

PSY-227: Drugs and Behavior

Course Syllabus
Spring 2022



Course Information:

Mondays and Wednesdays, 2:00PM – 3:20PM ET | Meneely Hall 307

Course website: <http://OnCourse.wheatoncollege.edu/>

You will be asked to login using your Wheaton ID number and password (the same password you use for Wheaton email). Once logged in, you should be taken to a page of links for all courses in which you are enrolled that have onCourse sites. It is expected that you check our course website at least once per week.

Contact Information:

Instructor: Christina J. Reppucci, PhD

Email: reppucci_christina@wheatoncollege.edu

Physical Office: Mars Science Center Rm 1131

Virtual Office: Zoom Meeting ID: [949 4688 3648](#) | Passcode: brains

Office Hours: [Tuesdays & Wednesdays 4:00PM – 5:30PM](#). These times are specifically set aside to answer your questions. You may drop-in or you can sign-up for slots using the link above if you'd like to meet in-person, but please use the sign-up if you'd like to meet virtually. You are encouraged to block multiple consecutive time slots if needed. Scheduling conflict? Please email me to request other appointment times.

Note: appointments outside of these office hours must be scheduled **at least 24h in advance**.

When emailing me, please include the course code (PSY-227) in the subject line so that the email can be easily identified and **allow at least 24h for a reply**. This means that if you have questions on material before an exam or assignment deadline, emailing the day/night before may not get you answers in time.

IT Support Services: Email: support@wheatoncollege.edu | Submit a Service Request: [ITSS Help Desk](#)

Textbook: Julien's Primer of Drug Action | 14th Edition | Advokat, Comaty, & Julien
Paperback: 9781319015855 **-or-** E-book: 9781319015855
Digital, used, and/or rental options will save you money! A copy is on reserve in the library.

Support is available for students having trouble purchasing required materials for classes. Students can contact Karen McCormack in the Office of the Provost for help finding support for required materials.

Access to additional readings, short videos, handouts, PowerPoint lectures, etc. will be made available via the class onCourse site.

Course Description & Objectives:

This course will serve as an **introduction to psychopharmacology** including drug mechanisms, uses, abuses and addiction, with a focus on recreationally used drugs.

Throughout this semester, we will examine how neurotransmitters are synthesized, how they function under normal conditions, and how they are influenced by the use of certain drugs. We will use this information to understand how pharmacological processes affect the development of substance use disorders and how understanding these processes can lead to treatment for psychiatric disorders. By the end of this course, you will understand how drugs affect brain systems, which in turn influence behavior.

The main objectives of this course are to:

1. Describe the diverse nature of the field of psychopharmacology.
2. Describe the significance of the scientific study of drugs on the nervous system to better understand behavior and mental processes.
3. Learn how to read and critically evaluate scientific literature, including primary research articles.
4. Describe the mechanisms of action of a variety of drugs of abuse.
5. Describe the proposed neurobiological basis of chemical use and dependence.
6. Describe mechanisms of action of psychotherapeutic drugs used to treat neuropsychiatric disorders.

RESPECT. A successful learning experience requires mutual respect on behalf of the student and the instructor at every level. We should value one another and be open to diverse perspectives. Students are expected to always show courtesy, civility, and respect for one another and for the instructor. Comments that degrade or ridicule another are unacceptable.

We are a TEAM. I hope that we will work together throughout the semester to learn from each other. I will do my best to provide resources and tailor the course material to fit your interests, but I also ask for you to actively participate in our goal of sharing knowledge! It can be in the form of current news/new discoveries, interesting studies, questions, etc.

It is strongly encouraged that you complete assigned readings BEFORE coming to class. This is particularly important for students who have not had previous exposure to concepts and terminology in biology or psychology. Many of you may feel like you are learning a new language and as with any language, exposure is an important component to understanding. You will get the most out of our time together in the classroom if you have already been exposed to the terminology and topics. Reading before coming to class will also prime you to the topics that you may need more explanation for and will allow you to get more out of class by participating in discussions. Questions and comments during class are greatly appreciated, so do not hesitate to speak up—likely another student has a similar question and/or could benefit from a similar clarification!

