



AMBROSE  
UNIVERSITY COLLEGE

**BIO 330 *Brain and Behaviour* (3)**

**Winter 2011**

**Instructor: Dr. Alan Ho, Ph.D.**

**Class Time:** Tu/Th 1:00 pm – 2:15 pm

**Class Location:** L2141

**Office Hours:** By appointment

**Phone:** 410-2000 Ext. 5911

**Office:** L2088

**E-Mail:** [aho@ambrose.edu](mailto:aho@ambrose.edu)

**Required Texts:**

Kolb, B. & Whishaw, I. Q. (2011). *An Introduction To Brain And Behavior* (3rd Ed.). New York: Worth Publishers.

**Course Description:**

Brain and Behaviour is an intermediate-level course that reviews how human behaviour could possibly be explained by brain functions. The lectures and course materials will focus on some important brain structures and areas that serve various sensory and motor functions which are crucial for a person's survival. How the neural functions get integrated to produce complex observable activities known as behaviour will be addressed. Mechanisms of brain functions will also be discussed at the neuronal level involving physiological and biochemical processes.

**Course Objectives:**

At the completion of this course, each student should demonstrate knowledge of the following:

- An understanding of neuronal structures and functions and roles of neurotransmitters in neuronal communication;
- Important human brain structures and areas and their general functions;
- How activities of different brain areas interact and get integrated to produce complex external behaviour;
- How behaviour could be affected by psychoactive drugs and hormones;
- Mechanisms involved in some neuropsychological diseases.

**Course Schedule:**

|                         |   |
|-------------------------|---|
| Jan 13                  | Chapter 1 –What Are the Origins of Brain and Behavior?                                |
| Jan 18, 20              | Chapter 2 – How Does the Nervous System Function?                                     |
| Jan 25, Feb 1           | Chapter 3 – What Are the Units of Nervous System Function?                            |
| <i>Jan 27</i>           | <b>Community Day</b> (No class)   |
| Feb 3, 8                | Chapter 4 – How Do Neurons Transmit Information?                                      |
| Feb 10, 15              | Chapter 5 – How Do Neurons Communicate and Adapt?                                     |
| <b>Feb 17</b>           | <b>Unit Exam #1</b> (Chapters 1-5)  |
| <i>Feb 22-25</i>        | <b>No Classes</b> (Mid-semester Break)  |
| Mar 1, 3                | Chapter 7 – How Does the Brain Develop and Adapt?                                     |
| Mar 8, 10               | Chapter 8 – How Do Drugs and Hormones Influence the Brain & Behavior?                 |
| Mar 15, 17              | Chapter 9 – How Do We Sense, Perceive, and See the World?                             |
| Mar 17, 22,             | Chapter 10 – How Do We Hear, Speak, and Make Music?                                   |
| <b>Mar 24</b>           | <b>Unit Exam #2</b> (Chapters 7, 8, 9 & 10)   |
| Mar 29, 31              | Chapter 11 – How Does the Nervous System Respond to Stimulation and Produce Movement? |
| Apr 5, 7                | Chapter 14 – How Do We Learn and Remember?  |
| Apr 12, 14              | Chapter 15 – How Does the Brain Think?  |
| <b>Apr 25</b> 9 am-12pm | <b>Unit Exam #3</b> (Chapters 11, 14 & 15) in room A2210                              |

