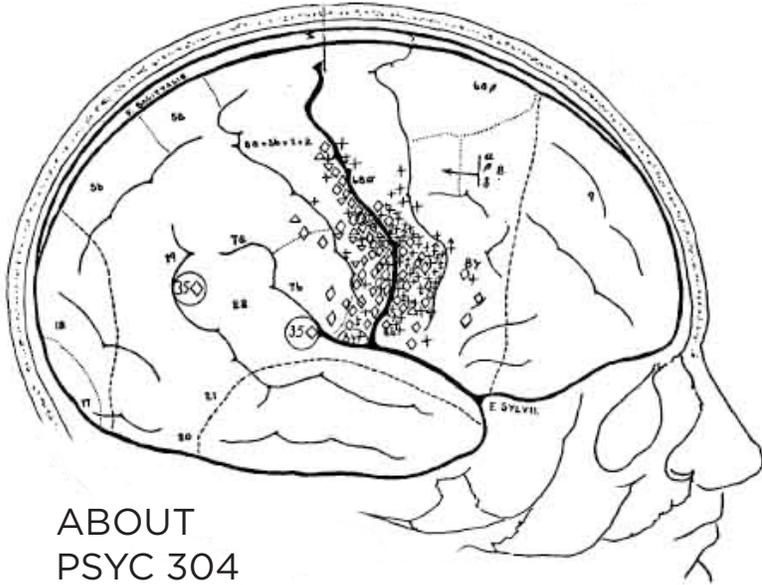


PSYCHOLOGY 304-921: BRAIN & BEHAVIOUR

Summer 2015



ABOUT PSYC 304

Psychology 304 is a comprehensive course that examines most of the larger topic areas in Biopsychology (aka Behavioural Neuroscience). This course places equal emphasis on (1) attaining the essential background knowledge necessary to effectively navigate and interpret the biopsychological literature, and (2) teaching you how to think critically and creatively about biopsychological issues. Yet, the content of Psyc 304 is not merely academic: Much of what you will learn in this class can be readily applied in your every day life.

LEARNING GOALS

By the end of this course you should be able to

- navigate the biopsychology and neuroscience literatures with some confidence.
- spot some common errors in thinking about biopsychological phenomena.
- understand and situate particular biopsychological phenomena within a historical context.
- apply biopsychological knowledge in your everyday life.
- understand and use the language of biopsychology and neuroscience.

WHO, WHEN, WHERE

Instructor: Steven Barnes
Room 3104, Kenny
sjb@psych.ubc.ca
Office Hours: Thurs 12-1, and by appointment

TAs: Michael Barrus
Room 3514, Kenny
michaelbarrus@psych.ubc.ca
Office Hours: By appointment

Cameron Parro
cameron.parro@gmail.com
Office Hours: By appointment

Schedule: Tues Thurs, 6 - 9
Buchanan A104

Website: psyc304.metaplasticity.com
The course website includes the following: Lecture schedule, slides, course syllabus, a blog, and a collection of course-related links. Please check for updated information about required readings, schedule changes, etc.

Notes: (1) Office hours might change; please check the course website for updates; (2) Emails will be answered on weekdays during normal working hours. Please limit emailed questions to ones that can be answered briefly. For more complex questions, please come to my office hour or contact one of us to schedule an appointment; (3) Grades will not be posted on the course website; they will be posted on Connect.

PREREQUISITES

There are two prerequisites for this course:

1. You have completed either: (a) Psychology 100, (b) both of Psychology 101 and 102, (c) two of Psychology 207, 208, 217 or 218, or (d) Psychology 260.
2. You are in the second year or later of your degree.

EVALUATION

1. Exams (up to 100%):

There will be four exams: 2 will be written during the exam periods at a time designated by the Registrar's Office (you must be available to write at any time during the exam periods), and 2 will be written during class time.

Exam 1 (25%)	Jun 2 (class time)
Exam 2 (25%)	Jun 22-26
Exam 3 (25%)	Jul 28 (class time)
Final Exam (25%)	Aug 17-21

Notes on the Exams:

- Exams are not cumulative.
- There will be topics covered in class that are not in the text and topics in the text that are not covered in class. You will

be responsible for both. That is, all readings and all lecture materials are examinable.

