Memo

To: Donald Ipperciel, Principal, Glendon College
Cc: Mario Roy, Susan Murtha, Tim Moore, Joel Goldberg
From: Harvey Skinner, Dean
Date: September 10, 2014
Subject: BSc in Psychology at Glendon College

I am writing to give support from the Faculty of Health for the new BSc in Psychology at Glendon College. This new bilingual degree program will complement our long standing English language BSc in Psychology in our Department of Psychology.

Indeed, as we discussed, there will be synergies that over time will strengthen our two BSc Psychology programs, and further position York University as a leader in Psychology education and research.
York University

Major Modification: Addition of a new degree option
BSc in Psychology

Glendon College

Submitted: May 2014

Approved by Faculty Council on June 26, 2014
1. **Program**
   Psychology

2. **Degree Designation**
   Bachelor of Science (BSc)

3. **Type of Modification**
   The addition of a new option (bilingual BSc in Psychology at Glendon College) to an existing program (BSc in Psychology in the Faculty of Health)

4. **Effective Date**
   2015

5. **Description of proposed changes, rationale, alignment with academic plans**
   The proposed Bachelor of Science (BSc) in Psychology will provide a bilingual, Glendon-based science degree option for students interested in a program that integrates the examination of the major applications and theoretical viewpoints in psychology with an emphasis on the empirical approach to the discipline. Psychology as a field of study is broad and well-established within post-secondary systems around the globe. The proposed program name and degree designation; BSc in Psychology, reflects the most commonly recognized naming convention within the system. It also connotes the multidisciplinary nature of modern science.

   **Proposed Changes**
   The Department of Psychology at the Keele Campus, established as a founding program at York University, became part of the Faculty of Health, newly created, in 2006. This program is the largest Psychology program in Canada, with approximately 80 full-time faculty members and seven areas of study in its graduate program.

   Glendon’s Department of Psychology includes a faculty complement that is relatively small in comparison; however, most Glendon Psychology faculty members are active in York’s graduate program in areas associated with their field(s) of expertise. Further, Glendon’s BA in Psychology program has the second largest number of majors in the College. While the Department of Psychology at Keele has always included Major, Honours and Specialized Honours (BA and BSc) degree options, the addition of the proposed bilingual BSc option at Glendon will offer students parallel opportunities in terms of degree structure.

   Specifically, since the Glendon BSc in Psychology will be offered in both languages, Keele and Glendon students alike will have an opportunity to access bilingual science programming. More importantly; however, the provision of a bilingual Psychology BSc will address a number of additional needs and demands related to the provision of post-secondary French language programming in Southern Ontario. For example, with rare exception, all Canadian universities offer a BSc in Psychology but very few universities offer a BSc in Psychology in both French and English. In Ontario, the University of Ottawa and Laurentian University each offer a Psychology BA and BSc in both English and French. These institutions serve Eastern and Northern Ontario communities, respectively. The proposed Glendon BSc in Psychology would be the first and only comprehensive program offered in both languages within the post-secondary system in Southern Ontario. Because Southern Ontario and the GTA in particular,
continue to experience the most significant increase in francophone residents in the province, the introduction of the BSc in Psychology will help to ensure access to bilingual post-secondary programming in all regions of Ontario.

Further, the two York University programs in Psychology offer distinct features that complement each other beyond simply their differences in language of instruction and class size. For example, the Faculty of Health program features the York University Psychology Clinic, a community mental health and training centre; whereas, the Glendon College program has a long-established relationship with the Baycrest Centre for Geriatric Care (as well as with other affiliated hospitals and health centres), where students collaborate on clinical research through internships and other applied experience. In addition, the Glendon campus houses a centre in cognitive health, which is closely tied to the Psychology department.

Together, the two programs therefore, offer both on-campus (Faculty of Health) and off-campus (Glendon College) opportunities for experiential education and clinical training. The Glendon BSc will emphasize English and French courses and experiential learning in English and French.

Ultimately, York’s two Psychology programs demonstrate offerings of considerable breadth, thereby strengthening the reputational value of the York Psychology degree provincially, nationally and internationally.

Rationale

Student Interest
The post-secondary system in Ontario is rich in diverse Psychology offerings reflecting, in part, the long-lasting and consistent student interest in the field. Glendon College specifically, reports a persistent and growing demand for Psychology programming from both anglophone and francophone markets. More and more students arrive at Glendon expecting to major in Psychology. For example, for the 2012-13 academic year, the number of Glendon Psychology majors was up by 11%. In 2013-14, this number is up once again, this time by 12%. The five-year trend shows an increase of 30%, that is, a compounded average increase of 5.3% per year. There are 327 majors in the program this year, a record. After the French Studies program, which is at the heart of the mission of Glendon, Psychology is the largest program. Furthermore, in 2012-13, the number of first-year Glendon Psychology majors was up by a whopping 36.8% over the previous year. This is to be compounded with a healthy 6.5% rise in 2013-14. The five-year trend shows an increase of 41.4% in first-year majors, that is, a compounded average increase of 7.2% per year. There are 97 first-year majors this year, a historic high. The number of applications to the program for the year 2014-15 has risen by approximately 50%. Acceptances are up 36% between 2011 and 2013; total majors are up 23% during the same period; total FFTE’s are up 22% from ’11 to ’13. Enrolments in the French section of Introductory Psychology are up 39% since 2011. The 2-year retention rate increased from 66% in 2008 to 80% in 2011. The recent Spring Open House (March 2, 2014) attracted a standing-room-only audience of 120+ for a presentation by Glendon Psychology faculty about the program. These statistics clearly indicate that the Glendon College Psychology program is prosperous and in high demand. It is anticipated that a bilingual BSc program in conjunction with the bilingual BA program in Psychology would fuel enrolment growth from qualified applicants in the GTA, in Southern Ontario and beyond.

Many Psychology students prefer a BSc option. In the Faculty of Health, roughly 40% of the 5,000 Psychology majors are pursuing a BSc. Students do so for a variety of reasons. Those intending to go into veterinary medicine, medical school, or dental school typically choose the BSc option because they can complete the required science courses while simultaneously obtaining their Psychology degree. The Psychology BA/BSc requirements do not differ in terms of the Psychology courses required. It is the additional science courses that create the chief difference. Without the BSc option at Glendon, York University is out of step with the rest of the country and some of our bilingual students are disadvantaged by its absence.

Based on the conservative assumptions that the number of students in the Psychology BA program will remain at the 2013-2014 level and that the students joining the Psychology BSc program will represent 25% of the total Glendon Psychology student population, we forecast a steady-state enrolment in the Psychology BSc program is 44 FFTEs.

If a more optimistic ratio such as the one that currently prevails in the Faculty of Health (40%) turned out to hold, the steady-state enrolment would be expected to reach 88 FFTEs.

These figures are based on a 1-year retention rate of Psychology BSc students of 75% and a 2-year retention rate of 65%, rates that are respectively lower than the 5-year trailing average of the 1-year retention rate of Psychology BA students at Glendon (83%) and the 4-year trailing average of the 2-year retention rate (72%).

We assumed that all students retained after 2 years will graduate from one of the programs (e.g. they may not graduate from the Specialized Honours if their GPA is too low but they would then graduate from the Honours program).

<table>
<thead>
<tr>
<th>Year</th>
<th># 1st Year Full-Time Students in Glendon BSc PSYC</th>
<th>Total # Full-Time Students in Glendon BSc PSYC</th>
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<tbody>
<tr>
<td>2015-16</td>
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<td>2020-21</td>
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<td>43-86</td>
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<td>2021-22</td>
<td>15-30</td>
<td>44-88</td>
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**Social Need**

With the creation of the Glendon BSc in Psychology, Southern Ontario’s francophone and francophile students will have the same opportunity and access currently available in the rest of the province (through the University of Ottawa and Laurentian University).

The region’s francophones now represent more than a third of Ontario’s francophone population. Moreover, it is the only region where the francophone population continues to grow in numbers. By the end of the decade, Southern Ontario will contain half of Ontario’s francophone population.
At present, there are 25 francophone high schools in the GTA and Southern Ontario. By the same token, Southern Ontario contains the largest concentration of French immersion students in the country. Furthermore, the GTA alone has 40% of Ontario’s students.²

Southern Ontario’s francophones place a distinctively high value on university education. In the Central region, the proportion of francophones who have received university education is higher than the overall population (32.2% vs. 28.3%). Nonetheless, Southern Ontario’s francophone students pursue university studies primarily in English. A study of young francophones conducted between 1998 and 2006 showed that 70% of Southern Ontario francophones who attend university do so at an English-language university.³ As for French immersion graduates, they too pursue university studies primarily in English.

This situation can be traced primarily to the limited range of French-language programming available.⁴ For example, a recent survey conducted by the Office of the French Language Services Commissioner (2013) revealed a poor representation (≤3%) in French programming at colleges and universities in the Central-Southwestern region of Ontario.⁵ To cite a 2009 Ministry study:

The absence of comprehensive programming at the college level and the fact that only a single faculty (attached to York University) offers a limited range of programs—essentially in social sciences and humanities—leads to an exodus of high school graduates to the English-language universities of the region (linguistic transfer) or an exodus from the region (geographical transfer) for those who study in French.⁶

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⁴ This relative lack of programming may also explain the fact that a quarter of students in Southern Ontario’s francophone schools leave the system after grade 8, with most of them going to the English-language system. The same loss does not occur in the other regions.
At the same time, according to data provided by the Ministry’s Direction des politiques et programmes d'éducation en langue française, Psychology is the third most popular program of university study among Southern Ontario francophones. Thus, it is critical that, along with a bilingual BA in Psychology, they also have access to a BSc in Psychology. The lack of program options was highlighted as a major barrier to postsecondary opportunities.

One in four francophone immigrants arrived in the GTA between 2001 and 2006, and one in three of these are visible minorities. Glendon College’s strength in the study of languages and international affairs can meet the demand of francophone immigrants who require English language support and support for the integration of foreign skills into the labour market.

Moreover, studies have shown that smaller campuses have greater success in creating active and collaborative learning, student-faculty interaction, and supportive campus environments. Glendon’s small campus and small class sizes ensure that students; domestic and international, as well as anglophone and francophone alike, continue to report close relationships between student and faculty communities, environments that foster exchange among and between diverse students. Students feel supported within their learning environment.

Underlying all this is the continuing growth in student demand for university education, and resulting pressures on the university system, as shown in a recent study on the growth of student demand for baccalaureate education between now and 2025. For instance, in North America, there are fourteen universities with student populations over 44,000. Canada is home to three of the largest schools, with the largest campus being in Montreal, and the fifth and sixth largest universities in North America located in the GTA: York University with a population of 55,049 and the University of Toronto St. George Campus with a population of 54,701. Between now and 2025, if students’ geographic preferences do not change, the growth in student demand for baccalaureate education will amount to 22-37% (30,000-51,000) in the GTA and 8-21% (20,000-53,000) for the rest of Ontario. However, if more GTA students want to attend university in the GTA, the growth in student demand for baccalaureate education will be 37-55% (51,000-74,000) in the GTA and 0-12% (0-30,000) for the rest of Ontario. The Government of Ontario has made a continued commitment to accommodate more new students, to expand educational opportunities for them and to achieve a more highly educated workforce. With the addition of the BSc in Psychology, Glendon will be prepared to support the Government of Ontario’s commitment to higher education, and to enroll more new students from within the growing post-secondary system. In addition to domestic demand, several recent studies project very strong increases in international student demand for Canadian higher education over the coming decade.

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11 Ibid.
Further, the increasing global emphasis on issues of public health, human development, aging, and mental health in particular, substantiates the social need for more Psychology professionals.

