

PSYC 3346: Drugs of Abuse and Behavior – Spring 2020

10:30-11:50am, MW

Liberal Arts Room 108

Professor: Katherine Serafine, Ph.D.
E-mail: kmserafine2@utep.edu
Office: 216B Psychology Building
Office Hours: Tuesdays (Email for available times),
Virtual Office Hours: held before each exam for 1-2 hours. Dates/times TBD.

Text:

This course is adopting an OER/Affordable materials approach. The textbook is recommended, but not required. Most of what you need for this course will be available for free on blackboard, including review sheets, lecture slides, and videos from Dr. Serafine to help with major concepts and studying at home.

Meyer & Quenzer (2018). *Psychopharmacology (3rd ed.)*. Sunderland, MA: Sinauer Associates.

*note that the 2nd edition of this text is fine, but the 1st edition is not sufficient for this course as the material is outdated. **also note that some chapters are renumbered in the 3rd edition, so if you buy the 2nd edition, you will have to pay close attention to which topic is being discussed (not which chapter number). You do not need any electronic materials from the text book (e.g., no digital package would be necessary).

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 abused substances. **Prerequisite: PSYC 1301, 3201 and 3101 with a “C” or better. Starting Spring 2020, PSYC 2324 or BIOL 2340 “Introductory Neuroscience” with a “C” or better is also a prerequisite. Prerequisites must be completed prior to taking this class, and cannot be taken concurrently.** Note that if you have been at UTEP for more than a few semesters, your advisor might have “waived” the introductory neuroscience prerequisite.

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 pharmacodynamic 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 drug use 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. Please notify Dr. Serafine ASAP (and one week prior to each exam) if you require CASS support services, especially if you require exam support/accommodations.

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 online quizzes and other supplemental materials relevant to the course. Make sure you check your email regularly for updates via blackboard.

Attendance:

To do well in this course, you are encouraged to attend every class session, listen actively, take notes and ask questions. However, lecture slides (as an adobe PDF) will be made available on blackboard. There is no formal attendance policy; however, often there will be in class extra credit opportunities for those who are in attendance (see below). Note that in class pop quizzes cannot be made up, so it is recommended that students come to class in person as often as possible to maximize opportunities to get extra credit. Missing class on an exam day will result in an automatic zero for that exam grade (see below).

Grades: up to 400 points total

Grade Breakdown:

- Grades in this course are out of 400 points broken down as follows:
 - Exams = 300pts
 - Exam 1 = 100pts
 - Exam 2 = 100pts
 - Exam 3 = 100pts
 - Assignments = 100pts
 - Paper topic = 1pt
 - Paper references = 3 x 3pts each = 9pts
 - Reference worksheets = 3 x 10 pts each = 30pts
 - Final Paper = 60pts
- There are also a plethora of extra credit opportunities in this course which could add up to additional points beyond those listed above. See *Extra Credit* section below for details.

Final Grade Calculation: Final grades will be calculated as follows (points earned + extra credit/400) x 100. For example, add together the following: (Exam 1 + Exam 2 + Exam 3 + Paper topic + Paper references+ Reference worksheets + Final paper) + (final debate + online quiz extra credit+ paper rough draft). Then divide the total by 400. Then multiple the result by 100.

Grading scale:

- A = 90.0-100.0%
- B = 80.0-89.9%
- C = 70.0-79.9%
- D = 60-69.9%
- F < 60.0%

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. Exams are not cumulative, but concepts in this course build off each other as the semester progresses.

- You will need a standard scantron and number 2 pencils for the exam, but you do not need to purchase a blue book, as I'll provide paper for short answer and essay questions. You can use a blue or black ink pen on the short answer/fill in the blank/essay portions of the exam.
- The majority of the exam will be focused on lecture material, but 10-20% of the questions will be very similar to the online blackboard quizzes.
- **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 show up late on exam day, and someone has already finished the exam, you will not be permitted to take the exam. Punctual attendance on exam day is strongly encouraged.
- **No make-up exams will be administered under any other circumstances, no matter how compelling.**
- Individuals requiring exam services through CASS must schedule their exam time with CASS to be completed no later than 5pm the same day the class takes the exam.

