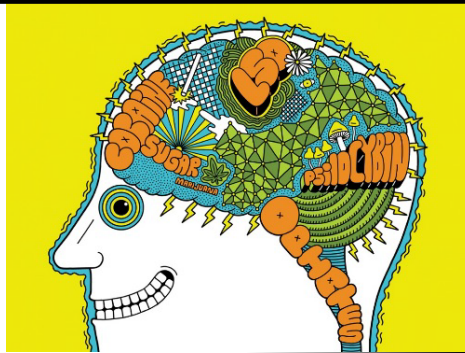


PHR 2400

ADDICTING DRUGS

AUTUMN 2024

**Tuesday/Thursday****2:20 pm – 3:40 pm****Sullivant Hall 220****COURSE DESCRIPTION**

Substance Use Disorder (SUD) is a neuropsychological disorder characterized by a persistent and intense urge to use a drug or engage in a behavior that produces natural reward, despite substantial harm and other negative consequences. SUD is studied at many levels, including the effects of drugs on neurons and brain circuits through how these effects influence human behavior and society. In this course we will investigate the principles of SUD including the relevant neurobiology to aid in understanding the effects, mechanisms of action, and regulation of addicting drugs. We will apply this knowledge to study the effects of addicting drugs on human health and behavior. We will also examine the variety of approaches and advancements in technology used to study SUD, which will enable the exploration of how these advancements impact treatment as well as society's view of SUD.

GE Theme: Health and Wellbeing***3 credit hours. Prerequisites: none*****INSTRUCTOR*****Leslie C Newman, PhD***

Division of Pharmacy Education and Innovation | College of Pharmacy

Parks 253 | 614-292-3025

Newman.439@osu.edu

COURSE INFORMATION

GE Theme Goals

- Successful students will analyze health and well-being at a more advanced and deeper level than in the Foundations component.
- Successful students will integrate approaches to health and well-being by making connections to out-of-classroom experiences with academic knowledge or across disciplines and/or to work they have done in previous classes and that they anticipate doing in future.
- Students will explore and analyze health and well-being through attention to at least two dimensions of well-being. (e.g., physical, mental, emotional, career, environmental, spiritual, intellectual, creative, financial, etc.)

GE Theme Expected Learning Outcomes

- Engage in critical and logical thinking about the topic or idea of health and well-being
- Engage in an advanced, in-depth, scholarly exploration of the topic or idea of health and well-being
- Identify, describe and synthesize approaches or experiences as they apply to health and well-being
- Demonstrate a developing sense of self as a learner through reflection, self-assessment and creative work, building on prior experiences to respond to new and challenging contexts
- Explore and analyze health and well-being from theoretical, socio-economic, scientific, historical, cultural, technological, policy and/or personal perspectives
- Identify, reflect on, or apply strategies for promoting health and well-being

Course Specific Learning Objectives

- Understand the basic principles of drug action
- Gain familiarity with neuroanatomy involved in drug addiction
- Explain the neurochemical and molecular adaptations characterizing the transition to dependence and ultimately substance use disorder
- Describe the mechanism of action and major effects of psychostimulants, opiates, hallucinogens, alcohol, nicotine, and cannabinoids
- Acquire basic knowledge of the behavioral models and neuroimaging studies that facilitate the study of drug addiction
- Develop a holistic understanding of addiction by bridging emotional, behavioral, and biological/molecular elements
- Evaluate current legal, social, and cultural impacts relative to addicting drugs

COURSE DELIVERY

Class announcements

All important class-wide messages will be sent through Announcements on Carmen. Please check your notification preferences (go.osu.edu/canvas-notifications) to ensure you receive these messages.

Teaching Methods

In addition to brief lectures, in-class work will involve active learning strategies focused on encouraging students to apply what they have learned to discussions and real-world applications in the classroom. Depending on the individual topic being covered and on the learning outcomes, Team-Based Learning, Problem-Based Learning and Breakout Groups will form the framework of in-class learning.