Course Workload Expectations: At Wheaton College, students are expected to spend approximately 3 hours of class time and 9 hours of out-of-class academic activity for each course/credit.

Grading:

Grading is non-competitive, and students are encouraged to study & discuss materials together. However, unless explicitly stated otherwise in an assignment, *any work turned in must be yours and yours alone.* Your grade will reflect the combined score of 3 exams, a final reflection paper, a presentation on a current paper in drug research, and general class participation (attendance, homework assignments, & activities).

Evaluation	Percentage
Current Drug Research Presentation	15%
Attendance & Participation	10%
Miscellaneous Homework Assignments	10%
Exams	45%
Final Reflection Paper	20%
<i>Total</i>	<i>100%</i>

Course final grades will be assigned on the total percentage earned during the course as follows:

> 98% = A+	77-79% = C+	< 59% = F
94-97% = A	73-76% = C	
90-93% = A-	70-72% = C-	
87-89% = B+	67-69% = D+	
83-86% = B	63-66% = D	
80-82% = B-	60-62% = D-	

What's in a grade?

- **“A”** Work = Work that is consistently of high standard, and shows distinction in qualities such as organization, accuracy, originality, conciseness, understanding, and insight. **“A”** work also clearly demonstrates an ability to pull from multiple sources and draw connections between different courses.
- **“B”** Work = Work that is consistently above average. **“B”** work demonstrates evidence of attention to detail, organization, creativity, and the ability to transfer principles from this course to other situations.
- **“C”** Work = Work that completes the minimum requirements and is satisfactory. **“C”** work is organized and accurate, but does not go beyond essential facts.
- **“D”** Work = Work that falls below the acceptable standard. **“D”** work shows a lack of attention to detail and organization, inaccuracies, and less than minimum effort.
- **“F”** Work = Work that is unsatisfactory or incomplete.

Current Drug Research Presentation (15%):

Working in groups of 2-3, students will give a 15-20 min presentation on a recent primary research article, for creating a summary infographic of their chosen paper, and for writing a multiple choice exam question about their paper. Your presentation date/drug topic will be assigned, but your paper must be approved in advance. Instructions and a rubric will be posted on the OnCourse site.

Attendance & Participation (10%):

I hope that you actively participate in this course-- I have found this to be a great way to engage you in learning the material, and it makes the lectures more fun! However, not everyone is comfortable speaking up during class and we are in uncertain times, thus participation will be based on a combination of class attendance and participation, and participation in online discussion forums. Students who miss a class are responsible for any announcements made or work assigned in-class. Periodically throughout the semester an article or video will be posted to the OnCourse site, and you will be expected to respond to 2-3 questions about the post. In addition, you will be responsible for replying to **TWO** classmates' responses. Responses will be assessed based on completion and thoughtfulness (i.e., not simply agreeing or disagreeing), both for your post and your replies on your classmates' posts. These will be announced in class, but it is your responsibility to check OnCourse for new discussion forums, and complete the posts on time.

Miscellaneous Homework Assignments (10%):

Periodically throughout the semester you will be asked to complete different kinds of homework assignments (e.g., short writing assignments, worksheets, data collection). In addition, each student will be responsible for writing 1 review question prior to each exam. All homework and other assignments will be announced in class, but it is your responsibility to check OnCourse for new assignments and turn the work in on time.

Exams (15% each):

There will be 3 non-cumulative exams covering each module of the course. Exams will consist of multiple-choice, fill-in-the-blank, and/or short answer questions covering key concepts from the textbook, course lectures, and any supplemental material covered during the module.

Final Reflection Paper (20%):

You will write a 4-6 page double-spaced reflection essay on a topic related to or expanding on one of the topics we covered in class. In this paper you should: 1) identify a specific topic, neural system or process, drug, or neuropsychiatric disorder we have covered, and describe this subject in detail, drawing on outside resources/references to expand on the subject, then 2) provide **SPECIFIC** examples of how your understanding/thoughts/opinions on the topic have changed prior to taking the course, and how you will apply/use this new knowledge about your topic in the future. Instructions, a rubric, and FAQs will be posted on the OnCourse site.

