, 4 years of funding simply does not provide Ph.D. students the time they need to be competitive for top tier academic positions. The removal of a direct entry Ph.D. stream did not negatively impact our application numbers or recruitment rates in 2019, although we will continue to track these numbers over time.

Faculty members do sometimes "top up" students to be competitive with offers from other institutions, with the goal of attracting top students. This is especially common at the MA level because of the lower amount provided at that level by the University. However, given inherent inequities across funding sources (e.g., Vanier vs CGS vs PGS Tri-Council awards) and the possibility of individual faculty top-ups, it is impossible to completely eliminate differences in funding across students. The program will continue to encourage faculty members to provide this additional funding via grants.

7. *Provide adequate and consistent support for international students applying to the graduate program.*

#### **Response**

There was a misunderstanding here, indeed reflected throughout the review document. Attracting international **undergraduate** students is a priority for Arts (and indeed university-wide) because their significantly higher tuition makes an important contribution to the budget of the unit. However, the opposite is true of international **graduate** students; they are a significant cost to the unit. Contrary to what is said in the review document, the former Dean (Peers) expressed his desire to see more international graduate students, given the rich experiences that they bring to the programs and the world-class visibility they provide, but the budget simply cannot accommodate very many of them at this time. There exists

significant regret about this, recognizing the many virtues of a more diverse graduate student complement, but unless or until budgetary changes make this more feasible, this situation is unlikely to change. In a memo to faculty in December 2019, the Associate Dean Graduate Studies (Linda Warley) explained that given the Faculty's current budget situation and in light of the provincial government's refusal to consider international graduate students as grant eligible, the Faculty would continue to place strict limitations on the number of international graduate students they could support each year. Over the past three years, Psychology was able to admit one faculty-funded international Ph.D. student in 2017, none in 2018, and one in 2019. We hope to be permitted by the Faculty to admit one funded international Ph.D. student again in 2020. Of course, individual supervisors are permitted to fully fund international graduate students from grants. The cost of this is simply too great for the vast majority of faculty given the need to provide funding for 5 years (average duration of Ph.D. in Psychology) and the fact that this level of support requires a large proportion of the typical annual funding amount provided to Psychology faculty in their tri-council grants. It is particularly difficult for SSHRC-funded faculty to guarantee support for international graduate students, given that the duration of SSHRC awards is highly variable (2-5 years). The Department will continue to work with the Dean and Associate Dean, Graduate Studies to identify possible sources of support for international graduate students, with understanding of the current financial situation at UW.

In 2016-17, the Department had actually resorted to explicitly saying on our website that international students should not apply—because it was felt that it was unreasonable for them to have to pay the application fee if there was no chance of them being accepted. This led to quite a few responses internationally saying such things as “I thought Waterloo was a world-class university.” The message has now been removed and instead, with considerable reluctance, the Department discourages individual international applicants when they contact Psychology. This is certainly regrettable given that Psychology admits a large number of domestic students, contributing substantially to the University's effort to reach its domestic targets, yet cannot admit any international students despite other units on campus having a large proportion of their graduate programs made up of international students.

