



University of Victoria Spring 2012  
Psychology 415B (A01) Biological Psychology (CRN 24395)  
Psychology 550 (A01) Physiological Psychology: Introduction  
Topic: Recovery of Function after Brain Injury - Evidence, Treatments and Animal Models

**Instructor:** R.W. Skelton (721-8711)

Syllabus date: 2-Jan-12

**Email:** Correspondence: skelton@uvic, Assignments: PSYC415B@Uvic.ca<sup>1</sup>

**Class Meets:** MR 11:30 - 12:50, CORN A228

**Office Hours, CORN A264:** Before midterm, hour after class, after midterm hour before class<sup>2</sup>

**Prerequisite:** PSYC 323 (or BIOL 345 or 365). Knowledge of material covered in PSYC 323 is expected, and those with BIOL 345/365 are admitted on the understanding that they will be able to acquire this knowledge on their own, by the midterm. This includes the fundamental principles of neuroanatomy and neurophysiology, principles of the analysis of brain-behavior relations, and basic knowledge of mechanisms of development and learning/memory.

**Recommended:** PSYC 300A/B or STAT 255/256 (e.g., ability to interpret 3-way interactions in ANOVA)

**Required Books:**

1. Brain Plasticity and Behavior, B. Kolb, 1995. (Yes, this book is old, but none other like it has been written since, and one of your goals in this course is to update the information with recent research.)
2. Making Sense in Psychology and the Life Sciences (A student's guide to writing and style), by Northey and Timney. This writing guide will help you prepare your talk and paper. (In the past, the work of most students could have been greatly improved by following this book's recommendations.)

**Recommended Books (Available in Bookstore)**

1. Writing Papers In Psychology, by Rosnow & Rosnow.
2. Elements of a Scientific Paper, by Katz. This book is an excellent "How-to" book for writing scientific papers, and provides a wonderful description of what papers *should* contain.

**Graduate/Undergraduate issues:** Graduate students taking this course for graduate credit (PSYC 550) will produce more comprehensive assignments (see footnote 6 on page 3).

**Registration:** Students are responsible for monitoring their own registration status. Those who wish to add must do so by the second week of classes (or else you will be too far behind). I will admit those from the waitlist based on pre-requisites, need (e.g., 4<sup>th</sup> year), and degree program (e.g. BIOP or Honours).

**Goals and intentions**

1. To help you prepare for graduate school in biology, psychology, neuropsychology, or physiological psychology (behavioral neuroscience), by exposing you to a graduate school-like situation in which you must read current research, use background information to understand it, integrate the findings and present your conclusions in a credible manner.
2. To foster a better understanding of the research process and products.
3. To foster a better understanding of neuroplasticity and its manifestations.
4. To foster a better understanding of recovery of function after brain injury and its mechanisms.
5. To improve your ability to understand and communicate complex material, including the scientific method, experimental logic, and scientific English.
6. To improve your ability to evaluate your own performance and improve it based on general as well as specific feedback (e.g., "In general, the class had problems with . . .").

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<sup>1</sup> Email policies: Be sure to send you email to the appropriate address and to include a meaningful subject line (i.e., not "PSYC 415B"). Email sent to the wrong email address or without a proper subject line may be ignored for a week or more, and may cost you a late penalty.

<sup>2</sup> Before the midterm, I spend the hours before class getting ready for it and the hours after class seeing you and posting the notes and other information. After the midterm, I am free to see you before class to make sure your presentation is ready to go. I spend the time after class marking posters and presentations.

**Content:** The primary focus will be on recovery from brain injury in humans, and animal models that investigate mechanisms. Kolb's textbook will provide a review of the fundamentals of brain structure and mechanisms of brain plasticity. We will use current research articles to study brain injury recovery more specifically. (As the book ages, it becomes easier and more necessary to find more up-to-date material.) The balance of human/animal material will depend largely on your individual preferences.