Late/Make-Up Assignments: The goal of work assigned in- and out-side of class is to help you learn the material and develop a deeper appreciation and understanding of the course topics and themes, thus you will receive the greatest learning benefit when work is completed by the given deadlines (as stated in class and/or posted on the OnCourse site). However, late/make-up **will be accepted** – no justifications required. Items submitted before the next scheduled exam can earn up to **90% credit**, and items submitted before 11:59pm on May 8th may earn up to **75% credit**. The late penalty will be waived in the case of **prior notice** of a verifiable and documented emergency, but [especially given our current circumstances] we may be able to work something out if you get in touch with me **as soon as possible** if you are in a difficult situation. Late/make-up work will not be accepted after May 8th, at which time any outstanding assignments **will be marked as a 0**.

Extra Credit: Extra credit cannot be requested on an individual basis. However, throughout the semester you will be given the option to do an additional short assignment. For example, the assignment may ask you to attend a talk or to do some research and write a brief report on what you heard/discover. These specific assignments will be optional only, and are used as a way to broaden your knowledge and obtain extra credit. These extra credit opportunities will be worth a varying number points which will be added to your lowest exam grade, and the assignments will be graded as to their thoughtfulness and accuracy.

Written Work:

All written work should follow APA style. The following are useful guides for APA style and scientific writing:

- <http://www.apastyle.org/> and/or the Publication Manual of the American Psychological Association
- <https://library.wheatoncollege.edu/psy/guide> or <https://library.wheatoncollege.edu/neur/guide>
- <http://www.nature.com/scitable/topicpage/effective-writing-13815989>
- Victoria E. McMillan's: Writing papers in the biological sciences (any edition)

Have questions about finding resources, articles, citation managers, etc?

- Chat with a librarian (M-F, 9:30am-4:30pm): <https://library.wheatoncollege.edu/chat>

Honor Code:

As a student at Wheaton College, you are trusted by your professors and fellow students to be honest in your academic undertakings. **Instances of academic dishonesty, including cheating or [plagiarism](#), will be taken seriously.**

As per the faculty resolution in 2003, course work must include the following statement with a signature:

"I have abided by the Wheaton College Honor Code in this work."

The full Wheaton College Honor Code is as follows:

As members of the Wheaton community, we commit ourselves to act honestly, responsibly, and above all, with honor and integrity in all areas of campus life. We are accountable for all that we say and write. We are responsible for the academic integrity of our work. We pledge that we will not misrepresent our work nor give or receive unauthorized aid. We commit ourselves to behave in a manner which demonstrates concern for the personal dignity, rights and freedoms of all members of the community. We are respectful of college property and the property of others. We will not tolerate a lack of respect for these values. I accept responsibility to maintain the Honor Code at all times.

Your signature along with the statement indicated in bold italics above states your compliance with the Wheaton Honor Code. **Violations of the Honor Code will not be tolerated.** Materials submitted that are deemed violate the Honor Code will receive a zero. Additional violations could result in a grade of "F" for the course. If you have any doubts about what you are writing and whether or not it constitutes plagiarism, please consult with me before you turn in that work.

Accessibility Statement:

Wheaton is committed to ensuring equitable access to programs and services and to prohibit discrimination in the recruitment, admission, and education of students with disabilities. Individuals with disabilities requiring accommodations or information on accessibility should contact Autumn Grant, Associate Director for Accessibility Services at the Filene Center for Academic Advising and Career Services at accessibility@wheatoncollege.edu or 508-286-8215.

I am happy to support and accommodate students with disabilities and/or learning differences. However, documentation should be provided as soon as possible and accommodations should be negotiated no later than the first full week of classes. The student will also be responsible for informing me of the required accommodations at least one week in advance of each exam.