Team-based learning is a structured process which emphasizes student preparation out of class and application of knowledge in class. This format enhances student engagement as well as the quality of student learning.

Problem-based learning involves working in groups to solve an open-ended problem. This problem drives motivation and the learning.

Breakout Groups involve a less structured method of group work and discussions and may involve addressing current event topics and/or working on group projects/presentations.

Course technology

This course requires use of Carmen and other online communication and multimedia tools. If you need additional services to use these technologies, please request accommodations with Dr. Newman. For help with your password, university email, Carmen, or any other technology issues, questions, or requests, contact the Ohio State IT Service Desk. Standard support hours are available at ocio.osu.edu/help/hours, and support for urgent issues is available 24/7.

- Self-Service and Chat support: ocio.osu.edu/help
- Phone: **614-688-4357 (HELP)** / TDD: **614-688-8743**
- Email: servicedesk@osu.edu

Course materials

There is no textbook for this course. All course materials will be posted on Carmen at least one week prior to their relevant class period. Students are encouraged but not required to read a memoir for use in activities, discussions, and the final project. See list of memoirs in Final Project details and instructions.

Top Hat

We will be using Top Hat (www.tophat.com) for knowledge checks and class activities. You will be able to submit answers to in-class questions using smartphones, tablets, laptops, or through text message. Go to <https://app.tophat.com/register/student> and search for our course with the following join code: **755286**

For more information or help, please consult Top Hat's Getting Started Guide, <https://bit.ly/31TGMlw>

ASSESSMENTS

Exams

There will be 2 exams which **will be taken in class** using Carmen. Study guides will be provided for both exams.

Final Project

The final project will consist of a Choose Your Own Adventure format where you will complete a combination of 3 separate assignments. Documents/presentations should be submitted via Carmen by the end of the day on the due date but may be turned in early.

Quizzes

Online and in-person quizzes will be given on Carmen. The top 5 quizzes will be counted in the final grade. All other quiz grades may be dropped.

Activities and Discussion Posts

In-class activities will be done in groups throughout the semester to encourage peer discussion and to reinforce the material. These will not be graded but are extremely valuable in learning the material. TopHat questions may also be used to help solidify learning.

Assignments

Three assignments designed to reinforce the material. Assignments are due by midnight on the day they are due. There is a 2 hour grace period to account for any computer issues during upload. Assignments can be turned in late with a 10% reduction/day. If you encounter an issue with completing any assignment on time, please contact me as soon as possible.

Exams (2 @ 75 pts each)	42%
Final Project (100 pts)	28%
Quizzes (top 5 @ 10 pts each)	14%
Assignments (3 @ 20 pts each)	16%
Total Points - 360	

Grading Scale

A	A-	B+	B	B-	C+	C	C-	D+	D	E
100 - 93%	92.9 - 90%	89.9- 87%	86.9- 83%	82.9- 80%	79.9- 77%	76.9- 73%	72.9- 70%	69.9- 67%	66.9- 60%	59.9- 0%

Assessment policies

All students must take exams/quizzes at the time and date specified. Any makeup exam **MUST** include a *bona fide* reason. To maintain fairness and integrity, makeup exams will consist of essay questions and must be completed as soon as possible. If you are unable to complete an assignment by the due date or find yourself falling behind due to illness, technological problems, life disruptions, or other personal issues, please contact me to discuss your situation, ideally before the assignment's due date. **There will be no make-up quizzes since there will be extra opportunities and the lowest quiz scores will be dropped.**

Please refer to Carmen for assignment and quiz due dates. Due dates are set to help you stay on pace and to allow timely feedback that will help you complete subsequent assignments.