**Learning objectives:** By the end of the course, you should be able to:

1. Describe and explain in writing on tests, the major concepts of recovery of function after brain injury, and give evidence to substantiate your positions.
2. Analyze a research article and describe its main points (and possibly its strengths and weaknesses) in an efficient and time-limited environment (e.g., during an exam).
3. Read scientific material skeptically, identifying which points made by the author(s) are substantiated by the evidence presented and which are not.
4. Assemble a cogent argument and present it orally and in writing based on recent evidence about recovery of function.
5. Note: Learning and using scientific language and making logical arguments are essential ingredients in this course just as they are to graduate training, and science itself.

**Processes: Structure and grades.**

I expect to cover Kolb's book by the midterm and test your knowledge of it on the Midterm<sup>3</sup>. The remainder of the course will be devoted to student presentations of recent research articles.

One lecture each week will be devoted to discussing key points in Kolb's text. You will need to bring a list of "key points" of the chapter to the class (the day we discuss it) and you will need to discuss it (out loud). (These assignments must be submitted to me before 9 am on the day they are due.) The class will decide how much the completion of these key points will contribute to the course mark.

The other lecture each week will be devoted to development of academic skills: reading and analyzing research articles, finding information in the literature, building logical arguments, defending a position, and making effective presentations. There will be assignments related to analysis of research articles, and the class will decide how much the completion of these assignments will contribute to your course mark.

Note: This course will not feed you the information you need in lectures. You are too advanced for that. Almost all of what you will learn will come from work you do on your own, outside class. If you still want your information fed to you in lecture format, you will probably be happier in another course. Also, this is a course where you learn by doing, and part of the doing is problem solving. Therefore, to help you improve your own critical thinking and problem solving, you will often be asked to try to accomplish a task before being given full advice about how to do so.

After the midterm, class meetings will be devoted to student presentations of research articles. Students will each present a single article in poster format.<sup>4</sup> Then students will each give a talk that draws a conclusion from 3-4 papers, and by the end of term, they will submit a 10-page paper on the same material<sup>5</sup>. Talks will likely be restricted to 15-20 minutes but allotted time will depend on enrolment. Presenters should leave 5-10 min for discussion after each one.

You will need to finalize your choice of "seed" research papers to present before Reading Break, submitting a copy of the title page and abstract plus an explanation (½-1 page) of why you chose that paper. Feel free to consult with me on your choice. **You MUST submit a 1-2 page outline of your talk (plus list of references to be cited) 1 week before your presentation (late penalty = 20%/day.)** I encourage you to come see me with a draft of your outline the week before it's due (i.e., 10 days before your talk). If you plan to talk on a topic that potentially overlaps the content or requirements of another course or program you are taking, you will need to describe that overlap and substantiate the independence

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<sup>3</sup> **Warning:** The Midterm is **after** last drop day. Therefore, you will have to decide whether to stay in the course before you see the midterm. The midterm will take you approximately 8 hours, but all but 1.5 hrs is take-home.

<sup>4</sup> This article can be, but need not be, the "seed paper" for your talk and paper (i.e., the one central to your talk and paper topic).

<sup>5</sup> Graduate students will be given more time to talk and will talk on 4-6 papers, and write 15-20 page papers.

of your work for this course. (In other words, you can't get credit for the same paper in two different courses). Within 1 week of your presentation I will provide you with confidential feedback in time to improve your next assignment, which is a 10-page paper on the same topic as your talk, due on the last day of classes.

**Grade Basis** (May be modified between Min and Max in consultation with the class)

Item	Min	Max	Recom mended	Details
Class participation	0%	10%	5%	Contributions to class (e.g., weekly Kolb principles)
Assignments/Quizzes	0%	10%	5%	E.g., Analysis of a research articles.
Selection of "seed paper" <sup>4</sup>	0%	5%	2.5%	For finding and choosing seed paper, and defending choice of topic
Midterm Test <sup>3</sup>	10%	20%	10%	<b>Mar 1,5,8:</b> On Kolb and Recovery of Function research.
Outline & Refs <sup>6</sup>	5%	5%	5%	1-2 pages, of talk to be given, due 1 week before talk. It is very very important that this assignment is on time. Therefore, this assignment loses 1% mark per day it is late.
Poster <sup>7</sup>	10%	20%	12.5%	Presented in class if scheduling of talks permits
Talk <sup>5</sup>	10%	20%	20%	On a research article examining recovery of function
Paper	10%	20%	20%	On same topic as talk, due the last day of classes
Final Exam	20%	30%	20%	On research and research findings (3 hours).
Total	65%	140%	100%	

