

Brigham Young University

Psychology 687R – Psychopharmacology

Fall 2017
TH: 1:00 to 3:50
TLRB 227

Instructor: Dawson Hedges
Office: 1082 SWKT
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Hours: TH 12:00 to 1:00

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Student Learning Outcomes

Each program at BYU has developed a set of expected student learning outcomes. These will help you understand the objectives of the curriculum in the program, including this class. To learn the expected student outcomes for the programs in this department and college go to <<http://learningoutcomes.byu.edu>> and click on the College of Family, Home and Social Sciences and then this department. We welcome feedback on the expected student learning outcomes. You can send comments or suggestions to <FHSS@byu.edu>.

Course Objectives

1. Objective
Demonstrate a broad knowledge of the basic theoretical perspectives that guide psychopharmacological development.
Assessment
mid-term examinations, comprehensive final examination, in-class presentation.
2. Objective
Apply psychopharmacological principles to therapeutic and clinical situations.
Assessment
mid- term examinations, comprehensive final examination, in-class presentation.
3. Objective
Understand the basic and clinical psychopharmacological principles including drug metabolism, drug action, adverse effects, and clinical use.
Assessment
mid-term examinations, comprehensive final examination, and in-class presentation.

Texts

Stahl, SM (2013). Stahl's Essential Psychopharmacology: Neuroscientific Basis and Practical Applications, 4th edition. New York, NY: Cambridge University Press, Required.

Ansari A, Osse DN (2015). Psychopharmacology: A Concise Overview for Students and Clinicians, 2nd edition. North Charleston, South Carolina: CreateSpace Independent Publishing Platform, Optional.

Course Requirements

Psychology 687R covers neurotransmission, including neurotransmitters, receptors, and their associated enzymes, the pathophysiological theories of mental disorders, and the drugs and their mechanisms of action and adverse effects that are used to treat addiction, attention disorders, chronic pain, compulsive disorders, dementia, mood disorders, psychosis, and sleep disorders.

Readings: While the class discussions are as comprehensive as possible and will be the primary source of material for the examinations, it is highly recommended that students read the relevant chapters from the textbooks to supplement the lectures. Several examination questions will come from the textbook chapters.

Examinations: There will be two midterm examinations and one comprehensive final, each containing 50 multiple-choice or true-false questions. Each examination is worth up to 50 points. Examinations will be based primarily on the class discussions; however, questions will also come from the chapters corresponding to the class discussions and from student presentations. The first examination will be given October 12th, the second November 16th, and the final December 18th (11:00 to 2:00, TLRB 227). All examinations will take place in class during normal class hours except for the final, which will be given during finals week.

Literature Review: Each week, one or two journal articles based on class topics will be assigned. Students will be evaluated on their answers to questions about the purpose of the research, methods, results, interpretation of the findings, study limitations, tables, and graphs. This assignment is worth up to 50 points. For this assignment, the names of students will be randomly drawn and those students will present their answer to the questions. Students will earn points as follows:

- **5 points** – Answers the question thoroughly, demonstrates full preparation, and responds to student questions appropriately.

- **4 points** – Answers the question well but with an incomplete grasp of some crucial details.
- **3 points** – Partially answers the question but misses important aspects of the paper.
- **2 points** – participates but does not demonstrate a good understanding of the paper and techniques.
- **1 point** – participates but shows little understanding of the paper.
- **0 points** – declines to participate, is not present, or has not read the paper.

Even if your name has already been drawn, it may still be drawn again. At the end of the semester, students will have the opportunity to volunteer to present on one of the assigned questions, thus providing them the opportunity to earn more points. Each student will then be given a percentage of the points they earned out of the total points possible (i.e., if you are called on three times the total points possible is 15). That percentage will then be taken from 50 points and added to the total semester grade. If a student is called on twice and earns ten points each time, she or he will have earned 100% of the points for discussions (50 points). If a student earns eight out of ten points, or 80%, he or she will receive 40 points.

