

Classroom: Online via elearning.ufl.edu

Course Director and Program Coordinator:

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There are no set office hours for this online course, to best accommodate asynchronous learning. If you have questions about the material or the course, please contact one of the above individuals using E-Learning.

COURSE DESCRIPTION

This course is designed to provide an objective, scientific, and medically-based knowledge of the medical and recreational use of cannabis and tobacco. Use of these plants, and derivatives of them, is a common occurrence in our society, making it crucial that they are understood. The content will be useful for those students that may consume them themselves, have family or friends that do, medical professionals that treat others, and scientists researching their use.

Concepts are taught using a combination of online lectures and online problem sets. The problem sets are designed to help the student reinforce and understand these fundamental concepts. The ultimate goal is for students to develop an understanding of the core principals of medical pharmacology and therapeutics, as well as the problem solving and critical thinking skills, necessary to study pharmacology and therapeutics in the context of human disease.

PREREQUISITES

This course requires at least 5 full semester courses related to biology, chemistry and/or physics.

LEARNING RESOURCES

1. Recorded video lectures with PowerPoint presentations will be provided in E-Learning.
2. Lecture notes for each video lecture are available as PDF downloads in E-Learning.
3. The textbooks for this course are available to UF students free of charge through the health science center library.

Cannabinoids and the Brain

UF students can access the e-book [here](#).

LEARNING OUTCOMES

Successful completion of this course will prepare students to apply pharmacological and medical knowledge of cannabis and tobacco to scientific research of clinical practice. These students will be able to:

1. Identify the various bioactive products that may be isolated from cannabis and understand the effects that cannabis-derived products have on the human body.
2. Describe the different routes of administration used for tobacco products, the pharmacodynamics/pharmacokinetics of nicotine, its physiological effects, and pharmacological cessation treatments available.
3. Demonstrate the ability to apply pharmacological principles and an understanding of cannabis and tobacco in multiple choice examinations, research assignments, and homework exercises.

GRADING SCALE

A numerical grade will be given at the end of the course and will be scored as follows, per University of Florida standards (<https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>):

92-100% = A
90-91% = A-
87-89% = B+
82-86% = B
80-81% = B-
77-79% = C+
72-76% = C
70-71% = C-
67-69% = D+
62-66% = D
60-61% = D-
<60% = E

FINAL GRADE CALCULATION

Your final grade will be calculated as below:

20% Problem Sets
30% Review Exams
30% Research Assignments
20% Comprehensive Final Exam

1. Problem Sets: 20%

- a. The course content is structured into groups of lectures that are accompanied by problem sets.
- b. Problem sets may require basic calculations or interpretations of data figures describing the action of drugs or other therapeutic agents along with testing general comprehension.
- c. They are open book.
- d. Each problem set has its own due date, which is available in E-Learning.
- e. Points will be spread evenly over all questions for the entire semester.

2. Review Exams: 30%

- a. There will be two exams that will test mastery of the questions from the problem sets.
- b. All questions will be taken directly from the problem sets.
- c. Students should expect to see every question from the problem sets, other than the short answer questions, on this exam.

- d. Points will be spread evenly over all questions from both exams.
- e. These exams must be proctored by ProctorU.

3. Research Assignments: 30%

- a. There are two Research Assignments, which are designed to help the student integrate the concepts of pharmacology and therapeutics with the preclinical and clinical stages of drug discovery as related to human disease.
- b. This assignment is an original paper that explores an area of pharmacology relevant to the focus of the course.
- c. The specific focus of each paper **MUST** be chosen from the provided list of topics.
- d. The paper should cite authoritative sources such as the primary scientific literature and informational websites of government agencies.
- e. This assignment is due on the date indicated in E-Learning and a scoring rubric is included with the online assignment.
- f. All submissions will be submitted to Turnitin to check for originality.
- g. See course FAQ for more information on paper specifics.

4. Final Exam: 20%

- a. There will be one cumulative exam covering the material taught in all of the lectures.
- b. This exam will be multiple choice.
- c. The exam may be taken any time during the window of availability; however, it can only be taken once.
- d. You must set up online proctoring for this exam as described in the following section.
- e. If you are in the process of taking the exam when the scheduling window closes, it will automatically submit and you will not be allowed to complete the rest of the exam.

EXAM PROCTORING

The exam will be monitored by ProctorU, a UF chosen service that allows the students to complete their exams at home while still ensuring academic integrity. Students will make the arrangements for exam proctoring. But all standard costs of the exam are covered in the registration costs. Last-minute appointments with ProctorU to take the exam may incur extra costs that are the responsibility of the student.

