

Directed Readings in Behavioral Neuroscience and Psychopharmacology- Fall 2020

Problems in Psychology (PSY 780-002)

Wednesday 1-3:30, **Whitehall Classroom Building Rm 247**

Instructors:

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*** direct general questions to Dr. Barron

Course Objectives: This is a team-taught course that uses an English “tutorial” style approach to give all entry students in the BNP area a solid background in the areas of neuropharmacology, neuroanatomy and neurophysiology. Your reading assignments are outlined on this syllabus and you should come to class prepared to answer questions related to the readings. You can also use class time to clear up confusion regarding information in the readings. The course will be “team-taught” primarily by Dr. Mark Prendergast, Dr. Mike Bardo and Dr. Susan Barron, with a guest presenter (Dr. John Littleton, MD, PhD) toward the end of the semester. If you have any general questions, please reach out to Dr. Barron since she is the instructor of record for this semester. If you have specific questions about a discussion or topic, please reach out to the faculty member who covered that lecture.

STUDENT LEARNING OUTCOMES:

By the end of the course, you should be able to...

- describe the role of cellular subcomponents in drug action
- describe the primary anatomical components of the nervous system
- understand the biochemical actions of metabotropic and ionotropic receptors
- understand the synthesis of neurotransmitters and their receptor actions
- integrate the above to describe the role of the nervous system in development of drug

and alcohol addiction.

Course Grading: Your grade will be dependent on your performance on 3 written exams (100 points each) at the end of each of the sections, an end of the year presentation during finals week (100 points), class participation (50 points) and evaluation of other student presentations (50 points).

Exams:

Each exam will be a mixture of short answer, essay, and multiple choice questions and will be limited to the information presented/or discussed during that portion of the course. Thus, the exam for that section of the course will be written and graded by whichever faculty member covered that section.

If an emergency arises and you must miss class on an exam day, please let us know prior to class if possible. Make-up exams should be scheduled as soon as possible. Each exam will cover the book chapters listed below and related lecture/discussion notes. Exams may be taken on your portable computer and then emailed to me before leaving the classroom.

End of semester presentations:

The end of the semester presentations will be approximately 15 min (plus 5 min for questions) and will occur during finals week.

The topic should stem from your interest in something from one of the weeks topics and applied to a clinical condition being able to discuss it in terms of CNS regions, neurotransmitters, biochemistry, etc – it will vary, of course, based on the disease/topic that you choose. We ask you to think about this and send an email to us regarding your choice of topic before doing much work on it. The deadline for sending us your topic choice is on the syllabus. This presentation will be in front of the class and should be an interesting yet concise description of your topic and what you found. A rubric for grading the oral presentation can be found at the end of the syllabus. Students will also evaluate each other's presentations as an opportunity for constructive comments and criticism and these will be emailed to me- I will remove all identifying information and provide this feedback to each of you. The template for this individual feedback and the rubric that faculty will use for grading is at the end of the syllabus.

Final grades will be assigned on a curve based upon class performance although 90% or greater will be guaranteed an "A", 80% -89 a "B", 70%-79% a "C".

Textbook: *Introduction to Neuropsychopharmacology*. Iversen, Iversen, Bloom and Roth. Oxford, 2009. We realize this is an older textbook but have decided as a group that it still is one of the best for providing a good foundation. You should be able to get this book for a very small cost.

Unique for this semester:

These are unprecedented times (to say the least) and one of my words for 2020 is flexibility. With this said – if there are changes in terms of how class meets either decided by individual faculty (needing to go online), or the University at large or if you are not comfortable in a classroom, we will communicate this info. If you have concerns, or situations arise personally

that you think we should know about, please email me (Barron). If you (or any faculty) feel uncomfortable with in class lectures, it is possible that the class could move to zoom. **Please do not come to class if you are uncomfortable with being in class and definitely do not come to class if you do not feel well.**

We do really care and want you to know that we all will try and be as flexible as we can be with these uncertain times.

The University has specific guidelines for us to include in the syllabus. Several of these are listed here. **All students should complete their daily online wellness screening before accessing University facilities and before arriving to class. If you do not feel well, please do not come to class.**

If you are uncomfortable about being in class or on campus, all in person classes will be recorded and available via Echo 360 and these will be available via Canvas. There are strict guidelines regarding these recordings (see below) to ensure privacy for all.

If you would like to meet with one or more of us about questions on the material or such, it has been recommended that we do office hours as zoom meetings and you can just email the professor you would like to meet with and we can set up a time.

In the classroom:

In accordance with University guidelines, **students must wear UK-approved face coverings in the classroom and academic buildings (e.g., faculty offices, laboratories, libraries, performance/design studios, and common study areas where students might congregate).** If UK-approved face coverings are not worn over the nose and mouth, students will be asked to leave the classroom.

Students should not move chairs or barriers in classrooms and should socially distance at all times, leaving a six (6) foot radius from other people. Masks and hand sanitizer can be found inside Whitehall Building if needed.

Please don't crowd doorways at the beginning or end of class. We (the instructors) may choose to remove a mask when pedagogically necessary at the front of the classroom and behind a clear barrier. The instructor's mask will be replaced when it is no longer necessary to have it removed, or when the class meeting is complete.

Privacy issues and recorded lectures/discussions:

The University has strict guidelines regarding privacy protection for all. All video and audio recordings of lecturers and class meetings, provided by the instructors, are for educational use by students in this class only. They are available only through the Canvas shell for this course and are not to be copied, shared, or redistributed.

