

PSYC 3346
Drugs of Abuse and Behavior – Summer II 2017
11:40am-1:50pm, M-F
Room: College of Business Admin Room 321

Professor: Katherine M. Serafine, Ph.D.
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Office: 216B Psychology Building
Office Hours: please email/call for an appointment

Required Text:

Meyer & Quenzer (2013). *Psychopharmacology (2nd ed.)*. Sunderland, MA: Sinauer Associates.
Additional supplemental reading will sometimes be provided (via blackboard) and will be accompanied by an email notification. *note that older versions of this text are not sufficient for this course as the material is outdated.

Course Description:

This course provides a basic understanding of how drugs produce their behavioral effects. Emphasis will be placed on drugs of abuse and the principles by which these substances modify and regulate behavior in the brain. The course begins with an introduction of pharmacological and neural principles that regulate neural transmission in the brain. We also cover current theories of drug addiction and how these theories apply to different abuse substances. **Prerequisite: Psych 1301 with a “C” or better.**

Learning Objectives:

The goal of the course is to provide an overview of the neuroscientific basis of drugs of abuse as well as drugs used for the treatment of clinical disorders. **This course is taught with a heavy focus on the biological underpinnings of behavior.** As such, special attention will be given to the pharmacodynamics principles of drugs. Economic, governmental, social and cultural perspectives will also be considered where appropriate. Students should leave the class with an understanding of how drugs impact the brain and behavior. Students will also be challenged to think critically about controversial topics regarding legalization and criminalization of drugs in the United States. Lastly, students will engage in a literature search, and write a final paper based on peer-reviewed sources supporting their stance on one of these controversial topics.

Accommodations and Support Services:

If you have a disability and need classroom accommodations, please contact The Center for Accommodations and Support Services (CASS) at 747-5148, by email to cass@utep.edu, or visit their office located in UTEP Union East, Room 106. For additional information, please visit the CASS website at www.sa.utep.edu/cass.

Blackboard:

Everything you need for this class can be found on Blackboard. Please check Blackboard for announcements at least once per week. Blackboard is also where you will find quizzes and other supplemental materials relevant to the course.

Attendance:

To do well in this course, you need to attend every class session and listen actively. Material presented in lecture during class will not be available at any other time. If you miss a class, you will need to make arrangements to get notes from another student; do not ask the instructor or TA for notes. Note that missing the final exam (in class debate) cannot be made up. Make arrangements to attend, or you will not earn the points associated with the debate. Normally points will not be deducted for tardiness, but any student who comes late to the debate will automatically lose 5 points toward the final debate.

Grades: up to 400 points total

Exams: 300 pts

- There will be 3 exams, each worth 100 points during the course of the semester (dates below).
- Combinations of multiple choice, short answer and/or essay, matching and labeling or fill in the blank questions will be included.
- The majority of the exam will be focused on lecture material, but 10-20% will be from the book (and most of the book questions will be *very similar* to the blackboard quizzes).
- There are typically also 1-2 extra credit questions on each exam. These are extra, and if you get them wrong you will not be penalized, but answering them correctly will get you full or partial extra credit points. They are typically more difficult than the rest of the exam questions.
- **Exams will only occur during class, and no additional time will be provided.** If you show up late on exam day, you only have until the end of class to complete the exam. If you need more time, please contact CASS for academic support accommodations prior to the first exam. Individuals requesting accommodation including taking their exam at CASS must complete the exam no later than the end of business the same day the rest of the class takes the exam.
- **No make-up exams will be administered under any other circumstances, no matter how compelling.**

Final Paper & Discussion: 100 pts (see breakdown below and on the final paper guidelines document which is on blackboard.) Late work will not be accepted under any circumstances.

1. **Paper topic (5pts).** You must submit your paper topic via blackboard assignments. Simply upload a word document with your name and copy and paste any of the topic choices listed on the final paper guidelines document. Due by 11:59pm on July 13th.
2. **References (5pts).** 2 peer-reviewed journal article references for your final paper must be uploaded (PDF, not just a link – you need to show me that you have been able to download and read it) via blackboard assignments no later than 11:59pm on July 16th. See the final paper guidelines document for details on what counts as an approved reference.
3. **Rough Draft (20pts).** A rough draft of your paper (format as described on the final paper guidelines document) must be turned in for credit. This is to encourage you to be proactive and to allow me to help you shape the paper so that you turn in your best possible effort. Rough draft is due no later than 11:59pm on July 21st via blackboard assignments. Drafts sent after 11:59pm will not be given credit (e.g., you will lose this 20pts) but I will still provide you with feedback. I will get feedback to you no later than 5pm on Friday July 28th. That will give you exactly 1 full weekend to revise and turn in the final draft by the deadline (see below). If you want more time to work on the final version, send me your rough draft early, and I will do my best to get it back to you within 5 business days.
4. **Final Paper (50 pts).** Due by 11:59pm on Sunday July 30th uploaded via blackboard assignments. Blackboard assignments does have a plagiarism checking feature (SafeAssign) and you will be able to see how much of your text is being flagged as potentially plagiarized. You can revise once you

upload, and please be sure to use proper quotation marks and citations where appropriate. Paper must adhere to the guidelines provided in the final paper guidelines document (see blackboard).