ProctorU is a live online proctoring service that allows you to take your exam from the comfort of your home. ProctorU is available 24/7, however, you will need to schedule your proctoring session at least 72 hours in advance to avoid any on-demand scheduling fees. Creating a ProctorU account is simple. You can do so by visiting go.proctoru.com.

In order to use ProctorU, you will need a high-speed internet connection, a webcam (internal or external), a windows or apple operating system, and a government issued photo id. ProctorU recommends that you visit <https://test-it-out.proctoru.com/> prior to your proctoring session to test your equipment. We recommend you click on the button that says "connect to a live person" to fully test out your equipment.

Additionally, please visit and review the test-taker resource center [here](#). You should expect the startup process with the proctor to take about 10-15 minutes. However, this time will not affect your exam time. Please feel free to direct any questions to the student support team via the live chat within your account.

MAKE-UP AND LATE POLICY

There are no make-up exams unless otherwise granted by the course coordinator prior to an examination date. Failure to take an exam without prior permission from the course coordinator will be recorded as 0.

All other assignments may be completed late up until final grades are posted. A penalty of 0.2% per hour will be applied to each late assignment unless due to an excused absence, as defined by UF policy <https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/>. At no point shall an assignment be worth less than 50% of its original value. In the event of an excused absence, the student must work with the instructor to turn in work as soon as feasible.

ACADEMIC HONESTY

Please review the complete policy of the University of Florida regarding academic dishonesty, found in the online student handbook at: <http://graduateschool.ufl.edu/media/graduate-school/pdf-files/handbook.pdf>. Students are expected to abide by the University of Florida Academic Honesty Guidelines and to adhere to the following pledge: We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment."

ACCESSIBILITY

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the disability Resource Center by visiting <https://disability.ufl.edu/students/get-started/>. It is important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in the semester.

IMPORTANT NOTICE ABOUT PLAGIARISM

Plagiarism is not tolerated at the University of Florida. The University of Florida has an honor code that defines plagiarism as follows: Section 3a: Plagiarism. A student shall not represent as the student's own work all or any portion of the work of another. Plagiarism includes but is not limited to:

1. Quoting oral or written materials including but not limited to those found on the internet, whether published or unpublished, without proper attribution.
2. Submitting a document or assignment which in whole or in part is identical or substantially identical to a document or assignment not authored by the student.

Please note that intent is not an element of this kind of violation so it is important to take great care to complete the written assignments in your own words. The first incidence of plagiarism, which will be reported to the University, may be punishable by a maximum penalty of a "0" grade for the assignment. Subsequently, a second academic honesty infraction can result in expulsion from the University.

For a complete description of the UF Honor Code and procedures, please visit: <https://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/>.

For a good discussion about plagiarism and how to properly cite your sources, please visit: <http://mediasite.video.ufl.edu/Mediasite/Play/adaa44500eaf460a84f238e6b9a558f9>.

COURSE OUTLINE

Due Dates Can Be Found on E-Learning

Videos	Problem Sets/Research Assignments
Course Introduction	
Introduction to Cannabis	
Endocannabinoid System	
	Problem Set 1: Cannabis Basics
Effects on Emotion	
Effects on Psychosis	
Effects on Memory	
Effects on Reward and Addiction	
	Problem Set 2: Brain Function
Effects on Appetite	
Effects on Nausea	
Effects on Pain	
	Problem Set 3: Appetite, Nausea, and Pain
Effects on Epilepsy	
Effects on Neurodegenerative Disorders	
	Problem Set 4: Epilepsy and Neurodegenerative Disorders
	Research Assignment 1: Pharmacology of Medical Cannabis
Introduction to Tobacco and Tobacco Products	
Chemistry of Tobacco	
	Problem Set 5: Intro to Tobacco
Tobacco Pharmacodynamics	
Tobacco Pharmacokinetics	
Nicotine Dependence	
Cessation Treatments	
	Problem Set 6: Tobacco Pharmacology
Tobacco and Lung Cancer	
Tobacco and the Pulmonary System	
Tobacco and the Cardiovascular System	
	Problem Set 7: Effects of Tobacco Use 1

Tobacco and the Nervous System	
Tobacco and Other Organ Systems	
Tobacco and Pregnancy	
Second-Hand Smoke	
	Problem Set 8: Effects of Tobacco Use 2
E-Cigarettes and Vaping I	
E-Cigarettes and Vaping II	
	Problem Set 9: E-Cigarettes and Vaping
	Research Assignment 2: Pharmacological Tobacco Cessation
	Final Exam

COURSE EVALUATION

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at <https://gatorevals.aa.ufl.edu/students/>. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/>.