As addressed in the Student Code of Conduct, students are expected to follow appropriate University policies and maintain the security of linkblue accounts used to access recorded class materials. Recordings may not be reproduced, shared with those not enrolled in the class, or

uploaded to other online environments.

If the instructor or a University of Kentucky office plans any other uses for the recordings, beyond this class, students identifiable in the recordings will be notified to request consent prior to such use. In anticipation of such cases, students may be asked to complete an "authorization of use" form by a faculty member.

Video and audio recordings by students are not permitted during the class unless the student has received prior permission from the instructor. Any sharing, distribution, and or uploading of these recordings outside of the parameters of the class is prohibited. Students with specific recording accommodations approved by the Disability Resource Center should present their official documentation to the instructor.

All content for this course, including handouts, assignments, and lectures are the intellectual property of the instructors and cannot be reproduced or sold without prior permission from the instructors. A student may use the material for reasonable educational and professional purposes extending beyond this class, such as studying for a comprehensive or qualifying examination in a degree program, preparing for a professional or certification examination, or to assist in fulfilling responsibilities at a job or internship.

Academic Honesty:

Cheating and plagiarism are not tolerated. Anyone caught cheating will receive a zero for 50% of their grade which will most likely mean failing the course) and necessary action will be taken. If you need further clarification of what cheating or plagiarism are - please read the descriptions in the Student Rights and Responsibilities or the University of Kentucky Student Bulletin.

Students with Disabilities:

If you have a documented disability that requires academic accommodations, please see me as soon as possible. In order to receive accommodations in this course, you must provide me with a Letter of Accommodation from the Disability Resource Center (725 Rose Street, Multidisciplinary Science Building; 257-2754; Director: David Beach; email address: dtbeac1@uky.edu) for coordination of campus disability services available to students with disabilities.

Course Policy on Classroom Civility:

Our University is committed to the respect and dignity of all and to value differences among members of our academic community. We will follow this University guideline.

Title IV:

Federal regulation mandates that federal financial aid funds (Title IV) may only be disbursed to students who are actually enrolled and engaged in coursework. This regulation mandates that institutions provide evidence of engagement early in each semester. Failure to provide evidence

includes sizeable fees and fines for the university. To comply with this mandate, all instructors of undergraduate and graduate courses (including lab courses), independent studies, online courses, and research credit) will be required to confirm student attendance or engagement in classes during the two-week period following the last day to add a class. More information can be found on the Registrar's website. The page contains a link for FAQs as well.

Tentative Schedule

Date	Topic	Readings	Instructor
8-19			Cellular Foundations of Neuropsychopharmac ology Ch 2 Prendergast
8-26			Anatomical Foundations – overview Readings Barron
9/2			Receptors and Pharmacology Ch 4 Prendergast
9-9			EXAM 1
9/16	Amino Acids	Ch 5	Prendergast
9/23			Acetylcholine Ch 6 Bardo
9/30	Catecholamines	Ch 7	Bardo
10/7	Serotonin and Neuropeptides	Ch 8, 10	Bardo
10-14	EXAM 2		
<u>**Please email your top two choices for your presentation at the end of the semester</u>			
10/21	Psychotherapeutics	Ch 14, 15	Barron

10/28	Opiates, Hallucinogens and Cannabis	Ch 22-24	Barron
11/4	Alcohol and Nicotine	Ch 25, 26	Littleton
11/11	Addiction and Stimulants	Ch 20, 21	Bardo
11/18	Exam 3		

Final Presentations: Friday December 4, 1:00 – 3:30 (ish)

Rubric for faculty grading of oral presentations

Name of presenter:

Content (50 points) – 10 points each total:

- Did the content of the introduction provide a link from the current knowledge of the audience to the content of the presentation – Did it indicate the importance of the topic?
- Did the presentation cover the important concepts, the specific questions including the hypothesis - Did the authors have the background necessary to understand the research?
- Was the literature summarized in a useful way for the audience?
- How were questions from your classmates handled? Did answers reflect a knowledge/or understanding? If you did not know the answer- were you honest?

Organization (25 points) – 5 points each total:

- Was the purpose of the presentation and reason for choice of the area of study (or article) clearly stated?
- Did the Intro lay out a clear outline of the organization of the talk?
- Were the important points presented clearly?
- Were there clear conclusions to the presentation?
- Did the conclusion provide either a sense of closure or of necessary future directions?

Planning and Style (25 points) – 5 points each

- Did the presenter plan the amount of material covered to fit in the necessary time (don't worry – if discussion runs over – that is fine)?
- How effective was the use of the visual aids in helping communicate the info? Could they be seen by everyone in the room?
- Did the body language of the presenter (eye contact, use of gestures, posture) – facilitate or hinder communication?
- How was the pace, were words mispronounced? Did the presenter convey interest and excitement in the topic?
- Did the presenter maintain listener's interests? Were examples used to illustrate concepts? Were the examples useful?

Template for peer- evaluations of oral presentations

Your name: _____

Presenter: _____

1) Did the presenter seem knowledgeable on the material?

2) Was the material presented current and related to the topic?

3) Was the presenter able to handle questions easily?

4) Do you have suggestions for the presenter for future presentations?

5) Any other comments that you think might be relevant.