
Introduction to Psychopharmacology: *Drugs, the Brain, Behavior and Social Policy*

Lecture: Tues. & Thurs. 1:00–2:35; Carnegie 306



Professor Heide Island, Ph.D.

Office: Carnegie 306

Weekly Walk-in Hours: Wed. 9:05–10:30

Behavioral Research And Instructional Neuroscience (BRAIN LAB): Carnegie 304

Course Description

The material covered in this course is in two parts. The first is an introduction to the neurobiology of psychoactive drugs (i.e., substances that change brain function, resulting in alterations in perception, mood, or consciousness) including those prescribed (psychopharmacological) and elicit focusing on pharmacodynamics (i.e., drug-receptor action). The second part of this course provides a background on the medical model and the current direction of “client-centered” (non-psychiatric) mental healthcare and how the “disease model” for treating and supporting people with psychiatric conditions is moving toward a more holistic intervention model. We will also discuss the politics involved in drug development, the approval process of the drug by Federal Food and Drug Administration, medical ethics, social policy, and philosophical arguments for and against the use of drugs to treat behavioral disorders. The course employs a seminar format combining lectures, group discussion and take-home assignments.

Disclaimer

This course discusses psychopharmacology: the Good, the Bad, and the Ugly, this includes research surrounding the development, application and efficacy of drugs, particularly of exogenous opiates (i.e., painkillers) and anti-depressants (two of the books in our required trade reading list are exclusively devoted to these two drugs). We survey the neuroscience, politics, and history of psychopharmacology; most all research outcomes discussed involve results for mean groups, not individuals. As such, if you are taking medications, they were prescribed under the direction of your physician and in consideration of your medical history, needs, and well being, therefore you should not, under any circumstances, change or discontinue prescriptive medication protocols without the direction and supervision of your physician.

Pre-Requisites

Successful completion of PSY 150 (B or better); *Encouraged and Recommended*: PSY 252, Introduction to Clinical or Behavioral Neuroscience BEFORE taking this class.

Required Materials

Required Textbook

Meyer, J. S. & Quenzer, L. F. (2009). *Psychopharmacology: Drugs, The Brain, and Behavior*. Sunderland, MA: Sinauer and Associates, Inc. ISBN: 978-0-87893-534-5

Author Creditability: Meyer is a Professor of Psychology and Neuroscience at U. of Mass.; Quenzer is a Professor of Psychology and Neuroscience at the U. of Hartford

Required Trade Book

Brody, H. (2007). *Hooked: Ethics, the Medical Profession, and the Pharmaceutical Industry*. Lanham, MD: The Rowman & Littlefield Publishing Group, Inc. ISBN: 0-7425-5218-7

Author Creditability: Brody is Professor and medical doctor at the Institute for the Medical Humanities, John P. McGovern Centennial Chair in Family Medicine.

Required Professional References

American Psychological Association (2013). *Publication Manual of the American Psychological Association, 6th Edition*, Spiral Binding. Washington, D.C.: APA. ISBN: 1557988102

Required Supplementary Articles and Chapters

Since education does not take place in a vacuum, new texts and articles are published every week on this material. As such, you will be expected to read select chapters and peer-reviewed journals over

the course of the semester in addition to the text and the trade book for the course. These will be available on Moodle. I will give you ample time and notification prior to the due date to complete these readings. Offering materials in this way spares you the added costs of additional materials.

Required Software

Microsoft Word is installed on all public-use computers at Pacific, this is considered standard professional software, you must use this program for all of your reports whether on your personal computer or through those available to you through Pacific. **Google Drive and Pages documents will not be accepted.**

Resources for the Eager Student

This is the third time I have taught this course and each semester I teach it, I agonize over the required reading list. This area is burgeoning with excellent books and resources. I cannot expect you to read all of it in addition to researching your own empirical review topic. Below is a list of some of the excellent trade books I deliberated on for this course. They are all worth the read for the eager, enthusiastic student to read on their own time. They are not required reading.

