

Course Description (v1)
2260.03 A (F2020-21) Cognitive Processes

<p>Section: 2260.03A Fall 2020 Time: N/A (online) Rm: N/A (online)</p>	<p>Course Director: Office: Email: Office Hrs:</p> <p style="text-align: right;">TA: TA contact info: Office Hrs:</p>	<p>Prof. Vinod Goel 235 BSB/Lab: BSB 037 vgoel@yorku.ca Tuesdays @ 2:30pm/9pm (via Zoom)</p> <p>TBA</p>
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Course Prerequisites: Psych 1010 with a minimum C grade.

Drop Date: Nov. 6, 2020.

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.

Learning Objectives: Your immediate learning objectives should be to use the course content and exercises to develop reading, writing, and critical evaluation skills.

Class Format: This is an online course. I will provide pre-recorded video lectures, copies of overhead slides, and readings for each topic on the Moodle webpage for the course. When and how you choose to engage the material is up to you. *However, I will assume in nominal day of Thursday for the class.* All of the dates in the schedule (except test dates) are based on this assumption. You must allow yourself 10-15 hours each week if you are going to succeed. If you do not have the time or discipline to do this, this may not be the right course and/or course format for you.

Virtual Office hours and communication: As this is an online course, we will have virtual office hours via Zoom on the day and time indicated above for office hours. This will be an opportunity for you to ask administrative and content questions. However, administrative questions are already dealt with in this document, so it is largely content questions that you should be raising during the virtual office hours.

Email correspondence: Please note that I will generally not answer questions via email. I have peripheral nerve damage in my hands which makes it extremely difficult and painful to type. If

you cannot meet with me during the virtual office hour, send me an email to make an appointment at an alternative time. In all emails that you send me, you must put the course ID number in the subject line, otherwise it is apt to get lost among my hundreds of emails each day.

Requirements & Assessment:

- 1) Term Paper (40% of grade)
 - Details attached below.
- 2) Participation in question answering exercises (10% of grade)
 - Details attached below.
- 3) Two tests (50% of grade)
 - Details attached below.

Readings (available on Moodle)

- 1.1) Fodor, J. A. (1981). The Mind-Body Problem. *Scientific American*, 244(1), 114-123.
- 1.2) Searle, J. R. (1984). *Minds, Brains and Science (Chapter 1, Mind-Body Problem)*. Cambridge, Mass.: Harvard University Press.
- 1.3) Friedenberg, J. & Sliverman, G. 2006. Introduction. *Cognitive Science*. London: Sage.
- 1.4) Goel, V. (in press). Chapter 4. *Reason and Less*. MIT Press.
- 2) Goel, V. (1995). *Sketches of Thought (Chapter 2: From Mental Representation to Computation)*. MIT Press.
- 2.1) Goel, V. (in press). Chapter 5. *Reason and Less*. MIT Press.
- 3.1) Friedenberg, J. & Sliverman, G. 2006. Perception Chapter. *Cognitive Science*. London: Sage.
- 3.2) Zimbardo, P. & Gerrig R J. 1996. Perception Chapter. *Psychology and Life*, 14th ed. (New York: HarperCollins, 1996), 258–302.
- 4.1) Wittgenstein, L. 1999. Philosophical Investigations, Sections 65-78. *Concepts: Core Readings*, ed. E. Margolis and S. Laurence (Cambridge, MA: MIT Press, 1999), 171–174.
- 4.2) Rosch, E. 1999. Principles of Categorization. In Rosch, Eleanor and Lloyd, Barbara B. (eds), *Cognition and categorization* 27-48. Hillsdale, NJ: Lawrence Erlbaum.
- 5.1) Memory 1: Kathleen Galotti et al. 2009. *Cognitive Psychology; In and Out Of the Laboratory*. 1st Canadian edition. Nelson.
- 5.2) Memory 2: Kathleen Galotti et al. 2009. *Cognitive Psychology; In and Out Of the Laboratory*. 1st Canadian edition. Nelson.
- 6.1) Anderson, J. Chapter 12: Language. *Cognitive Psychology (8th Edition)*. Worth Publishers.
- 6.2) Chomsky, N. (1981). On Cognitive Capacity. In N. Block (Ed.), *Readings in Philosophy of Psychology, Vol. 2* (pp. 305-323). London: Methuen.
- 7.1) Goel, V. (in press). *Reason and Less*. (Chap. 1: The Rational Animal). MIT Press.