September 14 th	Enomoto T, et al., Reducing prefrontal gamma-amino butyric acid activity induces cognitive, behavioral, and dopaminergic abnormalities that resemble schizophrenia. <i>Biological Psychiatry</i> 2011, 69: 432-441.
September 21 st	Meltzer HY, et al. Lurasidone in the treatment of schizophrenia: a randomized, double-blind, placebo- and olanzapine-controlled study. <i>American Journal of Psychiatry</i> , 2011, 168: 957-967.
September 28 th	Bogdan et al., Mineralocorticoid receptor Iso/Val (rs5522) genotype moderates the association between previous childhood emotional neglect and amygdala reactivity. <i>American Journal of Psychiatry</i> , 2012, 169: 515-522.
October 5 th	Ibrahim L., et al. Course of improvement in depressive symptoms to a single intravenous infusion of ketamine vs add-on Riluzole: results from a 4-week, double-blind, placebo-controlled study. <i>Neuropsychopharmacology</i> , 2012, 37: 1526-1533.
October 12 th	Examination 1
October 19 th	BALANCE Investigators and Collaborators et al., Lithium plus valproate combination therapy versus monotherapy for relapse prevention in bipolar I disorder (Balance): a randomized open-label trial. <i>Lancet</i> , 2010, 375: 385-395.

October 26th	Otto et al., Efficacy of D-cycloserine for enhancing response to cognitive-behavior therapy for panic disorder. <i>Biological Psychiatry</i> , 2010, 67: 365-370.
November 2nd	Nickel et al., Mechanisms of neuropathic pain. <i>European Neuropsychopharmacology</i> , 2012, 22: 81-91.
November 9th	Cao and Guilleminault, Hypocretin and its emerging role as a target for treatment of sleep disorders. <i>Current Neurology and Neuroscience Reports</i> , 2011, 11:227-234.
November 16 th	Examination 2
November 23 rd	Thanksgiving.
November 30 th	Fusar-Poli et al., Striatal dopamine transporter alterations in ADHD: pathophysiology or adaptation to psychostimulants? A meta-analysis. <i>American Journal of Psychiatry</i> 2012, 169: 264-272.
December 7th	Broadstock M., et al., Latest treatment options for Alzheimer's disease, Parkinson's disease dementia and dementia with Lewy bodies, <i>Expert Opinion, Pharmacotherapy</i> , 2014, 15:1797-1810.
December 14 th	Reid et al., Substance abuse disorders, <i>Handbook of Clinical Neurology</i> , 2012, 106.

Class Presentation: Instead of a formal research paper, a presentation to the class is required. These presentations will take place throughout the semester and may be done on any subject in psychopharmacology. Presentations on controversial areas in psychopharmacology are encouraged but not necessary – for example, the efficacy of antidepressants, use of stimulants in children, the use of psychotropic drugs during pregnancy, the efficacy of antipsychotics, the influence of the pharmaceutical industry on physician prescribing, the theoretical foundations of psychopharmacology, prescription rights for psychologists, etc. The presentation should be based on a thorough literature review and take approximately 15 to 20 minutes to deliver, with a question-and answer session at the end. Students should submit two multiple-choice or true/false questions via email within two days from their presentation for potential inclusion into the next examination. The use of PowerPoint for the presentations is welcome but not required. The presentations are worth up to 50 points and are graded according to the following rubric:

Points	10-8	7-4	3-0
Quality and Use of References, Thoroughness of Research	Refereed journal articles and scholarly books.	Some use of referred journal articles and scholarly books but with frequent use of internet sources and popular magazines.	Limited journal articles, predominantly popular magazines and internet sources.
Content	Topic is fully explored, all sides of the issues are addressed.	Biased presentation, important aspects only partially covered.	Superficial coverage of the topic, only some aspects are presented.
Organization	Clear thesis, presented data clearly relevant to thesis.	Most but not all data related to thesis.	Presented data often of little relevance to thesis.
Strength of Conclusion	Strong conclusion, well supported by data, difficulties, and implications acknowledged.	Conclusion sound but may overstep the data. Not all implications acknowledged.	The conclusion is weak and does not follow from the data. Important implications not discussed.
Critical Thinking	Presenter discusses the relevant issues, biases, assumptions, methodological problems, states the problem.	Incomplete discussion of assumptions, methodological issues, and biases. The problem is incompletely articulated.	Problem not clearly defined, biases and assumptions unacknowledged.