Breggin, P. (2008). *Medication Madness. The Role of Psychiatric Drugs in cases of Violence, Suicide and Crime*. New York, NY: St. Martin's Griffin. ISBN: 978-0-312-36338-3
Author Creditability: Breggin is a psychiatrist and scholar of psychopharmacology.

Kirsh, I. (2015). *The Emperor's New Drugs. Exploding the Antidepressant Myth*. New York, NY: Basic Books. ISBN: 978-0465-02016-4.
Author Creditability: Kirsch is a professor of psychology at the University of Connecticut.

Temple, J. (2015). *American Pain. How a Young Felon and his Ring of Doctors Unleashed America's Deadliest Drug Epidemic*. Guilford, CT: Lyons Press. ISBN: 978-1-4930-0738-7.
Author Creditability: Temple is a Professor of Journalism at West Virginia University.

Student Learning Outcomes

If you put in the time to attend class, you complete the reading, study a minimum of 5 hours/week outside of class and apply yourself in the written material you will leave this course with:

- competency in pharmacodynamics and neurotransmission.
- a thorough understanding of the absorption, distribution, metabolism, excretion of psychoactive drugs and their effects on behavior.
- the ability to identify the physiological, psychological, and societal effects of various psychotropic drugs.
- a synthesis of the politics involved in drug development, manufacture, patenting, and marketing relative to perceived need and actual need.
- knowledge of the history and challenges facing the Food and Drug Administration and their intersection of politics, social responsibility, and business.
- the ability to critically evaluate empirical research, especially those studies relevant to drug research and efficacy.
- skills in empirical writing and how to be an engaging empirical storyteller.

Grading Criteria

You are expected to **respectfully** participate in class discussions. Your unique and independent perspectives of the reading, the course, and assignments are valuable and contribute to all of our understanding of the material. This is as true for the professor as it is for your classmates. Also recognize that your opinions may differ from those others students and also from the professor, this makes them no less valuable. It is important, given these differences in perspectives, that you discuss them in a professional, non-judgmental way, so that everyone feels the class is a safe place for intellectual engagement and growth. We will discuss and establish shared guidelines for how we can do this at the onset of the semester.

Exams

There are three semester exams total (exam 3 occurs on the scheduled day of the final exam, it is not cumulative and is not optional). There are 77 points possible on each exam but your score is based on 75 points; this provides a point cushion in the event that you misinterpret a question. Assuming all questions are clear, you can earn 2 extra points on each exam or flub two questions without harm to your grade (this is the ONLY bonus point opportunities I provide). Each exam covers 3 weeks worth of lecture, discussion, film, readings, and in the last two weeks of the semester, presentations. All of these sources will be represented on exams, so do take good notes and attend class.

Empirical Review

You write a comprehensive APA style empirical review on a topic within the area of psychopharmacology. The paper should have a minimum of 10 primary source, peer reviewed articles cited and referenced for a comprehensive paper, other secondary sources (i.e., literature reviews or popular sources) may be used; but do not contribute to the minimum reference number. Also be careful, secondary citations (i.e., referring to a paper you did not read but that is cited in another source is unacceptable). If you discuss a study, you must have that article as a primary citation (note that primary sources and citations are different).

Please use the APA style guide for information on how to write an empirical literature review. Here are examples of former students' successful empirical reviews (remember an empirical review begins with a question): *"What is the actual efficacy of anti-depressant medication?"*; *"Hypoactive Sexual Desire Disorder: Legitimate Endocrine Disorder or Pathologizing Female Sexuality?"*; *"Attention Deficit Hyperactivity Disorder: Contemporary, American Problem or Historically Underdiagnosed?"*; *"How Young is Too Young to Prescribe Psychotropic Medications?"*; *"Medical Marijuana: A High Cost or Benefit for Health?"*; *"Alternative Medications to Treat Adult Depression: Psychostimulants Fair Game?"*; *"The Alcoholic's Pill: Can we Moderate Alcoholism with Medication?"*

"Ted Talk" Presentation

You will present your empirical review during the last two weeks of the semester. You will have 15 minutes for the presentation. This is not a PowerPoint presentation. This is an engaging 15-minute narrative of your research topic that may be accompanied by PowerPoint (8 slides). See the presentation sign up sheet at the back of this syllabus. The date you choose will be the due date for both your presentation and your paper. Please consult with your other course syllabi to establish first and second choice dates, to be decided in collaboration with the rest of the class the second week of the semester.