Assignments: 100 pts (see breakdown below). Late work will not be accepted (except where noted below), no matter the circumstance (including variable blackboard upload speeds). If it is late, even by a few seconds, it will be a zero. Do not wait until the last minute to upload your assignments to blackboard! Improper formatting will result in point deductions. Specific directions can be found in a long but thorough document on blackboard titled: **Guidelines for Assignments.**

1. **Paper topic (1pt).** A word document must be uploaded no later than 11:59pm on February 09th identifying your paper topic. This must be uploaded via blackboard assignments.
2. **References (9pts).** 3 peer-reviewed journal article references for your final paper must be uploaded (the full article saved as a PDF, not just a link or the abstract— you need to show me that you have been able to download and read the full article) via blackboard no later than 11:59pm on February 16th. Only one of these papers should be a “literature review” paper, which means the others must be original research. Your final paper should at a minimum have 3 peer-reviewed references total in the reference section. There are some rules about what will and won't count as a reference, so please read the directions in the *Guidelines for Assignments* document on blackboard to ensure you do not lose points for incorrect submission. Each paper is worth 3 points.
3. **Reference worksheets (30pts).** You must complete the worksheets on blackboard for your references. You must clearly articulate the hypothesis, rationale, and methods of each study. You must identify whether or not your paper is an empirical research article or a literature review/ meta-analysis paper. An example worksheet is provided on blackboard and a rubric is provided on the *Guidelines for Assignments* document on blackboard. You will use these worksheets to guide you in writing your final paper. Each worksheet is worth 10 points and you must complete 3. These should be uploaded via blackboard no later than 11:59pm on 3 consecutive Sundays (worksheet 1 is due March 1st, 2 is due March 8th, 3 is due March 15th).
4. **Final Paper (60 pts).** Due by 11:59pm on May 3rd, 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 citations where appropriate. Direct quotes are not permitted. Paper must adhere to the guidelines provided in separate documents which also contain the graining rubric (see blackboard for *Guidelines for Assignments*). Late papers will receive a point deduction, described in detail in the *Guidelines for Assignments*.

Extra Credit:

• **Online Quizzes (5pts)**

- A total of 10-14 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.* However, note that students have been able to complete the quizzes without purchasing the textbook in the past. These quizzes are based on the 3rd edition of the text, not the 2nd. Please keep this in mind if you choose to buy an older version of the book. Quizzes 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. Quizzes are not timed, but they do expire – so if you don't want to be rushed, do not wait to start it until close to the expiration time.
- The syllabus quiz is optional and will expire on census day (February 5th). Your grade on the syllabus quiz will replace your lowest quiz grade at the end of the semester.
- Quiz Extra Credit points will be calculated as follows:
 - (total points earned divided by total points possible) multiplied by 5. The quiz total 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).
 - Below is an example of how to calculate quiz points using hypothetical numbers in italics:
 - Each individual quiz is worth 10 points.
 - Add together all your quiz points earned.
 - Divide the total points earned by the total points possible:
 - Multiply that answer by 5
 - *If you earn a perfect quiz grade of 10 on 9 separate quizzes, but there are 14 quizzes total, you'd end up with 90 out of 140 possible points.*
 - *$90/140 = 0.6428$*
 - *Total quiz extra credit = 3.21pts. That 3.21 gets added to your total out of 400.*

• **Video Assignments (10 pts)**

- At some point during the semester you'll be provided a link to watch an HBO documentary on your own time. Later in the semester there will be an additional "homework" video from National Geographic. You will be able to earn up to 5 points extra credit from questions that will show up on the exam that falls after each video link is provided. These points will be added as extra credit to the exam on which the questions appear. There will be a maximum of 5 points extra credit corresponding to each video, for 10 extra credit points total.

• **Final Paper Rough Draft (5pts)**

- A rough draft of your paper (format as described on the final paper guidelines document) can be turned in to Dr. Serafine for extra credit. This is to encourage you to be proactive and to get early help on the paper. If you decide to do this, your rough draft is due no later than 11:59pm on Sunday March 29th via email to kmserafine2@utep.edu. Double check that you've correctly entered the email address, and do not reply to a blackboard email, or it will bounce back and you will not receive

credit. Drafts sent after 11:59pm March 29th will not be graded for extra credit, and will not get feedback. See the *Guidelines for Assignments* document on blackboard for more details about the rough draft as well as a grading rubric.

