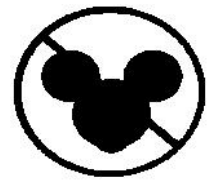


**Psychology 323 (A01) Fall 2011 (CRN 14355)**  
**Advanced Biopsychology**



No Mickey Mouse

Instructor: R.W. Skelton

Class Meets: TWF 9:30-10:20 CORN B108

Office Hours: TWF 11:30- 12:30 or by appointment

Contact: CORN A264, phone: 721-8711, email: [PSYC323@uvic.ca](mailto:PSYC323@uvic.ca)

Teaching Assistant: Dustin Van Gerven

Prerequisites<sup>1</sup>: PSYC 100A/B, 215A

Webpage: <http://web.uvic.ca/psyc/skelton/>

**Required text:** *An Introduction to Brain and Behaviour* by Kolb and Whishaw, Third Edition (2011)<sup>2</sup> + CD<sup>3</sup>

**Recommended:** *Study Guide*.<sup>4</sup> *A Colorful Introduction to the Anatomy of the Human Brain* by Pinel and

Edwards (A coloring book to help you learn neuroanatomy), *How to Study*, by Deese and Deese. (= How to do university.)

**Course Focus:** The biological bases of behaviour – how activity in the brain causes behaviour. We will begin by reviewing foundation material from 215A, but generally at greater depth and speed and with new links to human behaviour and conditions. We will then cover causes of behaviour (motivation and emotion), drugs and hormones, learning and memory, and recovery from brain injury. Although much of the material relates to humans, much will derive from studies of laboratory animals.

**Probable Schedule of topics and tests<sup>5</sup>**

Date	Day	Lecture	Chapter	Topic	Value
07-Sep		L1	1 (p 1-8)	Origins of Brain and Behaviour	
13-Sep		L2	2 (all)	Brain Organization (Anatomy and Function)	
<b>16-Sep</b>	<b>Fri</b>	<b>L4</b>	<b>215A</b>	<b>PSYC 215A test (bonus)</b>	<b>1.5%</b>
21-Sep		L6	3 (all)	Units of Brain Function (Neurons and genes)	
<b>30-Sep</b>	<b>Fri</b>		<b>1, 2, 3</b>	<b>Test 1</b>	<b>15%</b>
04-Oct		L9	4 (2 <sup>nd</sup> ½)	Neuronal Information Processing	
07-Oct		L10	5 (all)	Neuronal Communication (Transmitters, synapses, plasticity)	
18-Oct		L14	8 (all)	Drugs and Hormones	
<b>26-Oct</b>	<b>Wed</b>		<b>4, 5, 8</b>	<b>Test 2</b>	<b>15%</b>
28-Oct		L18	12 (all)	Causes of Behaviour (Motivation, regulation, emotion)	
08-Nov			RB Tuesday	Guest lecture on the lived experience of brain injury.	
9-11 Nov			Reading Break		
23-Nov		L22	14 (1 <sup>st</sup> ½)	Learning from Experience	
<b>23-Nov</b>	<b>Wed</b>		<b>12, 14</b>	<b>Test 3</b>	<b>15%</b>
25-Nov		L27	14 (2 <sup>nd</sup> ½)	Concepts of Brain & Behaviour	
<b>Through the term</b>			<b>Journal/Log</b>	<b>Experiential Learning (see p. 3 of syllabus for details)</b>	<b>10%</b>
<b>Final Exam Period</b>			<b>All Material</b>	<b>Final Exam</b>	<b>45%</b>

**Evaluation:** Your mark will be based primarily on 3 in-class tests (worth 15%) and a cumulative final (worth 45%). The tests and final will be short-answer (e.g., drawing or labelling diagrams, filling in blanks or tables, writing short explanations). Tests could ask about any material covered in the assigned chapters of the text (including figures and summaries) and lectures. Most questions will be based on homework. There will be a quick multiple-choice test on PSYC 215A worth 1.5% bonus marks to see how much you have retained. You have the opportunity to earn up to 2% bonus marks by participating in Psychology experiments (details below). There may be pop quizzes or assignments through the term worth bonus marks. These will be announced in class at least 1 class before the due or test date. Marks on tests will be scaled to the highest mark achieved on that test. There will be an Experiential learning project worth 10%. Your grade in this will be based on you making regular entries in a personal course journal/logbook, your review of 3-6 websites, and your final report at the end of term.