Scholarship Points

Your education does not start and stop in the classroom. Therefore, you are expected to participate in one hour (2 points total) of intellectual investigation outside of the class (1 point/half hour). These are referred to as "scholarly activity points." Examples of scholarly activity points include: research participation; outside lecture or speaking events related to the course; lecture panels, or professional workshops. Failure to complete the two-points worth of scholarly activity outside of class will result in an incomplete (I) for the course. If points are not made-up within the year, you will receive a letter grade demotion on your transcript. Please use the Scholarly Activity Tracking Sheet on page 6 of this syllabus and submit it for credit the last day of the semester.

Scholarship Point Lecture Opportunities

Alcohol and the Brain, Dr. Kathleen Grant

Monday, Feb. 22nd, 7:00 pm, Newmark Theater, \$17.00 for Students. OHSU Brain Lecture ticket [LINK](#)

Marijuana and the Brain, Dr. Nephi Stella

Monday, March 7th, 7:00 pm, Newmark Theater, \$17.00 for Students. OHSU Brain Lecture ticket [LINK](#)

Grading Rubric

Assessment Material	Points	Earned	Rubric
3 Exams (75 pts ea) + Pre/Post Exams	225		A/- = 400 - 358
6 Exercises (10 pts ea), no make-ups, attendance required	60		B +/- = 357 - 318
Empirical Review	75		C +/- = 317 - 278
“TedTalk” Presentation	40		D +/- = 277 - 238
2 Scholarship Activities (1 hr), Complete/Incomplete	C/I		F = 237 - 0
TOTAL POINTS		400	

University Policies

Classroom Behavior – Rule 1: Be Nice

From the Pacific University Faculty Handbook (Section 4.1.3)

Students should be free to take reasoned exception to the data or views offered in any course of study and to reserve judgment about matters of opinion, but they are responsible for learning the content of any course of study for which they enroll. Students should have protection through orderly procedures against prejudiced or capricious academic evaluation. At the same time, students are responsible for maintaining standards of academic performance established for each course in which they enroll. Students must also recognize that, as members of a community of learners, they have an obligation to be responsible members of that community, and that the exercise of their freedom of expression does not impinge upon the rights of others in their quest for learning.

Accommodated Learners

If you have documented challenges that will impede your learning in any way, please contact EDNA GEHRING the Director of LSS at ext.2107 or gehringe@pacificu.edu The Director will meet with students, review the documentation of their disabilities, and discuss the services that Pacific offers and any ADA accommodations for specific courses.

Tutoring and Learning Center (TLC)

If you need more writing assistance in addition to the help provided by your professor and the teaching assistants, please take advantage of the TLC in Scott Hall 127. The center focuses on delivering one-on-one and group tutoring services for math and science courses and writing skills in all subjects.

FLEXIBLE *REVISED* COURSE CALENDAR (rev. 3/31/16)