- Exams will include multiple-choice, short-answer and essay questions.
- You are advised to use headings in your essay answers--this helps you organize your thoughts, and it also helps the marker.
- Note that the instruction on all multiple-choice questions will be to "select the single best response."
- If you encounter what you believe to be a faulty question on an exam, answer it to the best of your ability under the circumstances, and write a brief explanation of what you think is the problem on the front of your exam. Occasionally, bonus marks are awarded to those who spot subtle ambiguities or errors.
- Once exams have been marked, grades will be posted on Connect. You will receive an email notification when grades are posted (please ensure the University has your correct email address).
- You are strongly encouraged to review your exam with your TAs, Michael and Cameron. Most requests for grade adjustments can be settled directly with Michael or Cameron. In cases of a dispute that cannot be satisfactorily resolved, I will render a decision after reading your exam and talking to both parties.

2. Optional Project (up to 24%):

You may elect to do a project on a topic of your choosing that is related to the course materials. If you do elect to do a project, the grade you receive on that project will be worth 24% of your final grade, and the grades you receive on each of the exams will be worth 19% of your final grade.

There are three purposes to this optional project:

1. To offer you the chance to explore a topic of your choice in greater depth than the lecture and text can offer.
2. To assess your ability to think both critically and creatively.
3. To offer you a chance to explore other ways of expressing your knowledge.

Although the standard format for this project is a review paper (described below), you are strongly encouraged to pursue other project formats. For example, in previous years, students have created short videos, paintings, computer models, musical compositions, dance sequences and stop-motion animations; and some have done community service learning as their project.

If you choose any format other than the review paper (described below), you will need to clear your project topic and format with me. This can be done in person or by email on or

before **May 28**. In most cases, I will provide you with a grading scheme customized to your specific project.

If you are ever unsure of whether the topic or format of your project is acceptable, please ask me.

Your project should be one that is done for this course exclusively; handing in work done for another course (past or present) is not acceptable.

Review Paper Option. If you would like to write a review paper as your project (in American Psychological Association (APA) style; for examples of APA-style review articles, see the journals *Psychological Bulletin* and *Psychological Review*) you are encouraged, but not obligated, to contact me to check that the topic of your paper is suitable before you start writing. The content of your paper should not overlap substantially with the material in the text or lectures. The audience for your paper is a person who has already taken this course. Detailed grading criteria for the review paper are available on the course website.

You are expected to read a minimum of 10 peer-reviewed journal articles as part of your research, and your paper should not be less than 2500 words in length (excluding the title page, abstract, and references). When your chosen topic is one that is the subject of ongoing research, you are expected to use sources that are as up to date as possible.

Project Due Dates and Grading. Your grade for the optional project is comprised of two items:

Project Overview (10%)	16 Jun
Final Project (90%)	6 Aug

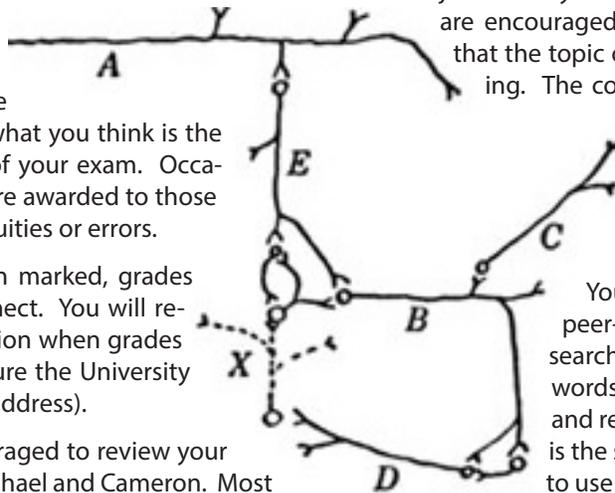
Project Overview. If you choose the review paper option, then you must hand in the following on **Jun 16**: A title page, abstract, 1-2 page introduction, and a reference section. If you choose a project format other than the review paper, then I will provide you with information about what you need to hand in to me for this due date. The primary purpose of this hand-in is to allow me to give you some initial feedback on your topic and work.

Final Project. Your completed project is due **Aug 6**, and is worth 90% of your project grade.