The World Health Organization reports that neuropsychiatric disorders are the leading aggregate cause of disease burden in Canada and the United States, accounting for 28.5% of disability-adjusted life years.\textsuperscript{15} The impact on the Canadian economy is staggering. When direct and indirect costs of neurological disorders and mental illness are tallied, they amount to $61 billion per year.\textsuperscript{16} In Europe the latest estimates of the cost of brain disorders are almost US $1 trillion – more than cancer, cardiovascular disease and diabetes put together.\textsuperscript{17}

The same study reminds us "apart from the economic impact, there are other significant obstacles faced by those with mental illness and substance-use disorders, as well as by people with progressive neurological and degenerative diseases including amyotrophic lateral sclerosis, Alzheimer's Disease, Parkinson's Disease, multiple sclerosis, and nervous system trauma. Social stigma, prejudice, and diminished quality of life culminate in a heavy burden, not only on affected individuals, but also on their families and caregivers. When taken together the social and economic burdens of brain-related disorders can be devastating at a personal level, are profound at a societal level, and globally, are immense. The importance of investing in basic and clinical brain health research remains paramount".\textsuperscript{18}

Glendon Psychology faculty members are recognized as leading practitioners and researchers in psychobiology and neuropsychology. The Glendon program includes a cognitive neuropsychology concentration in which Glendon students participate in applied research opportunities with affiliated hospitals and health centres. Glendon graduates are exceptionally well prepared to tackle the public health issues facing societies today. The employability of bilingual and French-speaking graduates correlates directly to the Government of Ontario's commitment to contribute to a stronger Franco-Ontarian community.\textsuperscript{19} In particular, a key priority for the Office of Francophone Affairs is to work with ministries to improve and develop French language services for the Franco-Ontarian community with a primary focus on areas such as health care, community and social services, immigration, economic development, education and labour market development and training.

The proposed BSc entails courses and experiential learning in English and French. Glendon students and graduates will play a direct role in improving French language services for the growing Franco-Ontarian community within the GTA. Because students do research at

\begin{itemize}
\item\textsuperscript{17} CIHR. The Burden of Neurological, Mental Health and Substance-Use Disorders. Retrieved on December 9, 2013 from http://www.cihr.ca/e/45334.html
\item\textsuperscript{18} Ibid.
\end{itemize}
practicum settings that are involved with health care (e.g., Pavillon Omer Deslauriers, Sunnybrook Hospital and Baycrest Hospital), the addition of French-speaking, scientifically-literate BSc students will directly contribute to improved health care services in the GTA and beyond. As a result, Glendon students will play a leadership role in the provision of these services beyond the University and upon graduation, will have the skills and training necessary to support the Province and the Franco-Ontarian community in mutually addressing their healthcare goals.

Labour Market Demand
Global growth in university participation reflects the global competition for talent. Many reports show Canada as having the highest post-secondary attainment rate in the world.20 As a result, Canadian graduates are in high-demand locally, nationally and abroad. In recent years, many labourers returned to the post-secondary system to meet the new demands of a health-centric labour market. The biggest increases in part-time undergraduate students were in the social and behavioural sciences and law, followed by business, humanities and the health professions.21 Interestingly, following the most recent Undergraduate Program Review (2006), Glendon’s Department of Psychology expanded its offerings in psychology & law, psychology & education and geriatrics. With existing expertise in cognitive neuropsychology, its curriculum is well-positioned to respond to labour market demand.

Canadian University Psychology departments conduct research in a wide range of areas, and teach and train undergraduate and graduate students across the diverse field of psychology. These areas include neuroscience, health science and social science.22 Psychology services are provided in schools, private practices, businesses, health clinics, hospitals, jails, courts, social welfare agencies, rehabilitation centres and so on. These services are provided by governments or in the private sector. In Canada, provincial and territorial governments are responsible for public psychological services and the regulation of psychology.

Not surprisingly, the outlook for employment in the health professions continues to grow in Canada and abroad. The Government of Canada reports 265 different health care occupations in 2013, with a marked increase in those serving in community as opposed to institutional settings. This significant rising trend in employment is projected to continue with strong prospects for wages and an emphasis on re-training and lifelong learning.23 The breadth of Glendon’s Psychology program in conjunction with the addition of the BSc means that graduates from both York campuses will continue to experience high demand for their credentials and that Glendon can continue to serve the learning needs of its graduates as well as new students over their lifespans.

Professional Associations/Government Agencies
International and interprovincial degree mobility remains an important issue facing new graduates today. Canada, like most industrialized countries, is faced with an aging population

21 Ibid.
and an expected shortage of skilled workers in some professions.  

Glendon College’s proposed BSc in Psychology will provide both the breadth of foundational knowledge and the opportunity for the application of research and clinical skills, in both English and French, better preparing more undergraduate students for direct-entry into more professional occupations following their undergraduate education both locally and abroad.

The Canadian Psychological Association currently reports many options available when it comes to choosing a career as a psychologist, as well as careers related to psychology. The York University Graduate Program has two Clinical Psychology programs, both of which are accredited by the Canadian Psychological Association (CPA) and the American Psychological Association (APA). With the addition of the BSc in Psychology, Glendon will formally prepare more undergraduates for graduate study.

In addition, research support from the federal and provincial governments has contributed to strong graduate enrolment growth. The preparation of undergraduate students for graduate study, particularly in the health professions, further supports the proposed BSc at Glendon. Many medical and doctoral professions require a BSc as opposed to a BA to advance to higher levels of graduate education.

Alignment with Academic Plans

Through the creation of a BSc degree option in Psychology will contribute, among other goals, to bringing Glendon College closer to the goal of comprehensiveness indicated in York’s 2020 Vision and the goal of experiential education in the Provostial White Paper 2010. York’s 2020 Vision emphasizes the need to increase resource efficiency by (re)combining existing curricular elements in order to enhance coherence and comprehensiveness.

As a Canadian leader in the delivery of bilingual education, Glendon College’s vision to become the Southern Ontario Centre of Excellence for Francophone and Bilingual Postsecondary Education is already underway with a new building, new meeting and study space as well as capacity to offer additional programming with important implications for Southern Ontario and York University.

Ontario is home to more than 600,000 francophones – the largest population in Canada outside of Quebec: more than one-third of the province’s francophone population lives in Central and Southwestern Ontario. By 2020, more than half of the Ontario francophone population will reside in those regions. By establishing a comprehensive French-language undergraduate curriculum that extends its foundation in the liberal arts, social sciences and humanities into the sciences, Glendon College will enhance its leadership in the delivery of bilingual education and respond directly to the diverse needs of the growing francophone population in Southern Ontario.

Further, York University’s Strategic Mandate Agreement with the Ministry of Training, Colleges

and Universities lists bilingual programs both as an area of current institutional strength and as one of five programs slated for growth.29

6. Changes to requirements, associated learning outcomes, how the proposed requirements will support the achievement of program learning objectives

Changes to requirements
The proposed BSc in Psychology at Glendon differs only slightly from the existing BSc in Psychology in the Faculty of Health.

The general education requirement has been tailored to Glendon and respects the BSc matrix.

As a side note, the difference between the BA and the BSc in Psychology at Glendon and in the Faculty of Health lies in the non-major requirements, more precisely in the science, general education, and upper-level requirements. The learning objectives described below do not constitute “changes to requirements” because they are integral to the already existing BA programs. They are provided as background information and context for the BSc requirements outlined in section 11.

Psychology Learning Outcomes

1. Depth and Breadth of Knowledge

Graduates will demonstrate familiarity with the major concepts, theoretical perspectives and empirical findings in the field of psychology. All graduates will be able to:

- State the goals, methods of knowing, areas of study, and assumptions that characterize the field of psychology.
- Identify the various psychological schools of thought, and compare and contrast them.
- Articulate the influence of psychological, biological and sociocultural factors on behaviour and mental processes.
- Demonstrate a broad intellectual foundation in two or more principal areas within psychology, including the history, principles and research methodology used.
- Apply psychological knowledge at an individual and societal level to their own experience, thereby, enhancing their understanding of human behavior and effective functioning.

In addition to the above, an Honours level student will:

- Demonstrate in-depth knowledge of the current state of two or more principal areas of psychology though participation in advanced seminars or independent studies.
- Participate in the design, implementation, analysis and interpretation of an empirical project which answers a current psychological question.

2. Knowledge of Methodologies

Graduates will understand the basic characteristics of the science of psychology and will be able to apply basic research methods in psychology, including research design, data analysis, and interpretation:

• Students will explain different research methods used by psychologists.
  o Describe how various research designs address different types of questions and hypotheses
  o Articulate strengths and limitations of various research designs
  o Distinguish the nature of designs that permit causal inferences from those that do not
• Students will design and conduct simple studies which address a psychological question using an appropriate hypothesis and research design.
• Evaluate the conclusions derived from psychological research, including
  o Conducting and interpreting basic statistical results
  o Describing effect sizes and confidence intervals
  o Assessing the validity of conclusions reported in research reports.
• Students will demonstrate that they understand relevant ethical issues, including a general understanding of the APA Code of Ethics.
• Students will demonstrate an appreciation of the limitations in generalizing research conclusions due to the parameters of specific research methods, the role of individual differences and sociocultural contexts.

In addition to the above, Honours students will:
• Describe, categorize, and critique methodologies currently in use in one or more areas in which they have advanced subject knowledge.
• Students will collect, analyze, report and interpret data using appropriate statistical strategies to address a specific research question.
• Demonstrate that they understand and can follow the APA Code of Ethics regarding the treatment of research participants

3. Application of Knowledge

Graduates will understand and be able to apply psychological principles to personal, social and organizational issues. All students will:
• Identify how the concepts, theories and research methods of psychological science are applied solve to problems encountered in everyday life for example:
  o the origin and treatment of abnormal behaviour
  o psychological-based interventions in clinical, educational, industrial-organizational, educational and other settings.
  o psychology as it relates to legal settings
• Discuss how psychological principles can explain a social issue, and how research findings can inform public policy and strengthen the community.
• Demonstrate the ability to find and apply psychological research findings to answer a question.

Honours students will, in addition to the above, be able to:
• Apply their core knowledge and skills to primary source material in advanced seminar and independent studies experiences.
• Recognize ill- and well-defined problems and articulate problems clearly.
• Critically evaluate the research conducted by others.
• Demonstrate an ability to formulate a researchable topic and testable hypothesis.
• Demonstrate an ability to find a novel question and design a program of study including data collection and/or review of primary research findings to answer it.
Honours students, who have successfully completed the course prerequisites for the cognitive neuroscience concentration have the opportunity to complete an Applied Research Practicum where they will apply their knowledge of neuropsychological assessment and cognitive rehabilitation interventions in a clinical setting: Students will be able to:

- Conduct supervised assessments of clients in both official languages
- Participate in rehabilitation studies of individuals with cognitive impairments.
- Learn about clinical database input and analysis.

4. Communication Skills

A graduate of the program will be able to locate, understand and coherently communicate psychological information to a variety of audiences using appropriate information and communication technology. Students will:

- Use information technology ethically and responsibly, using appropriate etiquette when communicating through e-mail.
- Locate information from a variety of traditional and electronic sources and to evaluate the validity of the source.
- Use effective writing skills in a variety of forms (essays, laboratory reports, note taking) and for a variety of purposes (informing, explaining, arguing and defending)
- Demonstrate the use of effective oral communication skills in a variety of forms (group discussion, debate, audio-visual presentation) and for a variety of purposes (informing, explaining, arguing and defending)
- Demonstrate the consistent use of professional writing conventions (correct grammar, APA style) which are appropriate for the purpose and context.
- Use appropriate terminology and notation when preparing and presenting information

Honours students will be able to do the above, and in addition:

- Present ideas, arguments and analyses in a well-structured and coherent form, making good use of appropriate communication formats including figures and tables.
- Accurately organize and synthesize a corpus of psychological knowledge for a range of audiences
- Present an informative oral presentation which uses clear, concise culturally sensitive language and appropriate delivery techniques (maintain eye contact, avoiding distracting mannerisms, stick to time limits, etc.).
- Demonstrate appropriate writing conventions and use APA style effectively in empirically-based reports, literature reviews and theoretical papers.