<sup>1</sup> FAQ: Can I get in without the prerequisites? a) It's not a good idea. b) Not until all those with PREQ are enrolled. c) e-me.

<sup>2</sup> The second edition is now too old. Chapters given in the schedule are for 3<sup>rd</sup> Edition. Supplementary materials are now on the publisher's website: <http://bcs.worthpublishers.com/kolbintro3e/>. See this link for eBooks from CourseSmart.

<sup>3</sup> New texts come with study CDs. I have a limited supply of CDs that students can borrow.

<sup>4</sup> The Study Guide is an important aid to the active processing, if you use it as a learning tool and for self-test and not as a copy book. Neuroanatomy is hard. This supplement helps. University can be hard. This guide helps.

<sup>5</sup> Any errors in this timetable will be announced and corrected during lectures.

**Grade cutoffs:** Your final mark will be converted from a percentage to a letter grade by rounding to the nearest integer % (E.g., 84.50 → 85%, 84.49% → 84%), using Excel's rounding function which works with 17 decimal places. Letter grade cutoffs are 50, 60, 65, 70, 75, 80, 85, 90 and 95% as mandated by the department.

**Webpage:** <http://web.uvic.ca/psyc/skelton/> Extra information, marks and notes after class will be posted there.

**E-Mail:** [PSYC323@uvic.ca](mailto:PSYC323@uvic.ca). You may ask me questions by e-mail, but I may not have time to answer them until my PSYC 323 office hours, so don't count on an immediate reply (or any reply at all on weekends).

**Pre-exam questions:** I will be happy to answer any and all questions during office hours. If I can, I will make Friday's office hour a tutorial (TBA in class). However, do not wait until the last minute to ask questions. I have found that panic questions in the last day or hours before the test do nothing except fuel panic. Therefore, I will not answer any questions (by any contact method) after noon on the day before the tests or final. So don't leave your preparation until the night before the test. (This is the purpose of the rule.)

**Learning Objectives:** Most of the **content** covered will be specific to biopsychology, but many of the activities and tasks (that is, **processes**) are designed to generalize to other intellectual situations (e.g., other courses, your future career).

**Content Objectives:** By the end of this course, you should be able to:

1. Describe the structure, function and inter-relations of basic micro- and macroscopic components of the nervous system;
2. Describe how neurons communicate: electrically, chemically and hormonally;
3. Describe the key concepts and findings in 4 major areas: causes of behaviour, learning from experience, drugs and hormones, and recovery from brain injury.
4. Describe the elements of the scientific method, including the components experiments in biopsychology and provide examples of scientific logic – how conclusions are based on evidence.

**Process objectives:** This course should increase your capacity to:

1. Select material based on its importance. Re-organize material to improve your own understanding.
2. Seek and understand relations between elements of a whole;
3. Understand and generate scientific English, especially in regard to expressing the relations between elements;
4. Evaluate concepts on the basis of their internal consistency and supporting evidence;
5. (Possibly) work with peers not formerly known to you.

**Tests and Exams:** Most students find this course challenging because of the volume of material we cover. There is a lot to learn and remember, and a lot of new concepts to understand. You will find that you will need to recall much material, but more importantly, you will need to master the concepts by understanding them. To master the material you will need to read ahead in order to keep up with the pace of the lecture and do the homework soon afterwards. If you want to find out which parts of the material you truly understand and remember (i.e., check your comprehension), use the Study Guide as a self-test. Close your book and see what you can answer from memory – then check your answer. I am happy to spend my office hours explaining difficult concepts. **Note bene:** I have found that students remember best the material they have studied, and study what they expect to be tested on. Therefore, my tests are the most important factor controlling what you learn and remember from this course. **You can prepare yourself to do very well on the tests by doing the homework.** Ninety percent of all questions on the tests come from the homework. This homework will not be handed in or evaluated, but you can get feedback on it during any office hour. I will review it with you there and then.