**Notes on Marks** Letter grades will be assigned as follows (with marks rounding to the nearest integer) and breakpoints as per PSYC Department policy:

A+	A	A-	B+	B	B-	C+	C	D	F
95	90	85	80	75	70	65	60	50	>49.5

Assigned work handed in late without permission will be docked marks. Late talks and posters score zero. If you miss the midterm exam or assignment due to illness, accident or family affliction, see me with evidence and a makeup will be held on the first Friday following the end of the causal affliction. If you miss the final you must apply at Records Services for a "Request for Academic Concession", within 10 working days of the exam. Missed exams without a legitimate excuse will be penalized 25-100%. No accommodations are made for any assignment worth 5% or less. All students are expected to have access to email and the internet and to be able to submit assignments on time in RTF or Word format. Failures of technology are not acceptable excuses for late assignments (e.g., "My hard-drive ate my homework.")

The class will discuss then choose the weights of how the elements of the course contribute to the final mark. Because many wish to know the relative difficulty and effort of the elements before making this decision, this process usually happens after the midterm. If you feel that it is my duty to tell you how much each element will contribute to your final mark within the 1<sup>st</sup> two weeks of class, let me know and I will assign the "Recommended" weights to you. Student control over how the course progresses allows students to tailor the course a bit to their own preferences and helps them prepare for graduate school, where much of the learning is self-directed. Although this takes class time and some students find it frustrating, I believe that this development of autonomy is worth the time and effort.

Things to Expect

1. Discussions rather than lectures. You will have to speak in regular classes, and give a presentation.

<sup>6</sup> Pre-evaluation drafts may be submitted up to the last class before your outline is due, which is 1 week before you present. Penalty 1% (of 5%) for every workday late.

<sup>7</sup> We will schedule dates for your presentations together, but once you agree to present on a particular date, you HAVE to present on that date, or you get nothing. Just like in the real world when you don't show up for something.

2. Opportunities to solve problems on your own, before being given fuller instructions/coaching.
3. Some flexibility in the progress, contents and processes of the course.
4. Explicit evaluation criteria explained before being applied.
5. Hard work and regular attendance to ALL classes (and appropriate classroom behaviour).

**Additional note on Cheating and Plagiarism:** I'm sure you know this, but I need to be perfectly clear about it. Material downloaded from the internet is not to be used without proper citation. (E.g., quoting something longer than 3 words without proper quotation marks and citation is plagiarism.) Using test or assignment materials from previous students in the course is also cheating. Possible consequences of cheating, including plagiarism, include a 0 on the test/assignment or an F in the course. Cheating is stupid and so are cheaters.

**Department of PSYCHOLOGY Academic Policies  
UNIVERSITY OF VICTORIA  
Department of Psychology**

**Important Course Policy Information  
Winter 2011-2012**

***Prerequisites***

Students who remain in courses for which they do not have the prerequisites do so at their own risk. Students who complete courses without prerequisites ARE NOT exempt from having to complete the prerequisite course(s) if such courses are required for the degree program.

***Program Requirements***

For more information see pages 209-212 of the UVic Calendar 2011-12.

***Registration Status***

Students are responsible for verifying their registration status. Registration status may be verified using My Page, View Schedule. Course adds and drops will not be processed after the deadlines set out in the current UVic Calendar.

***Commitment to Inclusivity and Diversity***

The University of Victoria is committed to promoting, providing and protecting a positive and supportive and safe learning and working environment for all its members.

