



**Department of Psychology**  
**Psychology 375 (L02) – Brain and Behaviour**  
**Winter 2010 – Course Outline**

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<b>Instructor:</b>	Dr. Alan Ho	<b>Lecture Location:</b>	Admin 142
<b>Phone:</b>	<a href="mailto:aah@ambrose.edu">aah@ambrose.edu</a>	<b>Lecture Days/Time:</b>	M/W/F 13:00 - 13:50
<b>Email:</b>	TBA	<b>TA:</b>	Glenn Yamakawa
<b>Office:</b>	TBA	<b>TA Email:</b>	<a href="mailto:gryamaka@ucalgary.ca">gryamaka@ucalgary.ca</a>
<b>Office Hours:</b>	By Appointment		

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### Course Description and Goals

The neural basis of learning, memory, language and thinking, as well as pathological, sexual, aggressive, and emotional behaviour that arises from neural and hormonal malfunctioning.

### Prerequisites

Psyc 205 – Principles of Psychology

### Required Text

*An Introduction to Brain and Behavior* (2nd Ed.), B. Kolb and I.Q. Whishaw (2006), Worth Publishers. The text is available at the University Bookstore.

Tutorials, quizzes, research exercises and essay questions are available at the companion website <http://bcs.worthpublishers.com/kolbintro2e/>

### Evaluation

There will be three exams and a short term paper. The first two exams are not cumulative, consisting of multiple-choice and short-essay questions based on textbook materials and class notes. The final exam will be all multiple-choice but may include cumulative material covered throughout the course.

Exam	Value	Chapters	Date	Duration
First Exam	30%	1-6	Friday February 12, 2010	50 minutes
Second Exam	30%	7-10	Friday March 19, 2010	50 minutes
Final Exam	30%	11-15 + other	To be Scheduled by the Registrar	75 minutes

### Term Paper:

- You need to turn in a short term paper that accounts for 10% of your course mark. Topic for your paper will be on how understanding brain function may possibly lead to cure of a behavioural disorder (e.g. see Table 1-1 of text). You are expected to use and make reference to your text and at least six (6) other scholarly resources that are directly related to your article. The length of the paper will be **1000 words** (4 pages max, double-spaced, 12-point font) not including references. Marks will be given for content, spelling, grammar, clarity of thought, and appropriate text references (APA Writing Style). This assignment is due on **March 26**.
- Methods of submission are either via email or in the green box outside of A275.
- Late assignments will be accepted but with penalty (i.e., minus 10% per day, including weekends)

## Grading Scale

A+	96-100%	B+	80-84%	C+	67-71%	D+	54-58%
A	90-95%	B	76-79%	C	63-66%	D	50-53%
A-	85-89%	B-	72-75%	C-	59-62%	F	0-49%

As stated in the University Calendar, it is at the instructor's discretion to round off either upward or downward to determine a final grade when the average of term work and final examinations is between two letter grades. To determine final letter grades, final percentage grades will be rounded up or down to the nearest whole percentage (e.g., 89.5% will be rounded up to 90% = A but 89.4% will be rounded down to 89% = A-).

## Lecture Schedule

Date	Topic	Chapter
M Jan 11	Course introduction – Why study brain and behaviour?	1
W Jan 13	How did the brain evolve?	1
F Jan 15	How the brain looks and how it works.	2
M Jan 18	The functions and structures of the nervous system.	2
W Jan 20	The units of the nervous system: Neurons and Glia Cells.	3
F Jan 22	How genes and cells affect behavior. (Last day to drop a course with no W grade and tuition refund)	3
M Jan 25	The electrical activity of neurons.	4
T Jan 26	(Last day for registration/change of registration)	--
W Jan 27	How neurons integrate information.	4
F Jan 29	Studying the brain electrical activity <i>in vivo</i> .	4
M Feb 1	How neurons communicate and adapt: Synapses & Neurotransmitters.	5
W Feb 3	How different neurotransmitter systems affect behavior.	5
F Feb 5	Neurons adapt and change: plasticity in learning and memory.	5
M Feb 8	How the brain develops.	6
W Feb 10	How the environment affects brain development.	6
F Feb 12	<b>FIRST EXAM</b>	<b>1-6</b>
M Feb 15	<i>Reading Days. No lectures.</i>	--
W Feb 17	<i>Reading Days. No lectures.</i>	--
F Feb 19	<i>Reading Days. No lectures.</i>	--
M Feb 22	The brain's responses to drugs.	7
W Feb 24	How (and why) drugs affect behavior.	7
F Feb 26	How we see things: The visual system.	8
M Mar 1	What we see: Shapes and colors.	8
W Mar 3	The effects of injuries in the visual cortex.	8
F Mar 5	How we hear things: The auditory system.	9
M Mar 8	Anatomy of language.	9
W Mar 10	Making sense of music.	9
F Mar 12	How we move and control movements.	10
M Mar 15	The brain organization of the motor system.	10
W Mar 17	The somatosensory cortex: Our body in the brain.	10
F Mar 19	<b>SECOND EXAM</b>	<b>7-10</b>
M Mar 22	The brain mechanisms of a motivated behaviour.	11
W Mar 24	Emotional brain and behavior.	11