**Academic Concession:** In this class, you are only allowed one make-up per term. Students who miss the in-class writing of two Midterms are not eligible to write the final exam. Students who miss Midterm 1 or 2 **with a valid excuse** (e.g., illness, family affliction) must bring me documentation and then write a make-up on the first Friday after the end of the causal affliction. Make-ups will be held only on the first or second Friday after the test (at 2:30)<sup>6</sup>. Students who miss Midterm 1 or 2 or and associated makeup **without a valid excuse** may write a makeup as above, with a penalty of up to 3% (of the final mark) for each writing opportunity missed (including the in-class test). If you have a pending make-up, do not attend the review of the test or you will not be permitted to write the make-up and you will receive 0 on it. There is no makeup for Midterm 3. Students who wrote midterms 1 and 2 and miss midterm 3 **with a valid excuse** will be given the same % score for it as they receive on the final; Students who miss midterm 3 **without a valid excuse** will be given 0 on it. Documentation (in writing) for valid excuses must be presented to me before the makeup is written in a format I can put in my files. Students who

<sup>6</sup> If you are unable to write make-ups within these parameters because of your affliction, then you are advised to drop the course because you are not well enough to complete it.

miss the final exam should see the regulations in the calendar in the “Deferred Status” section. Basically, students must apply to Records Services for a “Request for Academic Concession”, normally within 10 working days of the exam. Students must contact me no later than the first week of January and must write a makeup by the end of the first three weeks of classes in January. Failure to meet both of these deadlines will result in a 0 on the final exam and, most likely, an N (failing grade) in the course. The regulations for a “Request for Academic Concession” are given on the Form which can be found at: <https://registrar.uvic.ca/undergrad/records/forms/pdf/acad.pdf>.

**Registration and Pre-requisites:** There may not be room for all those who wish to take this course. If there is a waitlist, I will take attendance in the second and third lectures and might drop students who did not attend. I will accept all students with the proper prerequisites before adding students for exceptional reasons (e.g., senior biology and kinesiology students). All students are expected to have taken PSYC 215A and remember foundation material from it (e.g., anatomy, synaptic chemistry) and there will be a test on it within the 1<sup>st</sup> 2 weeks of classes. Students admitted without the proper prerequisites take the course at their own risk and would NOT be EXEMPT from other PSYC program requirements. (That is, you can’t avoid 215A by taking this course first.) No students will be added after the end of the Add Period so confirm your enrolment before that.<sup>7</sup>

**Format:** We will cover material at a rate of about 8-10 pages of text per lecture (I will post a target schedule on my website). You are responsible for all the material in the assigned chapters, including figures, summaries and “boxes”, regardless of whether I cover them in lectures. In other words, you will be responsible for covering some material from the text or readings on your own. **Plan on attending lectures.** This isn’t 215A: There may be material covered in classes that won’t be in the lecture notes. If you miss a lecture, you are still responsible for any material covered; get what you need from a classmate (not me). If you miss an assignment or pop quiz, you can only make it up if you have a valid excuse (explained above). You will probably find this a challenging course: It is meant to be so. Expect to study 3 hours for each lecture. Plan to come to lectures having **read the relevant sections of the chapter already**. Unless you have a good grounding in the material from other courses, most of you won’t be able to keep up with the lecture **unless** you have read the material before class. Any pop quizzes will be given at the beginning of the class and may even be on material that will be covered that day. The lecture will go too fast for you to copy the notes verbatim. If you need help in developing the skill of making good, condensed notes, I suggest you buy “How to Study” or the “UVic Study Guide”. I plan to post my lecture notes, usually by the end of the day on which I give the lecture. I will NOT post the lecture notes before the lectures; experience has proven to me that doing this *reduces* student engagement and learning. Taking notes during the lecture will make your later study time more efficient and productive. Because the material in this course builds (i.e., material covered in September will be built upon in October), you will want to keep up to date with the class. If you work before and after every lecture, according to a self-disciplined schedule, you will likely succeed in this course. **Main tip: Do the homework.** (Preferably before the next class)

### **Experiential Learning (10%):**

In order to encourage your engagement in this course, throughout the term there will be short assignments to be completed online through the *Experiential Learning* web site (designed and managed by Dr. Grouzet): weekly journaling and 4 website reviews. At the end of the term you will be asked to provide a final report on one or the other of these two components (at your choice). **Component 1: Personal Journal (3%)** Over the course of the term you will make weekly entries in a guided, private, online journal. Dr. Grouzet will give you further instructions in class and on the website, but basically journal entries will consist of your weekly goals, records of your work for the course, how hard you found it, what tests or assignments you have coming up, and how you plan to prepare for them or complete them. I (your instructor) will never have access to these entries, though you will be graded on whether you make entries on a regular basis (e.g., at least 10 of the 13 weeks of the course).

