COURSE DESCRIPTION:

This course will survey a variety of topics in the area of human memory and its relationship with other cognitive processes, such as perception, conceptual processes, and executive function, primarily from the cognitive neuroscience perspective. Current theories and data on memory will be presented, focusing on the processes and systems involved at encoding, storage, and retrieval, as well as the errors of memory and the importance of memory in our everyday lives. Evidence derived from work with clinical populations with memory disturbances, healthy older individuals, research involving the use of animal models, and brain-imaging techniques to study the neural basis of memory and cognition will be explored. Students will be required to read and critically evaluate selected articles from the literature and engage in active discussion during classes, with a particular focus on ongoing debates in the field regarding a number of topics.

EVALUATION:

There are no written examinations in this course. Students will be assessed as follows:

1. Class Participation: 20%
2. Thought Papers (×5): 20%
3. Presentation: 20%
4. Term Paper Outline: 10%
5. Term Paper: 30%
Class Participation:
A large proportion of each class will be devoted to class discussion. Therefore, an evaluation of each student’s participation makes up a considerable proportion of the overall grade for the course. Participation in the seminars includes being present and prepared for every class, having read the assigned readings, and engaging in discussion. Students will be expected to discuss the opinions, comments, and views expressed in their thought papers, and those expressed by their fellow students.

Thought Papers:
Students are required to submit “thought papers” on the readings at the beginning of class (excluding the first class). The purpose of the thought paper is to present your view of the readings in at least one of the following ways: describe the interesting or main questions and how well you believe they were addressed by one or more of the papers; evaluate the experimental design and/or the authors’ interpretation of the findings; discuss ideas for theory or experiments that the paper(s) inspired; describe how the papers complemented or contradicted each other. The thought paper must demonstrate that the student has read and critically evaluated one or more of the readings. Importantly, the thought paper is NOT meant to summarize the readings, but rather to serve as a stimulus for class discussion.

Thought papers should be 1 (minimum) to 2 (maximum) pages long (double-spaced, 12-point font, 1-inch margins all around), not including references (at least 1 reference must be included). 5 thought papers are required, but you may submit up to 8 (only 1 per class), and the best 5 will be counted towards your final grade. Thought papers are due at the beginning of each class in which the relevant paper(s) is/are being covered, and will not be accepted late.

Presentation:
Each student will serve as a discussion leader and be responsible for presenting a seminar on one of the assigned topics. This will involve extracting the important issues of one or two of the readings, and posing discussion questions for class. There will usually be 2 student presentations per class, so presenting students must coordinate with one another to ensure that their presentations are complementary and not overlapping or redundant.

To lead the discussion, it will be necessary to elaborate on the background and introduction of the paper to provide the theoretical context in which the main question or questions were asked in the paper. To do this well, you may need to read an additional article or two in order to be fully prepared to discuss the assigned paper. If you choose an empirical article, it will also be necessary to provide a concise description of the methods, the main findings, and interpretation of the findings. You should also share your perspective on the paper, and prepare several questions to discuss with the rest of the class. The questions can be points of confusion, issues for further consideration, follow-up research ideas, and so on. The presentation should take approximately 30 minutes, with another 15-30 minutes for class discussion.

Term Paper & Outline:
For your term paper, you may write a comprehensive review, or a research proposal, related to any of the topics covered throughout the course. If you choose to write a review paper, it must have a clear thesis and present a novel argument or synthesis of the ideas presented and/or
discussed in the course (e.g., you may choose to compare, contrast, and evaluate two competing theories). If you choose to write a research proposal, it must include an introduction providing the context and rationale for the study, and a methods section (participants, materials, procedures, proposed analyses, and hypothesized results). Your paper must be a maximum of 10 pages (double-spaced, 12-point font, 1-inch margins all around) not including the title page, abstract, or references. The paper must be written in APA format (see Publication Manual of the American Psychological Association, 5th Edition, Washington, DC: American Psychological Association). There will be a penalty for late submissions of 10% per day.

Approximately halfway through the term (see Course Schedule), you must submit a 2-page outline that indicates whether you will write a review or a research proposal, and clearly delineates the structure of your paper. The structure and requirements of your outline will be discussed during class.

