

PSYC 271: Brain and Behavior I
Fall 2013
Tue 4:00-5:30; Thurs 2:30-400

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Office Hours: Wednesday 8:30-9:30 am

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TA Office Hours: Tuesday 2:30-3:30, Humphrey Hall room 323

Text: Pinel JPJ (2011) Biopsychology, 8th edition. Allyn & Bacon: Toronto. ISBN: 978-0-205-83256-9

Brain and Behavior I is an introduction to behavioural neuroscience. The course primarily focuses on the basics of neuronal operation, functional neuroanatomy, neuropharmacology and behavioural neuroscience methods. This will be followed by an examination of input (sensory) and output (motor) systems of the brain. Finally, topics relevant to memory, sleep, lateralization of function and language will be covered.

Objectives of this course are as follows:

To introduce the topic areas that contribute to knowledge about the brain and its role in the control of behaviour.

To augment critical thinking about research findings and how they can be used to inform the relationship between brain and behaviour.

To demystify some of the mental phenomena that result from the normal and abnormal functioning of the brain.

Academic integrity is constituted by the five core fundamental values of honesty, trust, fairness, respect and responsibility (see <http://www.academicintegrity.org>). These values are central to the building, nurturing and sustaining of an academic community in which all members of the community will thrive. Adherence to the values expressed through academic integrity forms a foundation for the "freedom of inquiry and exchange of ideas" essential to the intellectual life of the University (see the Senate Report on Principles and Priorities

<http://www.queensu.ca/secretariat/policies/senateandtrustees/principlespriorities.html>).

Students are responsible for familiarizing themselves with the regulations concerning academic integrity and for ensuring that their assignments conform to the principles of academic integrity. Information on academic integrity is available in the Arts and Science Calendar (see Academic Regulation 1

<http://www.queensu.ca/artsci/academic-calendars/2011-2012-calendar/academic-regulations/regulation-1>), on the Arts and Science website (see

<http://www.queensu.ca/artsci/academics/undergraduate/academic-integrity>), and from the instructor of this course.

Departures from academic integrity include plagiarism, use of unauthorized materials, facilitation, forgery and falsification, and are antithetical to the development of an academic community at Queen's. Given the seriousness of these matters, actions which contravene the regulation on academic integrity carry sanctions that can range from a warning or the loss of grades on an assignment to the failure of a course to a requirement to withdraw from the university.

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Evaluation will be based on two in-class examinations during the term, and a comprehensive final during the December examination period. The two in-class examinations will each cover material from the portion of the course that preceded it. Combined these two tests will contribute 50 marks towards your final grade; the better of the two will be given a weight of 60% and the poorer of the two will be assigned a weight of 40%. These two tests will consist of short-answer and multiple-choice questions. The comprehensive final will contribute the remaining 50 marks toward your final grade, it will consist multiple-choice questions only.

Tentative Schedule

Date	Topic	Chapter
Sept 10	First Lecture - Course overview	
12	Biopsychology as a Neuroscience	1
17	History	1
19	Evolution, Genetics, and Experience	2
24	Anatomy of the Nervous System	3
26	Anatomy of the Nervous System	3
Oct 1	Neural Conduction and Synaptic Transmission	4
3	Neurons and Signals electrochemical	4
8	EXAM 1	
10	Methods	5
15	The Visual System	6
17	The Visual System	6
22	The Visual System	6
24	Mechanism of Perception taste smell hearing	7
29	Pain (guest lecture)	7
31	No Class - Video	
Nov 5	EXAM 2	
7	Neurotransmitter Systems	
12	Sensory Motor	8
14	Sensory Motor	8
19	Memory	11
21	Sleep	14
26	Lateralization	16
28	Final Lecture - Language	16

* There are no deferred mid-term examinations. If you miss one and have a valid reason (documentation required), 25 marks will be added to the December final exam, which will instead be worth 75% of the final grade.

** If you cannot attend the final comprehensive exam in December due to serious, extenuating circumstances (documentation required), you must be available to write a deferred exam during the Psychology Department's Make up Exam period January 10/12th, 2014.