This course will emphasize the inter-disciplinary nature of cognitive science and the bearing of recent research in cognitive science on real-world issues and problems. By the end of the course, students will have completed an original research project in cognitive science that builds on their previous coursework and training in the various disciplines that constitute the field of cognitive science.

By focusing on specific topics and current debates, an attempt will be made throughout the course to make connections between the various disciplines that constitute the interdisciplinary field of cognitive science. Some of the themes and debates covered will include: the nature of mental representation and concepts, the relationship between thought and language, innateness and learning, rationality, the modularity and domain-specificity of cognition, evolutionary psychology and human nature, and the theses of embodied and extended cognition, among others. Each week, we will read two papers drawn from two different disciplines within cognitive science on one of these topics; sometimes these papers will represent opposing viewpoints, at other times they will reinforce one another, and at yet other times they might be pitched at cross purposes. Our aim will be to find connections, make comparisons, draw conclusions, and think of directions for future research. Each week, you will be required to submit a discussion piece on that week’s readings 24 hours before our class meeting.

The topics covered during the first semester will serve to guide you in formulating your own research question and in conducting your research project. In the first few weeks of the first semester, you should be exploring avenues for research that build upon your previous coursework in cognitive science. By the middle of the first semester, and after consulting with me, you will have defined your research topic and charted a path for your research, and you will give a preliminary presentation on your research question. During the last week of the first semester, you will be required to give a more developed presentation on your intended research topic. Most of the readings for the second semester will be based on students’ research projects and each reading will be presented by a student working on a topic related to the reading in question. During the second half of the second semester, you will give a class presentation that sums up your main research findings to date and, based on feedback from me and your fellow students, you will further refine and develop your research project. Each student will be responsible for assessing and commenting on two other student projects. By the end of the second semester, each student will submit a completed research project to me for evaluation.

One of the main goals of this course is to make you more conversant with the different methodologies that are used in cognitive science and to give you more experience with them. This will be achieved both by reading articles that employ a broad range of these methodologies and by conducting a research project that utilizes one or more of them. But in addition to mastering some of these methodologies, we will be aiming to bridge the gaps between them and to relate the results achieved by each of them to those reached by the others. Thus, the aim of the exercise is to foster the skill of crossing disciplinary boundaries and of being able to communicate across the disciplinary divide. This course is the capstone for students in the COGS Honours BA program.
Requirements and Grading

In addition to attendance every week and participation in class discussion, you are expected to fulfill the following requirements:

First semester:

1. Meeting to define research topic: all students must schedule a meeting with me during the weeks of Sept 20 or Sept 27 to define their research topic. [Not graded]
2. Weekly thought piece on each week's readings (due on Moodle discussion board 24 hours before class meeting; 250-350 words). [20%]
3. Presentation based on preliminary statement of research project (including handout) during Week 7. [5%]
4. Presentation based on literature review concerning research project during Week 12. [5%]
5. Written statement of research project and annotated bibliography (approx. 10 items). [10%]

Second semester:

1. Weekly thought piece on each week's readings (see item 2 above). [See first semester]
   Presentation of an article from your bibliography (to be decided by beginning of second semester). [10%]
2. Class presentation of research project, including handout and slides. [10%]
3. Peer evaluation of two projects by other students. [10%]
4. Final research project (approximately 8,000 words). [30%]

All students are also required to attend the Cognitive Science Speaker Series during both semesters. Visiting speakers will be presenting their research around 3 or 4 times per semester and the schedule will be announced at the beginning of each semester.

Topics and Readings (Fall Semester)

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<tr>
<th>Week 1 (Sept 15): Introduction</th>
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<tr>
<td><strong>Week 2 (Sept 22): Gender and Cognition</strong></td>
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<tr>
<td>S. Pinker &amp; E. Spelke, “The Science of Gender and Science: A Debate” <a href="http://www.edge.org/3rd_culture/debate05/debate05_index.html">http://www.edge.org/3rd_culture/debate05/debate05_index.html</a></td>
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<tr>
<td><strong>Week 3 (Sept 29): Mental Representation</strong></td>
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<td><strong>Week 4 (Oct 6): Concepts</strong></td>
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<td><strong>READING WEEK (Oct 11-Oct 15)</strong></td>
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<tr>
<td>Week 7 (Nov 3): First Presentations on Research Projects</td>
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<td>Week 12 (Dec 8): Second Presentations on Research Projects</td>
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Late Penalties and Excuses

If you are unable to fulfill any of the requirements for this course by the announced deadlines, you must contact me as soon as possible and always before the deadline in question. If you have a legitimate excuse backed up by supporting documentation (e.g. a medical emergency), your penalties will be reduced or (in some cases) waived. The key is to contact me as soon as possible after a problem arises. In the absence of a legitimate excuse, late work will be penalized in accordance with instructions for that particular assignment. Late weekly comments will not be accepted.

Special Accommodation

Students with health-related, learning, physical, psychiatric, or sensory disabilities who require reasonable accommodations in teaching style or evaluation methods should discuss their concerns with me as soon as possible so that appropriate arrangements can be made.

Plagiarism and Cheating

If you haven’t done so already, please familiarize yourselves with the York University Senate Policy on Academic Honesty at the link below, and if you have questions concerning what constitutes plagiarism in specific cases, please consult with me: