

Course Syllabus
Medicinal Biochemistry/CHEM 4309
Fall 2018

Instructors: Dr. Nolan Carter, Dr. Lori Isom, Dr. Melissa Kelley

Instructor: Nolan Carter
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Office Hours:

Instructor: Lori Isom
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Web Site: <http://chemistry.uca.edu/faculty/isom/home.html>

Office Hours: T, R: 9:15-10:15am
& 12:05-12:35pm

Instructor: Melissa Kelley
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Web Site: <http://faculty.uca.edu/mkelley/>

Office Hours: Mon: 1:30-2:45
Wed: 8:15-9:00

Class Times: M, W, F 12:00 – 12:50

Room 105 Laney-Manion Hall

Course Description

Medicinal Biochemistry (Chem 4309) is a capstone course that integrates synthetic organic chemistry, pharmacology, and biochemistry. The processes of drug design/synthesis (Carter), consideration of drug Absorption / Distribution / Metabolism / Elimination (ADME, Kelley), specific drug mechanisms of action, and the structural / biochemical basis of the diseases they treat (Isom) will be investigated for common classes of pharmaceuticals.

Prerequisites:

The prerequisites for this course include the completion of Organic Chemistry II (Chem 3411) and Biochemistry I (Chem 4320) with a C or better.

Course Materials

An Introduction to Medicinal Chemistry, Patrick, G.L. 6th ed., Oxford University Press.

For a course of this level, students should not expect the course to center around or to be able to rely on a single textbook for instruction and/or assistance. Therefore, students should be aware that the instructors will primarily rely on a variety of resources including graduate-level texts and primary scientific journal articles for information.

Class Attendance and Make-up Policy

Class attendance is strongly recommended. Those students who attend class regularly are the most likely to succeed in this course. As mentioned above, the vast majority of the material presented in this course will not be in a textbook. So attending class is necessary to obtain all the information that you will be held responsible for on quizzes and assignments. Whether a student

is excused from an announced quiz or allowed to take it at a later date is solely the discretion of the instructors. If you must miss a class during which assessments are given or due, substantial proof (what constitutes this is solely our discretion) of the reason for the absence will be required before any consideration for make up work is granted. Any student who is absent from class for 4 class meetings without contacting me may be dropped from the course with a F, at my discretion

Class Communications

Students are required to obtain all information missed from class absences from their peers. It is a very good idea to have a classmate record a lecture that you know you will miss. Once notes and/or lecture recording(s) have been obtained and reviewed, students should come to my office during office hours to clarify any confusion about the missed material. If a texting app service is used for the class, class announcements may be sent out by email and/or text. Students should check their UCA email account regularly for class information/reminders. Announcements may also be made using the course management system.

Class Disruptions

Students are expected to be engaged and attentive during lecture and to act respectfully toward the instructor(s) and their peers throughout the duration of the class. Students who act in a disrespectful or disruptive manner (talking during lecture, sleeping in class, TEXTING OR CELL PHONE USE, intolerance for other students' questions, etc.) will be required to leave the class and will not be allowed to make up any assignments or exams missed because of the dismissal. If the behavior continues, the student will be dropped from the class by the instructor and assigned the appropriate grade. Cell phones are not allowed in the student's possession during exams and/or quizzes. Any student wishing to bring one of these devices to class during testing are required to leave the device on the desk at the front of the classroom at their own risk. The student is solely responsible for the safety of their devices if they choose to bring them into the classroom during exam times. Possession of cell phones is permitted during regular lectures, labs and reviews, however these devices should be silenced prior to class to minimize the potential disruption of the lecture or other class activities.

Course Assignments

Quizzes (120 pts)

There will be four announced quizzes during the course of the semester.

Student Lectures (90 pts)

Each student will select and obtain approval on one drug that must be administered orally. Building on foundational lecture material, the lecture will consist of 25 minutes (20-minute lecture and 5 minutes for questions). The presentation will need to include the synthesis of the drug, the mechanism of action and the ADME of the drug). Students will submit their lecture slides and references through Google Classroom. Students should submit their lecture materials 48 hours prior to their schedule lecture time.

Show and Tell (40 points)

Scheduled lecture days will be available for the students to present a show-and-tell over one of the drugs covered in class. The student will be limited to two minutes with one minute allowed for questions.

Miscellaneous Assignments (0-100 pts/per instructor)

Some additional assignments may be given throughout the semester. These may include homework or other assignments as the instructors deem appropriate. Class participation points may also be applied that reflect attendance, participation in discussions and lecture, and project involvement.