5. **Final Debate (20pts)**. During the final exam time (Friday August 3, 1-3:45pm) we will have an in class series of debates based on your final paper topics. **Attendance and participation are both required to earn full points**. No makeup is possible for these points, so if you miss the debate, you will earn 0/20 pts for this.

Extra Credit:

- **Quizzes (5pts)**
 - A total of 10-13 quizzes will be available on blackboard throughout the semester. These will consist of multiple choice and true false questions. *Quiz questions will come from the reading assignments NOT from the lecture*. They will only be available during the week corresponding to that reading assignment (so if you are supposed to read chapter 2 by the end of the first week, the chapter 2 quiz will expire on Friday of the first week of classes, etc). The quizzes will expire at 11:59pm each week on Fridays.
 - Quiz bonus points will be calculated as follows: (points earned divided by points possible) multiplied by 5.
 - The quiz total for each individual will be added to your total grade once the other 400 points have been completed (e.g., if you get all 400 and still earn 5 quiz points, your final grade will be 405/400).
- **HBO Video Assignment (5 pts)**
 - At some point during the semester I will show an HBO documentary in class, or give you the link to watch this documentary on your own time. You will be able to earn up to 5 points extra credit from questions that will show up on the exam that occurs chronologically after the video is shown or after the link is provided. These points will be added as extra credit to the exam on which the questions appear.
- **In Class Pop Quizzes (??)**
 - Occasionally I will have unannounced pop quizzes in class, and will give extra credit based on performance on these quizzes. These cannot be made up if you are absent. Typically, these points are added to the exam that occurs after points are earned. For example, if there is a pop quiz the day before Exam 1, typically the points get added to the Exam 1 grades. Sometimes quizzes occur after an exam too, and are a “second chance” to get points back on the exam that you might have missed.
- **University Writing Center (5pts)**
 - If you make an appointment with the University Writing Center to go over your paper before turning it in, I will give you 5 points extra credit on the final paper. I encourage you to do this, especially if you have not had to do a lot of writing in your other courses. Appointments made after the final paper due date (July 30th) will not receive credit.
 - You must obtain proof of your visit (they will give you a form, if you request it). You can schedule your appointment via this link. <http://uwc.utep.edu/> Online consultations will also be given credit, but please have them email you proof of your consultation so that you can forward it to me for credit.

Final Grade Calculation: Final grades will be calculated by adding the points from all assignments and exams, adding the extra credit, dividing by 400 and then multiplying that answer by 100 for a percentage. You can calculate your grade using the following equation:

$$\text{Final Grade} = ([\text{Exam 1} + \text{Exam 2} + \text{Exam 3} + \text{Paper topic} + \text{Paper references} + \text{Rough Draft} + \text{Final Paper} + \text{Final Debate}] + \text{extra credit}) / 400 \times 100.$$

This equation can be simplified as follows:

$$\text{Final Grade} = (\text{points earned} + \text{extra credit}/400) \times 100.$$

Please note that grades will not be “rounded up”. Therefore a 79.5% will be entered as a “C”. That might sound frustrating, and you might be thinking – seriously? Why can’t Dr. Serafine can’t just “give” us the 0.5 points to make that a “B”? The thing is, it isn’t 0.5 points. It is 0.5% of 400 points, which is really 2/400 points. 2 points is almost half the amount of points that can be earned by taking all the quizzes on blackboard, or by going to the University Writing Center for the final paper. Part of Dr. Serafine’s teaching philosophy is that grades are earned, they are not “given”. The point of the extra credit opportunities (outlined above) is a to make it easy for you to earn a better grade. As such, “rounding up” will not occur in this class. No exceptions will be made.

Grading scale:

A = 90.0-100.0%

B = 80.0-89.9%

C = 70.0-79.9%

D = 60-69.9%

F < 60.0%

If you have any questions or disputes regarding grades, you must raise these in writing within ten days of the grade being released. Grades will only be changed in cases of administrative error. Exams will not be handed back after grading, therefore, if you wish to see your exam after it has been graded, you must schedule an appointment to come to Dr. Serafine’s office. Note that there is already information about extra credit written above. Do not ask for additional extra credit opportunities beyond what is provided on the syllabus or in class to the entire group.