- 7.2) Goel, V. & Waechter, R. (2017). Inductive and Deductive Reasoning: Integrating Insights from Philosophy, Psychology, & Neuroscience. In V. Thompson & L. Ball (Eds.), *International Handbook on Thinking and Reasoning*. NY: Taylor & Francis.
- 8) Tversky, A. & Kahneman, D. 1974. Judgment under Uncertainty: Heuristics and Biases. *Science*, Vol. 185, pp.1124-1131.
- 8.2) Chase, Hertwig, & Gigerenzer (1998). Visions of Rationality. *Trends in Cognitive Sciences*. Vol. 2: 6.
- 9) Ollinger, M. & Goel, V. (2010). Problem-Solving. In B. Glatzeder, V. Goel, & a von Müller (Eds), *Towards a Theory of Thinking*. Springer.
- 10.1) Gazzaniga, MS, Ivry, RB, Mangun, GR. (2014). Chapter 3: CNS Methods. *Biology of the Mind* (4th ed.). NY: Norton.
- 10.2) Goel, V. (2007). Anatomy of Reason. *Trends in Cognitive Sciences*. Vol. 11 (10).

Readings: I have not assigned a textbook for this course. I've selected a series of relevant readings that are available on Moodle. One challenge with individual readings is to maintain a sense of continuity across the material. This continuity is provided in the lectures. Do the readings in conjunction with the lectures.

How to do the readings: (1) listen to the lecture video; (2) read the participation questions associated with the lecture/topic; (3) begin your readings with the aim of answering the participation questions; (4) once you can answer the participation questions, you have gotten everything out of the reading that you need to get.

Some of you may find it helpful to have a textbook. If so, buy a used copy of almost any cognition text book. I have previously used the following textbook for this course:

Kathleen Galotti et al. 2009. *Cognitive Psychology; In and Out of the Laboratory*. 1st Canadian edition. Nelson.

Participation/Question Answering Grade (10%):

Each week you will receive questions to guide you through the weekly readings. You will submit written answers to these questions by the specified dates and times. Once you have submitted your answers through Moodle/eClass, you will be able to see the answers submitted by other students. We will indicate some of the good answers to the questions prior to the tests. *These questions are very similar to the short answer questions that you will see on the tests.* Answering these questions will get you participation grades and help you study for the tests. Please note the submission dates on the schedule. The submission time is midnight. The system will not accept late submissions. As this is meant to be a weekly exercise to encourage you to keep up with the readings, no extensions will be granted.

The 10 participation points are evenly divided over the topics/question sets. As there are 10 topics, the participation exercise for each topic is worth 1 point. At the end of the term we will tally how many of the participation exercises you completed. For each submission with a reasonable attempt at an answer (that shows you did the readings) you will get the full grade. If

the exercise is not submitted, or the answer does not indicate knowledge of the readings, you will get a zero grade. Note: you will **not** receive feedback for the participation exercise.

Tests (50%):

There will be two tests on the *dates and times indicated on the schedule*. The tests will be written online, as per University requirements. *The University also requires that tests for online courses be held on Sundays*. Each test will consist of multiple choice and written essay questions. No, you will not know how many of each type of question until you see the test. The grade value of each test is indicated on the weekly schedule. The test material will be based on the lectures and the indicated readings. Each test will focus on the five topics covered during that period but may contain a few questions from earlier topics. The best way to study for the test is to attend to the recorded lectures, do the readings, and ANSWER THE QUESTIONS ASSOCIATED WITH EACH READING.

Missed Tests: Students are expected to write each test on the dates and times specified. Test dates and times are not negotiable. **If you miss a mandatory piece of course work for no acceptable documented reasons, you will receive a grade of zero.** If you have a legitimate reason (e.g., death in the family, severe illness, etc.) for being excused from a test/exam, and have documentation to verify your absence, you may write a make-up test, in lieu of the missed test/exam, on a date and time to be determined by the instructor. You **MUST** be available on this date and time as it will be the only chance to write a makeup if you miss a scheduled test. *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. Furthermore, 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 test.

