



BSC 427.01W -Pharmacology Syllabus (Fall 2022)

Instructor and office hours

Instructor:

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Communication Response Time: 24 hours
except for weekends and holidays

Office Hours:

I enjoy teaching and talking with you. If you have questions, just join the Zoom session (link below) during office hours. If none of the times work for you, feel free to email me, and we can set up a time that does.

Thursday 7-8 PM or **by appointment**

Office Hour Zoom link:

<https://tamuc.zoom.us/j/7032367457?pwd=RkFQZmtkcm90emNnUGNDL0E0Sjg0UT09>

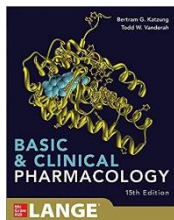
Meeting ID: 703 236 7457

Passcode: OH

Course Summary

Textbook(s) Required:

Basic and Clinical
Pharmacology 14th or 15th
Edition, Bertram Katzung,
ISBN-13: 978-1259641152



Course Description:

This course provides students with a greater understanding of general concepts of pharmacology. First, specific drugs and sites of drug action are examined, beginning with the autonomic nervous system. We will then focus on the pharmacology of organ systems. Finally, we examine the pharmacology of the central nervous system. This course is designed for undergraduate students with a background in biology, cell biology, and chemistry.

Pre-requisites: BSC 303/CHEM 1411.

Course Student Learning Objectives (SLO):

Upon completion of this course, you should be able to:

1. Tell the primary groups of endogenous proteins bound by drugs, the effects of drug binding on their molecular targets, and methods for analyzing drug binding.
2. Discuss the chemical mediators and peripheral nervous system and their actions
3. Explain the basic disease/disorder mechanisms of the central nervous system and know the major drugs acting on CNS.
4. Explain various adverse organ conditions and drugs used to treat these conditions.

The syllabus/schedule are subject to change.

Course Requirements

Minimal Technical Skills Needed:

Standard skills necessary to use web browsers to access course materials are required. Students should also be able to submit their work as required. Students should be able to use Microsoft Word and PowerPoint.

Instructional Methods:

This is a fully online course. All course materials will be posted in D2L. I will post announcements on the course's home page or send email notifications.

Student Responsibilities or Tips for Success in the Course

- ✓ **Checking both D2L and emails for course-related announcements.**
- ✓ Dedicated time to learn course materials
- ✓ Have the required technology (a computer, a secure and reliable internet connection, and other requirements detailed in this syllabus – please read the “Technology Requirements” section.
- ✓ **Take exams and quizzes within the specified time**
- ✓ **Submitting assignments before deadlines**
- ✓ If special accommodations need to be made, notify the instructor in advance.

Assessments:

There will be three types of assessments that will contribute to the grade. These are:

- ✓ Quiz 1~4: 30 % (7.5 % each)
- ✓ Exam 1~3: 30 % (15 % each, will drop the lowest exam grade for the final calculation)
Final Exam: 20 % Cumulative
- ✓ Assignment 1~2: 20 % (10 % each)

Exams and quizzes consist of multiple-choice and short-answer questions.

Questions are drawn from the same test pool. Therefore, some questions may be repeated. Students are expected to ensure they have the necessary device and a reliable connection.

Final grades in this course will be based on the following scale:

A = 90%-100%

B = 80%-89%

C = 70%-79%

D = 60%-69%

F = 59% or Below

Important information:

1. **It is the students' responsibility to check emails and D2L for exam/quiz dates and, assignment postings & deadlines**
2. There will not be additional points or extra credits. A student's grade will come from the points they earn in the three types of assessments.
3. Exams and Quizzes: open-book and open notes
 - (a) You will have two minutes to answer each question. If an exam has 20 questions, you must complete and submit them in 40 minutes.
 - (b) Please read the instructions, if any, carefully before beginning the exam/quiz.
 - (c) Exams and quizzes are usually held on Fridays and Saturdays. Students can take the exam/quiz online during this 48-hour time window. The schedule is subject to change.

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- (d) No requests to open the exams or quizzes earlier will be accepted.
 - (e) Make-up exam/quiz requests must accompany supporting documents (e.g., a doctor's note). The reasons for not taking an exam/zero within the designated time should be acceptable, as outlined in your student handbook.
 - (f) Failure to take the exams or quizzes within the designated time will result in ZERO credit.
4. All assignments should be submitted before the deadlines. Assignments will be checked for plagiarism.

Assessment	Time/Due dates	Percentage of the final grade
Quiz 1	Sep 23-24	7.5 %
Exam 1	Oct 7-8	15 %
Assignment 1	Due Oct 17	10 %
Quiz 2	Oct 21-22	7.5 %
Quiz 3	Nov 4-5	7.5 %
Exam 2	Nov 11-12	15 %
Assignment 2	Nov 22	10 %
Quiz 4	Dec 2-3	7.5 %
Exam 3	Dec 8-10	15 % (will drop the lowest exam grade)
Final Exam	Dec 16-18	20 %

TECHNOLOGY REQUIREMENTS

LMS

All course sections offered by Texas A&M University-Commerce have a corresponding course shell in the myLeo Online Learning Management System (LMS). Below are the technical requirements.

LMS Requirements:

<https://community.brightspace.com/s/article/Brightspace-Platform-Requirements>

LMS Browser Support:

https://documentation.brightspace.com/EN/brightspace/requirements/all/browser_support.htm

YouSeeU Virtual Classroom Requirements:

<https://support.youseeu.com/hc/en-us/articles/115007031107-Basic-System-Requirements>

ACCESS AND NAVIGATION

The syllabus/schedule are subject to change.