Final Grade

Grades will be given according to a percentage of the total possible points (250) obtained during the entire semester based on the following percentage grading scale:

A 93-100 B 83-86.9 C 73-76.9 D 63-66.9
A- 90-92.9 B- 80-82.9 C- 70-72.9 D- 60-62.9
B+ 87-89.9 C+ 77-79.9 D+ 67-69.9 E <60

There is no curve, and scores will not be rounded up. That is, a percentage of 92.999 is an A-, not an A.

Cell Phones and Laptop Computers

To avoid unnecessary distraction, please turn off your cell phones while in class. Laptop computers are welcome as long as you are taking notes and not distracting others (surfing the web, answering email, playing games etc.).

Inappropriate Use of Course Materials

All course materials (e.g., outlines, handouts, syllabi, exams, quizzes, PowerPoint presentations, lectures, audio and video recordings, etc.) are proprietary. Students are prohibited from posting or selling any such course materials without the express written permission of the professor teaching this course. To do so is a violation of the Brigham Young University Honor Code.

Similarly, because of copyright issues, please do not photograph any of the lecture slides.

Class Schedule

	<u>Essential Psychopharmacology</u>	<u>Psychopharmacology</u>
September 7th	Chapters 1 and 2	Introduction
September 14 th	Chapters 3 and 4	Antipsychotics
September 21st	Chapter 5	Antipsychotics
September 28 th	Chapter 6	Antidepressants
October 5th	Chapter 7, exam review	Antidepressants
October 12 th	Examination 1	
October 19th	Chapter 8	Mood Stabilizers
October 26th	Chapter 9	Anxiolytics
November 2nd	Chapter 10	
November 9 th	Chapter 11, exam review	
November 16 th	Examination 2	
November 23 rd	Thanksgiving	
November 30 th	Chapter 12	Stimulants and Other ADHD Medicines
December 7th	Chapter 13	
December 14 th	Chapter 14, exam review, last day of class	Substance Use
December 18th	Final Examination (11:00 to 2:00, 227 TLRB)	

Plagiarism

It is an act of plagiarism to "borrow" ideas or quotes from former students' presentations. Plagiarism also includes quoting or paraphrasing passages from any of your references without giving proper credit to the real authors (i.e., an APA-style citation), because

doing so implies that this information came from you. Presenting the ideas of others as one's own is called plagiarism. Plagiarism, as defined by the BYU Honor Code, is a form of intellectual theft. It is an act of fraud; it is dishonest, deceitful, unethical, and can lead to serious and lasting negative consequences for your academic and professional career.

Academic Honesty

BYU students should seek to be totally honest in their dealings with others. They should complete their own work and be evaluated based upon that work. They should avoid academic dishonesty and misconduct in all its forms, including plagiarism, fabrication or falsification, cheating, and other academic misconduct. Students are responsible not only to adhere to the Honor Code requirement to be honest but also to assist other students in fulfilling their commitment to be honest. (complete version of the Academic Honesty Policy available at honorcode.byu.edu)

Title IX of the Education Amendments of 1972 prohibits sex discrimination against any participant in an educational program or activity that receives federal funds. The act is intended to eliminate sex discrimination in education. Title IX covers discrimination in programs, admissions, activities, and student-to-student sexual harassment. BYU's policy against sexual harassment extends not only to employees of the university but to students as well. If you encounter unlawful sexual harassment or gender based discrimination, please talk to your professor; contact the Equal Opportunity Office at 801-422-5895 or 801-422-5689 (24-hours); or contact the Honor Code Office at 801-422-2847.