WEEK	LECTURE	READING	OF RELEVANCE
WEEK 1 Feb. 2 & 4	Syllabus, Pre-test, Principles of Psychopharmacology	Text: Ch. 1	
WEEK 2 Feb. 9 & 11	Psychopharmacology and the NS No Class on Feb. 11th	Text: Ch. 2; Brody, Ch. 1 – 2	
WEEK 3 Feb. 16 & 18	Neurotransmitters and Hormones Research in Psychopharmacology	Text: Ch. 3 – 4; Brody, Ch. 3 – 4	Due: Paper Idea (Provide 3)
WEEK 4 Feb. 23 & 25	Catecholamines (Monoamines): DA Catecholamines: DA/5-HT	Text: Catecholamines; Brody, Ch. 5–6	
WEEK 5 Mar. 1 & 3	Catecholamines (Indolamines): 5-HT 📍*Thurs., EXAM 1 (Ch. 1–6)📍	Text: 5-HT Brody, Ch. 7–9	
WEEK 6 Mar. 8 & 10	Acetylcholine	Text: Ch. ACh; Brody, Ch. 10–12	Due: Annotated Bibliography
WEEK 7 Mar. 15 & 17	Glutamate and GABA	Text: Glu/GABA; Brody, Ch. 13–15	Draft I should be completed.
WEEK 8	March 19 – 27: Spring Break No Classes		
WEEK 9 Mar. 29 & 31	GABA/FDA FDA/Brody	Brody: Ch. 16 – 18	
WEEK 11 April 5 & 7	📍*Tues., EXAM 2 (5-HT, ACh, Glu/GABA, FDA)📍 Alcohol/Opiates /Cannabinoids	Text: ETOH and Stimulants Brody, Ch. 16 – 18	
WEEK 12 April 12 & 14	Affective Dx Antidepressants	Text: Anxiety D/O	Draft II should be completed
WEEK 13 April 19 & 21	Stimulants Anxiety and Anxiolytics		
WEEK 14 April 26 & 28	“Ted Talks” Psychosis and Antipsychotics	Text: Schizophrenia FYI – WPA is April 28th	Both final draft + presentation should be completed
WEEK 15 May 3 & 5	“Ted Talks” “Ted Talks”	Text: 19	Due: Paper and PowerPoint on the presentation date
WEEK 16	📍*Tues. May 10, EXAM 3📍 (Lecture/Text materials + Presentation Notes)	May 11: Reading Day	
WEEK 17	📍*Sat., May 14, FINAL – Cumulative📍	Carnegie 306 3 – 5:30 pm	

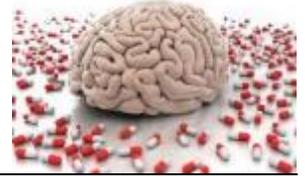
Psychopharmacology Presentation Schedule

ASSIGNED DATE	PRESENTER	TENTATIVE TOPIC
April 26th		
1:00 – 1:15		
1:20 – 1:35		
1:40 – 1:55		
2:00 – 2:15		
2:20 – 2:35		
May 3rd		
1:00 – 1:15		
1:20 – 1:35		
1:40 – 1:55		
2:00 – 2:15		
2:20 – 2:35		
May 5th		
1:00 – 1:15		
1:20 – 1:35		
1:40 – 1:55		
2:00 – 2:15		
2:20 – 2:35		

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COURSE CONTACT OF UNDERSTANDING

I, _____ (PRINT YOUR NAME) hereby acknowledge that I have received a copy of the Introduction to Psychopharmacology course (PSY 420) syllabus for spring 2016. I have read the syllabus and I understand the policies, requirements and expectations of the course. I recognize that it is my responsibility to seek clarification regarding any aspect of the syllabus, if the course requirements, assignments, attendance, or grading policies if they are unclear to me.

SIGN YOUR NAME

DATE

PRINT YOUR NAME

Meaningful Information for the Course

What's your major? _____

Minor? _____

What is your end game plan (i.e., what career goals do you hope to achieve when you complete college)?

What area(s) of biopsychology/neuroscience do you find most interesting?

Why?

What do you expect from this course?

What are your concerns regarding this course?

How can I help you overcome these?

Have you recently experienced an injury?

Is yes, does the injury affect your attention, learning, comfort? If so, how?

What topics involving drugs, the brain, and social policy (relevant to psychopharmacology) are of interest to you?

What grade do you expect to earn from this course? A/A- B+/B/B- C+/C/C-

What is your behavioral plan to achieve this grade (if you don't have one, please consider visiting with me during office hours)?