

Course Description v.2

3250.03A (S2-2018-19) Neural Basis of Behaviour

<p>Section: 3250.03A Time: N/A (online) Location: N/A (online)</p>	<p>Course Director: Prof. Vinod Goel Office: 235 BSB/ Lab BSB 037 Email: vgoel@yorku.ca Office Hrs: June 20, 27, July 4, 11, 18, 25 @ 8:30pm (via Adobe Connect)</p> <p>TA: Naail Khan TA contact info: naailk@yorku.ca Office Hrs: TBA</p>
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Course Prerequisites: AK/AS/HH/SC/PSYC 1010 6.00 or AK/HH/PSYC 2410 6.00, with a minimum grade of C; AK/AS/HH/SC/PSYC 2240 3.00 or AK/HH/PSYC 3145 3.00.

Drop Date: July 15, 2019.

General Description: This will be an introductory course in *cognitive neuroscience*. We will examine both human neuroanatomy/physiology and cognitive functioning and explore how the latter is underwritten by the former. The focus will be on the interplay between the neural and cognitive systems. The course will have a bias towards “higher” cognitive functions such as perception, object recognition, memory, reasoning and problem solving, and hemispheric differences.

Class Format: This is an online course. I will provide video lectures, copies of overhead slides, and readings for each topic. When and how you choose to engage the material is up to you. Assignments and tests must be submitted/written on the dates and times indicated on the schedule. *Please note, because this is a summer course, meaning we cover twice the material each week as we do in a regular semester course, you must allow yourself 20 to 25 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 Adobe Connect. On the day and time indicated above for office hours, I will open an Adobe Connect session and you will be able to connect to the session by clicking on the virtual office hour link on the Moodle course page. 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.

Assessment:

- 1) Two tests (70% of grade/ 35% each)
 - Details attached below.
- 2) Term Paper (30%)

Texts

Gazzaniga, Ivry, & Mangan (2018). *Cognitive Neuroscience: The biology of the Mind*. Norton and Company. (Current edition)

Note: Older editions are also good.

Articles:

Available on Moodle

Tests (70%):

There will be two tests on the dates indicated on the schedule. The tests will be written on campus on the scheduled time and dates, or as arranged with the Alternative Testing Centre. The room locations will be announced when they are known. Each test will have a duration of two hours. Each test will focus on the five topics covered during that period, but may contain a few questions from earlier topics. The grade value of each test is indicated above. The test material will be based on the lectures, the textbook, and the indicated articles. I have chosen Saturday afternoons for the tests, to minimize conflict with your working schedules.

Missed Tests: Students are expected to write each test on the dates and time specified. **If you miss a mandatory piece of course work for no 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 the date specified on the schedule. You **MUST** keep this date and time open 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.* 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 (30%):

Write an academic term paper (15-20 pages) 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 one grade point 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. 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. 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](#)

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.

3250.03A Neural Basis of Behaviour
S2 – 2018-19, Proposed Schedule

Topic	Date	Lecture Topics	Readings	Assignments
1		Intro to Cognitive Neuroscience	Searle Fodor G,I&M/ Chap 1	
2		CNS Encephalization, Anatomy & Development	Jerison G,I&M/ Chap 2	
3		Cellular Mechanisms & Computation	G,I&M/ Chap 2 Readings TBA	
4		CNS Methodologies	G,I&M/ Chap 3	
5		Visual perception Object Recognition	G,I&M/ Chap 5 pp. 169-173; pp.190-206; pp. 210-219; G,I&M/ Chap 6	
	July 6; 2pm	Test 1 (35%)		Room VH B 2pm
6		Memory	G,I&M/ Chap 9	
7		PFC & Complex Cognition 1 Reasoning, Decision Making & Problem Solving		
8		PFC & Complex Cognition 2 Reasoning, Decision Making & Problem Solving	G,I&M/ Chap 12 Goel	
9		Hemispheric Specialization	G,I&M/ Chap 4; Goel Marsnick et al.	Term Paper Due July 18
10		PFC & Complex Cognition & Role of Emotions	G,I&M/ Chap 10; Goel	
	July 27; 2pm	Test 2 (35%)		Room VH B 2pm

Important note: chapters and page numbers indicated on the schedule are from the 5th edition (2019) of textbook.

Other Information (from Department):

Program Learning Outcomes

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

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

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 2018-19](#))