5. Awareness of Limits of Knowledge

Graduates will appreciate that understanding human behaviour is a complex and, at times situational-specific problem, with many inter-linked variables to be considered. They will appreciate that psychology is a dynamic field of study, where knowledge is continually accumulating and that current findings may appear to be inconsistent or even contradictory.

Graduates will be able to:

- Evaluate new information and incorporate it into their current knowledge.
- Use appropriate skills to maintain and enhance their knowledge of psychology, and evaluate the reliability and validity of sources of information.
- Be aware of the limits of current knowledge when analyzing, evaluating, interpreting and disseminating information.
In addition, Honours students will:
- Evaluate contradictory statements, and demonstrate strategies to attempt to resolve them.
- Seek alternative explanations for psychological phenomena.
- Identify areas for personal and professional development to enhance their ability to apply their acquired psychological knowledge.

6. Autonomy and Professional Capacity

Graduates will have developed insight into their own and other’s behaviour and thought processes. They will have developed an understanding of the importance of the skills needed to be life-long learners and will appreciate how these skills may benefit themselves and society as the nature of the workplace evolves over their career. They will pursue realistic ideas about how to implement their psychological knowledge, skills, and values in occupational pursuits in a variety of settings. Graduates will be able to:
- Think independently and set appropriate goals in personal and professional situations.
- Apply psychological principles to promote personal development.
- Develop mutually beneficial relationships for the purpose of team-working, mentoring and networking.
- Demonstrate an understanding of behaviour that is consistent with the ideals of integrity, social responsibility, and social justice.
- Identify the types of academic experience and performance in psychology and the liberal arts that will facilitate entry into the work force, post-baccalaureate education, or both.

Honours graduates will
- Self-assess performance quality accurately and enact self-management strategies that maximize healthy outcomes.
- Have developed strategies to maintain and enhance their knowledge of aspects of psychology related to their career or personal life.
- Have developed the ability to evaluate new information in the field of psychology.

Specialized Honours graduates will have additional opportunities to further develop the preceding learning outcomes (especially 1, 2, 5, & 6) by means of: (1) a supervised honours thesis course (GL/PSYC 4000 6.00) in which the student will acquire additional research skills through designing, executing, analyzing, interpreting and writing up a specific research project, and (2) an additional experimental design course (GL/PSYC 4240 3.00) Advanced Experimental Design) which further hones students’ statistical and methodological skills.

Achievement of Program Learning Objectives
Psychology at Glendon provides students with the opportunity to scientifically study behaviour and experience within a bilingual, liberal arts context. Provision of mandatory courses in both official languages, ensures that graduates leave with a unique mix of scientific, analytical and communication skills that makes them particularly well equipped to take their place in modern Canadian society.

All students receive a broad introduction to the field of psychology, ranging from the cellular to the cultural level of analysis. In addition they are given a thorough grounding in scientific methodology, statistical tools and intellectual training necessary to think critically about
psychological phenomena in everyday Canadian life. All students are required to take up to six specialized courses on topics of interest to them within the field of psychology to develop intellectual breadth, depth and adaptiveness and establish a firm base for post-graduate study. Students who graduate with an Honours or Specialized Honours degree receive advanced training in research and applied skills. Students are encouraged to apply their acquired intellectual knowledge in practical settings by completing practicum and research projects in clinical, field and laboratory settings through experiential learning.

The program’s final year provides numerous opportunities for students to both further develop and to apply their skills in research contexts. All students take a 4th year seminar course that cultivates and trains students in oral presentations. The Applied Research Practicum Course (PSYC 4260) provides for the supervision of applied research projects that are carried out in a number of off-campus settings (e.g., Baycrest Centre for Geriatric Care, Toronto Rehabilitation Institute). Students in the Specialized Honours Program conduct full year research theses and also take an advanced course in Statistical Analysis.

7. Overview of consultation undertaken with relevant academic units and impact of the major modifications on other programs (support statements enclosed)
Faculty, staff and students from within Glendon’s Department of Psychology have served as the primary contributors to the development and preparation of the Major Modification Proposal. Consultations with the Office of the Principal and the Associate Principal – Academic and Research, as well as the Recruitment and Liaison Office, are ongoing. Consultations with the Department of Psychology in the Faculty of Health have taken place (see enclosed support statement at the end of this document) and will continue as appropriate. Further, the Glendon College Psychology program underwent a formal Undergraduate Program Review in 2006 (UPR) and the reviewers’ comments, recommendations and Glendon’s responses to the UPR serve as useful resources for the Proposal.

8. Summary of resource implications

Faculty
Currently, there are 6 and 1/3 full-time Psychology faculty members at Glendon (listed below with their respective areas of strength). It is anticipated that all members will play an active role in the delivery of the BSc with the possible addition of up to two new appointments to the Department, depending on the funding that MTCU will award to Glendon to improve access to French-language post-secondary education in Southern Ontario and on the experienced increase in enrolment. These appointments would initially be contractually limited in time and would, if eventually justified, become tenure-stream positions.

Jim Alcock (Credulity and superstition, conflict resolution and belief systems)
Richard Lalonde (Social and cultural identities; biculturalism; intergroup relations)
Timothy E. Moore (Psychology and law)
Guy Proulx (Mental health, aging and neuropsychology)
Josée Rivest (Research methods, visual perception and neuropsychology)
Anne Russon (Primate behaviour and cognition in the wild)
Gerald Young (Health and mental health, law, justice and crime, psychotherapy)
Laboratory facilities
In 2012, Glendon College completed a major expansion of its facilities and equipment with the opening of a new building: the Centre of Excellence for French-language and Bilingual Postsecondary Education in Southern Ontario. The major features of this new facility include: a 250-seat auditorium to increase space in popular courses; an interpretation booth and projection equipment which will function as a training facility; 5 new lecture halls of varying sizes, entirely equipped with the latest classroom technologies, with tiered seating to maximize professor-student visibility; new seminar rooms which include screens and LCD projectors, as well as comfortable seating to allow close interaction between students and professors.

As part of this expansion, the Department of Psychology at Glendon received major upgrades to two multipurpose labs. These improved facilities represent a 30% increase in available research space and are currently used by undergraduate and graduates students for the purposes of diagnostic testing. These labs also provide additional administrative and office space.

The Department of Psychology has access to additional substantive laboratory space at Glendon where refurbishments and upgrades are underway.

Office, laboratory and general research space
Since the proposed program draws primarily from the existing faculty complement, office, laboratory and general research space exist and are already available for faculty, undergraduate and/or graduate students. In addition to the 30% increase in available research, administrative and office space created within the new Centre of Excellence for French-language and Bilingual Postsecondary Education in Southern Ontario, there are also new common spaces for faculty and students including a café, a meeting room as well as comfortable chairs next to large windows that overlook the campus for reading and homework. The new building concentrates bilingual interdisciplinary and disciplinary research and graduate studies at Glendon College in one space. Further, York University is home to more than 26 research centres, institutes and state-of-the-art facilities that provide students and professors with outstanding interdisciplinary and collaborative research tools and materials including the Centre for Cognitive Health at Glendon which directly supports the bilingual feature of the proposed BSc. The Centre is supported by a $159,000.00 grant from MTCU under their Action Plan for French Language Post-secondary Education which will also be supporting a post-doctoral visitor beginning September 1, 2014. In addition, faculty and students have access to York’s five libraries: Glendon’s Frost Library houses 300,000 books, print periodicals, theses, archival materials, microforms, and films; and across campus, to more than 2.6 million printed volumes, 266,000 e-books and more than 40,000 full text e-journals. More specifically, the Frost library has an extensive collection of French and English Psychology resources already in regular use by the Department of Psychology. This includes technical materials such as specialized reference sources or tests that are available at Frost or through databases such as PsycTESTS, Health and Psychosocial Instruments, or Mental Measurements Yearbook (Ovid). Further, scholarly journal literature in Psychology is accessible through a variety of library subscriptions and/or periodical indexes such as PsycInfo, Medline, or Web of Science. Faculty and students also have access to more than 50 professional librarians, and to ongoing library workshops and research seminars for students. There is access to 500 computer workstations and 2,900 study seats throughout the libraries.
**Academic supports, services and information technology**

Academic Services at Glendon College offers services to students on academic matters and provides information on University and College rules and regulations in both French and English. Several other units on campus support students in both official languages through a range of curricular and co-curricular services including: Glendon Counselling & Disability Services, the Peer Mentorship Program, the Alumni Mentorship Program, Academic Accommodation for Students with Disabilities, the University Learning Skills Program, and the Glendon Writing Centre. These services combined with access to state-of-the-art facilities, such as classrooms that are equipped with multimedia technologies, enhance learning and student experience. Further, the Glendon/York vision for technology directly contributes to both the theoretical and practical aspects of the proposed program’s curriculum by continuing to integrate the strengths of information technology to enhance the way students learn; enhance the way faculty teach, advise, and conduct research; enhance the way administrators and staff provide services; and enhance the way the University itself is managed. This environment will enable the proposed program to attract the best possible students, faculty, staff and external support by demonstrating the institution’s willingness to explore and exploit the possibilities that technology creates for advancing our educational and research missions in both languages.

9. **Other relevant criteria outlined in YUQAP Section 3.3 (Evaluation Criteria: Objectives, Admission requirements, Structure, Program content, Mode of delivery, Assessment of teaching and learning, quality indicators) to the proposed changes**

**Objectives**

The proposed Bachelor of Science (BSc) in Psychology will complement the Glendon College Department of Psychology’s Bachelor of Arts (BA) program, established in 1971, by providing a science degree option for students interested in the scientific study of behaviour. The BA in Psychology program exposes students to a full range of psychological concepts and applications. The BSc option simply adds a focus on the sciences, including mathematics, computer science, biology, chemistry and physics, within a full range of discipline-specific courses. Like the BA, the BSc option will be available in both official languages.

Students will experience the multidisciplinary nature of modern science through exposure to theoretical perspectives and in depth training in the analytic skills of experimental design and data analysis. Students will receive mentoring and direct access to faculty who are leading researchers in their fields of study. Students will achieve a broad understanding of all areas of psychology. They will be well prepared to address a wide range of issues concerning human capacities and dispositions by translating them into solvable empirical problems. The BSc program will be particularly useful for students interested in cognitive neuroscience or who plan a career in medicine, neurology, psychiatry or pediatrics since the graduate programs associated with these fields often require a BSc for admission.

**Admission requirements**

In addition to all the requirements that applicants to the BA in Psychology at Glendon are currently subject to, applicants to the BSc will be required to have:

- One 4U Math, as well as SCH4U or SPH4U (this is the same admission requirement as for the BSc in Psychology in the Faculty of Health).
The minimum requirements for admission to the BA in Psychology at Glendon are as follows:

Ontario high-school students are required to have:

- Ontario Secondary School Diploma (OSSD), with the minimum overall grade average set by Glendon;
- a minimum of six 4U or 4M courses, including 4U English ENG4U (Francophone applicants can present 4U French courses FRA4U, FIF4U, or FEF4U instead of 4U English). A combination of 4U and 4M courses is accepted.

Moreover,

- 4U French is recommended;
- As Glendon offers programs in English and in French, you can demonstrate proficiency in either language during the admission process – you are not required to show proficiency in both languages.

To be considered for admission as a mature applicant, a prospective student must:

- be at least 21 as of the first day of classes;
- have been out of full-time high school studies for at least two years or have returned to upgrade after a two year absence;
- have attempted less than one full year of studies at an accredited college or university;
- not have an unfavourable academic record;
- have demonstrated potential for success through academic, professional or volunteer activities, and other accomplishments.

To be admitted as a university transfer student, an applicant will be required to:

- have completed at least four full-year courses or one year of full-time studies at an accredited university;
- have obtained a minimum overall average of 2.0 on a 4-point scale (C/60% or equivalent);
- have earned a minimum overall average of 2.3 on a 4-point scale (C+/65% or equivalent) if applying to one of the Honours-level programs.