- **University Writing Center (5pts)**
 - If you bring your paper to the University Writing Center *before* May 3rd at 11:59pm, and get proof of your visit (they will give you a form to turn into me) you can earn 5pts extra credit on the final paper. Do not lose the form, as it is your only way to prove that you went to the writing center for feedback, and without it no extra credit points will be assigned. Writing Center forms dated *after* the final paper deadline will not count toward extra credit. You can go to the writing center as many times as you like, but only one form will count for extra credit. You can also go for the reference worksheets, but again only one form (total during the semester) will count for extra credit. Online consultations will not be eligible for extra credit, but are a great way to get additional help.
- **Exam Extra Credit (??)**
 - There are typically 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, which is why they are worth *extra* points. There will be between 2.5-5pts extra credit questions available on each exam.
- **In Class Pop Quizzes (??)**
 - Occasionally there will be unannounced pop quizzes in class, and you will have the opportunity to earn extra credit based on performance on these quizzes. These quizzes are based on lecture material. These quizzes cannot be made up if you are absent, regardless of the circumstance. Typically, there will be 2.5-5pts possible via in class pop quizzes between each exam, and points will be added to the exam that follows the quiz. For example, a quiz occurring after Exam 1 will mean that any points earned get added to the Exam 2 grade.
- **Final Debate/Discussion (up to 10pts).** At the end of the semester, you can boost your grade by participating in an oral debate/discussion/presentation about your final paper topics during the final exam time (**Friday May 15th 10:00am -12:45pm**). **Attendance and participation are both required to earn full points.** This is a lot of points to earn, so in order to keep things fair, there are some rules...
 - Late attendance will result in point deduction (-1 point per minute late, up to 5 points. Anyone arriving more than 5 minutes late will still lose 5 points. **If you are more than 30 minutes late, you will not be able to participate in the debate, and you will not earn any of the 10 possible extra credit points**).
 - You must declare that you will participate in the debate no later than May 3rd at 11:59pm. That is, you cannot decide the day of the debate that you want to participate. You must notify me in advance. To put in your “notice of intent” to participate you must answer a short quiz on blackboard no later than May 3rd regarding your topic and position (pro/con).
 - If the debate teams are uneven by more than 1 extra person, volunteers will be sought to “switch sides” or “switch teams”. **Students who volunteer will have a more lenient grading rubric than those who do not.** Details about the grading are in the *Guidelines for Assignments* document on blackboard.
 - If there are insufficient volunteers, I will randomly assign some students to switch, in which case the stricter grading rubric will be used. In other words, volunteering could

make the debate a little easier for you, and can be thought of as another type of “extra credit” though it will not come with “extra points” beyond the 10 already available for the debate.

Grading Policy Notes:

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 could have been easily earned from any of the many extra credit opportunities outlined above, like the blackboard quizzes, or from the in-class pop quizzes. 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 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.**

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, therefore, if you wish to see your exam after it has been graded, you must schedule an appointment with Dr. Serafine to review your exam. Photocopies, photos and scans of the exam are prohibited, but you can take notes about the test when you review it. Typically, Dr. Serafine will arrange for the TA to meet with you, and if you have lingering questions, Dr. Serafine will also meet with you.

Exams and assignments are graded based on instructions provided (e.g., you must use the scantron for multiple choice, and write answers in the appropriate place on the exams for short answers or essays). The instructor and the TA will only grade answers that are written in the appropriate place (e.g., on lined paper provided, scantrons, on the blanks for fill in the blanks, not in the margins of the exam). Please read and follow the instructions carefully.

If you have a problem with the grading policies outlined above, you are welcome to drop the course before the drop deadline. If you disagree with your final grade in this course, despite the clear outline above of the way grades are calculated, you are welcome to file a formal complaint to the Chair of the Psychology Department or the UTEP grievance committee. 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. You can read these policies by following this hyperlink: <https://www.utep.edu/student-affairs/osccr/student-conduct/academic-integrity.html> 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.

Important Contact Information

University Counseling Center	202 Union West 747-5302
Center for Accommodations and Support Services	106 Union East 747-5148
University Career Center	103 Union West 747-5640
Department of Psychology	112 Psychology 747-5551

