

University of Florida
College of Public Health & Health Professions Syllabus
HSC4557: Medical Pharmacology (3 credit hours)
Fall 2025

Delivery Format: Asynchronous via UF eLearning (Canvas)

Sections: 26583 = SEC1
26584 = SEC2
26585 = SEC3
26586 = SEC4
26587 = SEC5
26588 = SEC6

Instructor: Tracie Baker, DVM, PhD
Office: 308 Cancer/Genetics Research Complex
Office Hours: Tuesdays, 11am -12pm, or by appointment; in person or via Zoom:
<https://ufl.zoom.us/my/traciebaker>
Email: tracie.baker@phhp.ufl.edu

Co-Instructor: Danielle Meyer, PhD
Office Hours: By appointment
Email: danielle.meyer@ufl.edu

Graduate Teaching Assistants: These are graduate students who are available to help administer the course (e.g., exam development, discussion groups, and grading) and help students as needed.

Teaching Assistant: Xue Wu
Sections: SEC3, SEC4, SEC5, SEC6
Office Hours: By appointment
Email: wuxue@ufl.edu

Teaching Assistant: Emily Kintzele
Section: SEC1
Office Hours: By appointment
Email: emily.kintzele@ufl.edu

Teaching Assistant: Emma VanderMeulen
Section: SEC2
Office Hours: By appointment
Email: e.vandermeulen@ufl.edu

Prerequisites

Health Science major who completed OTH3416 Pathophysiology with a C grade or higher.

PURPOSE AND OUTCOME

Course Overview

This undergraduate course in pharmacology provides an overview of the fundamental principles of pharmacology, including drug classifications, mechanisms of action, and their impact on the human body. Students will explore the history of pharmacology, drug development, and the ethical considerations surrounding drug use and regulation.

Relation to Program Outcomes

This course aligns closely with the major's *Student Learning Outcome 6: Critical Thinking*. Throughout this course, students will explore the intricate relationship between drugs and clinical care, students will enhance their ability to think critically about the complex challenges and advancements in healthcare, fostering a deeper understanding of the implications of pharmacological interventions on patient outcomes. Through a combination of theoretical knowledge and practical applications, this course aims to equip students with the analytical tools

necessary to navigate and contribute to the ongoing discourse surrounding pharmaceutical practices in clinical settings.

Course Objectives and/or Goals

Upon successful completion of this course, the student will be able to:

1. Explain the basic principles of pharmacology and its importance in healthcare.
2. Describe the processes involved in drug discovery and development.
3. Identify and classify different types of drugs and their mechanisms of action.
4. Describe the pharmacokinetics and pharmacodynamics of drugs.
5. Analyze the therapeutic and adverse effects of commonly used drugs.
6. Discuss the ethical and regulatory aspects of drug use.
7. Apply pharmacological knowledge to real-world case study scenarios.

Instructional Methods

The course is housed in Canvas, a UF e-Learning platform, and delivered using online asynchronous instruction. **Lectures, support materials, assignments, quizzes, exams, and discussion boards are found in UF eLearning (Canvas).** Success in this course requires consistent engagement with the material, active participation in discussion groups, and detailed notetaking.

DESCRIPTION OF COURSE CONTENT

Weekly Course Schedule: Lectures, supporting materials, quizzes, and discussion assignments for each lesson will become available via UF eLearning (Canvas) on Wednesday at 12:01am, with each lesson's quiz and discussion assignment due on the following Monday. All deadlines occur at 11:59pm. The course instructor reserves the right to modify the schedule as necessary.