Exams will be completed using Carmen on your laptop or iPad. Please be sure that your device is FULLY charged for all testing periods. **No other electronic devices** are permitted during the examination period, including access to cell phones and any attempt to access any function on the device other than Carmen during testing will abort the test progress. The exam will end after the assigned testing time period is reached. In the event of an uncontrollable situation during the exam we will have paper copies of the exam. These contingencies are designed for uncontrollable events and not as backups for a failure for appropriate preparation and planning. At the end of the exam you may need to sign out with a proctor. *If you encounter an issue with access to these tools, please contact Dr. Newman and the COP digital accessibility team at cop-digitalaccessibility@osu.edu. Accommodation and assistance will be arranged for you to complete any work required with this tool free of penalty.*

ATTENDANCE AND PARTICIPATION

It is the responsibility of a student to participate in all directives designed to promote learning. Poor attendance can adversely affect your understanding of and ability to complete assignments and will affect your overall participation grade. Students are expected to come prepared and fully participate during class activities. Activities, discussions and quizzes support the information presented and facilitate an understanding of the topics such that the student learns to apply and integrate the material. In every instance, the student remains responsible for all materials covered in the course.

Religious accommodations

It is Ohio State's policy to reasonably accommodate the sincerely held religious beliefs and practices of all students. The policy permits a student to be absent for up to three days each academic semester for reasons of faith or religious or spiritual belief. Students planning to use religious beliefs or practices accommodations for course requirements must inform the instructor in writing **no later than 14 days after the course begins**. The instructor is then responsible for scheduling an alternative time and date for the course requirement, which may be before or after the original time and date of the course

requirement. These alternative accommodations will remain confidential. It is the student's responsibility to ensure that all course assignments are completed.

Weather or other short-term closing

Should in-person classes be canceled, I will notify you as to which alternative methods of teaching will be offered to ensure continuity of instruction for this class. Communication will be via Announcements in Carmen.

ACCESSIBILITY ACCOMMODATIONS

Disability statement

The University strives to make all learning experiences as accessible as possible. If you anticipate or experience academic barriers based on your disability (including mental health, chronic or temporary medical conditions), please let me know immediately so that we can privately discuss options. To establish reasonable accommodations, I may request that you register with Student Life Disability Services. After registration, make arrangements with me as soon as possible to discuss your accommodations so that they may be implemented in a timely fashion. SLDS contact information: slds@osu.edu; 614-292-3307; slds.osu.edu; 098 Baker Hall, 113 W. 12th Avenue.

ACADEMIC INTEGRITY AND COLLABORATION

While activities will consist of group work, **ALL** writing assignments, exams and quizzes **MUST** be your own work. It is the responsibility of the Committee on Academic Misconduct (COAM) to investigate or establish procedures for the investigation of all reported cases of student academic misconduct. The term "academic misconduct" includes all forms of student academic misconduct wherever committed; illustrated by, but not limited to, cases of plagiarism and dishonest practices in connection with examinations. Instructors are required to report all instances of alleged academic misconduct to the committee (Faculty Rule 3335-5-487). For additional information, see the Code of Student Conduct (<http://studentlife.osu.edu/csc/>)

Specific assignment considerations

Quizzes and exams (both online and in class): You must complete the exams yourself, without any external help or communication from others. Weekly quizzes are meant to help you practice for the exam, and you should complete them on your own.

Written assignments: Your written assignments, including any discussion posts, must be your own original work. When necessary, you should follow [MLA/APA/Chicago etc.] style to cite the ideas and words (paraphrase or quote) of your research sources. You can ask a trusted person/peer to proofread your assignments before you turn them in but no one else should revise or rewrite your work.

Reusing past work: In general, you are prohibited in university courses from turning in work from a previous course, even if you modify it. If you want to build on past research or revisit a topic you've explored in previous courses, please discuss this with Dr. Newman.

Collaboration: The course includes many opportunities for formal collaboration with your peers. While study groups and peer-review of major written projects is encouraged, remember that comparing answers on an assignment is not permitted. If you're unsure about a particular situation, please ask ahead of time.