For both the project overview and the final project, you should hand in a paper copy and an electronic copy (.doc or .pages) to me. Regardless of when the electronic copy arrives, the time I get the paper copy shall be considered the official hand-in time.

PEERWISE

PeerWise is a tool that allows you to create, share and evaluate multiple choice questions with your classmates. This is an excellent method of studying for exams. In addition, I may elect to use a small number of the questions that you or your



peers generate on the actual exam. Those individuals whose questions I choose to use will be rewarded with a 1% bonus towards their final grade in the course. I do, however, reserve the right to alter the questions slightly if necessary. Peerwise questions are due exactly one week before the date and time of the exam if they are going to be considered for inclusion on the exam (and for bonus marks).

Start by visiting http://peerwise.cs.auckland.ac.nz/at/?ubc_ca. If you have not used PeerWise before, just click the "Registration" link and follow the prompts. All you need to do is choose a user name and a password for your PeerWise account. If you have used PeerWise before, simply log in and then select "Join course" from the Home menu. To access our course, "Psc 304-921 (Summer 2015)", you will need to enter two pieces of information:

1. Course ID = 11164
2. Identifier = Please enter your UBC student ID

COURSE TEXT

Required: Pinel, J.P.J. (2013). *Biopsychology, 9th Edition*. Allyn & Bacon, ISBN-13:978-0205915576. This text was selected for this course because it was designed for a course very similar to the present one and because it was written by a UBC faculty member who was both a gifted biopsychologist and educator. From time to time, this text may be supplemented by other readings or videos to facilitate your understanding of the course materials. Please attend class and check the course website to obtain more information about these readings and videos.

The textbook author has a website which you may find useful: biopsyc.com. He also has a Twitter handle, *JohnPJPinel*, which you might consider following.

Optional: Any additional learning aids associated with the textbook (e.g., Study Guide, "MyPsychLab" website, CD) are optional. Although they might be useful for enhancing your understanding and retention of the course materials, you will never be examined on any materials contained in these learning aids. If you decide to use MyPsychLab you will need this Course ID: *barnes71754*.

COURSE SCHEDULE

May 12	Course Overview
May 14	Introduction to Biopsychology (Ch 1)
May 19	Evolution, Genetics, & Experience (Ch 2)
May 21	Neuroanatomy (Ch 3)
May 26	Neural Conduction & Transmission (Ch 4)
May 28	Research Methods of Biopsychology (Ch 5); Proposal for Optional Project Due (if other than a review paper)
Jun 1	Q&A Session for First Exam (6-7:30 pm)
Jun 2	First Exam (Makeup: Jun 9, noon)

Jun 4, 9	Visual System (Ch 6)
Jun 11	Perception & Conscious Awareness (Ch 7)
Jun 16	Sensorimotor System (Ch 8); Optional Project Overview Due
Jun 18	Neurodevelopment (Ch 9)
Jun 22-26	Second Exam (Makeup: Jul 7 @ noon) "Reading Break"
Jul 7, 9	Brain Damage & Neuroplasticity (Ch 10)
Jul 14	Learning, Memory, & Amnesia (Ch 11)
Jul 16	Hunger, Eating, & Health (Ch 12)
Jul 21	Hormones & Sex (Ch 13)
Jul 23	Sleep, Dreaming, & Circadian Rhythms (Ch 14)
Jul 27	Q&A Session for Third Exam (6-7:30 pm)
Jul 28	Third Exam (Makeup: Aug 4, noon)
Jul 30, Aug 4	Drug Addiction & Brain Reward Systems (Ch 15)
Aug 6	Emotion, Stress & Illness (Ch 17); Optional Final Project Due
Aug 11,13	Psychiatric Disorders (Ch 18)
Aug 17-21	Final Exam

WITHDRAWAL DATES

If you wish to withdraw from this course without any record of the course on your transcript, you must do so on or before **22 May**. If you wish to withdraw with a "W" on your transcript, you must do so on or before **19 Jun**.

GRADING AND ATTENDANCE

Grading. Your grade for each exam will be posted on the course web site with your student number, but not your name. You have the right to request that your grade not be posted; please send me an email to make such a request. If you wish to inspect your exam, you may do so by meeting with your TA, Jay.

The Department of Psychology has adopted the following target grade distributions in 300- and 400-level courses, and reserves the right to adjust final grades in this course if the distribution deviates substantially from the target.