To be admitted as a college transfer student, an applicant will be required to:

- have completed a diploma program or at least two full semesters or one year of full-time studies at an accredited college;
• have maintained a minimum overall average of 3.0 on a 4-point scale (B/70% or equivalent) including all attempted courses.

Note: These are minimum requirements only. Admission is not guaranteed and all requirements are subject to change.

Applicants who do not belong to the above categories are invited to visit www.glendon.yorku.ca/admissions to determine the requirements that apply to their category.

Structure

For the BA major and the proposed BSc major in Psychology, students must complete at least 36 credits (30 credits in Psychology and six credits in Modes of Reasoning), including:

- GL/PSYC 2510 6.00, GL/PSYC 2520 3.00, GL/PSYC 2530 3.00;
- Either GL/MODR 1711 6.00, GL/MODR 1716 6.00 or GL/MODR 2640 6.00;
- 12 credits at the 3000 or 4000 level with at least 6 credits at the 4000 level.

For the Honours BA and the proposed Honours BSc in Psychology, students must complete at least 42 credits (36 credits in Psychology and six credits in Modes of Reasoning), including:

- 24 credits of core courses (GL/PSYC 2510 6.00, GL/PSYC 2520 3.00, GL/PSYC 2530 3.00, GL/PSYC 3525 3.00, GL/PSYC 4230 3.00, and either GL/MODR 1711 6.00, GL/MODR 1716 6.00 or GL/MODR 2640 6.00);
- 24 credits at the 3000 or 4000 level with at least 12 credits at the 4000 level.

For the Specialized Honours BA and the proposed Specialized Honours BSc in Psychology, students must complete at least 54 credits (48 credits in Psychology and six credits in Modes of Reasoning), including:

- 24 credits of core courses (the same as for the Honours program);
- GL/PSYC 4000 6.00;
- GL/PSYC 4240 3.00;
- 24 credits at the 3000 or 4000 level with at least 12 credits at the 4000 level.

For non-major requirements, please see section 11.

Program content

All 24 credits of core courses for the Honours programs already exist and are offered each year. Eighteen of those credits are offered annually by the Department of Psychology at Glendon College. All but three of those credits are offered in French and in English every year.

GL/PSYC 2510 6.00 (EN) Introduction to Psychology / (FR) Introduction à la psychologie

This is a survey course of contemporary psychology as a discipline and as a profession, and as such it is a prerequisite for upper level courses study in psychology. The areas to be surveyed will include the history of psychology, psychobiology, sensation and perception, learning and memory, developmental psychology, motivation and emotion, personality, social, and abnormal psychology.
GL/PSYC 2520 3.00 (EN) Introduction to Experimental Psychology / (FR) Introduction à la psychologie expérimentale
This course is designed to provide students with an understanding of scientific reasoning and research methods as they apply to psychology. The following topics will be addressed: methods of knowledge acquisition, research methodologies, hypotheses, validity, reliability, experimental variables, controls, research design, generalization of results, dissemination of scientific knowledge and the code of ethics in research. Students will be expected to analyze scientific articles, carry out one experimental project, write a proposal and a scientific report, and present their research results in the context of a mini-conference.

GL/PSYC 2530 3.00 (EN) Introductory Statistics / (FR) Introduction à la statistique
This course provides an introduction to the basic statistical methods used in the behavioural sciences, and as such it is a necessary prerequisite to any advanced study in this field. The application of statistical methods in the design and evaluation of psychological research is particularly stressed.

GL/PSYC 3525 3.00 (EN) Intermediate Experimental Psychology / One of the tutorial labs is offered in French
This course is a continuation of Introduction to Experimental Psychology (GL/PSYC 2520 3.00). It focuses on applications of the principles taught in the introduction course in the context of empirical projects (using a factorial design) that students plan, and carry out in association with the course instructors. Students are introduced to the use of statistical tools. Discussion focuses on research as an on-going enterprise. Students will analyze scientific articles, carry out one experimental project, write a proposal, a scientific report, and present their research in the context of a mini-conference.

GL/PSYC 4230 3.00 (EN) Advanced Seminar / (FR) Séminaire avancé
This seminar course concentrates on developing skills which will help the student organize, clarify and express information in both written and oral modes. A number of different topics selected from the current research literature will provide the focus for class presentations and written exercises.

The remaining six credits of core courses are offered each year by the Philosophy Department and the Department of Multidisciplinary Studies (Linguistics Program) at Glendon College. Students must choose any one of the following three courses:

GL/MODR 1711 6.00 (EN) Critical Thinking
An introduction to reasoning in the humanities. The focus is the presentation of issues and arguments in major texts and articles. The aim of the course is to develop the student's ability to read, write and think critically.

GL/MODR 1716 6.00 (FR) Logique formelle et informelle
Le cours a pour but de faire connaître à l'étudiant les moyens de distinguer les bons raisonnements des mauvais. Un texte élémentaire de logique sera utilisé comme livre de référence. Le cours poursuivra aussi une étude détaillée de textes choisis.
GL/MODR 2640 6.00 (EN) Logic
This course is an introduction to the basic concepts and techniques of modern logic. No previous course in logic or philosophy is required.

All additional required courses for the Specialized Honours program are also offered annually:

GL/PSYC 4000 6.00 (EN) Honours Thesis / (FR) Mémoire avancé
This course offers an opportunity for the advanced student to study a topic in some depth, by doing an empirical study — although, under unusual circumstances, non-empirical work may also be acceptable.

GL/PSYC 4240 3.00 (EN) Advanced Experimental Design
The design and evaluation of psychological experiments are stressed, including detailed treatment of various analysis of variance models. In addition, the philosophy of statistics is examined in some detail.

The Department of Psychology at Glendon also offers a wide range of elective courses. Some of these courses are offered in both languages. With the growth of the program, other courses will similarly be offered in both languages. Of course, the offerings vary from year to year, but as of now they comprise at least 12 FCEs (i.e. 72 credits) among the following courses:

GL/PSYC 3220 3.00 (EN) Personality
GL/PSYC 3230 3.00 (EN) Introduction to Abnormal Psychology / (FR) Introduction à la psychologie anormale
GL/PSYC 3240 3.00 (EN) Psychology of Anomalous Experience
GL/PSYC 3280 3.00 (EN) Learning
GL/PSYC 3300 3.00 (EN) Introduction to Development: Infancy and Childhood / (FR) Introduction au développement de l’enfant
GL/PSYC 3310 3.00 (EN) Introduction to Development: Adolescence, Adulthood and Aging / (FR) Psychologie du développement : adolescence, âge adulte et âge d’or
GL/PSYC 3350 3.00 (EN) Educational Psychology / (FR) La psychologie de l’éducation
GL/PSYC 3370 3.00 (EN) Cognition
GL/PSYC 3390 3.00 (EN) Memory / (FR) La mémoire
GL/PSYC 3510 3.00 (EN) Disturbances in Development / (FR) Le développement anormal
GL/PSYC 3530 6.00 (EN) Human Neuropsychology / (FR) Neuropsychologie humaine
GL/PYSC 3550 3.00 (EN) Psychological Testing and Measurement
GL/PSYC 3555 3.00 (EN) Learning, Behaviour Modification, and Behaviour Management / (FR) L’apprentissage et la modification du comportement
GL/PSYC 3570 6.00 (EN) The Psychology and Pedagogy of Children and Adolescents with Behaviour Disorders
GL/PSYC/SOSC 3600 3.00 (EN) Psychology and Law
GL/PSYC/NATS 3635 3.00 (EN) Health Psychology / (FR) Psychologie de la santé
GL/PSYC/NATS/LIN 3640 3.00 (EN) Psychological Studies of Language / (FR) La psycholinguistique
GL/PSYC/NATS 3650 3.00 (EN) History of Experimental Psychology
GL/PSYC/ILST 3660 3.00 (EN) Introduction to Social Psychology
GL/PSYC/ILST 3662 3.00 (EN) Interpersonal and Intergroup Processes
GL/PSYC/NATS 3670 3.00 (EN) Psychobiology / (FR) Psychobiologie
GL/PSYC/NATS 3675 3.00 (EN) Humans as Primates / (FR) L’humain comme espèce primate
GL/PSYC/NATS 3680 3.00 (EN) Evolution of Behaviour in Animals / (FR) Évolution du comportement chez les animaux
GL/PSYC/NATS 3690 3.00 (EN) Perception
GL/PSYC 4100 3.00/6.00 (EN) Individual Studies / (FR) Travail Individuel
GL/PSYC 4250 3.00 (EN) Theories and Techniques of Counselling
GL/PSYC 4260 3.00/6.00 (EN) Applied Research Practicum / (FR) Stage de recherche appliquée
GL/PSYC 4270 3.00 (EN) Rehabilitation Psychology
GL/PSYC 4510 3.00 (EN) Advanced Seminar in Development
GL/PSYC/ITEC 4635 3.00 (EN) Computer Algorithms and Techniques for Imaging
Cognition / (FR) Algorithmes et techniques informatiques en neuroimagerie cognitive

As has always been the case for BA students, in collaboration with the Faculty of Health, BSc students will be allowed to take PSYC courses at any campus to satisfy their degree requirements, though course substitutes for the purpose of meeting program requirements will, as usual, be subject to course exclusions, program requirements/restrictions, and residence requirements. Currently, Glendon students represent at most 2.5% of enrollment in any one PSYC course at Keele.

The following mathematics courses will support the fulfillment of the science requirement outside the major as well as the general education requirement of 6 credits in math at the 1000 level. These courses are offered annually by the Department of Mathematics at Glendon College:

GL/MATH/MODR 1930 3.00 (EN) Calculus I / (FR) Calcul différentiel et intégral I
This is a basic course in university calculus. Topics covered are functions, limits, continuity, differentiation, curve sketching, maximization and minimization problems for functions of one variable, the Riemann integral and antiderivatives.

GL/MATH/MODR 1930 3.00 (EN) Calculus II / (FR) Calcul différentiel et intégral II
A continuation of Calculus I. Topics covered are logarithms and exponentials, trigonometry including inverse trigonometric functions, hyperbolic trigonometry, the techniques of integration, indeterminate forms and L'Hospital’s Rule, an introduction to sequences and series. Applications of the integral to the calculation of areas, volumes, work.

GL/MATH/MODR 2650 3.00 (EN) Linear Algebra I
This is a basic mathematics course as well as a very useful course for someone who wishes to do applied research in the social sciences. Among the topics considered are vectors, bases, matrices, systems of linear equations, rank and determinants. Some applications of linear algebra to various other disciplines, such as economics, are also included.

GL/MATH/MODR 2660 3.00 (EN) Linear Algebra II
This is a continuation of Linear Algebra I. More about vectors spaces, subspaces, linear transformations. Eigenvalues, eigenvectors, similarity, diagonalization. Positive definite quadratic forms. Inner product spaces and Gram-Schmidt orthogonalization.

GL/MATH/MODR 2670 6.00 (EN) Second-Year Calculus / (FR) Calcul des fonctions de plusieurs variables
Numerical series and power series, vector algebra and calculus (with applications to curves, and motions along curves in two and three dimensions). Functions of several variables, including partial differentiation, properties of surfaces, tangent lines and planes, and the
problem of finding maximum and minimum values for such functions (with or without constraining side conditions). The rest of the course is devoted to double and triple integrals, line integrals and surface integrals, and some elementary differential equations.

At Glendon, in the absence of a Computer Science Department, computer science courses are taught by computer scientists but are housed under the ITEC rubric of the Department of Multidisciplinary Studies. The following courses are offered every year:

**GL/ITEC 2635 3.00 (EN) Creation and Management of a site on the WWW / (FR) La création et la gestion d'un site sur le WWW**
This course presents the client server model of the Web with different methods to secure a Web site. The students will learn how to build and manage a Web site using DHTML, Java Script, and animation and sound manipulation software.