Academic Dishonesty:

Academic dishonesty is prohibited and is considered a violation of the UTEP Handbook of Operating Procedures. It includes, but is not limited to, cheating, plagiarism, and collusion. Cheating may involve copying from or providing information to another student or possessing unauthorized materials during a test. Plagiarism occurs when someone intentionally or knowingly represents the words or ideas of another person’s as one’s own. And, collusion involves collaborating with another person to commit any academically dishonest act. Any act of academic dishonesty attempted by a UTEP student is unacceptable and will not be tolerated. Violations will be taken seriously and will be referred to the Dean of Students Office for possible disciplinary action. Students may be suspended or expelled from UTEP for such actions. Students must not have access to any electronic device or notes during the exams. Cell phones, smart watches, etc must all be turned off or placed out of sight (not kept in your lap) during exams. Students may use the bathroom during exams only one at a time, and only if the exam and any electronic device owned by the student is turned in to the instructor prior to leaving the room. You can get your device back and your exam when you return.

Class Schedule

Lecture title bold, reading (to be completed prior to class time italicized)

- 07/11 **Course overview**
Intro to the brain and behavior
The neuron
The brain & nervous system
Chapter 2: Structure and Function of the Nervous System
- 07/12 **The neuron**
The brain & nervous system
Introduction to Pharmacology: Pharmacokinetics and Pharmacodynamics
Chapter 1: Principles of Pharmacology
Chapter 2: Structure and Function of the Nervous System
- 07/13 **Pharmacology (continued)**
The action potential
Neurochemistry: level of the synapse
Chapter 1: Principles of Pharmacology
Chapter 3: Chemical Signaling by Neurotransmitters and Hormones
Paper topic due via blackboard by 11:59pm
- 07/14 **Neurochemistry: level of the synapse (continued)**
Acetylcholine
Chapter 3: Chemical Signaling by Neurotransmitters and Hormones
Chapter 7: Acetylcholine
- 07/16 Sunday – paper references due via blackboard by 11:59pm*
- 07/17 **Major excitatory and inhibitory neurotransmitter systems**
Chapter 8: Glutamate and GABA
- 07/18 **Monoamines & Exam Review*** time permitting
Chapter 5: Catecholamines
Chapter 6: Serotonin
- 07/19 **Exam 1 Chapter 1-3, 5-8**
- 07/20 **Methods of research**
Addiction & the biology of reward
Chapter 4: Methods of Research in Psychopharmacology
Chapter 9: Drug Abuse & Addiction
- 07/21 **The stimulants: cocaine & amphetamine**
Chapter 12: Psychomotor stimulants: cocaine and the amphetamines
Paper rough draft due via blackboard by 11:59pm

- 07/24 **The narcotics: opioids and pain**
Chapter 11: The Opioids
- 07/25 **The legal drugs: alcohol**
Chapter 10: Alcohol
Chapter 13: Nicotine and Caffeine
- 07/26 **The legal drugs: nicotine and caffeine,
The cannabinoids and the hallucinogens & Exam review**
Chapter 13: Nicotine and Caffeine
Chapter 14: Marijuana and the Cannabinoids
Chapter 15: Hallucinogens, PCP, and Ketamine
- 07/27 **Exam 2 (chapter 9-15)**
- 07/28 **Introduction to pharmacotherapeutics
Schizophrenia**
Chapter 20: Schizophrenia: Antipsychotic Drugs
- 07/30 *Sunday - Final paper due via blackboard by 11:59pm*
- 07/31 **Affective disorders: depression and bipolar disorder**
Chapter 19: Affective Disorders: Antidepressants and Mood Stabilizers
- 08/01 **Anxiety disorders**
Chapter 18: Anxiety Disorders: Sedative-Hypnotic and Anxiolytic Drugs
- 08/02 **Sleep disorders and treatments & Exam review** *time permitting
- 08/03 **Exam 3 (Chapter 18-21)**
- 08/04 **FINAL EXAM** in class debate – paper topics. You cannot make this up if you miss it because it requires in class participation.
SPECIAL TIME: 1:00-3:45pm

****Please note: The syllabus is subject to change during the semester. Please make sure I have your best email contact information, to insure you always have the most up to date version of the syllabus. I will also always post the most recent version to blackboard.**

Classroom Courtesy

Please adhere to the following:

1. **Don't come late.** If you will be more than 10 minutes late to class, do not come that day. Late arrivals are disruptive. Please make sure your schedule doesn't prevent you from being on time to class.
2. **Don't leave early.** Plan to stay seated quietly for the entire class period—packing up early prevents others from hearing lecture and announcements. I generally end class at least 2-3 minutes before the official end time of the class, so you will have ample time to get where you are going. If your schedule prevents you from staying until the end of class, please change your schedule.
3. **No phones.** Do not use your cell phone or text messaging device during class— please turn these devices off.
4. **No surfing.** You are welcome to bring your laptop/iPad to take notes, but not for any other purpose. Using laptops to play movies or surf the web is extremely distracting to other students.
5. **No side conversations.** While I highly encourage students to ask questions during class, please refrain from side conversations not related to the larger class discussion. This is very disruptive—students frequently complain that they cannot hear the lecture/films because of other students' conversations.

If you engage in these activities, you are preventing your fellow students from learning. As such, you will be asked to leave the classroom. Don't let other students distract from your learning experience—if you see others engaging in these activities, please ask them to stop.