## Course Requirements:

- **Unit Exams:** The three (3) unit exams will be worth **20%** each (3 X 20% = **60%** of the course mark) and will cover material for the identified chapters only. Each exam consists of multiple-choice, matching, short answer and essay questions based on textbook materials and class notes. You are strongly encouraged to make use of the online study material on the textbook website:  
[http://bcs.worthpublishers.com/kolbintro3e/default.asp#t\\_520457](http://bcs.worthpublishers.com/kolbintro3e/default.asp#t_520457) .
- **Research Exercises:** Turn in answers for *three* research exercises from chapters that are covered in the course (3 X 5% = **15%**). These exercises are found in the Open Resources for Students on the textbook website. More specifics will be provided in class.
- **Term Paper:** *Critical review* on a published research *paper* or *issue* on any Brain and Behaviour topic. You may either work in a group of two or individually. You are expected to use and make reference to your textbook and at least ten (10) other scholarly resources that are directly related to your article. The length of the paper will be **2500** words for team work or **2000** words for individual *not* including references. Students who choose to work as a team will receive the same grade for this paper. Marks will be given for spelling, grammar, clarity and depth of thought, and relevant text references (APA Writing Style). This assignment is worth **25%** of the course mark and is **due Apr 5<sup>th</sup>** at the beginning of the class. **Late paper is accepted but with penalty (i.e., 10% will be deducted per day, including weekends).** *Students who fail to turn in this paper will receive an F for the course.*

## Course Guidelines:

- Attendance at class is expected from each student. After three (3) unexcused absences (per term), the instructor reserves the right to ask a student to withdraw from the class.
- The written assignments are due on the dates specified. Extensions will only be granted upon request of the student at least two (2) weeks prior to the due date. In the case of illness or other extenuating circumstances, exceptions will be made.
- Exams must be taken at the times specified. The student must inform the instructor immediately if there is a problem with taking a test on a certain date.

## Grade Structure:

| Percentage: | Letter Grade: | Grade Point Weight: |
|-------------|---------------|---------------------|
| 96-100      | A+            | 4.0                 |
| 91-95       | A             | 4.0                 |
| 86-90       | A-            | 3.7                 |
| 82-85       | B+            | 3.3                 |
| 75-81       | B             | 3.0                 |
| 72-74       | B-            | 2.7                 |
| 68-71       | C+            | 2.3                 |
| 63-67       | C             | 2.0                 |
| 60-62       | C-            | 1.7                 |
| 56-59       | D+            | 1.3                 |
| 50-55       | D             | 1.0                 |
| 0-49        | F             | 0                   |

**Please note that final grades will be available on your student portal. Printed grade sheets are no longer mailed out.**  
**Learning and Classroom Etiquette**

In the Behavioural Science Department we believe that learning is an active and interactive process, a joint venture between student and teacher and between student and student (i.e., learning is not just “downloading” information from teacher to student). Therefore, it is expected that professors will come to each class well read and prepared to engage students on the topic at hand, giving students the utmost attention and respect. In turn, it is expected that students will take an active role in the learning process. This includes: (a) regular class attendance, (b) reading course material in advance of class, (c) showing up to class on time, and (d) attentively and proactively being “present” at class (i.e., not on the internet, not texting, not conversing with the person beside you). Committing to this type of "active learning" significantly increases the learning experience for both teacher and student, and reflects the Christian ethos of excellence and respect that lies at the heart of the Ambrose educational experience.

#### **Notable Websites:**

- Textbook companion website [http://bcs.worthpublishers.com/kolbintro3e/default.asp#t\\_520457](http://bcs.worthpublishers.com/kolbintro3e/default.asp#t_520457)
- 3-D Brain Anatomy (PBS) <http://www.pbs.org/wnet/brain/3d/index.html>
- The Harvard Mahoney Neuroscience Institute Letter (On The Brain) [http://www.hms.harvard.edu/hmni/On\\_The\\_Brain/](http://www.hms.harvard.edu/hmni/On_The_Brain/)
- Society for Neuroscience <http://www.sfn.org/>
- Science Daily <http://www.sciencedaily.com/>
- Mental Health Net <http://mentalhelp.net>
- American Psychological Association <http://www.apa.org>
- Canadian Psychological Association <http://www.cpa.ca>

#### **Important Notes**

- Last day to enter course without permission and/or voluntarily withdraw from course without financial penalty: **Jan 21<sup>st</sup>**.
- Last day to voluntarily withdraw from course or change to audit without academic penalty: **Mar 18<sup>th</sup>**.
- Paper Format: Please follow the guidelines of the new *Publication Manual of the American Psychological Association*.
- The Minimum Standards for Written Compositions will apply in this course. Please see me if you do not have a copy.