**GL/ITEC 2915 3.00 (EN) Computer Usage and Software Applications I / (FR) L'utilisation de l'ordinateur et des logiciels d'application I**
The course will present: the main computer components (hardware and software), advanced topics for the use, edition and layout of documents alone or as part of a team, the creation and use of dynamic Web pages, advanced INTERNET information search techniques, and the design and implementation of a relational database using a database management system (DBMS) with applications to specific environments.

**GL/ITEC 2925 3.00 (EN) Computer Usage and Software Applications II / (FR) L'utilisation de l'ordinateur et des logiciels d'application II**
This course presents advanced options in Microsoft Word and excel used to format: correct a document automatically; create and manipulate a collaborative document; create, use, and store macros in a document; secure a document. The students will learn how to enhance a Web site using image animation and sound.

Similarly, biology courses, taught by biologists, appear under the NATS identifier in the Department of Multidisciplinary Studies. After an appropriate period of transition, these courses will become BIOL courses once a BSc in Biology is introduced at Glendon (hopefully in September 2015). These courses will support the fulfillment of the science requirement outside the major:

**GL/NATS 1540 6.00 (EN) Introductory Biology / (FR) Principes de biologie (will also support the fulfillment of the 1000-level laboratory requirement)**
This course is specifically designed for both non-science majors and those interested in pursuing a degree in any biologically related field. It provides an introduction to the diversity of life, how and why it arose, and the interactions of organisms with each other and their environment.

**GL/NATS 1800 3.00 (EN) Evolution and Ecology of Humans**
This course contrasts the ecological conditions attendant upon early human evolution with the complex environmental situations now faced by modern technological societies. Essential themes are Darwinism, the effect of earlier cultures upon the environment and selected modern examples in human ecology.

**GL/NATS 2203 6.00 (FR) Utilisation et conservation des ressources biologiques**
Ce cours analyse les effets de l’activité humaine sur les ressources renouvelables biologiques : biodiversité, agriculture, forêts, pêcheries, etc. Le cours traite de sujets d’actualité tels que les invasions biologiques, la désertification, les perturbateurs endocriniens et les organismes transgéniques. Appréciation de l’impact de l’activité humaine sur les ressources biologiques par
une analyse critique des éléments suivants: croissance de la population humaine, biodiversité, invasions biologiques, approvisionnement en eau potable, agriculture, foresterie et sylviculture, déboisement et désertification, pêcheries et aquaculture, milieux humides, eutrophisation, pesticides, perturbateurs endocriniens, organismes transgéniques et clonage. En plus des présentations faites par le professeur, ce cours comprend des discussions basées sur la lecture d'articles récents ou sur la présentation de films documentaires pertinents. Les étudiants devront compléter un projet de recherche étayé comprenant un bibliographie annotée, une présentation orale et un essai. L'échelle d'évaluation comprend le projet de recherche de même que des examens écrits (questions à développement) portant sur les sujets discutés en classe.

GL/NATS 2205 6.00 (FR) Ressources énergétiques et santé des écosystèmes
Ce cours analyse l’impact de l’utilisation des ressource énergétiques (combustibles fossiles, hydroélectricité, énergie nucléaire, etc.) sur le fonctionnement et l'intégrité des écosystèmes. Le cours traite autant de l’impact local (ex : smog) que de l’impact global (ex : réchauffement climatique).

GL/NATS 2300 3.00 (EN) General Ecology / (FR) Écologie générale
This course is an introduction for non-science majors to the scientific study of relationships between organisms and their physical and biological environments. General principles will be used to interpret patterns in the distribution, abundance, and characteristics of organisms in space and time.

GL/NATS 2310 3.00 (EN) Conservation Biology
Conservation biology has emerged as a major new subject area addressing the alarming loss of biological diversity throughout the world. The number of species that are becoming endangered or vulnerable is unprecedented and continues to accelerate. This course explores means of prevention of loss, the causes of species declines, and the effect of human intervention. The goals of this course are to understand concepts and theories underlying conservation biology, to develop critical thinking in matters related to biodiversity (both scientifically and politically), and to learn tools used by conservation biologists to protect diversity.

GL/NATS 2315 6.00 (EN) Human Physiology in Health and Disease
This course examines the basic structure and function of the human body and the underlying mechanisms of selected diseases. The course provides a broad overview of human physiology with a focus on current issues in human health. Human physiology is the major scientific discipline that forms the foundation of medicine and other health studies-related disciplines. The objective of this course is to provide students with a basic understanding of the structures and functions of the human body, introducing some fundamental concepts in physiology (the function of living systems). This course emphasizes the central concept of homeostasis- how human cells, tissues, organs and systems function to maintain a stable internal environment, and what occurs in many human diseases when normal structure and function break down. An appreciation of how the human body normally functions in healthy individuals is essential for understanding how alterations in homeostasis can lead to disease states. This course promotes the understanding of the basic principles of human physiology as it relates to disease by using a mechanism-based approach to teaching human disorders. It relies on the comprehension and application of concepts (not simply memorization), which allows for the development of critical thinking skills.

GL/NATS 2XXX 6.00 (EN) Zoology

GL/NATS 2XXX 6.00 (FR) Botanique

GL/NATS 3200 6.00 (EN) Historical Trends in Human-Environmental Interrelationships
This course examines the profound impact of ancient environments upon living organisms, with reference to specific biological problems such as extinction. Early palaeolithic humans interacted with various natural ecosystems, which became modified as a result. The subsequent historical impact of human activities on the environment resulted in a trend of increasing pressures upon animal populations, world vegetation and soils. Current urban-rural land use conflicts and conservation problems exemplify the modern impact.

**GL/NATS 3206 3.00 (EN) Human parasitology**

This course examines the basic principles of parasitology, parasite life cycles, host-parasite interactions, parasite control measures, and epidemiology of important human parasites. In addition, the ecological, medical and socio-economic impact of parasites on global health is examined.

**GL/NATS 3230 6.00 (FR) Génétique et santé humaine**

Le cours présente les bases cellulaires et moléculaires de la génétique. Il adopte une approche historique de la génétique moderne mendélienne et classique et vise à initier les étudiants à l’analyse génétique moderne du génotype et du phénotype des maladies humaines. Du diagnostic génétique à la thérapie génique, il aborde les problèmes actuels de la bioéthique, où l’être humain passe de l’objet à soigner à l’objet à améliorer et à transformer.

**GL/NATS 4100 3.00 or 6.00 (EN) Individualized Studies / (FR) Travail individuel**

Students do independent reading and/or research under the guidance of one or several members of the faculty. Permission of the Chair of the department is required.

**GL/NATS 4205 3.00 (EN) Human-Insect Interactions**

This course offers an overview of the multifaceted relationships between the human species and insects. It will include an introduction to entomology. The following aspects will be discussed: economic, health, and environmental impact of insects, insects in arts, culture, mythology, phobia, etc.

**GL/NATS 4210 3.00 (EN) Environmental physiology**

This course examines important concepts and principles of environmental physiology, a branch of biology that focuses on how physiological systems in animals, including humans, integrate with one another in response to a change in environment.

**GL/NATS 4215 3.00 (EN) Communication and Sensory Ecology**

This course explores the various categories of signals used by animals in a variety of contexts, and the sensory channels which allow these signals to be sent and received. Other topics include: honest and deceitful communication, Game Theory and Information Theory applications, bird song, echolocation, bioluminescence, and the evolution of communication.

The following laboratory science course will also support the BSc in Psychology:

**GL/NATS 1XXX 6.0 (EN) Earth and Space Science**

With the collaboration of the Faculty of Science, students will have the possibility of completing their 6-credit 1000-level laboratory requirement at the Keele campus in biology, chemistry or physics.

**Mode of delivery**

The proposed Glendon BSc in Psychology would be the first and only comprehensive program offered in both languages within the post-secondary system in Southern Ontario. The program
features lecture, seminar-style and laboratory courses that emphasize the combination of learning theory and conducting, as well as participating in internships that allow students to apply and gage the depth, breadth and limits of their knowledge of human inquiry and empirical skill within autonomous and professional capacities. These modes of delivery directly support the learning outcomes.

Assessment of teaching and learning and Quality Indicators

Students graduating with a Glendon Psychology Bachelor of Science degree will possess depth in Psychology, and a concrete awareness of the strengths and limitations of scientific enquiry and of their own knowledge. The methods for assessing student achievement directly reflect the York University BSc structure and specify the criteria relative to program learning outcomes and degree level expectations as follows here.

1. an understanding of and experience with the scientific method, the methodology and/or laboratory practices appropriate to Psychology and the theoretical frameworks of Psychology;

2. knowledge of and facility with mathematics, the language of science;
   Rationale The use of mathematics is a necessary and integral feature of science. Whether calculus, linear algebra, statistics, discrete math, or another field, mathematics is ubiquitous throughout science, as a descriptive and analytical tool, for modeling and simulation, and in Psychology for preparation and analysis of statistical data.

3. knowledge of and facility with computational methods and tools;
   Rationale: Modern science increasingly relies on computation as an enabling tool, whether for data collection and analysis (including extremely large data sets), visualization of systems, or investigation of theoretical predictions through modeling and simulation.

4. breadth and depth in science;
   a. a degree of breadth across the foundational science disciplines of Biology, Chemistry and Physics. Rationale: Biology, Chemistry and Physics form the foundation of the science in so far as it seeks to describe and understand the natural world. This foundation exposes students to the broad ranges of scale and of levels of complexity, organization and abstraction spanned by science.

b. a degree of depth and expertise in one or more disciplines within the Physical and Life Sciences, Computer Science and Mathematics;

c. a degree of breadth in practical/laboratory experiences;

d. a degree of depth (beyond the first-year courses) in a scientific discipline (which includes all current BSc major subject areas) outside Psychology in order to foster the interdisciplinarity that is increasingly a hallmark of modern science;
   Rationale: Many, if not most, new scientific fields are inherently inter- or multi-disciplinary. Given this fact it is in our students’ best interests to have significant exposure to more than one discipline. Providing our students with this additional depth will help prepare them to respond to an evolving knowledge base and participate in emerging fields.

5. breadth in areas of human inquiry beyond Psychology, including exposure to issues, methodologies and thought processes of the liberal arts;
   Rationale: University is more than just a training ground for a particular discipline. Graduates should be educated to appreciate and value as many facets of human knowledge and scholarship as possible, to more completely prepare them to contribute thoughtfully,
knowledgeably and compassionately to society.

6. demonstrated critical thinking and analytical skills inside and outside Psychology;
   **Rationale:** A primary role of the University is to foster critical thinking and analytical skills in its students. Developing these skills in more than one area of study will promote adaptability and portability of skills, and enable students to approach problems with fresh perspectives and in new ways.

7. an ability to communicate orally and in writing to a variety of audiences in English and French;
   **Rationale:** This ability is critical to success in any career. In the case of science, creating and disseminating new knowledge and using it to better human societies and life on earth more generally will ultimately depend on communication among scientists, policy makers, industry and broader society. Given the needs of the Franco-Ontarian community in the GTA and Southern Ontario in particular, as well as Francophone and Francophile communities beyond, the ability to communicate bilingually will be a clear asset.

10. **A summary of how students currently enrolled in the program will be accommodated**

    Students currently pursuing the BA program in Psychology at Glendon may decide to switch to the B.Sc. option, in which case they will have to further satisfy all non-major requirements to obtain a B.Sc. in Psychology.