F Mar 26	Why do we sleep? Sleep stages and dreams.	12
M Mar 29	The neural basis of sleep.	12
W Mar 31	How do we remember things?	13
F Apr 2	Good Friday. No lectures. University closed.	--
M Apr 5	Explicit, implicit and emotional memory.	13
W Apr 7	What is human cognition? Methods of cognitive neuroscience.	14
F Apr 9	Multiple intelligences.	14
M Apr 12	The neural basis of consciousness.	14
W Apr 14	Research on neurological and psychiatric disorders	15
R Apr 15	Alzheimer's Disease Last day to participate in research and allocate research credits	15
F Apr 16	Winter Session Lectures end. Last day to withdraw.	--
M Apr 19 – R Apr 29	<b>FINAL EXAM (scheduled by the Registrar)</b>	<b>11-15 + other</b>

### Reappraisal of Grades

A student who feels that a piece of graded term work (e.g., term paper, essay, test) has been unfairly graded, may have the work re-graded as follows. The student shall discuss the work with the instructor within 15 days of being notified about the mark or of the item's return to the class. If not satisfied, the student shall immediately take the matter to the Head of the department offering the course, who will arrange for a reassessment of the work within the next 15 days. The reappraisal of term work may cause the grade to be raised, lowered, or to remain the same. If the student is not satisfied with the decision and wishes to appeal, the student shall address a letter of appeal to the Dean of the faculty offering the course within 15 days of the unfavourable decision. In the letter, the student must clearly and fully state the decision being appealed, the grounds for appeal, and the remedies being sought, along with any special circumstances that warrant an appeal of the reappraisal. The student should include as much written documentation as possible.

### Plagiarism and Other Academic Misconduct

Intellectual honesty is the cornerstone of the development and acquisition of knowledge and requires that the contribution of others be acknowledged. Consequently, plagiarism or cheating on any assignment is regarded as an extremely serious academic offense. Plagiarism involves submitting or presenting work in a course as if it were the student's own work done expressly for that particular course when, in fact, it is not. Students should examine sections of the University Calendar that present a Statement of Intellectual honesty and definitions and penalties associated with Plagiarism/Cheating/Other Academic Misconduct.

### Academic Accommodation

It is the student's responsibility to request academic accommodations. If you are a student with a documented disability who may require academic accommodation and have not registered with the Disability Resource Centre, please contact their office at 403-220-8237. Students who have not registered with the Disability Resource Centre are not eligible for formal academic accommodation. You are also required to discuss your needs with your instructor no later than 14 days after the start of this course.

### Absence From A Test/Exam

Makeup tests/exams are NOT an option without an official University medical excuse (see the University Calendar). A completed Physician/Counselor Statement will be required to confirm absence from a test/exam for health reasons; the student will be required to pay any cost associated with this Statement. Students who miss a test/exam have 48 hours to contact the instructor and to schedule a makeup test/exam. Students who do not schedule a makeup test/exam with the instructor within this 48-hour period forfeit the right to a makeup test/exam. At the instructor's discretion, a makeup test/exam may differ significantly (in form and/or content) from a regularly scheduled test/exam. Except in extenuating circumstances (documented by an official University medical excuse), a makeup test/exam must be written within 2 weeks of the missed test/exam.

### **Course Credits for Research Participation (Max 2% of final grade)**

Students in most psychology courses are eligible to participate in Departmentally approved research and earn credits toward their final grades. **A maximum of two (2) credits (2%) per course, including this course, may be applied to the student's final grade. Students earn 0.5% (0.5 credits) for each full 30 minutes of participation.** The demand for timeslots may exceed the supply in a given term. Thus, students are not guaranteed that there will be enough studies available to them to meet their credit requirements. Students should seek studies early in the term and should frequently check for open timeslots. Students can create an account and participate in Departmentally approved research studies at <http://ucalgary.sona-systems.com>. The last day to participate in studies and to assign or reassign earned credits to courses is **April 15, 2010**.

### **Evacuation Assembly Point**

In case of an emergency evacuation during class, students must gather at the designated assembly point nearest to the classroom. The list of assembly points is found at <http://www.ucalgary.ca/emergencyplan/assemblypoints>. Please check this website and note the nearest assembly point for this course.

### **Student Organizations**

Psychology students may wish to join the Psychology Undergraduate Students' Association (PSYCHS). They are located in Administration 170 and may be contacted at 403-220-5567.

**Student Union VP Academic:** Phone: 403-220-3911 [suvpaca@ucalgary.ca](mailto:suvpaca@ucalgary.ca)  
**Student Union Faculty Rep.:** Phone: 403-220-3913 [socialscirep@su.ucalgary.ca](mailto:socialscirep@su.ucalgary.ca)

### **Important Dates:**

The last day to drop this course with no "W" notation and **still receive a tuition fee refund** is **Jan 22<sup>nd</sup>, 2010**. Last day for registration/change of registration is **Jan 26<sup>th</sup>, 2010**. The last day to withdraw from this course is **Apr 16<sup>th</sup>, 2010**.