

PSYC 360 – BIOPSYCHOLOGY 2014-2015

COURSE ESSENTIALS

When: Tuesday & Thursday 9:30 – 10:50am

Where: Term 1: Buchanan A203, Term 2: Buchanan A102

Instructors: Jason Snyder (Term 1)
jasonsnyder@psych.ubc.ca
Kenny Psychology Building room 3517
Office hours: by appointment

Dwayne Hamson (Term 2)
dhamson@psych.ubc.ca



TA: → → see photo →→→→→
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Kenny Psychology Building room 3514
Office hours: by appointment

Website: See connect.ubc.ca - Here I will post lecture outlines, the course schedule and any updates or changes, grades, supplementary links and readings. Check regularly.

Textbooks: *[required]* Pinel, J.P.J. (2014). Biopsychology, 9th Edition.

--roughly 1/3 of first term material will come from this text

--online and supplemental components of this text are not essential

[recommended] Kandel, E.R. et al., Principles of Neural Science

--roughly 1/3 of first term material will come from this text

--this text is very heavy and expensive...but highly recommended if are interested in neuroscience. Older editions are excellent resources and will do the trick too.

COURSE GOALS (*emphasis on first term*)

The overarching goal of PSYC 360 is to provide you with a broad understanding of how the nervous system detects and interprets the sensory environment and produces behavioral outputs. The course assumes a biopsychology background. However, if you have a background in science or psychology and are willing to put in the effort to get caught up you will also do well in the course.

In the first term we will learn:

1. How various types of environmental stimuli are detected by sensory receptors
2. How properties of sensory receptors, neurons and simple neural circuits underlie our perception of the environment
3. How neural representations of complex stimuli are formed and associated together to create memories
4. How relevant behavioral actions are selected and executed
5. The role of neuroplasticity in memory, adaptive behavioral changes and neurological disorders brain damage

This we will cover the fundamentals of how stimuli enter the brain, are processed, and lead to a behavior, which is broadly relevant for understanding the biology of all types of behavior. The current state of the biopsychology field is the result of many years of research on human psychology, animal behaviour, neuroscience, disease, and computational modeling. We will draw upon examples from each of these complementary disciplines throughout the course. We will also learn from primary research articles, from classic to contemporary to state of the art, because: A) biopsychology principles are clearer when you know how they were discovered, B) they illustrate the limitations and evolution of what we know about the brain and behavior, and C) they're fascinating.

Other notes: Lecture slides will be published online before class, may change at the last minute, and may be updated after class if content was added / fixed / clarified during class (i.e. always check before a test that you have the latest content). The published slides are only a portion of what will be covered in class.

Feel free AT ANY POINT to ask questions, make observations, compliment my wardrobe etc.

EVALUATION (*emphasis on first term*)

Performance will be evaluated with 4 exams – 2 midterm exams and 2 end of term final exams.

- each exam will be 80min (i.e. same duration as class, even if during the final exam period)
- exams will be weighted equally (each 25%)
- exams are based only on the material covered in class
- exams will not be explicitly cumulative, though later material will build on material covered earlier in the course.
- the format will be a combination of 30 multiple choice questions and 6 short answer questions.
- grades will be available on connect.ubc.ca. The Department of Psychology requires that class averages be 66-70%; grades may be scaled and are not official until they appear on your final academic record.

If you miss an exam you must notify me within 24hrs and provide a doctor's note that states that you were unable to attend, on the date in question, for medical reasons. We will then schedule a makeup exam.

The course TA, Paul Cocker, will grade the exams, will be available to review your exam with you and will resolve the majority of grading issues that may arise.

TERM 1 SCHEDULE:

Sept. 10	Lecture 1: Course Intro
Sept. 15	Lecture 2: Biopsychology overview
Sept. 17	Lecture 3: Neuroanatomy
Sept. 22	Lecture 4: Neuroanatomy / Cellular & Synaptic Neurophysiology
Sept. 23	Lecture 5: Cellular & Synaptic Neurophysiology
Sept. 29	Lecture 6: Cellular & Synaptic Neurophysiology
Oct. 1	Lecture 7: Neural Circuits
Oct. 6	Lecture 8: Visual System
Oct. 8	Lecture 9: Visual System
Oct. 13	Lecture 10: Visual System
Oct. 15	Lecture 11: Visual System
Oct. 20	<i>no class</i>
Oct. 22	Lecture 12: Review session for midterm exam
Oct. 27	Midterm Exam
Oct. 29	Lecture 13: Auditory & Vestibular Systems
Nov. 3	Lecture 14: Somatosensory System
Nov. 5	Lecture 15: Chemical Senses / Sensorimotor System
Nov. 10	Lecture 16: Sensorimotor System
Nov. 12	Lecture 17: Hippocampus and Memory Formation
Nov. 17	Lecture 18: Hippocampus, Memory Consolidation and Imagination
Nov. 19	Lecture 19: Hippocampus and Disease
Nov. 24	Lecture 20: Hippocampus and Disease
Nov. 26	Lecture 21: Neural Plasticity in Adulthood
Dec. 1	Lecture 22: Neural Plasticity in Adulthood
Dec. 3	Lecture 23: Review session for December exam
Dec. 8-22	December Exam

Psychology Department's Position on 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. In the first place, the Department has implemented software that can reliably detect cheating on multiple-choice exams by analyzing the patterns of students' responses. In addition, the Department subscribes to TurnItIn – a service designed to detect and deter plagiarism. All materials (term papers, lab reports, etc.) that students submit for grading will be scanned and compared to over 4.5 billion pages of content located on the Internet or in TurnItIn's own proprietary databases. The results of these comparisons are compiled into customized "Originality Reports" containing several sensitive measures of plagiarism; instructors receive copies of these reports for every student in their class. 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 a 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>).