11. **A side-by-side comparison of the existing and proposed program requirements as they will appear in the Undergraduate or Graduate Calendar**

<table>
<thead>
<tr>
<th>Glendon Psychology</th>
<th>Health Psychology</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Department of Psychology offers bachelor of arts (BA) and bachelor of science (BSc) degrees in psychology (Specialized Honours, Honours, bachelor, Honours Double Major and Honours Major and Minor options).</td>
<td></td>
</tr>
<tr>
<td>Admission to all 2000-, 3000- and 4000-level courses in psychology (with the exception of HH/PSYC 2020 6.00, HH/PSYC 2021 3.00 and HH/PSYC 2022 3.00) is conditional upon satisfactory completion of HH/PSYC 1010 6.00 with a minimum grade of C.</td>
<td></td>
</tr>
<tr>
<td>Students must obtain a minimum grade of C in HH/PSYC 1010 6.00 to be permitted to continue as a major in psychology, as well as to take any further psychology courses for which HH/PSYC 1010 6.00 is a prerequisite.</td>
<td></td>
</tr>
</tbody>
</table>
**Specialized Honours BSc Program: 120 Credits**

**Admission:** students must submit an application form to the department.

Students must be currently enrolled in an Honours program in Psychology, with a minimum overall cumulative grade point average of 7.00 (B+). Applicants must have completed a minimum of 54 credits in total, including GL/PSYC 2510 6.00 (with a minimum grade of C), GL/PSYC 2520 3.00, GL/PSYC 2530 3.00 and GL/PSYC 3525 3.00 or equivalent.

Students who have completed or will have completed 54 credits by the end of the academic year may submit an application between May 1 and May 15 of that year.

**Continuing:** in order to continue in the Specialized Honours program, students must maintain an overall cumulative grade point average of at least 7.00 (B+).

**Residency requirement:** a minimum of 30 credits at York University and at least half (50 per cent) of the course credits required in each undergraduate degree program major/minor must be taken at Glendon.

**Graduation requirement:** students must successfully complete (pass) at least 120 credits which meet the Faculty’s degree and program requirements with a cumulative grade point average of at least 7.00 (B+).

**General education requirements:** every student shall complete 27 credits in total as follows:

- 12 credits among the general education categories: humanities (HUMA), modes of reasoning (MODR), and social science (SOSC), with at least 6 from HUMA and/or SOSC;

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**Psychology (Specialized Honours BSc Program): 120 Credits**

**Admission:** students must be currently enrolled in an Honours program in Psychology, with a minimum overall cumulative grade point average of 7.00 (B+).

The application process for this program includes the completion of an application form available online at [http://psyc.info.yorku.ca/](http://psyc.info.yorku.ca/). Applicants must have completed a minimum of 53 credits in total, including HH/PSYC 1010 6.00, HH/PSYC 2020 6.00 and HH/PSYC 2030 3.00 or equivalent.

Students who have completed or project to complete 53 credits by the end of the academic year may submit an application between May 1 and May 15 of that year.

**Continuing:** to continue in the Specialized Honours program, students must maintain an overall cumulative grade point average of at least 7.00 (B+).

**Residency requirement:** a minimum of 30 course credits and at least half (50 per cent) of the course credits required in each undergraduate degree program major/minor must be taken at York University.

**Graduation requirement:** all graduates must complete a total of at least 120 credits with a minimum overall cumulative grade point average of 7.00 (B+).

**General education requirement:** a minimum of 18 credits as follows:

- six credits at the 1000 level in approved Faculty of Health general education or humanities categories approved by the Faculty of Liberal Arts & Professional Studies
- six credits at the 1000 level in approved Faculty of Health general education or social science categories
- 6 credits in mathematics at the 1000 level, excluding remedial courses;
- 3 credits in computer science at the 1000 level;
- 6 credits from courses with laboratories at the 1000-level in any of the following areas: biology, chemistry and physics.

approved by the Faculty of Liberal Arts & Professional Studies
- six credits at the 1000 level in approved Faculty of Health general education or humanities or social science categories approved by the Faculty of Liberal Arts & Professional Studies

**Note 1:** it is required that students complete the general education requirements above within their first 54 credits.

**Note 2:** students may complete a maximum of 30 credits in general education, any additional credits not being used to fulfill general education may count toward electives.

**Note 3:** general education requirements are satisfied by taking approved humanities or social science categories courses and faculty of health general education courses. For further information please visit [http://health.info.yorku.ca/current-student-information/general-education-requirements/](http://health.info.yorku.ca/current-student-information/general-education-requirements/).

**Basic science requirement:** a minimum of 15 credits as follows:

- six credits in mathematics selected from:
  - SC/MATH 1505 6.00
  - SC/MATH 1013 3.00
  - SC/MATH 1014 3.00
  - SC/MATH 1025 3.00

- Three credits selected from:
  - LE/EECS 1520 3.00 or LE/EECS 1540 3.00 or LE/EECS 1570 3.00

- Six credits selected from:
  - SC/Biol 1000 3.00
  - SC/Biol 1001 3.00
  - SC/Chem 1000 3.00
  - SC/Chem 1001 3.00
  - SC/Phys 1010 6.00 or SC/Phys 1410 6.00
**Major credits**: students must complete at least 54 credits (48 credits in psychology and six credits in modes of reasoning), including:

- 24 credits of core courses: **GL/PSYC 2510 6.00**, **GL/PSYC 2520 3.00**,** GL/PSYC 2530 3.00**, **GL/PSYC 3525 3.00**, **GL/PSYC 4230 3.00**, and either **GL/MODR 1711 6.00**, **GL/MODR 1716 6.00** or **GL/MODR 2640 6.00**;
- **GL/PSYC 4000 6.00**;
- **GL/PSYC 4240 3.00**;
- 24 credits at the 3000 level or above, of which at least 12 credits at the 4000 level.

Students must have an advising appointment with the department to approve the selection of their 3000 and 4000 level credits.

**Upper-level credits**: at least 42 credits at the 3000 level or above. This includes the 24 credits at the 3000 and 4000 levels in the major listed above under major credits.

**Science requirement outside the major**: every student shall complete 24 credits in science disciplines outside the major, of which 3 credits must be at the 2000 level or above.

or **SC/PHTH 1420 6.00**

**Note**: Psychology students are strongly recommended to take **LE/EECS 1570 3.00**.

**Major credits**: students must complete a minimum of 54 (but not more than 66) credits in psychology.

Psychology courses must include:
- **HH/PSYC 1010 6.00** (with a minimum grade of C)
- **HH/PSYC 2020 6.00** or **HH/PSYC 2021 3.00**
- **HH/PSYC 2030 3.00**
- **HH/PSYC 3010 3.00**
- **HH/PSYC 3090 3.00**
- **HH/PSYC 3125 3.00**

at least six credits chosen from:
- **HH/PSYC 2110 3.00**
- **HH/PSYC 2120 3.00**
- **HH/PSYC 2130 3.00**
- **HH/PSYC 3140 3.00**
- **HH/PSYC 3170 3.00**
- **HH/PSYC 3190 3.00**

at least six credits chosen from:
- **HH/PSYC 2210 3.00**
- **HH/PSYC 2220 3.00**
- **HH/PSYC 2230 3.00**
- **HH/PSYC 2240 3.00**
- **HH/PSYC 3250 3.00**
- **HH/PSYC 3260 3.00**
- **HH/PSYC 3265 3.00**
- **HH/PSYC 3270 3.00**
- **HH/PSYC 3280 3.00**
- **HH/PSYC 3290 3.00**

at least 12 credits in psychology (PSYC) at the 4000 level, including **HH/PSYC 4001 6.00**

at least three additional credits in psychology (PSYC)

**Upper-level credits**: a minimum of 42 credits at the 3000 level or 4000 level, including 18 credits at the 3000 or 4000 level in the major with 12 credits at the 4000 level.

**Required science credits outside the major**: A minimum of nine credits in science disciplines outside the major, of which three credits must be at the 2000-level or above.
<table>
<thead>
<tr>
<th>Required science credits outside the major can be selected from the following:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• all courses offered through the Faculty of Science and Lassonde School of Engineering;</td>
</tr>
<tr>
<td>• all kinesiology and health science courses excluding:</td>
</tr>
<tr>
<td>HH/KINE 2380 3.00</td>
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<td>HH/KINE 3240 3.00</td>
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<td>HH/KINE 3250 3.00</td>
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<td>HH/KINE 4310 3.00</td>
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<td>HH/KINE 4315 3.00</td>
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<td>HH/KINE 4340 3.00</td>
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<td>HH/KINE 4370 3.00</td>
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<td>HH/KINE 4375 3.00</td>
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<td>HH/KINE 4420 3.00</td>
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<td>HH/KINE 4430 3.00</td>
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<td>HH/KINE 4485 3.00</td>
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<td>HH/KINE 4630 3.00</td>
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<td>HH/KINE 4635 3.00</td>
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<tr>
<td>HH/KINE 4645 3.00</td>
</tr>
<tr>
<td>HH/KINE 4646 3.00</td>
</tr>
</tbody>
</table>

**Electives:** additional elective credits as required for an overall total of at least 120 credits. Elective credits may be used to fulfill science and upper-level credits.

**Bilingual requirement:** all students admitted to Glendon must satisfy the bilingual requirement. In order to do so, students must
successfully complete six credits in each official language (French and English) at Glendon from the following two categories:

- courses at the second-year level and above in French as a second language and/or in English as a second language;
- courses in any discipline which are designated as satisfying the bilingual requirement.

**Note:** please refer to the [Rules and Regulations section](#) of the Undergraduate Calendar for detailed requirement information.

**Specialized Honours iBSc Program: 120 Credits**

**Admission:** students must submit an application form to the Department.

Students must be currently enrolled in an Honours program in Psychology, with a minimum overall cumulative grade point average of 7.00 (B+).

Applicants must have completed a minimum of 54 credits in total, including GL/PSYC 2510 6.1 (with a minimum grade of C), GL/PSYC 2520 3.00, GL/PSYC 2530 3.00 and GL/PSYC 3525 3.00 or equivalent.

Students who have completed or will have completed 54 credits by the end of the academic year may submit an application between May 1 and May 15 of that year.

**Continuing:** in order to continue in the Specialized Honours program, students must maintain an overall cumulative grade point average of at least 7.00 (B+).

**Residency requirement:** a minimum of 30 credits at York University and at least half (50 per cent) of the course credits required in each undergraduate degree program major/minor must be taken at Glendon.
**Graduation requirement:** students must successfully complete (pass) at least 120 credits which meet the Faculty's degree and program requirements with a cumulative grade point average of at least 7.00 (B+).

**General education requirements:** every student shall complete 27 credits in total as follows:

- 12 credits among the general education categories: humanities (HUMA), modes of reasoning (MODR), and social science (SOSC), with at least 6 from HUMA and/or SOSC;
- 6 credits in mathematics at the 1000 level, excluding remedial courses;
- 3 credits in computer science at the 1000 level;
- 6 credits from courses with laboratories at the 1000-level in any of the following areas: biology, chemistry and physics.

**Major credits:** students must complete at least 54 credits (48 credits in psychology and six credits in modes of reasoning), including:

- 24 credits of core courses: GL/PSYC 2510 6.00, GL/PSYC 2520 3.00, GL/PSYC 2530 3.00, GL/PSYC 3525 3.00, GL/PSYC 4230 3.00, and either GL/MODR 1711 6.00, GL/MODR 1716 6.00 or GL/MODR 2640 6.00;
- GL/PSYC 4000 6.00;
- GL/PSYC 4240 3.00;
- 24 credits at the 3000 level or above, of which at least 12 credits at the 4000 level.

Students must have an advising appointment with the department to approve the selection of their 3000 and 4000 level credits.

**Upper-level credits:** at least 42 credits at the 3000 level or above. This includes the 24 credits at the 3000 and 4000 levels in the major listed above under *major credits.*
Science requirement outside the major: every student shall complete 24 credits in science disciplines outside the major, of which 3 credits must be at the 2000 level or above. 15 of these 24 credits are satisfied through the general education requirements listed before.

Bilingual/trilingual requirement: for the iBSc bilingual, students must complete at least 18 credits in each official language (French and English) at Glendon from the following two categories:

- courses at the second-year level and above in French as a second language and/or in English as a second language;
- courses in any discipline which are designated as satisfying the bilingual requirement.

For the iBSc trilingual, in addition to the above 18 credits in each official language (English and French), students must complete 18 credits in Hispanic studies (including: GL/SP 3000 6.00) or six credits of an advanced-level course in Hispanic studies) or 18 credits in a modern language (including an advanced-level course) at York University.

