

**Course Description**  
**3260.03 (S1/2013) Cognitive Processes**

<b>Section: 3260.03</b> <b>Time: Tuesday, 7:00 PM-10:00 PM</b> <b>Thursday, 7:00 PM-10:00 PM</b> <b>Rm: CLH B</b>	Course Director: Prof. Vinod Goel Office: Lab: BSB 037 Tel: Lab Ext. 30400 Email: vgoel@yorku.ca Office Hrs: TBA  TA: Leah Hartman TA contact info: <a href="mailto:lhartman@yorku.ca">lhartman@yorku.ca</a> / BSB072A  Office Hrs:
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**Course Prerequisites:** Psych 1010 with a minimum C grade.

**Drop Date:** May 31, 2013.

**Important Note regarding E-Mail/Internet Use:** Severe pains in my arms prevent me from excessive typing. Therefore, please do not send me e-mail, except to make an appointment to meet in person. I will not be able to read and respond to it in a timely manner. I'm happy to answer your questions in class, during the tutorial, during my office hours, or make an appointment to meet with you. I will also stay at the end of each lecture to answer individual questions.

**General Description:** This will be a basic course in the cognitive structures & processes involved in perception, memory, language, thinking, reasoning, & problem solving. We will motivate & explicate the cognitive paradigm, discuss data from the various domains, and examine the models that have been advanced to account for the data. The section will have a cognitive science bias. The objective of the course is to give you an overview of the field of cognitive psychology.

**Class Format:** There will be two lecture hrs. and one tutorial hr. each week. Tutorials will be devoted to group discussion of readings and lecture material. Specific questions for discussion may be assigned.

- Requirements:**
- 1) One assignment (20% of grade)
    - Details attached below.
  - 2) Participation in class exercises & presentations (10% of grade)
    - Details attached below.
  - 3) Three tests (70% of grade)
    - Details attached below.

**Text And Articles** *Required:*

Kathleen Galotti et al. 2009. *Cognitive Psychology; In and Out Of the Laboratory*. 1<sup>st</sup> Canadian edition. Nelson.

[Using older editions of the textbook: there are often used copies of older editions of textbooks available. They contain 95% of information found in the new edition. You may use older editions if you wish. However, before doing so, consider whether you are capable of reading the scheduled lecture topics on the course outline and the table of contents in the textbook and matching them up. If you are capable of doing this and then using an older edition will serve you fine. If you are not capable of doing this on your own, stick to the specified edition.]

**Articles (available on line: <http://www.yorku.ca/vgoel/3260.frame.html>)**

1. Fodor, J. A. (1981). The Mind-Body Problem. *Scientific American*, 244(1), 114-123.
2. Searle, J. R. (1984). *Minds, Brains and Science (Chapter 1, Mind-Body Problem)*. Cambridge, Mass.: Harvard University Press.
3. Skinner, B. F. (1980). Selection from Science and Human Behavior. In N. Block (Ed.), *Readings in Philosophy of Psychology, Vol.1* (pp. 37-47). London: Methuen.
4. Chomsky, N. (1980). A Review of B. F. Skinner's Verbal Behavior. In N. Block (Ed.), *Readings in Philosophy of Psychology, Vol. 1* (pp. 48-63). London: Methuen.
5. Goel, V. (1995). *Sketches of Thought* (Chapter 2: From Mental Representation to Computation). MIT Press.
6. Chomsky, N. (1981). On Cognitive Capacity. In N. Block (Ed.), *Readings in Philosophy of Psychology, Vol. 2* (pp. 305-323). London: Methuen.
7. Ollinger, M. & Goel, V. (2010). Problem-Solving. In B. Glatzeder, V. Goel, & a von Müller (Eds), *Towards a Theory of Thinking*. Springer.
8. Goel, V. & Waechter, R. In press. Inductive and Deductive Reasoning. *Encyclopedia of Human Behavior, 2nd Edition*. Elsevier.
9. Goel, V. (2007). Anatomy of Reason. *Trends in Cognitive Sciences*. Vol. 11 (10).
10. Goel, V. (2009). Cognitive Neuroscience of Thinking. In G. Berntson & John T. Cacioppo (Eds.), *Handbook of Neuroscience for the Behavioral Sciences*. Wiley.

