

**Faculty of Liberal Arts and Professional Studies  
York University**

**Degree-Level Expectations for Programs**

<b>Program:</b>	<b>Cognitive Science</b>
<b>Degree Type:</b>	<b>BA</b> <i>(e.g. BA; BAS; BDEM; BHRM; BPA; BSW; etc.)</i>
<b>Degree(s):</b>	<b>Specialized Honours</b> <i>(e.g. Specialized Honours (120 credits); Honours (120 credits); Bachelor (90 credits); etc.)</i>
<b>Department/School:</b>	<b>LAPS</b>
<b>Submission Date:</b>	

**Instructions:**

1. On page 1, please complete the information regarding:
  - the name of the program (e.g. Criminology; Public Administration; Sociology; etc.);
  - the degree type of the program (e.g. BA; BDEM; BAS; BHRM; BPA; BSW; etc.);
  - the degree options offered through the program (e.g. *Specialized Honours (120 credits); Honours (120 credits); Bachelor (90 credits); etc.*); and
  - the name of the Department/School that offers the program.
2. For each of the six (6) University Undergraduate Degree Level Expectations (UUDLEs) listed in the chart below, please:
  - a) define the relevant degree-level expectations (i.e. describe what is demonstrated by students who are awarded the degree);
  - b) describe the relevant program learning objectives/student learning outcomes for each degree-level expectation (i.e., what students should know and/or be able to do by the end of the program); and
  - c) align the relevant courses and assessment methods/activities with the program learning objectives/student learning outcomes. *Note: when a program has a long list of electives, the Unit may include the details on the specific requirement (i.e. students have to choose X courses from the list of Y electives) in the chart below and append the full list of applicable elective courses at the end of this document.*
3. For each program offered by the Department/School, please submit (via email) one completed *Degree-Level Expectations for Programs* document.
  - Email address for submissions: [apccps@yorku.ca](mailto:apccps@yorku.ca)
  - Submission deadline: **July 31, 2012**

	<p><b>a) Degree-Level Expectation</b>  <i>This degree is awarded to students who have demonstrated the following:</i></p>	<p><b>b) Program Learning Objectives  (with assessment embedded in outcomes)</b>  <i>By the end of this program, students will be able to:</i></p>	<p><b>c) Appropriate Degree Requirement &amp;  Assessment</b>  <i>Align courses and assessment methods/activities with the program learning objectives.</i></p>
<p><b>1.  Depth and  Breadth of  Knowledge</b></p>	<ul style="list-style-type: none"> <li>-an understanding of the relationship between the different disciplinary approaches of studying the mind</li> <li>-an understanding of the methods and the content of the different disciplines</li> <li>-a developing expertise in two of the disciplines that focus on a study of the mind</li> <li>-awareness of challenges faced by the different disciplines</li> <li>-ability to critically assess research across the different disciplines</li> <li>-ability to produce research at an advanced undergraduate level in one of the disciplines that focus on a study of the mind</li> </ul>	<ul style="list-style-type: none"> <li>-present the philosophical positions about the nature of mind</li> <li>-present the psychological positions about the study of the mind</li> <li>-present the theoretical perspectives on the nature of mind given computer models of the mind</li> <li>-present theories about the relationship between language and thought</li> <li>-understand principles of language structure and interpretation</li> <li>-critically analyze the theories</li> <li>-critically analyze empirical research</li> <li>-engage in theoretical or empirical research aimed at discovering aspects of the mind</li> <li>-integrate research from psychology, philosophy, computer science, linguistics, and neuroscience</li> <li>-speak across disciplines and translate the technical terms of the disciplines so as to make research accessible to researchers and students in other areas</li> </ul>	<p>Ling 1000 Introduction to Linguistics  -tests on theoretical perspectives on language and mind, linguistic structure and interpretation  OR  Ling  Psych 1010 Introduction to Psychology  -tests on survey of psychology including basic terms, concepts, and methods  COGS 2160 Minds, Brains, and Machines  -tests on the concepts and terms in artificial intelligence research, and the theoretical connection between cognition, computation and representation; practice in cross-disciplinary communication  PHIL 3260 Philosophy of Psychology  -papers and tests on the relationship between the concepts, theories and methods of philosophy and psychology; practice in cross-disciplinary communication  PSYCH 3260 Cognition  -tests on cognitive structures and processes involved in perception, memory, language, thinking, reasoning &amp; problem solving  COGS 4750 Honours Thesis in Cognitive Science OR COGS 4901 Honours Seminar in Cognitive Science  -independent research project aimed at discovering aspects of the mind.</p>