**PREREQUISITES:**

Students should be familiar with basic principles of brain structure and function to fully appreciate the readings and material that will be presented. Course pre-requisites include: AK/AS/SC/PSYC 1010 6.00 or AK/PSYC 2410 6.00, with a minimum grade of C; AK/AS/SC/PSYC 2030 3.00 or AK/PSYC 2530 3.00; one of AK/AS/SC/PSYC 2021PSYC 3.00, AK/AS/SC/PSYC 2020 6.00, AK/PSYC 2510 3.00; one of AK/PSYC 3130 3.00, AK/PSYC 3135 3.00, AK/PSYC 3260 3.00 (after Winter 2002), AS/SC/PSYC 3260 3.00, AK/AS/SC/PSYC 3265 3.00.

The Psychology Calendar lists a number of student responsibilities and requirements, two of which are presented here.

It is the responsibility of the student to ensure that courses are selected in accordance with current degree/certificate and program requirements. Please check to make sure that the course that you enroll in fits with your degree requirements.

All students are required to satisfy all the corequisite(s) and prerequisite(s) for courses selected for enrolment. You may be de-enrolled from a course for which you lack the required co- or prerequisite(s). Do not rely on the enrolment system to block your enrolment from such courses. It is the student’s responsibility to ensure that co- and prerequisite requirements have been satisfied. Please note that such de-enrolment could occur even after the course has started, leaving you with few or no options in terms of replacing the course.

**ACADEMIC POLICIES:**

**Missed Presentation or Assignment Deadlines:**
Thought papers are due at the beginning of each class and will not be accepted late. Late Term Papers and Outlines will be subject to a late penalty of 10% per day, including weekends.
Students must email the instructor within 24 hours following any missed presentations or assignments, and must follow the Faculty of Health guidelines for missed tests or examination. Appropriate documentation verifying the circumstances for the missed presentation or assignment deadline must be provided within one week (7 calendar days) of the deadline. Failure to provide appropriate documentation will result in a grade of 0. One of the following forms of documentation stating the reason for missing the presentation or assignment deadline MUST be provided:

(A) Presentations or assignment deadlines missed for medical reasons must be supported by an Attending Physician’s Statement. The Attending Physician’s Statement can be found here: http://www.yorku.ca/grads/forms/NEW/attending_physician_statement.pdf

Students who miss their presentation will be required to present during the following class.

NOTE: The instructor and/or psychology undergraduate office will follow-up on medical notes. Falsification of any documentation relating to a missed class, presentation, or deadline is a serious academic offence.

(B) Presentations or assignment deadlines missed for non-medical reasons must be supported by appropriate documentation (i.e., copy of a death certificate, automobile accident report, etc.) Pre-booked travel is not a reasonable excuse for missing a presentation or assignment deadline.

**Academic Honesty, Student Conduct, and Accommodations**

Students must familiarize themselves with the Senate Committee on Curriculum & Academic Standards webpage:

http://www.yorku.ca/academicintegrity/students/index.htm

Further information can be found here:


See also the Department of Psychology Supplemental Calendar and the York University Academic Integrity website for information on plagiarism, cheating and other forms of academic dishonesty. For example:

http://www.yorku.ca/academicintegrity/students/index.htm

Please also complete the tutorial on academic integrity:

http://www.yorku.ca/tutorial/academic_integrity/

**Policy Regarding E-mail**

All email correspondence to Dr. Stevens must include the course code (PSYC4270) in the subject-heading to prevent messages from being filtered as spam, and close with your full name and student number (e.g., “Jennifer Jones, 867530986”). A response from Dr. Stevens can be expected within 48 hours, not including weekends. Please re-send your message if you do not receive a reply within this timeframe. **Before contacting Dr. Stevens, please reread the syllabus carefully to determine if it answers your question.**

**Resources**

A number of valuable resources are available to students at York University.
Importantly, this includes the Writing Center. Please visit the website: http://www.yorku.ca/laps/writ/centre/

York University also offers both academic and crisis counseling services. For information, visit the Counseling and Development Centre website: http://www.yorku.ca/cds/

Please inform the instructor as soon as possible if there are extenuating circumstances that may interfere with the successful completion of the course requirements in order to make appropriate arrangements.