Class Performance	Mean	SD
Strong class	70	13
Average class	68	13
Weak class	66	13

Attendance. In this course, material that is taught in class may be different from or supplement the text material. It is, therefore, essential you attend class and read ahead in the text. If you do have to miss a class, you are responsible for

getting notes from another student.

If you miss any of the first three exams due to illness, you must contact me right away about the possibility of writing a makeup (dates are on the schedule). You cannot write a makeup exam without my approval.

If the final exam is missed, you must apply through the Registrars office to write a make-up exam--they will probably require medical or other documentation. Please refer to the UBC Calendar for details of 'academic concession.'

During your time in this course, if you encounter medical, emotional, or other personal problems that affect your attendance or academic performance, please notify me, as well as your Faculty Academic Advising Office. Please refer to the UBC Calendar for a discussion of academic concession.

The University accommodates students with disabilities who have registered with the Access & Diversity office. The University also accommodates students whose religious obligations conflict with attendance or scheduled exams. Please let me know in advance, preferably in the first few weeks of class, if you will require any accommodation on these grounds. Other absences (e.g., varsity athletics, family obligations or similar) are not part of University policy and you should not assume they will be accommodated. Please discuss this with me before the withdrawal dates (above).

Early Alert Program. I participate in the Early Alert program, which helps me support students who are facing difficulties that are interfering with school. For answers to frequently asked questions regarding the early alert program, please visit blog.students.ubc.ca/earlyalert/information-for-students/students-frequently-asked-questions/.

Credit/D/Fail Grading. This course is eligible for Credit/D/Fail grading. The last day to change between Credit/D/Fail and percentage grading is **22 May**.

POINTS TO REMEMBER

- There are 21 classes and 16 chapters will be covered during the course. This means there will usually only be 1 lecture per chapter--plan your reading and studying accordingly.
- Productive classroom discussion and debate are encouraged.
- Lectures will typically focus on particularly important and/or interesting ideas. You are responsible for all text and lecture materials.
- Lecture slides will be available on the course website. However, if you miss a lecture, don't expect to find all of what you missed in the slides.
- Lecture slides will be posted on the course website the night before each lecture. This is done as a courtesy. Please be aware that I may make significant changes to the slides between that time and the lecture the next day.

Final versions of lecture slides will be posted on the Friday following a lecture, and will be marked as 'Final Version.'

- Please be aware that the first quarter of the course can be especially challenging to those without some background in biology.
- It is worth devoting extra time to the materials in chapters 1-5 of the Pinel text, as they are foundational to the rest of the course.
- Laptops and similar devices can be effective learning tools and are welcome in class. However, if you are using them for non-class-related activities it can be distracting for others. So, if you plan to use devices for non-class-related activities, please sit towards the back of the room.

ACADEMIC MISCONDUCT

Cheating, plagiarism, and other forms of academic misconduct are very serious concerns of the University, and the Department of Psychology has taken steps to alleviate them. For example, the Department has implemented software that can reliably detect cheating on multiple-choice exams by analyzing the patterns of students' responses.

In all cases of suspected academic misconduct, the parties involved will be pursued to the fullest extent dictated by the guidelines of the University. Strong evidence of cheating or plagiarism may result in a zero credit for the work in question. According to the University Act (section 61), the President of UBC has the right to impose harsher penalties including (but not limited to) a failing grade for the course, suspension from the University, cancellation of scholarships, or a notation added to the student's transcript.