In addition, for any missed tests or late assignments, students **MUST** complete the following online form which will be received and reviewed in the Psychology undergraduate office.

HH PSYC: Missed Tests/Exams Form. Failure to complete the form within 48 hours of the original deadline will result in a grade of zero for the test/assignment.

Term Paper (40%):

Write an academic term paper (15-20 pages plus references, double spaced) addressing one of the questions from the provided list. The paper will be graded not only for content (40%), but also your ability to organize and express your thoughts in a structured, systematic, coherent fashion, using grammatical English sentences organized into paragraphs and sections (60%). Term papers may be submitted to Turnitin or Google or other engines to check for plagiarism.

Late Term Papers and Assignments:

The term paper is due on the days indicated in the course schedule. Late assignments will be penalized **5%** points per calendar day and **will not receive feedback**. *No assignments will be accepted after the last day of term.* As you will always have at least 2-3 weeks to complete the 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 two weeks during the course of the semester.

Grades Appeal/Correction: Any questions or concerns regarding grades on tests and assignments must be raised with the instructor within 10 days of the posting of the grade.

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.. It is not fair to other students. If you need a certain grade in this course, please do the required work.

Grading as per Senate Policy

The grading scheme for the course conforms to the 9-point grading system used in undergraduate programs at York (e.g., A+ = 9, A = 8, B+ = 7, C+ = 5, etc.). Assignments and tests* will bear either a letter grade designation or a corresponding number grade (e.g. A+ = 90 to 100, A = 80 to 89, B+ = 75 to 79, etc.)

For a full description of York grading system see the York University Undergraduate Calendar - [Grading Scheme for 2020-21](#)

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. Google and Turnitin software may be used to check for plagiarism on written work. The penalty for plagiarism will be in accordance with the Senate Policy on Academic Honesty which can be found at the following URLs, along with resources to help you avoid plagiarism:

- [Information about the Senate Policy on Academic Honesty](#)
- [Online Tutorial on Academic Integrity](#)
- [Information for Students on Text-Matching Software: Turnitin.com](#)
- [Beware! Says who? A pamphlet on how to avoid plagiarism](#)
- [Resources for students to help improve their writing and research skill](#)

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.

2260.03A Cognitive Processes
Fall 2020-21, Online (Nominal day: Thursday)
Proposed Schedule

Topic	Date	Lecture Topics	Readings	Assignments
1	Sept. 10	Historical introduction to Cognitive Psychology	Articles 1.1-1.4	Assignment due
2	Sept. 17	Cognition & Computation	Articles 2 & 2.1	Assignment due
3	Sept. 24	Perception/ Visual	Articles 3.1, 3.2	Assignment due
4	Oct. 1	Categorization	Articles 4.1, 4.2	Assignment due
5	Oct. 8	Memory	Articles 5.1, 5.2	Assignment due
6	Oct. 15, midnight	Reading Week		Term Paper (40%) Due
	Oct. 25, 2:30pm	Test 1 (25%)		
7	Oct. 29	Language	Articles 6.1, 6.2	Assignment due
8	Nov. 5	Reasoning	Articles 7.1, 7.2	Assignment due
9	Nov. 12	Decision Making	Articles 8.1, 8.2	Assignment due
10	Nov. 19	Problem solving	Articles 9	Assignment due
11	Nov. 26	Neuropsychology of Reasoning	Articles 10.1, 10.2	Assignment due
12	Dec. 6, 2:30pm	Test 2 (25%)		

Other Information

Learning Outcomes

Upon completion of this course, students should be able to:

1. Demonstrate in-depth knowledge in cognition.
2. Articulate trends in cognitive psychology.
3. Express knowledge of cognitive psychology in written form.
4. Describe and explain limits to generalizability of research findings in cognitive psychology.
5. Demonstrate ability to relate information about cognitive psychology to own and others' life experiences.