Proposed Weekly Course Schedule						
	Topic	Quiz due dates	Discussion assignment due dates	Q&A deadline	Other due dates	Exam dates
8/21-8/27	Welcome to HSC 4557 – Getting Started	Aug 27 th				
8/21-9/3	Lesson 1 - Introduction to pharm	Sep 1 st	Sep 1 st			Sep 25 th
9/3-9/10	Lesson 2- Drug discovery & approval	Sep 8 th	Sep 8 th			
9/10-9/17	Lesson 3- Pharmacodynamics	Sep 15 th	Sep 15 th		Drug calculation worksheet Sep 18 th	
9/17-9/24	Lesson 4 - Pharmacokinetics	Sep 22 nd	Sep 22 nd	Sep 22 nd		Oct 23 rd
9/24-10/1	Lesson 5 – Principles of toxicology	Sep 29 th	Sep 29 th			
10/1-10/8	Lesson 6 – Patient variation in drug response	Oct 6 th	Oct 6 th			
10/8-10/15	Lesson 7 - Antimicrobials and antivirals	Oct 13 th	Oct 13 th			Nov 20 th
10/15-10/22	Lesson 8 – Inflammation, immunomodulatory, and hematopoietic pharmacology	Oct 20 th	Oct 20 th	Oct 20 th		
10/22-10/29	Lesson 9 - Neuropharmacology	Oct 27 th	Oct 27 th		Final project proposal Nov 7 th	
10/29-11/5	Lesson 10 – Cardiology, renal, and pulmonary pharmacology	Nov 3 rd	Nov 3 rd			Nov 20 th
11/5-11/12	Lesson 11 – Endocrine and GI pharmacology	Nov 10 th	Nov 10 th			
11/12-11/20	Lesson 12 – Special systems and neoplastic pharmacology	Nov 17 th	Nov 17 th	Nov 17 th		

11/20-12/5	Final project Course evaluation				Dec 3 rd Dec 5 th	
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Course Materials and Technology

Required book

This course qualifies for an Affordable UF Badge due to the low cost of the required book (designated by UF as less than \$20/credit), which can be accessed online through the George A. Smathers Libraries.

Goodman & Gilman's: The Pharmacological Basis of Therapeutics, 14th Edition. Edited by Laurence L. Brunton and Björn C. Knollmann, McGraw-Hill Education, 2023. ISBN: 978-1-264-25807-9

How to access the required book online:

- Search for this book on the George A. Smathers Libraries website or [use this link](#) to go directly to the book page within the George A. Smathers Libraries website.
- Scroll down and select: "McGraw-Hill AccessPharmacy – Courtesy of the College of Pharmacy"
- Click on the plus (+) symbol for the relevant Section, then click on the relevant Chapter.

Required Technology

Computer with high-speed internet access and use of a supported browser.

How to access journals and articles online that are behind paywalls:

- Connect to University of Florida's Virtual Private Network (VPN). Before connecting, you must first download [Cisco Secure VPN](#).
- After connecting to the VPN, go to the website for [George A. Smathers Libraries](#).
- Navigate to the "Find" dropdown menu, then "Articles", then "A-Z database list". Select a database of your choice, e.g. Google Scholar.
- Once you have navigated to the database of your choice, the database website will recognize your affiliation with University of Florida and allow you to access journals and articles that are behind paywalls.

elearning: [Canvas](#) is the platform/software containing the course website, testing location, and includes all course information, materials, and scheduling. To access this course on Canvas, you will use your Gatorlink ID and password to login to the course. **Students are responsible for using a reliable and fast computer and internet connection** while completing quizzes and exams. Working on campus computers and networks may be helpful. Unless Canvas or the UF network are slowed or not working, slow or lost connections and computers that "die" are not acceptable reasons for incomplete or missing quizzes, discussion boards, or exams.

For information about the privacy policies of the tools used in this course, see the links below.

All of these technologies have been vetted and are approved as compliant to University of Florida privacy standards. It is also recommended to protect your log-in and other private information.

- Instructure (Canvas)
 - [Instructure Privacy Policy](#)
 - [Instructure Accessibility](#)
- Microsoft
 - [Microsoft Privacy Policy](#)
 - [Microsoft Accessibility](#)
- YouTube (Google)
 - [YouTube \(Google\) Privacy Policy](#)
 - [YouTube \(Google\) Accessibility](#)
- Zoom
 - [Zoom Privacy Policy](#)
 - [Zoom Accessibility](#)

Technical Support

If you encounter technical difficulties in this course, contact the UF Computing Help Desk:

<https://helpdesk.ufl.edu/> or (352) 392-4357. All technical issues require a UF Helpdesk Ticket Number. The UF Helpdesk is available 24 hours a day, 7 days a week.