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

- W 01/22 **Course overview**
Intro to the brain and behavior
Chapter 2: Structure and Function of the Nervous System
- M 01/27 **The neuron**
The brain & nervous system
Chapter 2: Structure and Function of the Nervous System
- W 01/29 **Introduction to Pharmacology: Pharmacokinetics and Pharmacodynamics**
Chapter 1: Principles of Pharmacology
- M 02/03 **Pharmacology (continued)**
The action potential
Neurochemistry: level of the synapse
Chapter 1: Principles of Pharmacology
Chapter 3: Chemical Signaling by Neurotransmitters and Hormones
- W 02/05 **Neurochemistry: level of the synapse (continued)**
Neurotransmitter classification: Acetylcholine
Chapter 3: Chemical Signaling by Neurotransmitters and Hormones
Chapter 7: Acetylcholine
Census day – Syllabus Quiz Expires at 11:59pm
- Sunday 02/09 Paper topic due via blackboard by 11:59pm
- M 02/10 **Acetylcholine (Continued)**
Major excitatory and inhibitory neurotransmitters: Glutamate
Chapter 7: Acetylcholine
Chapter 8: Glutamate and GABA
- W 02/12 **Workshop: How to find references for your final paper**
Major excitatory and inhibitory neurotransmitters: GABA
Chapter 8: Glutamate and GABA
- Sunday 02/16 Paper references (3) due via blackboard by 11:59pm
*must upload PDF of actual references, not abstract, and not a link or word document
reference section for credit. See final paper guidelines document on blackboard for
more details.
- M 02/17 **Monoamines: Catecholamines**
Chapter 5: Catecholamines
- W 02/19 **Monoamines: Indolamines**
Chapter 6: Serotonin
- M 02/24 Exam Review/Flex
- W 02/26 **Exam 1: Chapters 1-3, 5-8**

Sunday 03/01 Reference 1 worksheet due via blackboard by 11:59pm

M 03/02 **Methods of research**
Chapter 4: Methods of Research in Psychopharmacology

W 03/04 **Addiction & the biology of reward**
Chapter 9: Drug Abuse & Addiction

Sunday 03/08 Reference 2 worksheet due via blackboard by 11:59pm

M 03/09 **The stimulants: cocaine & amphetamine**
Chapter 12: Psychomotor stimulants: cocaine and the amphetamines

W 03/11 **The narcotics: opioids and pain**
Chapter 11: The Opioids

Sunday 03/15 Reference 3 worksheet due via blackboard by 11:59pm

M 03/16 Spring Break

W 03/18 Spring Break

M 03/23 **The legal drugs: Alcohol**
Chapter 10: Alcohol

W 03/25 **The legal drugs: Nicotine and Caffeine**
Chapter 13: Nicotine and Caffeine

Sunday 03/29 (Extra credit) Optional Rough Draft due via email to kmserafine2@utep.edu by 11:59pm
***late drafts will not be provided feedback due to grading time constraints**

M 03/30 **The cannabinoids and the hallucinogens**
Chapter 14: Marijuana and the Cannabinoids
Chapter 15: Hallucinogens, PCP, and Ketamine

W 04/01 Exam Review/Flex

Friday 04/03 Last Day to Drop the Course

M 04/06 **Exam 2 (chapter 9-15)**

W 04/08 **Introduction to pharmacotherapeutics**
Schizophrenia
Chapter 19: Schizophrenia: Antipsychotic Drugs

M 04/13 **Schizophrenia, Affective Disorders**
Chapter 19: Schizophrenia: Antipsychotic Drugs

W 04/15 **Affective disorders: depression and bipolar disorder**
Chapter 18: Affective Disorders: Antidepressants and Mood Stabilizers

M 04/20 **Affective disorders: depression and bipolar disorder**
Chapter 18: Affective Disorders: Antidepressants and Mood Stabilizers

W 04/22 **Anxiety disorders**
Chapter 17: Anxiety Disorders: Sedative-Hypnotic and Anxiolytic Drugs

M 04/27 **Anxiety disorders: Why Zebras Don't Get Ulcers**
Chapter 17: Anxiety Disorders: Sedative-Hypnotic and Anxiolytic Drugs

W 04/29 **Sleep disorders and treatments**
Chapter 17: Anxiety Disorders: Sedative-Hypnotic and Anxiolytic Drugs

Sunday 05/03 **Final Paper due via blackboard by 11:59pm**
Last day to "opt in" for Final Debate extra credit

M 05/04 Exam Review/Flex

W 05/06 Exam 3 (Chapters 18-20 plus supplemental reading)

Tues 05/12 Last day to "opt out" of debate/discussion via email. Email me by 11:59pm if you previously "opted in" and will no longer be attending the final exam.

FINALS WEEK **Friday May 15th 10:00am -12:45pm: OPTIONAL FINAL EXAM**
***note the earlier meeting time**
debate/presentations – paper topics. You cannot make this up if you miss it because it requires in class participation. In order to participate you must have "opted in" by the deadline.

****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. Pop quizzes often occur within the first 2-3 minutes of class, so tardiness will cost you this valuable opportunity to earn extra credit.

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.