Brigham Young University is committed to providing a working and learning atmosphere that reasonably accommodates qualified persons with disabilities. If you have any disability that may impair your ability to complete this course successfully, please contact the University Accessibility Center located in 2170 WSC (801-422-2767). Reasonable academic accommodations are reviewed for all students who have qualified documented disabilities. Services are coordinated with the student and instructor by the SSD office. If you need assistance or if you feel you have been unlawfully discriminated against on the basis of disability, you may seek resolution through established grievance policy and procedures. You should contact the Equal Opportunity Office at 301-422-5895, D-282 ASB.

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expected student learning outcomes. Any comments or suggestions you have can be sent to <FHSS@byu.edu>.

Honor Code Standards

In keeping with the principles of the BYU Honor Code, students are expected to be honest in all of their academic work. Academic honesty means, most fundamentally, that any work you present as your own must in fact **be** your own work and not that of another. Violations of this principle may result in a failing grade in the course and additional disciplinary action by the university.

Students are also expected to adhere to the Dress and Grooming Standards. Adherence demonstrates respect for yourself and others and ensures an effective learning and working environment. It is the university's expectation, and my own expectation in class, that each student will abide by all Honor Code standards. Please call the Honor Code Office at 422-2847 if you have questions about those standards.

Preventing & Responding to Sexual Misconduct

In accordance with Title IX of the Education Amendments of 1972, Brigham Young University prohibits unlawful sex discrimination against any participant in its education programs or activities. The university also prohibits sexual harassment—including sexual violence—committed by or against students, university employees, and visitors to campus. As outlined in university policy, sexual harassment, dating violence, domestic violence, sexual assault, and stalking are considered forms of "Sexual Misconduct" prohibited by the university.

University policy requires all university employees in a teaching, managerial, or supervisory role to report all incidents of Sexual Misconduct that come to their attention in any way, including but not limited to face-to-face conversations, a written class assignment or paper, class discussion, email, text, or social media post. Incidents of Sexual Misconduct should be reported to the Title IX Coordinator at t9coordinator@byu.edu or (801) 422-8692. Reports may also be submitted through EthicsPoint at <https://titleix.byu.edu/report> or 1-888-238-1062 (24-hours a day).

BYU offers confidential resources for those affected by Sexual Misconduct, including the university's Victim Advocate, as well as a number of non-confidential resources and services that may be helpful. Additional information about Title IX, the university's Sexual Misconduct Policy, reporting requirements, and resources can be found at <http://titleix.byu.edu> or by contacting the university's Title IX Coordinator.

Students with Disabilities

If you have a disability that may affect your performance in this course, you should get in touch with the University Accessibility Center (2170 WSC) 801-422-2767. This office can evaluate your disability and assist the professor in arranging for reasonable accommodations.

Student Academic Grievance Policy

Despite the well meaning efforts of students and faculty, there may be occasions when a student feels his/her work as been unfairly or inadequately evaluated. Usually such differences can be amicably resolved on a personal basis between the student and faculty member involved. The following procedures will assist students and faculty in the resolution of such grievances. They are designed to encourage satisfactory resolution of academic grievances with a minimum of formal procedure.

The grievance must be initiated by the student no later than one year from the last day of the examination period of the semester in which the alleged unfair or inadequate evaluation occurred.

The student should initially address the grievance to the faculty member involved for resolution. If, for any reason, the faculty member is unavailable or the student believes the matter will not be fairly dealt with or will create the possibility of retribution, the student may direct the grievance to the department chair of the faculty member. If there is no department chair, the grievance shall be directed to an associate dean or other person designated by the dean of the college to hear such matters (any such person is hereinafter referred to as the Department Chair). The faculty member or Department Chair shall have the right to consult others regarding the matter.