Grading

The following is a **tentative** summary of the assessment tools used included in this class. Specific numbers may be changed if deemed necessary. Grades **will not be curved** in the traditional sense of the word. A curve involves adding points to exam grades to raise the class average to a "C". Therefore, the average grade in this course will not necessarily be a C. However, the instructors do reserve the right to adjust scores when deemed necessary.

Quizzes	120 points
Show and Tell	40 points
Student Lecture	90 points
Miscellaneous Assignments	0-300 points
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Total	250-550 points

Tentative Scale (subject to change):

- A = 90% +**
- B = 80 – 89%**
- C = 70 – 79%**
- D = 60 – 69%**
- F = < 60%**

Important Dates

Nov. 19th-Final Day to drop the course with a W

Drop policy

Students not attending class for whatever reason for more than four class periods may be dropped from the course by the instructor, at the instructor's discretion. If a student decides to drop the class, this decision is solely the responsibility of the student.

Tentative Lecture Schedule

Week	Lecture	Assignment Due
Aug 20	Syllabus	
Aug 27	Introduction	
Sept 3	Cholesterol/Statins	
Sept 10	Cholesterol/Statins	
Sept 17	Bone	Sept 17-Show and Tell Sept 19-Quiz #1
Sept 24	Bone	
Oct 1	Bone	Oct 3-Show and Tell Oct 5-Quiz #2
Oct 8	Antibiotics	Fall Break-Oct. 12
Oct. 15	Antibiotics	
Oct 22	Anitcancer	Oct 22-Show and Tell Oct 24-Quiz #3
Oct 29	Anticancer	
Nov 5	Anticancer	Nov 7-Show and Tell Nov 9-Quiz #4 Final Day to Drop with a W
Nov. 12	Student Lectures	
Nov.19	Student Lectures	Thanksgiving Break Nov 21-23
Nov. 26	Student Lectures	
Dec 3	Student Lectures	Dec 7-Study Day

University Academic Policies

- Academic Integrity** The University of Central Arkansas affirms its commitment to academic integrity and expects members of the university community to accept shared responsibility for maintaining academic integrity. Students in this course are subject to the provisions of the university's Academic Integrity Policy, approved by the Board of Trustees as Board Policy No. 709 on February 10, 2010, and published in the Student Handbook. Penalties for academic misconduct in this course may include a failing grade on an assignment, a failing grade in the course, or any other course-related sanction the instructor determines to be appropriate. Continued enrollment in this course affirms a student's acceptance of this university policy.
- Disabilities Statement** The University of Central Arkansas adheres to the requirements of the Americans with Disabilities Act. If you need an accommodation under this Act due to a disability, please contact the UCA Disability Resource Center, 450-3613.
- Building Emergency Plan** An Emergency Procedures Summary (EPS) for the building in which this class is held will be discussed during the first week of this course. EPS documents for most buildings on campus are available at <http://uca.edu/mysafety/bep/>. Every student should be familiar with emergency procedures for any campus building in which he/she spends time for classes or other purposes.
- Title IX Disclosure** If a student discloses an act of sexual harassment, discrimination, assault, or other sexual misconduct to a faculty member (as it relates to "student-on-student" or "employee-on-student"), the faculty member cannot maintain complete confidentiality and is required to report the act and may be required to reveal the names of the parties involved. Any allegations made by a student may or may not trigger an investigation. Each situation differs, and the obligation to conduct an investigation will depend on the specific set of circumstances. The determination to conduct an investigation will be made by the Title IX Coordinator. For further information, please visit: <https://uca.edu/titleix>. *Disclosure of sexual misconduct by a third party who is not a student and/or employee is also required if the misconduct occurs when the third party is a participant in a university-sponsored program, event, or activity.
- Course Evaluations** Evaluations are kept completely confidential. Your thoughtful feedback is highly valued and cannot negatively or positively affect your course grade. Over the years this information has changed and improved the instruction of this course.
- Student evaluations of a course and its professor are a crucial element in helping faculty achieve excellence in the classroom and the institution in demonstrating that students are gaining knowledge. Students may evaluate courses they are taking starting on the Monday of the thirteenth week of instruction through the end of finals week by logging in to myUCA and clicking on the Evals button in the top right.
- Student Handbook Policies** You are encouraged to familiarize yourself with student policies described in the student handbook. In particular, carefully read and understand those policies pertaining to academic issues and sexual harassment.