Wheaton Student Support & Wellness Resources:

Your overall wellness is important and it contributes to your academic success. I want to make sure that you have information regarding resources at your disposal, and I highly encourage you to utilize these resources.

- [The Counseling Center](#) is the confidential and FREE mental health resource on campus for all students and will be offering in person and telehealth care this year. To learn about services, check out the [website](#), or give the office a call at 508-286-3905. Additionally, the *Mental Health Support Line* is available anytime the CC is not, by calling the front desk 508-286-3905 and following voicemail prompts to be connected to a clinician (24/7, available in languages other than English, and accessible from anywhere you are in the world).
- [The Filene Center](#) strives to support your learning pathway by fostering successful academic, career, and personal development. The academic advising staff will work collaboratively with you, faculty and

campus resources to ensure that you have the access and guidance to become a confident and reflective learner at Wheaton and beyond. Contact us at advising@wheatoncollege.edu.

- Many other offices on campus can also help support the holistic wellness of students. For students who identify as low-income, first-gen, LGBTQ+, or have a faith or spiritual practice they adhere to, the [Center for Social Justice and Community Impact](#) and [Center for Religious and Spiritual Life](#) (the Base) are good places for support and engagement. The [Marshall Center for Intercultural Learning](#) supports BIPOC students and those working towards breaking down barriers across differences, and the [Center for Global Education](#) supports international students, and students seeking educational opportunities abroad. The [SMART](#) and [Title IX Office](#) support students through sexual and gender based misconduct, and the [Bias Incident Response Team](#) supports individuals through a wide variety of bias events. We encourage you to reach out to any and all of these offices for support.
- [Health Services](#) through Norton Medical Center is available to support students with a variety of physical health needs including specialty support for GYN and STI care. Contact the office at 508-286-4500 to make an appointment for care. There is no copay for visits and most services are free, with select procedures and labs billed to insurance.

Personal Electronic Devices & Technology in the Classroom:

Please place your phones and any other devices on mute or vibrate before you come to class. There will be opportunities for interactive responses to questions during lectures using your internet-capable devices (smartphone, laptop, or tablet), and you may use laptops or tablets in class to consult readings or to take notes. However, any other use of your electronic devices is prohibited (e.g., checking email or social media, web-surfing, texting, for the purposes of academic dishonesty/violations of the Honor Code, etc.)— it's distracting to your own learning and to the learning of those around you. If you are unable to stay on-task or are otherwise distracted by your smartphone/laptop/tablet, I will ask that you put the device(s) away.

Instructor Recordings of Class Sessions:

The instructor may record any or all portions of class meetings for educational purposes. A recording is defined as any video or audio replication or photographic image recorded on any device that can record images and/or sound. At the discretion of the instructor, the recordings may be shared only with students enrolled in the course and will be deleted at the conclusion of the course. In these circumstances, all students participating in the course as well as any guest speakers will be informed that recording may occur. Students may not reproduce, post, or distribute any recordings provided by the instructor.

Student Recording of Class Sessions:

Students may not record (as defined above) or transmit activities (e.g., lectures, discussions) that occur as part of a classroom session unless: (1) Accessibility Services has authorized recording as an academic accommodation for a qualified student with a disability and the student has notified the instructor of that authorization by presenting their accommodation letter; or (2) permission from the course instructor has otherwise been granted. In these circumstances, all students participating in the course as well as any guest speakers will be informed that audio/video recording may occur. If a student is given authorization to record any portion of a classroom session, that student understands and agrees that the recording is for the sole use of the individual student and may not be reproduced, sold, posted on social media/online, or otherwise distributed as this would infringe on the privacy rights of others represented in the recording.