**Component 2: Course-relevant websites (3%)** In each of the 3 modules of the course, you will be reviewing one or two external websites and completing a short assignment on one of them. The 3 assignments will, in general, ask you to comment on the website and relate the material in it to material being covered in the course or to your everyday life.

### **Component 3: Final report (4%) (Choose 1 of 2 options)**

**Option 1: Journal report.** You will identify what you found to be the most interesting aspect of the course, what links you were able to make between the course and your everyday life, and what links you were able to make between the experiential learning task and course contents.

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<sup>7</sup> Students must check their own registration status. Don’t rely on being dropped automatically. If you register for this course, but never show up or write any tests, and don’t drop or get dropped you will still get charged for it and will be given a failing grade (bummer).

**Option 2: Website Report.** You will summarize your comments on the 3 websites you previously reported on, relating the information to the course content and your everyday life and you will make a link between any two modules in terms of their similarity or differences, their relatedness to one another, their ability to tie two portions of the course together.

The Experiential Learning component in this course is largely the work of Dr. Frederick Grouzet (Psychology, UVic) who is particularly interested on the role of experiential learning on personal development. The website will give you the opportunity to voluntarily complete additional short online questionnaires that are directly related to the topic. At the end of the term you will be asked whether you wish to contribute to research on student motivation and experiential learning. If you agree, Dr. Grouzet will analyze your responses and learning products confidentially (only Dr. Grouzet will have access to your responses). Although the assignments are mandatory, sharing your responses and data for research purposes is completely voluntary (and has no effect on your grade in this course).

**Bonus marks (2%)**

You may earn up to 2% extra credit toward your final grade by participating in research studies conducted in the Department of Psychology. Each 15 minutes of participation will earn 0.5 point and up to 4 points may be credited toward this course, with 2 points required for a 1% increase in your final grade. Thus, two hours of participation would earn the full 2% extra credit. However, to earn this credit in this course you will also need to submit a report on one of the experiments you participated in describing aspects like hypothesis and measures. (A website will be given for you to download the form and submit your report.) For details on participating in research studies, go to the Department of Psychology web site (<http://web.uvic.ca/psyc>) and click on the "Research" link near the top of the page, then click on the Participant Pool link at the left of the new page to see instructions for participating.

**Our roles:** Presumably, you are here to learn biopsychological material and to improve your ability to process information. I am here to guide you. Only you can learn, and you can only learn by actively processing the material. Most of your learning (and work) in this course (60-80%) will be outside class time. I will try to help your learning by indicating which information is most important (i.e., which is going to be more useful in the future) and by suggesting good ways for you to actively work with the information. You are already able to read the material on your own and I will not spoon-feed it to you. I may choose some parts which I think are particularly difficult to understand and go over them in class. You can help me in this by letting me know before or at the start of each lecture which concepts you found difficult in the readings. Metaphorically, I'll be your guide on a hike up a mountain (of information). The better prepared you are, the farther, faster and higher we can all go and the more we will see. In order to prepare yourself for this hike, you **must read the relevant material before coming to class** (I'll post a schedule). There may be pop quizzes to make sure people are keeping up with the readings, and these quizzes could include questions on material that is *about* to be covered in lecture that day. Regardless, schedule time to do 3 hours of homework **per lecture**.

**End Notes:**

1. Language: This is a science course and part of your training as a scientist is learning how to properly used terms and terminology. Scientists must be able to communicate their thoughts and findings to other scientists, so part of your training in this course is in how to use terms to express your ideas in a coherent sentence. In this course, part of your evaluation will be based on your ability to use language to express your ideas and communicate the relation between scientific terms.
2. Past tests: The Psychology department does not provide past final exams for study purposes. For the same reasons, I do not provide copies of previous midterms for studying. Any use of such materials constitutes cheating, and the penalties for cheating are outlined in the calendar. In the past, I have found that I cannot rely on 100% of the students not to pass their tests on to incoming students. In order to prevent this form of cheating, I collect your midterms from you after reviewing the key with you in class. If you do not turn your test back in, you do not get a mark for it (effectively scoring 0 on the test). You are free to see any test you wrote during any office hour. (Cheating is stupid anyway and so are cheaters. Marks are an indicator of education: they are not education.)
3. Biopsyc is my area. I think it is a fascinating intersection of biology and psychology. I think it is the best way of understanding behaviour and that it has some wonderful applications to human conditions. I hope that you find your time and effort in this course valuable, worthwhile, and useful to you in future years. (And if you managed to read all the way to here, congratulations.)