Courses taken to fulfill the major requirements may also be used to fulfill the iBSc requirements.

Internationally-oriented course requirement: at least 12 credits of internationally-oriented courses.

Exchange requirement: at least one full term abroad as a full-time student at an institution with which Glendon and/or York has a formal exchange agreement.

Note: please refer to the Rules and Regulations section of the Undergraduate Calendar for detailed requirement information.

Honours BSc Program: 120 Credits

Psychology (Honours BSc Program): 120 Credits
**Residency requirement:** a minimum of 30 credits at York and at least half (50 per cent) of the course credits required in each undergraduate degree program major/minor must be taken at Glendon.

**Graduation requirement:** students must successfully complete (pass) at least 120 credits which meet the Faculty’s degree and program requirements with a cumulative grade point average of at least 5.00 (C+).

**General education requirements:** every student shall complete 27 credits in total as follows:

- 12 credits among the general education categories: humanities (HUMA), modes of reasoning (MODR), and social science (SOSC), with at least 6 from HUMA and/or SOSC;
- 6 credits in mathematics at the 1000 level, excluding remedial courses;
- 3 credits in computer science at the 1000 level;
- 6 credits from courses with laboratories at the 1000-level in any of the following areas: biology, chemistry and physics.

**Residency requirement:** a minimum of 30 course credits and at least half (50 per cent) of the course credits required in each undergraduate degree program major/minor must be taken at York University.

**Graduation requirement:** all graduates must complete a total of at least 120 credits with a minimum overall cumulative grade point average of 5.00 (C+).

**General education:** a minimum of 18 credits as follows:

- six credits at the 1000 level in approved Faculty of Health general education or humanities categories approved by the Faculty of Liberal Arts & Professional Studies
- six credits at the 1000 level in approved Faculty of Health general education or social science categories approved by the Faculty of Liberal Arts & Professional Studies
- six credits at the 1000 level in approved Faculty of Health general education or humanities or social science categories approved by the Faculty of Liberal Arts & Professional Studies

**Note 1:** it is strongly recommended that students complete the general education requirements above within their first 54 credits.

**Note 2:** students may complete a maximum of 30 credits in general education, any additional credits not being used to fulfill general education may count toward electives.

**Note 3:** general education requirements are satisfied by taking approved humanities or social science categories courses and faculty of health general education courses. For further information please visit [http://health.info.yorku.ca/current-student-information/general-education-requirements/](http://health.info.yorku.ca/current-student-information/general-education-requirements/).
Basic science requirement: a minimum of 15 credits as follows:

- six credits in mathematics selected from:
  - SC/MATH 1505 6.00
  - SC/MATH 1013 3.00
  - SC/MATH 1014 3.00
  - SC/MATH 1025 3.00

- three credits selected from:
  - LE/EECS 1520 3.00 or
  - LE/EECS 1540 3.00 or
  - LE/EECS 1570 3.00

- six credits selected from:
  - SC/BIOL 1000 3.00
  - SC/BIOL 1001 3.00
  - SC/CHEM 1000 3.00
  - SC/CHEM 1001 3.00
  - SC/PHYS 1010 6.00 or SC/PHYS 1410 6.00 or
  - SC/PHYS 1420 6.00

Note: Psychology students are strongly recommended to take LE/EECS 1570 3.00.

Major credits: students must complete at least 42 credits (36 credits in psychology and six credits in modes of reasoning), including:

- 24 credits of core courses: GL/PSYC 2510 6.00, GL/PSYC 2520 3.00, GL/PSYC 2530 3.00, GL/PSYC 3525 3.00, GL/PSYC 4230 3.00, and either GL/MODR 1711 6.00, GL/MODR 1716 6.00 or GL/MODR 2640 6.00;
- 24 credits at the 3000 level or above, of which at least 12 credits at the 4000 level.

Students must have an advising appointment with the department to approve the selection of their 3000 and 4000 level credits.
Upper-level credits: at least 42 credits at the 3000 level or above. This includes the 24 credits at the 3000 and 4000 levels in the major listed above under major credits.

Science requirement outside the major: every student shall complete 24 credits in science disciplines outside the major, of which 3 credits must be at the 2000 level or above. 15 of these 24 credits are satisfied through the general education requirements listed before.

HH/PSYC 2240 3.00
HH/PSYC 3250 3.00
HH/PSYC 3260 3.00
HH/PSYC 3265 3.00
HH/PSYC 3270 3.00
HH/PSYC 3280 3.00
HH/PSYC 3290 3.00
at least 12 credits in psychology (PSYC) at the 4000 level, including HH/PSYC 4000 6.00 or HH/PSYC 4170 6.00 or HH/PSYC 4175 6.00 at least nine additional credits in psychology (PSYC)

Upper-level credits: a minimum of 42 credits at the 3000 level or 4000 level, including 18 credits at the 3000 or 4000 level in the major with 12 credits at the 4000 level.

Required science credits outside the major: A minimum of nine credits in science disciplines outside the major, of which three credits must be at the 2000-level or above. Required science credits outside the major can be selected from the following:

- all courses offered through the Faculty of Science and Lassonde School of Engineering;
- all kinesiology and health science courses excluding:

HH/KINE 2380 3.00
HH/KINE 3240 3.00
HH/KINE 3250 3.00
HH/KINE 3360 3.00
HH/KINE 3420 3.00
HH/KINE 3430 3.00
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HH/KINE 4315 3.00
HH/KINE 4340 3.00
HH/KINE 4350 3.00
HH/KINE 4360 3.00
HH/KINE 4370 3.00
Electives: additional elective credits for an overall total of at least 120 credits. Elective credits may be used to fulfill science and upper-level credits.

**Bilingual requirement:** all students admitted to Glendon must satisfy the bilingual requirement. In order to do so, students must successfully complete six credits in each official language (French and English) at Glendon from the following two categories:

- courses at the second-year level and above in French as a second language and/or in English as a second language;
- courses in any discipline which are designated as satisfying the bilingual requirement.

**Note:** please refer to the Rules and Regulations section of the Undergraduate Calendar for detailed requirement information.

**Honours iBSc Program: 120 Credits**

**Residency requirement:** a minimum of 30 credits at York and at least half (50 per cent) of the course credits required in each undergraduate degree program major/minor must be taken at Glendon.

**Graduation requirement:** students must
successfully complete (pass) at least 120 credits which meet the Faculty's degree and program requirements with a cumulative grade point average of at least 5.00 (C+).

General education requirements: every student shall complete 27 credits in total as follows:

- 12 credits among the general education categories: humanities (HUMA), modes of reasoning (MODR), and social science (SOSC), with at least 6 from HUMA and/or SOSC;
- 6 credits in mathematics at the 1000 level, excluding remedial courses;
- 3 credits in computer science at the 1000 level;
- 6 credits from courses with laboratories at the 1000-level in any of the following areas: biology, chemistry and physics.

Major credits: students must complete at least 42 credits (36 credits in psychology and six credits in modes of reasoning), including:

- 24 credits of core courses: GL/PSYC 2510 6.00, GL/PSYC 2520 3.00, GL/PSYC 2530 3.00, GL/PSYC 3525 3.00, GL/PSYC 4230 3.00, and either GL/MODR 1711 6.00, GL/MODR 1716 6.00 or GL/MODR 2640 6.00;
- 24 credits at the 3000 level or above, of which at least 12 credits at the 4000 level.

Students must have an advising appointment with the department to approve the selection of their 3000 and 4000 level credits.

Upper-level credits: at least 42 credits at the 3000 level or above. This includes the 24 credits at the 3000 and 4000 levels in the major listed above under major credits.

Science requirement outside the major: every student shall complete 24 credits in
science disciplines outside the major, of which 3 credits must be at the 2000 level or above. 15 of these 24 credits are satisfied through the general education requirements listed before.

**Bilingual/trilingual requirement:** for the iBSc bilingual, students must complete at least 18 credits in each official language (French and English) at Glendon from the following two categories:

- courses at the second-year level and above in French as a second language and/or in English as a second language;
- courses in any discipline which are designated as satisfying the bilingual requirement.

For the iBSc trilingual, in addition to the above 18 credits in each official language (English and French), students must complete 18 credits in Hispanic studies (including: GL/SP 3000 6.00) or six credits of an advanced-level course in Hispanic studies) or 18 credits in a modern language (including an advanced-level course) at York University.

Courses taken to fulfill the major requirements may also be used to fulfill the iBSc requirements.

**Internationally-oriented course requirement:** at least 12 credits of internationally-oriented courses.

**Exchange requirement:** at least one full term abroad as a full-time student at an institution with which Glendon and/or York has a formal exchange agreement.

**Note:** please refer to the Rules and Regulations section of the Undergraduate Calendar for detailed requirement information.

### Honours Double Major BSc Program

The Honours BSc program described above may be pursued jointly with any other Honours

<table>
<thead>
<tr>
<th>Honours Double Major BSc Programs</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Honours BSc program described above may be pursued jointly with an Honours Major</td>
</tr>
</tbody>
</table>
degree program offered at Glendon. For further details on requirements, see the listings for specific Honours programs. *(Note: The science requirement outside the major is not applicable to double major and major/minor programs where the second major or minor is a science discipline.)*

<table>
<thead>
<tr>
<th>Honours Double Major iBSc Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Honours iBSc program described above may be pursued jointly with any other Honours degree program offered at Glendon. For further details on requirements, see the listings for specific Honours programs. <em>(Note: The science requirement outside the major is not applicable to double major and major/minor programs where the second major or minor is a science discipline.)</em></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Honours Major/Minor BSc Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Honours BSc program described above may be pursued jointly with any Honours Minor program offered at Glendon. For further details on requirements, see the listings for specific Honours Minor programs. <em>(Note: The science requirement outside the major is not applicable to double major and major/minor programs where the second major or minor is a science discipline.)</em></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Honours Major/Minor iBSc Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>bachelor’s degree in the Faculties of Health, Liberal Arts and Professional Studies, Science or the Lassonde School of Engineering as listed in the Faculty of Health Rules and Regulations section.</td>
</tr>
</tbody>
</table>

**Notes:**

1. students pursuing a double major or major/minor may be required to complete more than 120 credits to satisfy all degree requirements.
2. The science requirement outside the major is not applicable to the double major or major/minor.

<table>
<thead>
<tr>
<th>Honours Major/Minor BSc Programs</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Honours BSc program described above may be pursued jointly with an Honours Minor bachelor’s degree program in the Faculties of Health, Liberal Arts and Professional Studies, Science or the Lassonde School of Engineering as listed in the Faculty of Health Rules and Regulations section.</td>
</tr>
</tbody>
</table>

**Notes:**

1. Students pursuing double major or major/minor may be required to complete more than 120 credits to satisfy all degree requirements.
2. The science requirement outside the major is not applicable to the double major or major/minor.
The Honours iBSc program described above may be pursued jointly with any Honours Minor program offered at Glendon. For further details on requirements, see the listings for specific Honours Minor programs. (Note: The science requirement outside the major is not applicable to double major and major/minor programs where the second major or minor is a science discipline.)

Honours Minor

The Honours Minor must be pursued jointly with any approved Honours BA, iBA, BSc or iBSc program which offers a major/minor option at Glendon. For further details on requirements, see the listings for specific Honours BA, iBA, BSc and iBSc programs.

Minor credits: students must complete at least 30 credits in psychology, including:

- GL/PSYC 2510 6.00
- GL/PSYC 2520 3.00
- GL/PSYC 2530 3.00
- at least six credits at the 4000 level.

BSc Program: 90 Credits

Residency requirement: a minimum of 30 credits at York and at least half (50 per cent) of the course credits required in each undergraduate degree program major/minor must be taken at Glendon.

Graduation requirement: students must successfully complete (pass) at least 90 credits which meet the Faculty's degree and program requirements with a cumulative grade point average of at least 4.00 (C).