	<p><b>a) Degree-Level Expectation</b>  <i>This degree is awarded to students who have demonstrated the following:</i></p>	<p><b>b) Program Learning Objectives  (with assessment embedded in outcomes)</b>  <i>By the end of this program, students will be able to:</i></p>	<p><b>c) Appropriate Degree Requirement &amp;  Assessment</b>  <i>Align courses and assessment methods/activities with the program learning objectives.</i></p>
<p><b>2.  Knowledge of  Methodologies</b></p>	<ul style="list-style-type: none"> <li>-critically examine philosophical arguments</li> <li>-comprehend philosophical arguments</li> <li>-construct philosophical arguments</li> <li>-comprehend empirical research methods, including statistical methods, experimental design, in areas including neuroscience, developmental psychology, cognitive psychology, comparative psychology, linguistics</li> <li>-analyze empirical research methods, and critically examine the claims made in empirical studies</li> </ul>	<ul style="list-style-type: none"> <li>-engage in critical analysis of empirical and theoretical claims about the nature of mind</li> <li>-articulate theories about the nature of mind</li> <li>-discuss the current theories about the nature of mind, including evolution of mind; students should know the landscape and history of the various approaches to the study of mind</li> <li>-produce original research in philosophy, psychology, computer science, or linguistics</li> <li>-demonstration of the skills associated with some of the different methods used in cognitive science</li> </ul>	<p>CSE 1020 Introduction to computer science</p> <ul style="list-style-type: none"> <li>-tests and exercises to develop programming skills</li> </ul> <p>ITEC 1000 Introduction to information technologies</p> <ul style="list-style-type: none"> <li>-tests and exercises to develop competence with basic processes in information technologies</li> </ul> <p>LING 2120 Fundamentals of phonological analysis</p> <ul style="list-style-type: none"> <li>-tests and practice to analyze data from a wide variety of languages</li> </ul> <p>Ling 2140 Fundamentals of grammatical analysis</p> <ul style="list-style-type: none"> <li>-tests and practice to engage in syntactic analysis and knowledge of theories</li> </ul> <p>Phil 2100 Introduction to logic</p> <ul style="list-style-type: none"> <li>-tests and exercises for developing skills of logical analysis</li> </ul> <p>Psych 2020 Statistical methods 1 and 2</p> <ul style="list-style-type: none"> <li>-develop statistical skills necessary to analyze and understand data from psychological research</li> </ul> <p>PSYCH 2030 Introduction to research methods</p> <ul style="list-style-type: none"> <li>-introduction to the use of experimental and non-experimental research methods by psychologists, including research design, external and internal validity, bias, ethics</li> </ul>

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<b>3. Application of Knowledge</b>	<ul style="list-style-type: none"> <li>-An ability to successfully perform in all the required courses</li> <li>-Completion of a thesis that serves to integrate the various methodologies and contents from those courses, and which demonstrates a sophisticated understanding of the topic of the thesis</li> <li>-The thesis consists of a lengthy paper (approximately 35-75 pages)</li> </ul>	<ul style="list-style-type: none"> <li>-engage in original research in at least one of the disciplines of cognitive science that incorporates the findings and methods of at least one other discipline</li> </ul>	COGS 4750 Honours Thesis in Cognitive Science OR COGS 4901 Honours Seminar in Cognitive Science -independent research project aimed at discovering aspects of the mind. Thesis students will participate as a lab member supervised by a cognitive science faculty member. Seminar students will take part in a seminar that culminates in a conference in which students present their research projects.

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<b>4. Communication Skills</b>	<ul style="list-style-type: none"> <li>-the ability to present material orally in class or to research groups</li> <li>-the ability to communicate an original thesis in writing</li> </ul>	<ul style="list-style-type: none"> <li>-give oral arguments and summaries of articles, including critical analysis</li> <li>-present original material to an audience in a conference setting</li> </ul>	COGS 4750 Honours Thesis in Cognitive Science OR COGS 4901 Honours Seminar in Cognitive Science -independent research project aimed at discovering aspects of the mind. Thesis students will participate as a lab member supervised by a cognitive science faculty member. Seminar students will take part in a seminar that culminates in a conference in which students present their research projects.

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<b>5. Awareness of Limits of Knowledge</b>	<ul style="list-style-type: none"> <li>-the limitations of each of the disciplines of cognitive science</li> <li>-the difficulties inherent with interdisciplinary research and communication</li> <li>-the usefulness of interdisciplinary collaboration</li> </ul>	<ul style="list-style-type: none"> <li>-work with other students and professors in different disciplines</li> <li>-communicate their ideas to people from other academic backgrounds</li> <li>-realize the difficulties with communicating across disciplines given the different jargons in these disciplines</li> </ul>	Phil 3265 Philosophy of Mind -students learn different theories of the nature of mind PHIL 3260 Philosophy of Psychology -students learn the relationship between the concepts, theories and methods of philosophy and psychology; the theory laden nature of scientific research is discussed PHIL 3635 Philosophy of Neuroscience -the strengths and limitations of neuroscience technologies are examined

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<b>6. Autonomy and Professional Capacity</b>	<ul style="list-style-type: none"> <li>-have the background needed to continue research at the graduate level</li> <li>-the ability to engage in independent research</li> </ul>	<ul style="list-style-type: none"> <li>-design and complete an independent research project</li> <li>-communicate the findings of the research project to others in philosophy, psychology, computer science, and linguistics</li> </ul>	COGS 4750 Honours Thesis in Cognitive Science OR COGS 4901 Honours Seminar in Cognitive Science -independent research project aimed at discovering aspects of the mind. Thesis students will participate as a lab member supervised by a cognitive science faculty member. Seminar students will take part in a seminar that culminates in a conference in which students present their research projects.