**Implementation Plan**

Recommendations	Proposed Actions	Responsibility for Leading and Resourcing (if applicable) the Actions	Timeline for addressing Recommendations
<p>1. Increase the emphasis on the development of communication and professional skills in the undergraduate program.</p>	<ul style="list-style-type: none"> <li>Integrate a writing lab component into PSYCH 291 (Introduction to Research Methods; required of all Psych majors). Activities and assignments will reinforce and extend written and oral communication skills covered in the first-year intensive communication courses (ARTS 130, ARTS 140, SCCOM 100). Sample activities include scaffolded research proposal assignments, peer review, and workshops on topics such as APA style.</li> <li>Invite current and past ARTS 130/140 instructors in Psychology to explain and give examples of the foundational communication and analytic skills students are exposed to in first-year communication-intensive courses to all Department instructors</li> <li>Encourage instructors of second- and third-year courses to incorporate activities and assignments that progressively build on these foundation of skills</li> <li>Provide resources to upper year instructors to support such course additions</li> </ul>	<ul style="list-style-type: none"> <li>Chair</li> <li>Associate Chair, Undergraduate Affairs</li> <li>Psych 291 Instructors</li> </ul>	<p>Fall 2019 &amp; Winter 2020 - Planning</p> <p>Fall 2020 - Pilot</p>
<p>1a. <i>Consider how to better address UDLE 6 (Autonomy &amp; Professional Capacity) for students who are not in the Co-op program.</i></p>	<ul style="list-style-type: none"> <li>Revamp the Applied Apprenticeship courses (PSYCH 465 and 467) to provide experiential learning opportunities in professional settings for students who are not enrolled in the co-op program</li> </ul>	<ul style="list-style-type: none"> <li>Chair</li> <li>Associate Chair, Undergraduate Affairs</li> <li>HRM Director</li> <li>Program Manager</li> </ul>	<p>September 2018</p> <p>-Worked with EDGE to revamp Psych 465 and 467 – and offered these courses in Winter 2019</p>

		<ul style="list-style-type: none"> <li>• Develop Applied Directed Studies (Psych 480) that are reflective learning on volunteer experiences.</li> <li>• Encourage all Psychology instructors to incorporate into their courses more information about real-world applications of psychology as well as to build in assignments that cultivate professional skill development and autonomy (to the extent that these are relevant and harmonizes with the instructor's other course objectives).</li> <li>• Launch a voluntary peer mentorship program for Psychology students. In this program, third- and fourth-year Psychology majors will volunteer to provide mentorship to a group of approximately 3 to 4 new majors who volunteer to receive mentorship. The goal is to support autonomy and professional capacity in both the mentee and the mentor.</li> </ul>	<p>September 2019 -Edge no longer have the resources to assist us.</p> <p>Fall 2019 &amp; Winter 2020 – Planning Applied Directed Studies</p> <p>Fall 2020 – Pilot Applied Directed Studies</p> <p>Winter 2018 -Created a Peer Mentorship Program</p>
<p>2. <i>Teach R and programming (e.g., Python) in the graduate program and offer a greater variety of statistics courses on a regular basis.</i></p>	<ul style="list-style-type: none"> <li>• Associate Chair, Graduate Studies</li> <li>• Graduate Advisory Committee</li> </ul>	<ul style="list-style-type: none"> <li>• Transition all graduate statistics courses to being taught using R</li> <li>• Based on student feedback from Fall 2018 course, the program will create in-house workshop for R</li> <li>• Introduce Bayesian and other more contemporary statistical analyses into existing graduate course curriculum</li> <li>• Consider viability (teaching expertise, student interest) of offering a graduate course on Python and PsychoPy (developing experimental</li> </ul>	<p>Fall 2018 - a new graduate course was offered on multi-level modelling which was taught exclusively using R.</p> <p>August 2020 – New R in-house workshop</p>

		<p>paradigms, statistical analyses, Data Visualization)</p> <ul style="list-style-type: none"> <li>Collaborate on Faculty-wide initiative (led by Economics) to develop a Diploma in Computational Social Sciences which it is believed will be relevant and beneficial to many of our graduate students, particularly those wishing to receive additional training in skills relevant to industry</li> </ul>	
<p>3. <i>Provide graduate students with more teaching opportunities. The implementation of the new university-wide writing requirement will require a re-structuring of the undergraduate Psychology program. It appears that the faculty resources that will need to be channeled into the writing program will free up courses that could well be taught by graduate students.</i></p>	<ul style="list-style-type: none"> <li>Associate Chair, Undergrad</li> <li>Associate Chair, Grad</li> <li>Chair</li> </ul>	<ul style="list-style-type: none"> <li>Identify teaching opportunities for graduate students (e.g., co-teaching assignments), working within the constraints of the Faculty and Department budget</li> <li>Develop teaching practicum course supervised by faculty (as Service)</li> <li>Provide faculty supervision for graduate student instructors (e.g., syllabus review, in-class teaching observations) to support growth and development and to provide written evaluations for teaching dossier</li> <li>Consider having graduate students teaching the writing components of expanded undergraduate courses (e.g., Psych 291 as detailed in item 1 above)</li> <li>Develop applied graduate practicum/internship opportunities in all Areas</li> <li>Develop a professional development course within our Area brown bag seminars for all graduate students covering topics such as interviewing, applying for funding, job searches, etc.</li> </ul>	<p>Ongoing</p> <p>Beginning in 2018-2019 Graduate students have been offered teaching opportunities to replace faculty who are covering ARTS 130/140;</p> <p>Winter 2020 – work on designing teaching practicum course</p>
<p>4. <i>Provide graduate students with more opportunities for placements in industry and other non-academic organizations.</i></p>	<ul style="list-style-type: none"> <li>Area Heads,</li> <li>Associate Chair, Grad</li> <li>Chair</li> </ul>		<p>Fall 2019 and ongoing</p> <p>Fall 2019 - Practicum courses were developed in Social, Developmental, and</p>