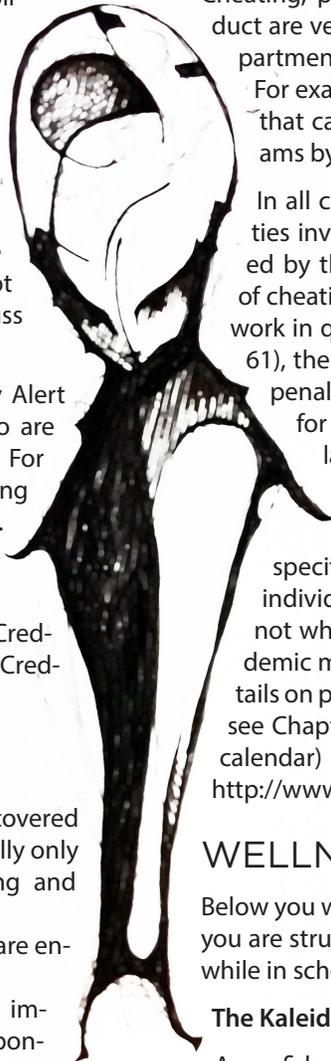
All graded work in this course, unless otherwise specified, is to be original work done independently by individuals. If you have any questions as to whether or not what you are doing is even a borderline case of academic misconduct, please consult your instructor. For details on pertinent University policies and procedures, please see Chapter 5 in the UBC Calendar (<http://students.ubc.ca/calendar>) and read the University's Policy 69 (available at <http://www.universitycounsel.ubc.ca/policies/policy69.html>).

WELLNESS RESOURCES

Below you will find a list of resources you may want to utilize if you are struggling in any way to manage your responsibilities while in school or the stresses of life in general.

The Kaleidoscope: the-kaleidoscope.com

A confidential peer-run mental health support group that takes place on campus 2-3 times a week. You may attend the group if you are experiencing any kind of mental health related challenges, or if you're just feeling stressed about school in general. Registration is not required to attend the group. See the website for meeting times and locations. Food and drink is provided.



Counselling Services:

students.ubc.ca/livewell/services/counselling-services

Phone number: 604-822-3811

Counselling services offers a variety of resources to help you maintain your mental health while in school. You may see a counsellor on an individual basis, attend group counselling, or to document an illness if you should require academic concession.

Off and Running Group:

www.facebook.com/offandrunningubc

Off and Running is a casual running and walking group for UBC students with anxiety or depression.

SpeakEasy:

www.ams.ubc.ca/services/speakeasy/

Phone number: 604-822-9246

A student run service that offers confidential support for students experiencing crisis. Also a good resource for additional information and referrals within the UBC community.

UBC Wellness Centre:

students.ubc.ca/livewell/services/wellness-centre

Phone number: 604-822-8450

Speak with other students about tips for managing stress, keeping healthy sleep and eating patterns, concerns about safe sex and more.

Access and Diversity:

students.ubc.ca/about/access

604-822-5844

Access and Diversity provides accommodations for students living with physical or mental disabilities.

Student Health Services:

students.ubc.ca/livewell/services/student-health-service

604-822-7011

Student health provides students with a variety of healthcare related services to help you maintain your health while studying. Access to doctors and registered nurses.

Mood Disorders Clinic UBC:

<http://ubc-mooddisorders.vch.ca/>

A psychiatric program designed specifically to treat individuals living with depression or bipolar disorder.

Live Well, Learn Well:

students.ubc.ca/livewelllearnwell

The Live Well, Learn Well initiative is a resource hub that provides students with information to help improve physical and mental wellbeing.

Mental Health Awareness Club:

<http://ubcmhac.sites.olt.ubc.ca/>

A club that offers opportunities to speak about mental health with others and strives to promote mental health awareness throughout the UBC community.

Pacific Spirit Addiction Services:

3rd Floor, 2110 West 43rd Ave Vancouver B.C. V6M 2E1

Phone number: 604-267-3970

A free and confidential services for youth and young adults up to the age of 24. Services include Adult Counselling, access to an Addiction Physician - including usage of a methadone maintenance program - and a Drug Education Series.

AMS Food Bank:

www.ams.ubc.ca/services/food-bank/

If you are in a financial emergency AMS food bank can provide you with a food hamper. You are able to use the service up to 6 times each term.

UBC Psychology Clinic:

<http://clinic.psych.ubc.ca/>

Professional psychological services provided to the community, including assessment & treatment for children, adults & families by clinical psychology trainees.

BC Crisis Center:

www.crisiscentre.bc.ca

Phone number: 604-872-3311

Non-profit, volunteer-driven organization that provides emotional support to youth, adults, and seniors in crisis in BC. Crisis line available 24/7.

Distress Line:

Phone number: 1-800-Suicide (784-2433)

If you are in distress or are worried about someone in distress who may hurt themselves, call 1-800-SUICIDE 24 hours a day to connect to a BC crisis line, without a wait or busy signal.

Last Modified: May 4, 2015