***In the Event of Illness, Accident or Family Affliction (See UVic Calendar, 2011-12, p. 35)***

- ***What to do if you miss an exam other than one scheduled during the formal examination period***

Do not apply at Records Services for a "Request for Academic Concession". Instead submit documentation of the illness, accident or family affliction directly to your course instructor (or designated teaching assistant).

- ***What to do if you miss an exam scheduled during the formal exam period***

Apply at Records Services for a "Request for Academic Concession", normally within 10 working days of the end of the formal examination period. Records Services will forward the form to the instructor. If the concession is granted the instructor will determine how to deal with the situation (for example, a deferred exam). Where a concession is not applied for or where such application is denied, an N grade will be entered on the student's academic record.

- ***What to do if you require additional time to complete course requirements***

Apply at Records Services for a "Request for Academic Concession", normally within 10 working days of the end of the formal examination period. Records Services will forward the form to the

instructor. If the concession is granted the instructor will determine how to deal with the situation. Where a concession is not applied for or where such application is denied, an N grade will be entered on the student's academic record.

### ***Policy on Academic Integrity including Plagiarism and Cheating***

The Department of Psychology fully endorses and intends to enforce rigorously the Senate Policy on Academic integrity (<http://web.uvic.ca/calendar2011/FACS/UnIn/UARe/PoAcI.html>), p. 33-34, UVic Calendar 2011-12). It is of utmost importance that students who do their work honestly be protected from those who do not. Because this policy is in place to ensure that students carry out and benefit from the learning activities assigned in each course, it is expected that students will cooperate in its implementation.

The offences defined by the policy can be summarized briefly as follows:

1. **Plagiarism.** You must make sure that the work you submit is your work and not someone else's. There are proper procedures for citing the works of others. The student is responsible for being aware of and using these procedures.
2. **Multiple Submission.** Only under exceptional circumstances may a work submitted to fulfill an academic requirement be used to satisfy another similar requirement. The student is responsible for clarifying this with the instructor(s) involved.
3. **Falsifying Materials Subject to Academic Evaluation.** This includes falsification of data, use of commercially prepared essays, using information from the Internet without proper citation, citing sources from which material is not actually obtained, etc.
4. **Cheating on Assignments, Tests, and Examinations.** You may not copy the work of others in or out of class; you may not give your work to others for the purpose of copying; you may not use unauthorized material or equipment during examinations or tests; and you may not impersonate or allow yourself to be impersonated by another at an examination. The Department of Psychology has a policy of not making old examinations available for study purposes. Therefore, use of old exams without the express written permission of the instructor constitutes cheating by the user, and abetting of cheating by the person who provided the exam.
5. **Being an Accessory to Offences.** This means that helping another student to cheat (for instance, by showing or communicating to them answers to an assignment, or by allowing them to view answers on an exam) is an academic offence.

Instructors are expected to make every effort to prevent cheating and plagiarism. This may include the assignment of seating for examinations, asking students to move during examinations, requests to see student identification cards, and other measures as appropriate. Instructors also have available to them a variety of tools and procedures to check for Internet and electronic media-based cheating. In instances of suspected or actual plagiarism or cheating, instructors, following prescribed procedures, are authorized to take steps consistent with the degree of the offence. These measures will range from a zero on the test or assignment or a failing grade for the course, probation within a program to temporary or even permanent suspension from the University.

Rights of Appeal are described in the Policy on Academic Integrity in the University calendar (on p. 33-34 in 2011-12).

**The definitive source** for information on Academic Integrity is the University Calendar (p. 33-34 in 2011-12) (<http://web.uvic.ca/calendar2011/FACS/UnIn/UARe/PoAcI.html>)

**Other useful resources on Plagiarism and Cheating include:**

1. The Learning Skills program: <http://www.coun.uvic.ca/learning/index.html>
2. The Ombudsperson's office: <http://www.uvss.uvic.ca/ombudsperson/pubsguides/plagiarism.pdf>
3. The English Department: <http://web.uvic.ca/wguide/Pages/CitPlagiarism.html>