Honours Minor

The Honours Minor in psychology comprises at least 30 (but not more than 42) credits in psychology. These 30 credits must include: HH/PSYC 1010 6.00 (with a minimum grade of C) HH/PSYC 2021 3.00 or HH/PSYC 2020 6.00 HH/PSYC 2030 3.00 at least six credits from psychology (PSYC) courses at the 4000 level additional credits from psychology (PSYC) courses for an overall total of at least 30 credits in psychology

Notes:

1. Students pursuing a double major or major/minor may be required to complete more than 120 credits to satisfy all degree requirements.

Psychology (BSc Program): 90 Credits

Residency requirement: a minimum of 30 course credits and at least half (50 per cent) of the course credits required in each undergraduate degree program major/minor must be taken at York University.

Graduation requirement: all graduates must complete a total of at least 90 credits with a minimum overall cumulative grade point average of 4.00 (C).
**General education requirements:** every student shall complete 27 credits in total as follows:

- 12 credits among the general education categories: humanities (HUMA), modes of reasoning (MODR), and social science (SOSC), with at least six from HUMA and/or SOSC;
- 6 credits in mathematics at the 1000 level, excluding remedial courses;
- 3 credits in computer science at the 1000 level;
- 6 credits from courses with laboratories at the 1000-level in any of the following areas: biology, chemistry and physics.

**General education:** a minimum of 18 credits as follows:

- six credits at the 1000 level in approved Faculty of Health general education or humanities categories approved by the Faculty of Liberal Arts & Professional Studies
- six credits at the 1000 level in approved Faculty of Health general education or social science categories approved by the Faculty of Liberal Arts & Professional Studies
- six credits at the 1000 level in approved Faculty of Health general education or humanities or social science categories approved by the Faculty of Liberal Arts & Professional Studies

**Note 1:** It is strongly recommended that students complete the general education requirements above within their first 54 credits.

**Note 2:** Students may complete a maximum of 30 credits in general education, any additional credits not being used to fulfill general education may count toward electives.

**Note 3:** General education requirements are satisfied by taking approved humanities or social science categories courses and faculty of health general education courses. For further information please visit http://health.info.yorku.ca/current-student-information/general-education-requirements/.

**Basic science requirement:** a minimum of 15 credits as follows:

- six credits in mathematics selected from:
  
  SC/MATH 1505 6.00  
  SC/MATH 1013 3.00  
  SC/MATH 1014 3.00  
  SC/MATH 1025 3.00

- three credits selected from:
  
  LE/EECS 1520 3.00 or  
  LE/EECS 1540 3.00 or
Major credits: students must complete at least 36 credits (30 credits in psychology and six credits in modes of reasoning), including:

- **GL/PSYC 2510 6.00**,
- **GL/PSYC 2520 3.00**;
- **GL/PSYC 2530 3.00**;
- Either **GL/MODR 1711 6.00**, **GL/MODR 1716 6.00** or **GL/MODR 2640 6.00**;
- 12 credits at the 3000 level or above.

Upper-level credits: at least 18 credits at the 3000 or 4000 level. This includes the 12 credits at the 3000 and 4000 levels in the major listed above under major credits.

Science requirement outside of the major: every student shall complete 24 credits in

**LE/EECS 1570 3.00**
- six credits selected from:
  - **SC/BIO 1000 3.00**
  - **SC/BIO 1001 3.00**
  - **SC/CHEM 1000 3.00**
  - **SC/CHEM 1001 3.00**
  - **SC/PHYS 1010 6.00 or SC/PHYS 1410 6.00**
  - **SC/PHYS 1420 6.00**

Note: Psychology students are strongly recommended to take **LE/EECS 1570 3.00**.

Major credits: students must complete at least 30 (but no more than 42) credits in psychology.

**HH/PSYC 1010 6.00** (with a minimum grade of C)
- **HH/PSYC 2021 3.00 or HH/PSYC 2020 6.00**
- **HH/PSYC 2030 3.00**

at least three credits chosen from:
- **HH/PSYC 2110 3.00**
- **HH/PSYC 2120 3.00**
- **HH/PSYC 2130 3.00**
- **HH/PSYC 3125 3.00**
- **HH/PSYC 3140 3.00**
- **HH/PSYC 3170 3.00**
- **HH/PSYC 3190 3.00**

at least three credits chosen from:
- **HH/PSYC 2210 3.00**
- **HH/PSYC 2220 3.00**
- **HH/PSYC 2230 3.00**
- **HH/PSYC 2240 3.00**
- **HH/PSYC 3250 3.00**
- **HH/PSYC 3260 3.00**
- **HH/PSYC 3265 3.00**
- **HH/PSYC 3270 3.00**
- **HH/PSYC 3280 3.00**
- **HH/PSYC 3290 3.00**

additional credits from psychology (PSYC) courses for an overall total of at least 30 credits

Upper-level credits: a minimum of 18 credits at the 3000 level or 4000 level, including 12 credits in the major.

Required science credits outside the
science disciplines outside the major, of which 3 credits must be at the 2000 level or above. 15 of these 24 credits are satisfied through the general education requirements listed before.

major: A minimum of nine credits in science disciplines outside the major, of which three credits must be at the 2000-level or above. Required science credits outside the major can be selected from the following:

- all courses offered through the Faculty of Science and Lassonde School of Engineering;
- all kinesiology and health science courses excluding:

HH/KINE 2380 3.00
HH/KINE 3240 3.00
HH/KINE 3250 3.00
HH/KINE 3360 3.00
HH/KINE 3420 3.00
HH/KINE 3430 3.00
HH/KINE 3440 3.00
HH/KINE 3490 3.00
HH/KINE 3510 3.00
HH/KINE 3530 3.00
HH/KINE 3580 3.00
HH/KINE 3620 3.00
HH/KINE 4310 3.00
HH/KINE 4315 3.00
HH/KINE 4340 3.00
HH/KINE 4340 3.00
HH/KINE 4350 3.00
HH/KINE 4360 3.00
HH/KINE 4370 3.00
HH/KINE 4375 3.00
HH/KINE 4420 3.00
HH/KINE 4430 3.00
HH/KINE 4480 3.00
HH/KINE 4485 3.00
HH/KINE 4490 3.00
HH/KINE 4495 3.00
HH/KINE 4530 3.00
HH/KINE 4560 3.00
HH/KINE 4620 3.00
HH/KINE 4630 3.00
HH/KINE 4635 3.00
HH/KINE 4645 3.00
HH/KINE 4646 3.00

Electives: additional elective credits as required for an overall total of at least 90 credits. Elective credits may be used to fulfill science and upper-level credits.
**Bilingual requirement:** all students admitted to Glendon must satisfy the bilingual requirement. In order to do so, students must successfully complete six credits in each official language (French and English) at Glendon from the following two categories:

- courses at the second-year level and above in French as a second language and/or in English as a second language;
- courses in any discipline which are designated as satisfying the bilingual requirement.

**Course Substitutes**

Students are allowed to take PSYC courses at any campus to satisfy their degree requirements but all course substitutes must be approved by the Department Chair. Subject to course exclusions, program restrictions, and residence requirements, the courses below are acceptable substitutes for the purpose of meeting program requirements.

<table>
<thead>
<tr>
<th>Program Course</th>
<th>Course Substitutes</th>
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<tbody>
<tr>
<td>GL/PSYC 2510 6.00</td>
<td>HH/PSYC 1010 6.00</td>
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<tr>
<td>GL/PSYC 2530 3.00</td>
<td>HH/PSYC 2021 3.00, HH/PSYC 2022 3.00, HH/PSYC 2020 6.00</td>
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<tr>
<td>GL/PSYC 2520 3.00</td>
<td>HH/PSYC 2030 3.00</td>
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<td>GL/PSYC 3525 3.00</td>
<td>HH/PSYC 3010 3.00</td>
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**Note:** please refer to the Rules and Regulations section of the Undergraduate Calendar for detailed requirement information.

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<tr>
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<td>AK/PSYC 2410 6.00, GL/PSYC 2510 6.00</td>
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<tr>
<td>HH/PSYC 2020 6.00</td>
<td>AP/ECON 2500 3.00 and AP/ECON 3500 3.00; AK/ECON 3470 3.00 (prior to winter 2008) and AP/ECON 3480 3.00; HH/KINE 2050 3.00 and HH/KINE 3150 3.00; SC/MATH 2560 3.00 and SC/MATH 2570 3.00; HH/PSYC 2021 3.00 and HH/PSYC 2022 3.00; AK/PSYC 2510 3.00 (prior to winter 2008) and AK/PSYC 3110 3.00 (prior to summer 2002)</td>
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<tr>
<td>HH/PSYC 2021 3.00</td>
<td>AP/ADMS 2320 3.00, SC/BIOL 2060 3.00, AP/ECON 2500 3.00, AK/ECON 3470 3.00 (prior to winter 1998), HH/KINE 2050 3.00, SC/MATH 2560 3.00, GL/PSYC 2530 3.00, AK/PSYC 2510 3.00 (prior to winter 2002)</td>
</tr>
<tr>
<td>HH/PSYC 2022 3.00</td>
<td>AP/ECON 3500 3.00, AP/ECON 3480 3.00, HH/KINE 3150 3.00</td>
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<td>Subject</td>
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<td>(prior to summer 2002)</td>
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<td>HH/KINE</td>
<td>2049</td>
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<tr>
<td>GL/PSYC</td>
<td>2520</td>
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<td>(prior to winter 2001)</td>
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Support Statements (enclosed)
Principal Ken McRoberts  
Glendon College  
York University  
March 24, 2014

Dear Principal McRoberts,

I am writing in support of the proposal being put forward by the Glendon Department of Psychology to offer a Bachelor of Science (BSc) degree in addition to their long-standing Bachelor of Arts degree. A BSc in Psychology has been offered for over 30 years at the Keele campus, first in the Atkinson and Arts psych departments, and now in the merged department in the Faculty of Health. The vast majority of psychology departments across the country offer both the BA and BSc option for their students. The courses taken within the psychology major are essentially identical in both degree options—only the non-psychology courses differ, with BSc students primarily taking science courses and BA taking primarily liberal arts/social science courses. I am confident that the Glendon BSc will be an attractive option for students, based on our experience. Approximately 40% of our 5000 majors are in the BSc degree, and they are consistently among our highest achieving students. I am happy to support this proposal, and wish our Glendon colleagues all the best as they implement the new degree.

If you would like further information, please feel free to contact me at (416) 736-2100 x66223 or by email at suzmac@yorku.ca.

Sincerely,

[Signature]

Professor Suzanne MacDonald  
Chair, Department of Psychology
Dear Principal McRoberts,

I am writing to follow up my note to you of March 24, regarding the Glendon Department of Psychology’s proposal to offer a Bachelor of Science (BSc) degree in addition to their long-standing Bachelor of Arts degree. Professor Moore has asked me to confirm that the respective BSc programs are substantively “equivalent” in terms of the core course requirements. We certainly offer a wider variety of electives but in terms of the core requirements for the BSc the differences between a Health BSc program and what Glendon Psych is proposing are quite minor. For the 3-year BSc the requirements are identical in all respects. For the Honours BSc and Specialized Honours BSc there is some variability in terms of mandatory courses but the differences are nowhere near a magnitude of 40%. I remain confident that the Glendon BSc will be an attractive option for their students.

If you would like further information, please feel free to contact me at (416) 736-2100 x66223 or by email at suzmac@yorku.ca.

Sincerely,

Professor Suzanne MacDonald
Chair, Department of Psychology
June 25, 2014

Chair
Faculty Council
Glendon College

Dear Chair,

I am pleased to support the proposal to establish at Glendon a B.Sc. in Psychology.

By offering a program that meets the University's template for B.Sc. programs, the proposed program will complement our existing B.A. in Psychology.

To the extent the creation of core courses for this B.Sc program should require additional resources in the Psychology Department, they will be secured through funding provided under the Ministry of Training, Colleges and Universities action plan for the expansion of French-language post secondary programming in Central and Southern Western Ontario.

Sincerely,

[Signature]

Kenneth McRoberts
Principal