<p>Industrial/Organizational areas.</p> <p>Fall 2020 – practicum courses will be developed for CNS (then all 6 areas will have applied practicums).</p>		<ul style="list-style-type: none"> <li>• Invite at least one brownbag speaker a year (in each Area) who has a Ph.D. in Psychology and currently works in a non-academic setting to talk about their experiences</li> <li>• Continue to inform Psychology graduate students about Centre for Career Action professional development workshops</li> </ul>	<p>Ongoing</p>
<p>5. <i>Improve communication between the Dean of Arts' office and the Psychology Department. We also encourage Psychology faculty members to play a greater role in university governance.</i></p>	<ul style="list-style-type: none"> <li>• Dean</li> <li>• Chair</li> <li>• Area Heads</li> </ul>	<ul style="list-style-type: none"> <li>• Please refer to submitted factual corrections stating that both Dean Peers and the Department believe that this recommendation reflects a misunderstanding. The Dean and the Chair (and indeed individual faculty members in Psychology) viewed communication between the Faculty and the Department at the time of the review as very good. This level of communication is expected to continue with the new Dean (Sheila Ager) and the new Chair (Heather Henderson).</li> <li>• Please refer to submitted factual correction from Dean Peers in which he noted that in meeting with the reviewers he mentioned that faculty members in Psychology might be (or have been) under-represented in administrative posts outside the Department (with full recognition that most Psychology faculty members have very active, Tri-Council funded research programs, that require high levels of graduate and undergraduate supervision).</li> </ul>	

		<ul style="list-style-type: none"> <li>• Regardless, our Department faculty and staff members are routinely invited, and usually agree to serve, in a variety of contexts across campus. For example, Daniela O’Neill (Assistant Vice-President, Graduate Studies and Postdoctoral Affairs), Colin MacLeod (Acting Associate Dean, Research), Britt Anderson (Arts Faculty Council, former Chair), Ramona Bobocel (member, HREC), Dillon Browne, Paul Wehr (FAUW), Mike Dixon (FTPC, Arts), Dan Smilek (FTPC, Engineering), Colin MacLeod (RTPC, St. Jerome’s), Heather Henderson (Arts Representative on University Strategic Planning Committee, Learning Environment), Ori Friedman (faculty representative, Search Committee for Dean of Arts), Janice da Silva (staff representative, Search Committee for Dean of Arts).</li> </ul>		
6.	<p><i>Streamline and harmonize graduate admissions such that all entering students are either accepted into the Master’s program to be followed by Ph.D. studies or accept all students directly into the Ph.D. program. This would eliminate inequities in student funding.</i></p>	<ul style="list-style-type: none"> <li>• Move away from direct entry Ph.D. in all Areas to maximize funding flexibility for students and to maintain equity across areas</li> <li>• Continue to encourage faculty members to “top up” students (i.e., provide additional funding via grants) to be competitive with offers from other institutions</li> <li>• Given inherent inequities across funding sources (e.g., Vanier vs CGS vs PGS Tri-Council awards) and the possibility of individual faculty top-ups, it is impossible to completely eliminate differences in funding across students.</li> </ul>	<ul style="list-style-type: none"> <li>• Associate Chair, Grad</li> <li>• Chair</li> <li>• Area Heads</li> </ul>	Ongoing