LECTURE SCHEDULE

MODULE 1: DRUGS AND THE NERVOUS SYSTEM

WEEK 1

DATE	TOPIC	JULIEN'S READING, ASSIGNMENT(S), & PRESENTATION DATES
Wed 01/26	Introduction to class What is a Drug?	• --

WEEK 2

Mon 01/31	Pharmacokinetics	• Chapter 1, pp 3-29
Wed 02/02	Pharmacodynamics	• Chapter 3, pp 69-90

WEEK 3

Mon 02/07	Tolerance, Sensitization, & Therapeutic Effectiveness	• Chapter 1, pp 29-37; Chapter 3, pp 90-97
Wed 02/09	Neuroanatomy, Neurons, & Synapses	• Chapter 2, pp 39-53

WEEK 4

Mon 02/14	Neurochemical Systems	• Chapter 2, pp 54-68; Chapter 9, pp 296-300; Chapter 10, pp 340-345 • Current Drug Research paper selections due by 11:59pm, 2/14
Wed 02/16	Research Methods in Behavioral Pharmacology	• --

WEEK 5

Mon 02/21	IN-CLASS REVIEW	
Wed 02/23	EXAM 1 (90 minutes, online, open-note, due no later than 11:59pm, 2/23)	

WEEK 6

MODULE 2: PHARMACOLOGY OF DRUGS OF ABUSE

Mon 02/28	Alcohol	• Chapter 5, pp 135-152 • Current Drug Research Presentation 1: Alcohol
Wed 03/02	Caffeine	• Chapter 6, pp 177-187 • Current Drug Research Presentation 2: Caffeine

WEEK 7

Mon 03/07	Nicotine	• Chapter 6, pp 187-196 • Current Drug Research Presentation 3: Nicotine
Wed 03/09	Cocaine	• Chapter 7, pp 217-225 • Current Drug Research Presentation 4: Cocaine

WEEK 8

Mon 03/14	Spring Break – No Class!	
Wed 03/16		

WEEK 9

Mon 03/21	Amphetamines	• Chapter 7, pp 226-235 • Current Drug Research Presentation 5: Amphetamines
Wed 03/23	Cannabis	• Chapter 9, pp 291-321 • Current Drug Research Presentation 6: Cannabinoids

WEEK 10		
Mon 03/28	Opiates	<ul style="list-style-type: none"> Chapter 10, pp 333-353 + 357-358 (Fentanyl) Current Drug Research Presentation 7: Opiates
Wed 03/30	Psychedelics & Hallucinogens	<ul style="list-style-type: none"> Chapter 8, pp 257-265, 268-372, 279-282; Chapter 12 pp 472-473 Current Drug Research Presentation 8: Psychedelics/Hallucinogens
WEEK 11		
Mon 04/04	IN-CLASS REVIEW	
Wed 04/06	EXAM 2 (90 minutes, online, open-note, due no later than 11:59pm, 4/6)	
WEEK 12		
MODULE 3: PSYCHOTHERAPEUTIC DRUGS		
Mon 04/11	Neurobiology & Treatment of Addiction	<ul style="list-style-type: none"> Chapter 4
Wed 04/13	Diagnosis & Treatment of Neuropsychiatric Disorders	<ul style="list-style-type: none"> Chapter 17
WEEK 13		
Mon 04/18	Schizophrenia & First-Generation Antipsychotics	<ul style="list-style-type: none"> Chapter 11, pp 381-396
Wed 04/20	Depression & Antidepressants	<ul style="list-style-type: none"> Chapter 12, pp 433-455
WEEK 14		
Mon 04/25	Anxiety & Anxiolytics	<ul style="list-style-type: none"> Chapter 13, pp 489-505
Wed 04/27	Bipolar Disorder & Mood Stabilizers	<ul style="list-style-type: none"> Chapter 14: 531-546, 549, 555-559
WEEK 15		
Mon 05/02	IN-CLASS REVIEW	
Wed 05/04	EXAM 3 (90 minutes, online, open-note, due no later than 11:59pm, 5/4)	
FINALS WEEK		
Fri 05/13 9:00 AM	FINAL REFLECTION PAPER DUE by 11:59PM, 05/13	

A more detailed version of the semester schedule will be maintained on the onCourse class website.

Please note: This syllabus and the semester schedule are subject to change 1) in the event of unforeseen circumstances, 2) according to class interest and time, or 3) as deemed necessary by the instructor. Any changes will be announced in class and posted on the OnCourse site.