Acceptable and Unacceptable Uses of AI

Students are expected to generate their own work. Submitting content that has been generated by someone other than yourself or that was created or written by a computer application or tool, including artificial intelligence (AI) programs such as ChatGPT, Copilot, or Google Bard, outside of the acceptable uses outlined below constitutes a violation of the Ohio State University Code of Student Conduct. Specific examples of acceptable and unacceptable uses of AI tools in this course are highlighted below.

The use of generative AI tools is permitted in this course for the following activities:

- Brainstorming and refining your ideas
- Organizing your thoughts and ideas into a paper structure such as in generating an outline
- Checking grammar and style

The use of generative AI tools is NOT permitted in this course for the following activities:

- Impersonating you in classroom contexts, including using these tools to compose discussion board responses, answer quiz questions, or complete other assignments.
- Writing entire sentences, paragraphs, or papers to complete class assignments
- Other uses that are determined to represent abuse of course policy

Additionally, you are responsible for the content of all work that you submit. AI tools tend to fabricate information to meet user-supplied prompts, including (but not limited to) misrepresenting findings and creating imaginary sources. Any work turned in with false information will receive a grade deduction and may be subject to penalty under Ohio State's Code of Student Conduct. Please contact Dr. Newman if you have any questions about a specific use of AI for a course assignment.

Copyright for Instructional Materials

The materials used in connection with this course may be subject to copyright protection and are only for the use of students officially enrolled in the course for the educational purposes associated with the course. Copyright law must be considered before copying, retaining, or disseminating materials outside of the course.

WRITING HELP

Since this course will feature writing assignments, you may find it helpful to utilize Ohio State's Writing Center. The [Writing Center](#) offers free help with writing at any stage of the writing process for any member of the university community. During sessions, consultants can work with you on anything including research papers, lab reports, dissertations, résumés, proposals and application materials.

Appointments are available in-person at 4120 Smith Lab, as well as for online sessions. You may schedule an in-person or online appointment by visiting WOnline or by calling 614-688-4291. You do not have to bring any writing to schedule an appointment – consultants are happy to talk through your ideas with you. Check the [Individual Writing Support](#) and [Group Writing Support](#) pages for the types of consultations offered. The Writing Center also maintains a [Writing Resources](#) page with writing handouts and links to online resources.

MENTAL HEALTH

As a student you may experience a range of issues that can cause barriers to learning, such as strained relationships, increased anxiety, substance use problems, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may lead to diminished academic performance or reduce a student's ability to participate in daily activities. The Ohio State University offers services to assist you with addressing these and other concerns you may be experiencing. If you or someone you know are suffering from any of the aforementioned conditions, you can learn more about the broad range of confidential mental health services available on campus.

- For Pharmaceutical Sciences (BSPS) major students: you may contact Dr. Shawn Levstek, Psy.D. directly via email (levstek.4@osu.edu), and he will offer you an initial counseling session via Zoom to initiate services. During this meeting he will address your current concerns and mental health needs, in addition to collecting background information and assessing your history of concerns. He will also discuss future treatment options with you, and can connect you with other resources as well, where appropriate. If any students have questions or concerns, please email Dr. Levstek directly.
- For non-Pharmaceutical Sciences major students: [The OSU Counseling and Consultation Services](#)
 - 4th floor of the Younkin Success Center and 10th floor of Lincoln Tower (614-292-5766)
 - Review their list of [mental health service options](#)







Note: You can reach an on-call counselor when CCS is closed at [614-292-5766](tel:6142925766) and 24 hour emergency help is also available through the 24/7 National Suicide Prevention Hotline at 1-800-273-TALK or at suicidepreventionlifeline.org

Please see our **GET HELP WHEN YOU NEED IT** page in the Student Resources module on our Carmen site for help with technology, learning, and/or mental health issues.