ACADEMIC REQUIREMENTS AND GRADING

Grading Policy

To assess how well we achieve the course goals, and allow you to demonstrate your knowledge and skills in the principles of wildlife ecology and management and their application in solving wildlife management and conservation problems, we have developed several evaluation instruments:

- Introduce yourself to your classmates 2 pts
 - Syllabus and Credible Sources quiz 13 pts
 - Quizzes*: 12 quizzes @ 15 pts each 180 pts
 - Discussions**: 12 discussions @ 20 pts each 240 pts
 - Drug calculation worksheet @ 45 pts 45 pts
 - Exams^: 3 exams @ 130 pts each 390 pts
 - Final project† 130 pts
- Total 1000 pts**

Grade	Scale	Grade	Scale
A	93-100%	C	73-76%
A-	90-92%	C-	70-72%
B+	87-89%	D+	67-69%
B	83-86%	D	63-66%
B-	80-82%	D-	60-62%
C+	77-79%	E	<60%

***Quizzes (15 pts each):** Quizzes are designed to reinforce the week's lecture and supplementary material, as well as provide example/practice exam questions. Quizzes are time-limited.

****Discussions (20 pts each):** Submit a minimum 2-paragraph (~8 sentence) response to the discussion prompt for the lesson with at least one credible source (10 pts). See rubric for discussion assignments in Canvas. On the discussion board, post your 2-paragraph response, then post two unique replies with a supporting or countering point to other posts (5 pts for each reply). *Discussion boards are available from Tuesdays at 12:01am until Wednesdays at 11:59pm.* Discussion comments / posts must be unique, appropriate, and relevant to the discussion, and add content. *Saying things like "hey" or "yes, I agree with this statement" will not count as actively contributing to discussion.*

Cite credible sources using both: (1) in-text citations, either in the form of last name of first author, year of publication (for example: Baker et al., 2025); or website Uniform Resource Locator (URL), date accessed (for example: ufl.edu, 9 Jan 2025); AND (2) a complete citation in any well accepted format that includes the following (as applicable to the source): author name(s), publication year or date accessed, title of the article or webpage, journal name, volume, page range, and Digital Object Identifier (DOI) or website URL. Provide a weblink to the credible source when possible.

^Exams (130 pts each): Exams cover lectures and supplementary material. Exam questions will be a combination of multiple-choice, matching, and true/false. All exams will be administered during the course of the semester (i.e. no exam will be scheduled during Final Exams week). Exams are taken in Canvas, with questions randomly drawn from multiple, large question banks. You may use your notes, but students must work alone. **Exams open on Thursdays at 12:01 am and close on Thursdays at 11:59 pm.** Exams are time-limited.

†**Final project (130 pts):** The final project is based on the concept of the 3-minute thesis, with the goal of inspiring creativity with science communication. Each student can either choose a topic that interests you and relates in some way to material from this course, or you can create an ethical pharmaceutical public service announcement focused on educating a target audience about the benefits, uses, and safety profile of a prescription or over-the-counter medication. Each student will make a 1- to 3-minute video/reel, or recorded presentation made with Power Point, Prezi, Canva, or something similar, that can be easily understood by a general audience, while covering the content credibly, effectively, and creatively. Students must submit a proposal that includes the topic and a summary of the project plan. The proposal will be worth 30 points of the final project grade. **Proposals can be submitted starting October 29th. Students who do not submit a proposal by November 7th, will receive zero points on the entire final project.** To maximize points on the final project, incorporate instructor feedback for your proposal into your final project. The final project will be due on the final day of the semester.

Q & A discussion boards: During each module (see Weekly Course Schedule), students have the opportunity to ask a question(s) that would help clarify or improve comprehension of the **online lecture and supplementary material** (not assignments or quizzes). Questions can be posted on the Q&A discussion board for each module. The course instructor will respond to the most relevant questions, as long as the questions are posted on the discussion board before the Tuesday preceding each exam. Carefully read the discussion board before posting a question(s) to ensure you are not repeating a question(s).