Add/Drop Deadlines

For a list of all important dates please refer to: [Fall/Winter 2020-21 Important Dates](#)

	Fall (F)	Year (Y)	Winter (W)
Last date to add a course without permission of instructor (also see Financial Deadlines)	Sept 22.	Sept 22.	Jan. 25
Last date to add a course with permission of instructor (also see Financial Deadlines)	Oct. 6	Oct. 27	Feb. 8
Drop deadline: Last date to drop a course without receiving a grade (also see Financial Deadlines)	Nov. 6	Feb. 5	March 12
Course Withdrawal Period (withdraw from a course and receive a grade of "W" on transcript – see note below)	Nov. 7- Dec. 8	Feb. 6 – April 12	March 13- April 12

Add and Drop Deadline Information

There are deadlines for adding and dropping courses, both academic and financial. Since, for the most part, the dates are **different**, be sure to read the information carefully so that you understand the differences between the sessional dates below and the [Refund Tables](#).

You are strongly advised to pay close attention to the "Last date to enrol without permission of course instructor" deadlines. These deadlines represent the last date students have unrestricted access to the registration and enrolment system.

After that date, you must contact the professor/department offering the course to arrange permission.

You can drop courses using the registration and enrolment system up until the last date to drop a course without receiving a grade (drop deadline).

You may [withdraw from a course](#) using the registration and enrolment system after the drop deadline until the last day of class for the term associated with the course. When you withdraw from a course, the course remains on your transcript without a grade and is notated as 'W'. The withdrawal will not affect your grade point average or count towards the credits required for your degree.

Information on Plagiarism Detection

Google and Turnitin will be used to detect plagiarism.

Electronic Device Policy

This course will be delivered in an online format and therefore electronic devices (e.g., tablets, laptops) are permitted during class time for course-related purposes. It is expected that you would complete tests/exams in a manner that does not require consulting an unauthorised source during an examination unless the tests/exams are open-book.

Academic Integrity for Students

York University takes academic integrity very seriously; please familiarize yourself with [Information about the Senate Policy on Academic Honesty](#).

It is recommended that you review Academic Integrity by completing the [Academic Integrity Tutorial](#) and [Academic Honesty Quiz](#)

Test Banks

The offering for sale of, buying of, and attempting to sell or buy test banks (banks of test questions and/or answers), or any course specific test questions/answers is not permitted in the Faculty of Health. Any student found to be doing this may be considered to have breached the Senate Policy on Academic Honesty. In particular, buying and attempting to sell banks of test questions and/or answers may be considered as “Cheating in an attempt to gain an improper advantage in an academic evaluation” (article 2.1.1 from the Senate Policy) and/or “encouraging, enabling or causing others” (article 2.1.10 from the Senate Policy) to cheat.

Academic Accommodation for Students with Disabilities

While all individuals are expected to satisfy the requirements of their program of study and to aspire to do so at a level of excellence, the university recognizes that persons with disabilities may require reasonable accommodation to enable them to do so. The university encourages students with disabilities to register with ***Student Accessibility Services (SAS)*** to discuss their accommodation needs as early as possible in the term to establish the recommended academic accommodations that will be communicated to Course Directors as necessary. **Please let me know as early as possible in the term if you anticipate requiring academic accommodation so that we can discuss how to consider your accommodation needs within the context of this course.**

<https://accessibility.students.yorku.ca/>

Excerpt from Senate Policy on Academic Accommodation for Students with Disabilities:

1. Pursuant to its commitment to sustaining an inclusive, equitable community in which all members are treated with respect and dignity, and consistent with applicable accessibility legislation, York University shall make reasonable and appropriate accommodations in order to promote the ability of students with disabilities to fulfill the academic requirements of their programs. This policy aims to eliminate systemic barriers to participation in academic activities by students with disabilities.

All students are expected to satisfy the essential learning outcomes of courses. Accommodations shall be consistent with, support and preserve the academic integrity of the curriculum and the academic standards of courses and programs. For further information please refer to: [York University Academic Accommodation for Students with Disabilities Policy](#).

Course Materials Copyright Information

These course materials are designed for use as part of the Psych 2260 course at York University and are the property of the instructor unless otherwise stated. Third party copyrighted materials (such as book chapters, journal articles, music, videos, etc.) have either been licensed for use in this course or fall under an exception or limitation in Canadian Copyright law.

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