*It is the responsibility of all students to become familiar with and adhere to academic policies as stated in the Student Handbook and Academic Calendar. Personal information, that is information about an individual that may be used to identify that individual, may be collected as a requirement as part of taking this class. Any information collected will only be used and disclosed for the purpose for which the collection was intended. For further information contact the Privacy Compliance Officer at [privacy@ambrose.edu](mailto:privacy@ambrose.edu).*

*Although extensions to coursework in the semester are at the discretion of the instructor, students may not turn in coursework for evaluation after the last day of the scheduled final examination period unless they have received permission for a “Course Extension” from the Registrar’s Office. Requests for course extensions or alternative examination time must be submitted to the Registrar’s Office by the appropriate deadline (as listed in the Academic*

Calendar <http://www.ambrose.edu/publications/academiccalendar>). Course extensions are only granted for serious issues that arise “due to circumstances beyond the student’s control.”

We are committed to fostering personal integrity and will not overlook breaches of integrity such as plagiarism and cheating. Plagiarism and cheating can result in a failing grade for an assignment, for the course, or immediate dismissal from the university college. Students are expected to be familiar with the policies in the current Academic Calendar and the Student Handbook that deal with plagiarism, cheating, and the penalties and procedures for dealing with these matters. All cases of academic dishonesty are reported to the Academic Dean.

Students are advised to retain this syllabus for their records.

Course changes, including adding or dropping a course, may be made during the Registration Revision period, as outlined in the Calendar of Events. All course changes must be recorded on a Registration form, available from the Office of the Registrar. Due to circumstances such as class size, prerequisites or academic policy, the submission of a Registration form does not guarantee that a course will be added or removed from a student’s registration. Students may change the designation of any class from credit to audit up to the date specified in the Calendar of Events, although students are not entitled to a tuition adjustment or refund after the Registration Revision period.

Withdrawal from courses after the Registration Revision period will not be eligible for tuition refund. Students intending to withdraw from some or all of their courses must submit a completed Registration form to the Registrar’s office. The dates by which students may voluntarily withdraw from a course without penalty are listed in the Calendar of Events. A grade of ‘W’ will be recorded on the student’s transcript for any withdrawals from courses made after the end of the Registration Revision period and before the Withdrawal Deadline (also listed in the Calendar of Events). ‘W’ grades are not included in grade point average calculations. A limit on the number of courses from which Academic a student is permitted to withdraw may be imposed. Students wishing to withdraw from a course, but who fail to do so by the applicable date, will receive the grade earned in accordance with the course syllabus. A student obliged to withdraw from a course after the Withdrawal Deadline because of health or other reasons may apply to the Registrar for special consideration.

An appeal for change of grade on any course work must be made to the course instructor within one week of receiving notification of the grade. An appeal for change of final grade must be submitted to the Office of the Registrar in writing within 30 days of receiving notification of the final grade, providing the basis for appeal. A review fee of \$50.00 must accompany the appeal to review final grades. If the appeal is sustained, the fee will be refunded.

Academic dishonesty is taken seriously at Ambrose University College as it undermines our academic standards and affects the integrity of each member of our learning community. Any attempt to obtain credit for academic work through fraudulent, deceptive, or dishonest means is academic dishonesty. Plagiarism involves presenting someone else’s ideas, words, or work as one’s own. Plagiarism is fraud and theft, but plagiarism can also occur by accident when a student fails or forgets to give credit to another person’s ideas or words. Plagiarism and cheating can result in a failing grade for an assignment, for the course, or immediate dismissal from Ambrose. Students are expected to be familiar with the policy statements in the current academic calendar and the student handbook that deal with plagiarism, cheating, and the penalties and procedures for dealing with these matters. All cases of academic dishonesty are reported to the Academic Dean and become part of the student’s permanent record.