Attendance and Make-up Work: Given the length of time that quizzes and discussion assignments are available for each lesson, make-up options are rarely provided, unless arrangements are made in advance. Make-up exams will only be given with an approved absence, i.e. arranged before the absence and with a note from a medical doctor, an appropriate University official, or employer that indicates your absence encompasses the entire time the exam was available. Late assignments are rarely accepted for partial credit. If arrangements are made in advance, late assignments can be eligible for full points. Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies. [UF Attendance Policies](#)

STUDENT EXPECTATIONS, ROLES, AND OPPORTUNITIES FOR INPUT

Instructor Interaction Plan

- Though email is preferred, expect an instructor response to email and Canvas messages within 24 hours, during weekdays.
- Grades and feedback will be posted on Canvas within 7 days of a due date/deadline. If you ever have questions or need clarification on feedback, please message or attend office hours.
- Students will have two weeks after the posting of a grade to request instructor review of the grade. Failure to request a review within this period indicates a willingness to accept the assigned grade.
- An announcement will be posted at least once a week to provide due date reminders, class-level feedback, and other updates as needed.
- Discussion boards are read and monitored.
- I invite your feedback for the end-of-term GatorEvals. Your opinion is highly valued.

Communication Guidelines

- A respectful tone is used by all community members in all forms of communication.
- Email (and Canvas messaging) correspondence is for (1) setting an appointment outside of office hours, (2) questions that are specific to your grades or submissions, (3) DRC accommodations, (4) emergency situations, or (5) highly sensitive situations.

Academic Honesty

University of Florida students are bound by the Honor Pledge. As a student at the University of Florida, you have committed yourself to uphold the Honor Code, which includes 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 by abiding by the Student Honor Code.”

You are expected to exhibit behavior consistent with this commitment to the UF academic community, and on all work submitted for credit 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."

Furthermore, as part of your obligation to uphold the Honor Code, you should report any condition that facilitates academic misconduct to appropriate personnel. It is your individual responsibility to know and comply with all university policies and procedures regarding academic integrity and the Student Honor Code. Violations of the Honor Code at the University of Florida will not be tolerated. Violations will be reported to the Dean of Students Office for consideration of disciplinary action. For more information regarding the Student Honor Code, please see [Student Conduct Code Process](#).

Policy for use of Artificial Intelligence (AI) Generative Tools

Since critical thinking skills are an important part of the Course Goals and will prepare you for a competitive workplace, all discussion assignments and other written assignments should be prepared by the student. Use of any text-generating tools (e.g. ChatGPT) is not permitted and will be treated as plagiarism. Note that material generated by these tools tend to be inaccurate, incomplete, or otherwise problematic (e.g. misappropriating citations). An assignment that is found to have been plagiarized or to have used unauthorized tools will automatically receive a zero, and you may be reported for academic misconduct depending on the severity of the case.

For your final project, image-generating tools (e.g. DALL-E) can be used, as long as you provide a citation in the following format: AI company name, AI tool name, date of generation, and prompt used (e.g. Google. Gemini. 9 Jan 2025. Response to " How do you cite use of generative AI."). Note that image generation models can occasionally produce highly offensive products. You will be responsible for any offensive or otherwise unethical content you submit regardless of the source.

Online Course Evaluation Process

Student assessment of instruction is an important part of efforts to improve teaching and learning. At the end of the semester, students are expected to provide feedback on the quality of instruction in this course using a standard set of university and college criteria. 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 the [GatorEvals site](#). Summaries of course evaluation results are available to students at [GatorEvals Public Data](#).

Lecture Recording

Students are allowed to record video or audio of class lectures. However, the purposes for which these recordings may be used are strictly controlled. The only allowable purposes are (1) for personal educational use, (2) in connection with a complaint to the university, or (3) as evidence in, or in preparation for, a criminal or civil proceeding. All other purposes are prohibited. Specifically, students may not publish recorded lectures or PowerPoint presentations without the written consent of the instructor.

A class lecture is an educational presentation intended to inform or teach enrolled students about a particular subject, including any instructor-led discussions that form part of the presentation, and delivered by any instructor hired or appointed by the University, or by a guest instructor, as part of a University of Florida course. A class lecture does not include lab sessions, student presentations, clinical presentations such as patient history, academic exercises involving solely student participation, assessments (quizzes, tests, exams), field trips, private conversations between students in the class or between a student and the faculty or guest lecturer during a class session.

