

Clinical Psychobiology 621
CRN 17039
Tuesdays 9am-11:50am
Straub 299

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I. Course Overview

This course consists of two components. First, there will be a survey course on psychopharmacology, covering the neuroscientific basis and clinical application of pharmacological treatments for mental disorders. This will involve a lecture series presented by the instructor that will typically be delivered during the first half of class. The second component of the course will be a seminar series on the current status and application of major methods for studying biological processes associated with mental disorders. These topics will be presented by pairs of students, who will be responsible for providing the class with background material, making a presentation, and leading the discussion both during class and after class on the discussion board. The class presentation component will typically be presented during the second half of the class time each week.

A. Course Objectives:

The objectives of the course are that students will understand (1) the neuroscientific basis and clinical application of the major classes of psychiatric medications, and (2) the current status, strengths, and limitations of major methodological approaches to studying biological processes associated with mental disorders.

B. Learning Outcomes and Methods of Assessment:

- Understand evolutionary approaches to mental disorder
- Understand chemical neurotransmission and targets of CNS drug action
- Understand the mechanisms of action and clinical application of the major classes of psychiatric medication
- Be able to summarize the current status, and strengths and limitations, of a range of approaches to understanding the biological processes associated with mental disorders
- Develop expertise reading and critiquing original research articles utilizing biological methods

C. Course Text and Readings:

Stahl, S.M. (2013). *Stahl's essential psychopharmacology: Neuroscientific basis and practical applications*. 4th Edition. Cambridge University Press.

This book is available in various electronic and hardcopy formats.

Other readings relevant to specific weeks will be uploaded to Canvas.

II. Classroom policies

A. Attending classes - I do not take attendance, which means that your choosing to come to class is up to you. I can guarantee you will get more out of this course if you attend all classes. I will post the lectures after class. However, the posted lectures and other materials will not provide an equivalent learning experience to attending class.

B. Classroom etiquette - Please turn off your cell phones before class. If you use a laptop to take notes, please do not browse the web or use social media as it is distracting to those around you and makes you less mentally present. It is also extremely annoying for instructors, because I don't want to be calling people out for doing non-class related things on your devices during class. I would also prefer you didn't eat during class. There will be a break between the two sections of the class where you can eat or drink if you would like to.

C. Academic misconduct - Please familiarize yourself with the University of Oregon's classroom misconduct code, found at <http://conduct.uoregon.edu>. I will follow all procedures to handle misconduct as outlined by the University. This means that instances of suspected cheating or plagiarizing will be reported to the University. In addition, you will receive a zero on any assessment in which you cheat or plagiarize and may fail the course.

D. Students with special needs - If you have a documented disability and/or anticipate needing accommodations in this course, please plan to meet with me soon. Please request that the Counselor for Students with Disabilities send me a letter verifying your disability if appropriate.

III. Grading. Your grade will be derived from presentations, participation, and a cumulative exam. The total class points are out of 100. Therefore, class points and percentages are the same in this course.

- A. **Class presentation is 40% of your total grade.** Students will be assigned in pairs (and possible trios) to make a presentation in one of the classes during weeks 2-9. For the presentation students are asked to:
- Present an overview of the method
 - Discuss its current status in terms of major findings, and strengths and limitations.
 - Present 1 or 2 recent empirical papers that exemplify these issues.
 - Provide other class members with a brief handout summarizing these issues.

- e. Moderate an online discussion of these issues on Canvas during the week following the presentation.

B. Participation is 20% of your total grade. As noted above, after each class presentation there will be opportunities for class discussion, and the leaders will also host an online discussion of the issues raised in their presentation. It is expected that students will participate in these discussions, and the extent of the student's engagement with that discussion will be graded by the instructor. I wish to emphasize that students will be graded on *intellectual engagement*, not on being correct in everything they post, nor on their volume of posts or comments *per se*. For example, raising questions and sharing issues that one is unclear about will be very positively viewed in this context as evidence of engagement with the learning goals.

C. The final exam is worth 40% of your total grade. The format for the final exam is multiple-choice. There will be 50 questions on the cumulative exam that will only cover the psychopharmacology component of the course.

	Inferior			Satisfactory			Good			Excellent		
F	D-	D	D+	C-	C	C+	B-	B	B+	A-	A	A+
<59.5	59.5-	62.5-	66.5-	69.5-	72.5-	76.5-	79.5-	82.5-	86.5-	89.5-	92.5-	95+

Date	Topic/Reading	Presentation Topic
1. Sept 25	Thinking biological and mental disorder	Housekeeping/scheduling
2. Oct 2	Chemical Neurotransmission and Targets of Drug Action: 1	Structural Neuroimaging
3. Oct 9	Chemical Neurotransmission and Targets of Drug Action: 2	Functional Neuroimaging
4. Oct 16	Psychosis and Schizophrenia, Antipsychotics	Neurostimulation
5. Oct 23	Mood Disorders and Antidepressants	Immune system
6. Oct 30	Mood Stabilizers	Endocrine System
7. Nov 6	Anxiety Disorders and Anxiolytics	Genetics (population, behavioral, molecular)
8. Nov 13	ADHD and its Treatment	Epigenetics

9. Nov 20	Substance Abuse	Non-human models of mental disorders
10. Nov 27	Final exam	