<p>7. <i>Provide adequate and consistent support for international students applying to the graduate program.</i></p>	<ul style="list-style-type: none"> <li>• Noted misunderstanding throughout review document. Attracting international <b>undergraduate</b> students is a priority for Arts (and indeed university-wide), but the opposite is true of international <b>graduate</b> students. International graduate student support was the point raised by our Department members.</li> <li>• Work with the Dean and Associate Dean, Graduate Studies to identify possible sources of support for international graduate students, with understanding of current financial situation at UW. It is almost impossible for our faculty members to fully support international graduate students, given that the expense to their grants to cover tuition differential and other costs is simply too great.</li> </ul>	<ul style="list-style-type: none"> <li>• Dean</li> <li>• Associate Dean, Grad</li> <li>• Associate Chair, Grad</li> <li>• Chair</li> </ul>	<p>Ongoing</p>
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The Department Chair/Director, in consultation with the Dean of the Faculty shall be responsible for the Implementation Plan.

Date of next program review

2024-25

Date

Signatures of Approval

*Heather A. Henderson*

August 10, 2020

Chair/Director

Date

AFIW Administrative Dean/Head (*For AFIW programs only*)

Date

Sheila Ager

Digitally signed by Sheila Ager

Date: 2020.08.11 16:18:29

-04'00'

August 11, 2020

Faculty Dean

Date

**Note:** AFIW programs fall under the Faculty of ARTS; however, the Dean does not have fiscal control nor authority over staffing and administration of the program.

*Dan DeVedi*

January 2, 2020

Associate Vice-President, Academic  
(For undergraduate and augmented programs)

Date

*Jeffrey M. Coell*

December 16, 2019

Associate Vice-President, Graduate Studies and Postdoctoral Affairs  
(For graduate and augmented programs)

Date

## Checklist for SUC/SGRC Reviewer Feedback Quality Assurance Office

**Final Assessment Report: Psychology**

**Name of Reviewer: Jack Rehder**

**Date: 8/6/2020**

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### Does the Final Assessment Report:

1. Include a credible implementation plan that not only addresses the substantive issues identified from the program review process, but also clearly identifies:
  - The actions that will follow from specific recommendations?  **Yes**  **No**
  - Those who will be responsible for acting on those recommendations?  **Yes**  **No**
  - Those who will be responsible for providing resources?  **Yes**  **No**
  - Priorities for implementation and realistic timelines for initiating and monitoring actions?  **Yes**  **No**
2. Provide rationales for any recommendations that have not been pursued?  **Yes**  **No**

### General Comments

**My one question – about the impact of the discontinuation of the direct-entry PhD program – has been addressed in this revised version.**

## Checklist for SUC/SGRC Reviewer Feedback Quality Assurance Office

**Final Assessment Report: Psychology (BA, BSc, MA, MASC, PhD, Minor)**

**Name of Reviewer: Richard Staines**

**Date: 7/28/2020**

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### Does the Final Assessment Report:

1. Include a credible implementation plan that not only addresses the substantive issues identified from the program review process, but also clearly identifies:
  - The actions that will follow from specific recommendations?  **Yes**  **No**
  - Those who will be responsible for acting on those recommendations?  **Yes**  **No**
  - Those who will be responsible for providing resources?  **Yes**  **No**
  - Priorities for implementation and realistic timelines for initiating and monitoring actions?  **Yes**  **No**
2. Provide rationales for any recommendations that have not been pursued?  **Yes**  **No**

### General Comments

I am quite happy with the responses of the program to all of the recommendations outlined in the report. I have no questions to add to the document as the plans to address each one were outlined quite clearly including appropriate timelines if not already initiated. In addition, the explanation regarding the funding for doctoral programs and the direct-entry option is good. I recommend acceptance of the report. Please let me know if you need anything else.