Publication without permission of the instructor is prohibited. To "publish" means to share, transmit, circulate, distribute, or provide access to a recording, regardless of format or medium, to another person (or persons), including but not limited to another student within the same class section. Additionally, a recording, or transcript of a recording, is considered published if it is posted on or uploaded to, in whole or in part, any media platform, including but not limited to social media, book, magazine, newspaper, leaflet, or third party note/tutoring

services. A student who publishes a recording or presentation without written consent may be subject to a civil cause of action instituted by a person injured by the publication and/or discipline under UF Regulation 4.040 Student Honor Code and Student Conduct Code.

Software Use

All faculty, staff and students of the university are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against university policies and rules, disciplinary action will be taken as appropriate.

SUPPORT SERVICES

Services for Students with Disabilities

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the [Disability Resource Center \(DRC\)](#). It is important for students to share their accommodation letter with the course instructor and discuss their needs as early as possible in the semester.

Campus Resources

Students experiencing crises or personal problems that interfere with their general well-being are encouraged to utilize the university's counseling resources. The Counseling & Wellness Center provides confidential counseling services at no cost for currently enrolled students. Resources are available on campus for students having personal problems or lacking clear career or academic goals, which interfere with their academic performance.

Health and Wellness

- *U Matter, We Care*: If you or someone you know is in distress, please contact umatter@ufl.edu, 352-392-1575, or <https://umatter.ufl.edu/> to refer or report a concern and a team member will reach out to the student in distress.
- *Counseling and Wellness Center*: Visit <https://counseling.ufl.edu/> or call 352-392-1575 for information on crisis services as well as non-crisis services.
- *Student Health Care Center*: Call 352-392-1161 for 24/7 information to help you find the care you need, or visit <https://shcc.ufl.edu/>
- *University Police Department*: Visit <https://police.ufl.edu/> or call 352-392-1111 (or 9-1-1 for emergencies).
- *UF Health Shands Emergency Room / Trauma Center*: For immediate medical care call 352-733-0111 or go to the emergency room at 1515 SW Archer Road, Gainesville, FL 32608; visit <https://ufhealth.org/locations/uf-health-shands-emergency-room-trauma-center>
- *GatorWell Health Promotion Services*: For prevention services focused on optimal wellbeing, including Wellness Coaching for Academic Success, visit <https://gatorwell.ufsa.ufl.edu/> or call 352-273-4450.

Academic Resources

- *Career Connections Center*: Reitz Union Suite 1300, 352-392-1601. Career assistance and counseling services.
- *Teaching Center*: 1317 Turlington Hall, 352-392-2010. General study skills and tutoring.
- *Writing Studio*: 2215 Turlington Hall, 352-846-1138. Help brainstorming, formatting, and writing papers.
- *Student Concern*: [Report Student Concerns or Conduct](#)

Student Complaints

- Residential Course: <https://www.sfa.ufl.edu/written-student-complaints/>
- Online Course: <https://pfs.tnt.aa.ufl.edu/state-authorization-status/#student-complaint>

Inclusive Learning Environment

Public health and health professions are based on the belief in human dignity and on respect for the individual. As we share our personal beliefs inside or outside of the classroom, it is always with the understanding that we value and respect diversity of background, experience, and opinion, where every individual feels valued. We

believe in, and promote, openness and tolerance of differences in ethnicity and culture, and we respect differing personal, spiritual, religious and political values. We further believe that celebrating such diversity enriches the quality of the educational experiences we provide our students and enhances our own personal and professional relationships. We embrace The University of Florida's Non-Discrimination Policy, which reads, "The University shall actively promote equal opportunity policies and practices conforming to laws against discrimination. The University is committed to non-discrimination with respect to race, creed, color, religion, age, disability, sex, sexual orientation, gender identity and expression, marital status, national origin, political opinions or affiliations, genetic information and veteran status as protected under the Vietnam Era Veterans' Readjustment Assistance Act." If you have questions or concerns about your rights and responsibilities for inclusive learning environment, please see your instructor or refer to the Office of Multicultural & Diversity Affairs website: www.multicultural.ufl.edu