

Introduction to Pharmacology (4395)

(CRN # 11242)

Course Syllabus, Fall 2022

TR: 9:00-10:20 pm

BUNSS 323

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Office Hours: Open door policy

CLASS TIME

This is an in-person class and all the sessions are at the scheduled time and location.

TEXTBOOK (Suggested) – *Introducing Pharmacology: For Nursing and Healthcare*, second or third edition,

Editor: Roger McFadden. ISBN: 9781138127715

Publisher: (Pearson) Roudledge, Taylor & Francis Group LLC.

<https://www.routledge.com/products/9781138127715>

Census Day:	Sept 7th
Course Drop Deadline:	Oct 28th
Thanksgiving:	Nov 24th-25th
Last day of classes	Dec 1st
Final Exam:	Dec 5-9 th , 10:00-12:45

Center for accommodation and support services:

If you have a disability and need classroom accommodations, please contact: The Center for Accommodations and Support Services (CASS) at 747-5148, or by email to cass@utep.edu, or visit their office located in UTEP Union East, Room 106. For additional information, please visit the CASS website at www.sa.utep.edu/cass.

COVID

Please stay home if you have been diagnosed with COVID-19 or are experiencing COVID-19 symptoms. If you are feeling unwell, please let me know as soon as possible, so that we can work on appropriate accommodations. If you have tested positive for COVID-19, you are encouraged to report your results to covidaction@utep.edu, so that the Dean of Students Office can provide you with support and help with communication with your professors. The Student Health Center is equipped to provide COVID 19 testing.

The Center for Disease Control and Prevention recommends that people in areas of substantial or high COVID-19 transmission wear face masks when indoors in groups of people. The best way that Miners can take care of Miners is to get the vaccine. If you still need the vaccine, it is widely available in the El Paso area, and will be available at no charge on campus during the first week of classes. For more information about the current rates, testing, and vaccinations, please visit epstrong.org

CLASS RECORDINGS

The use of recordings will enable you to have access to class lectures, group discussions, and so on in the event you miss a synchronous or in-person class meeting due to illness or other extenuating circumstance. Our use of such technology is governed by the Federal Educational Rights and Privacy Act (FERPA) and UTEP's acceptable-use policy. A recording of class sessions will be kept and stored by UTEP, in accordance with FERPA and UTEP policies. Your instructor will not share the recordings of your class activities outside of course participants, which include your fellow students, teaching assistants, or graduate assistants, and any guest faculty or community-based learning partners with whom we may engage during a class session. **You may not share recordings outside of this course.** Doing so may result in disciplinary action.

OBJECTIVES:

Upon completion of this class, students should be able to:

- Describe important differences between an agonist and a competitive/non-competitive pharmacologic antagonist that bind to the same receptor.
- Compare the common routes of drug administration.
- Name and define the two major processes that allow a drug to travel from the site of administration to its site of action.
- Outline the system of drug regulation and approval

EXAMINATION PROCEDURE

- There will be three exams during the semester.
- You must take all three exams. If you missed exams without a university accepted excuse, you may be withdrawn from the course..
- There will be a comprehensive Final Examination of all the chapters that we have covered in the class during the semester.
- In addition to the above, there will be several homework assignments and presentations
- Attendance is required.

GRADING POLICY

A = 90-100
B = 80-89
C = 70-79
D = 60-69
F = Below 60

GRADE DISTRIBUTION

Exams (3)	50%
Final Exam	25%
Assignments/Quizzes	25%

LECTURE	DATE	TOPIC	Required Reading
1	August 23	Brief introduction to the cell and organelles. From cells to system	Chapter 1
2 – 3	August 25, 30	Protein targets for drugs: receptors, ion channels, enzymes, carrier proteins	Chapter 2
4	Sept. 1	Systems of measurement and conversions: the metric, apothecary and household systems: conversions. Calculation of drug dosage using body weight	Handout
5	Sept. 6	Brief review of molarity, normality, percent solutions, dilutions.	Handout
6 – 7	Sept. 8, 13	Drug action: Pharmaceutics, Pharmacodynamics and Pharmacokinetics, Michaelis-Menten kinetics, Drug binding to ligand and Scatchard plot analysis.	-----
8 – 9	Sept. 15, 20	Agonists and antagonists. Competitive and non-competitive inhibition, IC_{50} , LD_{50} (oral, dermal, intraperitoneal, inhalation)	-----
	Sept. 22	EXAM-1	
10	Feb. 20	Drug interactions: absorption, metabolism, elimination, side-effects. Drugs and ethnicity: genetic determinants	Chapter 3
11	Sept. 27	The drug approval process	Handout
12 – 13	Sept. 29, Oct. 4	The cardiovascular system: Physiology of the cardiovascular system and drugs used in the treatment of coronary artery disease	Chapter 4
14	Oct. 6	Hypertension and antihypertensive drugs	Chapter 5
15 – 16	Oct. 11, 13	Pain and management: drugs used in pain	Chapter 6
	Oct. 18	EXAM-2	
17 - 18	Oct. 20, 25	Disorders and drugs of the digestive system	Chapter 8
19 – 20	Oct. 27, Nov 1	Disorders and drugs of the respiratory system	Chapter 9
21 – 22	Nov 3, 8	Disorders and drugs of the endocrine system	Chapter 10
23 - 24	Nov 10, 15	Mental Health and neurological disorders	Chapter 11
25 - 28	Nov 17, 22,	Drug abuse and therapies	Chapter 11

	29		
	Dec 1	EXAM-3	
	TBD	FINAL EXAM (10:00-12:45)	