**COURSE SCHEDULE OVERVIEW & IMPORTANT DATES:**

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic/Deadline</th>
<th>Assignment</th>
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</thead>
<tbody>
<tr>
<td>May 6 (Week 1a)</td>
<td>Course Overview</td>
<td>Thought Papers: 5 required; 8 max.</td>
</tr>
<tr>
<td>May 8 (Week 1b)</td>
<td>Approaches &amp; Methods in Memory &amp; Cognitive Research</td>
<td>Thought Paper #1</td>
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<tr>
<td>May 13 (Week 2a)</td>
<td>Object Concepts &amp; Semantic Memory</td>
<td>Thought Paper #2</td>
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<tr>
<td>May 15 (Week 2b)</td>
<td>Neurocognitive Specialization &amp; Plasticity</td>
<td>Thought Paper #3</td>
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<td>May 20 (Week 3a)</td>
<td>Implicit Memory</td>
<td>Thought Paper #4</td>
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<tr>
<td>May 22 (Week 3b)</td>
<td>Priming &amp; Repetition Suppression</td>
<td>Thought Paper #5</td>
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<tr>
<td>May 23</td>
<td><strong>DEADLINE</strong></td>
<td>Term Paper Outline</td>
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<tr>
<td>May 27 (Week 4a)</td>
<td>Encoding &amp; Perception</td>
<td>Thought Paper #6</td>
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<tr>
<td>May 29 (Week 4b)</td>
<td>Retrieval &amp; Distortions</td>
<td>Thought Paper #7</td>
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<td>May 30</td>
<td><strong>Last date to drop course without receiving a grade</strong></td>
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<td>June 3 (Week 5a)</td>
<td>Time &amp; Space: Prospection &amp; Spatial Perception</td>
<td>Thought Paper #8</td>
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<td>June 5 (Week 5b)</td>
<td>Executive Functions &amp; Working Memory</td>
<td>Thought Paper #9</td>
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<td>June 10 (Week 6a)</td>
<td>Social Cognition</td>
<td>Thought Paper #10</td>
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<tr>
<td>June 12 (Week 6b)</td>
<td>Lifespan Development &amp; Cognitive Aging</td>
<td>Thought Paper #11</td>
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<tr>
<td>June 16</td>
<td><strong>DEADLINE</strong></td>
<td>Term Paper</td>
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*SCHEDULE OF LECTURES & READINGS:*

Reading list may be modified throughout the term, and additional readings will be added on occasion. See course website for most up-to-date list of reading for each week.

* Indicates core readings

**May 6** Course Overview

No Readings

**May 8** Approaches & Methods in Memory & Cognitive Research


May 13 Object Concepts & Semantic Memory


**May 15**  
**Neurocognitive Specialization & Plasticity**


**May 20**  
**Implicit Memory**


**May 22**  
**Priming & Repetition Suppression**


**May 27**  
**Encoding & Perception**


**May 29 Retrieval & Distortions**


**June 3 Time & Space: Prospection & Spatial Perception**


### June 5 Executive Functions & Working Memory


### June 10 Social Cognition


### June 12 Lifespan Development & Cognitive Aging


New York: Oxford University Press.


**RECOMMENDED TEXTBOOKS (OPTIONAL)**

**Cognitive Neuroscience**


**Neuroimaging**


**General Guides to Writing and Presentation**


**ONLINE RESOURCES**

The Brain from Top to Bottom: http://thebrain.mcgill.ca/flash/index_d.html (Author: Canadian Institute of Health Research): Material is presented for three type of learners (beginner,
intermediate, advance) and topics are organized in five levels (social, psychological, neurological, cellular, molecular). This is an excellent website.

**Dana Foundation Brain Web:** [http://www.dana.org/default.aspx](http://www.dana.org/default.aspx) (Author: Dana Foundation): provides information and links to validated sites about brain diseases and disorders, as well as webcasts & podcasts.