*Readings must be completed and associated questions answered prior to the relevant class.*

**Assignment (20%):**

*Reasoning Expt.:* You will be given data collected in class and be required to write up the results. Some classroom time has been set aside for the exercise. Details to follow.

**Late Assignments:** Assignments are due at the beginning of class on the day(s) indicated on the attached Schedule. Late assignments will be penalized ONE point per calendar day. As you will always have at least 2-3 weeks to complete an assignment, a doctor's note indicating illness will usually not suffice to waive the penalty. To be considered, a doctor's note must indicate that you were incapable of working for at least half the number of days between the handing out the assignment and the due date. No assignments will be accepted after the last day of class.

**Tests (70%):**

There will be three in-class tests on the dates indicated on the schedule. Each test will have a duration of two hours and will consist of multiple choice questions and written essay questions. The ratio of multiple-choice to written essay questions will not be known in advance. Please do

not ask. The tests will be cumulative. The grade value of each test is indicated on the weekly schedule. The test material will be based on the lectures, the textbook, and the indicated articles.

**Makeup Tests:** *If you miss a scheduled test you may write a makeup on the date specified on the schedule. if you are taking the course you MUST keep this date and time open as it will be the only chance to write a makeup if you miss a test. Furthermore, please note that one consequence of missing the first scheduled test will be that you will not receive the usual grade feedback by the drop date.* Given the limited number of multiple-choice questions available, there may be fewer or no multiple-choice questions on the makeup tests. The makeup tests will consist largely or exclusively of written essay and short answer questions. There is no makeup test for the makeup tests.

**Participation Grade (10%):**

At the end of every lecture each student will write and submit a one paragraph answer to a question about the lecture material. These will be worth a total of 5 points. Vocal classroom participation will also be worth 5 points. There will be no substitute assignments to make up missed participation grades. Make sure that your schedule and health permit you to attend class and participate in these exercises regularly.

**Grades and Entitlements:**

You are entitled only to the grade that you **earn** in this course. Nothing else. I will **not** increase your grade just because "you need at least a  $x$  grade to graduate; or you need a  $y$  grade to get into some other program; or you need a  $z$  grade to maintain your scholarship;" etc. etc.. It is not fair to other students. If you need a certain grade in this course, please do the required work.

**Plagiarism** is the passing off of someone else's words and ideas as you own. This is a very serious academic offense. Do your own assignments and acknowledge all your sources. The penalty for plagiarism will be in accordance with the Senate Policy on Academic Honesty which can be found at the following URL:

<http://www.yorku.ca/secretariat/policies/document.php?document=69>

**Student Feedback:** I welcome constructive comments on course organization, lectures (content, style, presentation), assignments, etc.

**Office Hours:** Make use of the office hours. They are for your benefit.

**3260.03 Cognitive Processes**  
**S1/2013, Tuesday & Thursday, 7:00 PM-10:00 PM**  
**Proposed Schedule**

<b>Week</b>	<b>Date</b>	<b>Lecture Topics</b>	<b>Readings</b>	<b>Assignments</b>
1	May 7	Historical introduction to Cognitive Psychology	Chapter 1 Articles 1-5	
2	May 9	Cognition & Computation	Chapter 1 Articles 1-5	
3	May 14	Perception/ Visual	Chapter 3	Reasoning experiment in class
4	May 16	Test 1 (25%)		
5	May 21	Categorization	Chapter 7	
6	May 23	Memory	Chapters 5, 6, 8	
7	May 28	Language	Chapter 9 Articles 6	Test 1 grades posted
8	May 30	Test 2 (25%)		
9	June 4	Problem solving	Chapter 10 Article 7, 10	
10	June 6	Reasoning	Chapter 10 Articles 8, 9, 10	Reasoning experiment due
11	June 11	Neuropsychology of Reasoning	Chapters 2, 10 Articles 8, 9, 10	
12	June 13	Test 3 (20%)		
	<b>June 17 @ 2-5pm (location to be announced)</b>	<b>Make up tests</b>		

*Note: Readings must be completed prior to the relevant class.*