COLLEGIATE RECOVERY COMMUNITY (CRC)

The Collegiate Recovery Community is a welcoming and inclusive environment that provides support for students in or seeking recovery. The CRC office as well as a student lounge is conveniently located on campus in 097 Baker Hall, across from the Ohio Union. The CRC is a place where students are empowered to be their authentic selves and support one another while navigating their college experience free of alcohol and other drugs. They serve as the main touch point for students in recovery who are either currently attending or plan on attending The Ohio State University by acting as a connector for the students and assisting them in utilizing resources on and off campus. Please reach out to recovery@osu.edu to learn more.

Tentative Schedule (note: class activities will be done throughout the semester and are not listed in the schedule)

Module	Topic	To Do
Module 1 (Weeks 1-2): Introduction: Pharmacology and Addiction Aug 20 – 29	<ul style="list-style-type: none"> Course expectations / Introduction and Overview 1. Intro to Pharmacology 	<ul style="list-style-type: none"> Meet and Greet Discussion Post Intro to the Course - Syllabus Quiz #1
	<ul style="list-style-type: none"> 2. History of Addicting Drugs 3. Intro to Addiction 	<ul style="list-style-type: none"> Assignment #1 (Life and drug experience) - Thur
Module 2 (Weeks 3-4): Neurobiology of Addiction Sep 3-12	<ul style="list-style-type: none"> 4. Neurobiology of Addiction (Part 1 and 2) 	<ul style="list-style-type: none"> Quiz #2 Addiction Intro - Thur
	<ul style="list-style-type: none"> 5. Addiction Behavior and Genetics 	<ul style="list-style-type: none"> Quiz #3 (Neurobio of Addiction) - Thur
Module 3 (Week 5-6): Studying Addiction Sep 17-26	<ul style="list-style-type: none"> 6. Studying Addiction 7. Animal Models 	<ul style="list-style-type: none"> Assignment #2 (Rat Park) - Thur
	<ul style="list-style-type: none"> 8. Neuroimaging/Review for Exam 1 Exam 1 	<ul style="list-style-type: none"> Quiz #4 (Studying Addiction) - Tue Exam #1 (9/26)
Module 4 (Weeks 7-8): Narcotics and Depressants Oct 1-10	<ul style="list-style-type: none"> 9. Depressants 10. Opioids and the Opioid Epidemic 	<ul style="list-style-type: none"> Quiz #5 (Opioids) - Thur
	<ul style="list-style-type: none"> 11. Cannabis 	
	 Fall Break – Oct 10 	
Module 5 (Weeks 9-10): Psychostimulants Oct 15-24	<ul style="list-style-type: none"> 12. Cocaine 13. Alcohol 	<ul style="list-style-type: none"> Assignment #3 (Social Marketing) - Thur
	<ul style="list-style-type: none"> 14. Amphetamine / Methamphetamine 15. Nicotine/Tobacco 16. Caffeine 	<ul style="list-style-type: none"> Quiz #6 (cannabis) - Tue
Module 6 (Weeks 11-13): Hallucinogens Oct 29 – Nov 14	<ul style="list-style-type: none"> Guest Speaker 17. MDMA / “Gas Station Dope” 	
	<ul style="list-style-type: none"> Nov 5th (Election Day, Asynchronous class) 18. Hallucinogens (LSD, PCP, Schrooms) 	<ul style="list-style-type: none"> Begin research/decisions for final project
	<ul style="list-style-type: none"> 19. Therapeutic uses of Addicting Drugs 	<ul style="list-style-type: none"> Quiz #7 (Designer Drugs/Hallucinogens) - Thur
Module 7 (Weeks 14-16): Society and Addiction Nov 19-Dec 3	<ul style="list-style-type: none"> 20. Drug Testing 21. Addiction Treatment/Drug Legalization Exam 2 	<ul style="list-style-type: none"> Quiz #8 (Drug Testing) - Tue Exam #2 (11/21)
	 Thanksgiving – Nov 27-29 	
	<ul style="list-style-type: none"> Work on Final Project 	<ul style="list-style-type: none"> Final Project due Dec 6th