

Course Title: Molecular and Cellular Pharmacology

Course Number: 576

Course Credits: 3

Instructor of Record: Changjian “Jim” Feng, Ph.D.

Office Location: RIB Building 299

Office Hours: by appointment

Email: cfeng@unm.edu

Office Phone: 925-4326

Class Meeting Day(s): Mon and Thurs

Class Location / Room: Zoom meeting

Class Time: 1:30- 3:00 PM

Term / Semester: Spring

Course Description:

An overview of principles and basis of modern molecular and cellular pharmacology.

Course Goals:

The goal of this course is to give principles and basis of modern molecular and cellular pharmacology, as well as important details of pharmacokinetics, pharmacology of target organ systems and cancer pharmacology.

Student Learning Outcomes:

- To define the basic principles and concepts in the pharmacology and pharmacokinetics
- To critically read a scientific paper
- To develop a line of questioning based on the chosen paper
- To outline an experimental approach that addresses questions arising from the chosen paper
- To utilize the general knowledge covered in the course

Textbooks/Supplies/Materials/Equipment/ Technology or Technical Requirements:

Suggested Textbooks (free through AccessMedicine or AccessPharmacy):

1) Goodman & Gilman's: The Pharmacological Basis of Therapeutics, 13e

<https://accessmedicine.mhmedical.com/Book.aspx?bookid=2189>

2) Bertram G. Katzung, Anthony J. Trevor: Basic & Clinical Pharmacology, 14e

<https://accessmedicine.mhmedical.com/book.aspx?bookid=2249>

You are required to bring your laptop with wireless to this class to follow along with or complete in-class exercises, and/or electronic pre-quizzes and exams in Moodle.

Handouts and other course material will be posted on the course Moodle Learning Management System site found at <https://hscmoodle.health.unm.edu/moodle>. Faculty will provide their lecture handout/slides as well as an assigned paper or two for discussion in their assigned Discussion Period. The assigned paper(s) will be primary literature article(s) in the lecture topic. Faculty may also write a series of “Be Prepared” and/or “Thought Questions” for students to consider before coming to class. These questions can be listed in the separate handout or embedded in the lecture.

Students will receive handouts, thought questions, and assigned papers in advance of the Lecture/Discussion Period. The Discussion will be led by the faculty and/or student(s). Students should be prepared to discuss the “thought questions” and the assigned literature article(s), and their participation will be counted toward their total grade (see Assessments and Grading below).

Assessments and Grading:

Student performance will be assessed through standard in-class written exams, faculty evaluation of Discussion performance and student self-evaluation. Faculty may provide a representative list of study questions that help students to prepare for their written exams. In addition to scheduled exams, periodic assignments (readings, case study, short answer/essays and/or quizzes) will be assigned. The point values will be factored into the total points available for the course. These assignments will be conducted throughout the semester and are at the discretion of the instructor and IOR. Students must be present during class to participate in any in-class assignments.

Assessments	Percent Contribution
Assignments or homework/In-class activities/quizzes	10
Exam 1	25
Exam 2	29
Faculty assessment of discussion performance	18
Student self-assigned preparation and participation	18
	100%

Exam #1 - Lectures 1-7; 105 pts

Exam #2 – Lectures 8-13; 90 pts

Faculty assessment of Discussion Performance: 0-5 points per session x 13 sessions for a total of 65 possible pts

Student self-assigned Preparation and Participation: up to 5 pts per lecture x 13 lectures = 65 possible pts, according to the following grading scale assigned on a weekly basis:

3 = I was present for class and was prepared for discussions (printed out handout and read the thought questions)

4 = In addition to the above, I participated actively in class discussions and demonstrated knowledge on the thought questions

5 = I performed extra work such as additional readings, attendance of a special seminar, or other another activity; extra work needs to be defined

TOTAL POSSIBLE PTS = 360

Grading

Final grades will be based on the sum of all possible course points as noted above. Assignment of letter grades shall be based upon overall class performance as determined by the course mean and standard deviation, or by percentage points as listed below, whichever is lower.

Percentage of available points Grade

90 - 100 A

80 - 89 B

70 - 79 C

60 - 69 D

< 60 F

HSC Accommodations Statement:

Students requesting accommodation under the Americans with Disabilities Act must provide the College of Pharmacy with a request for accommodation and official documentation of their disability. Decisions on accommodations will be made by The UNM HSC Committee on Students with Disabilities.

Academic Integrity Statement:

Each student is expected to maintain the highest standards of honesty and integrity in academic and professional matters. Any student judged to have engaged in academic dishonesty in course work may receive a reduced or failing grade for the work in question and/or for the course. Academic dishonesty includes, but is not limited to: dishonesty in quizzes, tests, or assignments; claiming credit for work not done or done by others; hindering the academic work of other students; misrepresenting academic or professional qualifications within or without the University; and nondisclosure or misrepresentation in filling out applications or other University records.

Instructors:

Alicia Bolt, Ph.D.

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Phrm 576 Course Schedule (Spring 2021)

1:30 – 3:00 PM, Mon and Thurs

Week	Day	Lecture	Topic	Instructor(s)
1	1/21	1	Pharmacokinetics Discussion	McConville
2	1/25 1/28	2	Dose response relationship Discussion	McConville
3	2/1 2/4	3	Receptor theory Discussion	Delfin
4	2/8 2/11	4	ADE Discussion	Medina
5	2/15 2/18	5	Biotransformation Discussion	Bolt
6	2/22 2/25	6	Pharmacogenomics Discussion	Thompson
7	3/1 3/4	7	Renal Pharmacology Discussion	Vilay
8	3/11 3 PM		Exam 1 due; send completed exam to Dr. Feng via email	
9	3/15 3/18		No class- Spring break	
10	3/22 3/25	8	Immune Pharmacology Discussion	Hall
11	3/29 4/1	9	Endocrine Pharmacology Discussion	Thompson
12	4/5 4/8	10	Cancer Pharmacology Discussion	Thompson
13	4/12 4/15	11	Brain Pharmacology Discussion	Liu
14	4/19 4/22	12	Lung Pharmacology Cardiac ANT/Arrhythmic Discussion	Campen
15	4/26 4/29	13	Cardiac/Vascular Pharmacology Discussion	Delfin
16	5/6 3 PM		Exam 2 due; send completed exam to Dr. Feng via email	

The Schedule of Activities is subject to change. Minor changes will be announced in class, major ones provided in writing.