You will need your campus-wide ID (CWID) and password to log into the course. If you do not know your CWID or have forgotten your password, contact the Center for IT Excellence (CITE) at 903.468.6000 or helpdesk@tamuc.edu.

Note: Personal computer and internet connection problems do not excuse the requirement to complete all coursework in a timely and satisfactory manner. Each student needs to have a backup method to deal with these inevitable problems. These methods might include the availability of a backup PC at home or work, the temporary use of a computer at a friend's house, the local library, office service companies, Starbucks, a TAMUC campus open computer lab, etc.

COMMUNICATION AND SUPPORT

If you have any questions or are having difficulties with the course material, please get in touch with your Instructor.

Technical Support

If you have technical difficulty with any part of Brightspace, please get in touch with Brightspace Technical Support at 1-877-325-7778. Other support options can be found here:

<https://community.brightspace.com/support/s/contactsupport>

COURSE AND UNIVERSITY PROCEDURES/POLICIES

Syllabus Change Policy

The syllabus is a guide. Circumstances and events, such as student progress, may require the instructor to modify the syllabus during the semester. Any changes made to the syllabus will be announced in advance.

University Specific Procedures

Student Conduct

All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. The Code of Student Conduct is described in detail in the [Student Guidebook](#).

<http://www.tamuc.edu/Admissions/oneStopShop/undergraduateAdmissions/studentGuidebook.aspx>

Students should also consult the Rules of Netiquette for more information regarding interacting with students in an online forum: <https://www.britannica.com/topic/netiquette>.

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TAMUC Attendance

For more information about the attendance policy, please visit the [Attendance Procedure 13.99.99.R0.01](#).

<http://www.tamuc.edu/admissions/registrar/generalInformation/attendance.aspx>

<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/academic/13.99.99.R0.01.pdf>

Academic Integrity

Students at Texas A&M University-Commerce are expected to maintain high standards of integrity and honesty in all of their academic work. For more details and the definition of academic dishonesty, see the following procedures:

[Undergraduate Academic Dishonesty 13.99.99.R0.03](#)

<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/undergraduates/13.99.99.R0.03UndergraduateAcademicDishonesty.pdf>

[Graduate Student Academic Dishonesty 13.99.99.R0.10](#)

<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/graduate/13.99.99.R0.10GraduateStudentAcademicDishonesty.pdf>

Students with Disabilities-- ADA Statement

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact:

Office of Student Disability Resources and Services

Texas A&M University-Commerce

Gee Library- Room 162

Phone (903) 886-5150 or (903) 886-5835

Fax (903) 468-8148

Email: studentdisabilityservices@tamuc.edu

Website: [Office of Student Disability Resources and Services](#)

<http://www.tamuc.edu/campusLife/campusServices/studentDisabilityResourcesAndServices/>

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Nondiscrimination Notice

Texas A&M University-Commerce will comply in the classroom, and in online courses, with all federal and state laws prohibiting discrimination and related retaliation on the basis of race, color, religion, sex, national origin, disability, age, genetic information or veteran status. Further, an environment free from discrimination on the basis of sexual orientation, gender identity, or gender expression will be maintained.

Campus Concealed Carry Statement

Texas Senate Bill - 11 (Government Code 411.2031, et al.) authorizes the carrying of a concealed handgun in Texas A&M University-Commerce buildings only by persons who have been issued and are in possession of a Texas License to Carry a Handgun. Qualified law enforcement officers or those who are otherwise authorized to carry a concealed handgun in the State of Texas are also permitted to do so. Pursuant to Penal Code (PC) 46.035 and A&M-Commerce Rule 34.06.02.R1, license holders may not carry a concealed handgun in restricted locations.

For a list of locations, please refer to the [Carrying Concealed Handguns On Campus](#) document and/or consult your event organizer.

Web url:

<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/34SafetyOfEmployeesAndStudents/34.06.02.R1.pdf>

Pursuant to PC 46.035, the open carrying of handguns is prohibited on all A&M-Commerce campuses. Report violations to the University Police Department at 903-886-5868 or 9-1-1

A&M-Commerce Supports Students' Mental Health

The Counseling Center at A&M-Commerce, located in the Halladay Building, Room 203, offers counseling services, educational programming, and connection to community resources for students. Students have 24/7 access to the Counseling Center's crisis assessment services by calling 903-886-5145. For more information regarding Counseling Center events and confidential services, please visit www.tamuc.edu/counsel

COURSE OUTLINE / CALENDAR

Week 1 Aug 29

Chapter 1. THE NATURE OF DRUGS AND DRUG DEVELOPMENT

Pharmacology, protein targets of drug binding, agonist, drug antagonism, desensitization.

Week 2 Sep 6

Chapter 2. DRUG RECEPTORS AND PHARMACODYNAMICS

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drug binding, drug-receptor interactions, measurement of drug binding, receptor groups, structure and signal transduction mechanisms, ion channels, G-protein coupled receptors, receptor tyrosine kinases, nuclear receptors

Week 3 Sep 12

Chapter 3/4 PHARMACOKINETICS AND BIOTRANSFORMATION

translocation of drug molecules, drug disposition, special delivery systems.

Week 4 Sep 19

Chapter 6: INTRODUCTION TO AUTONOMIC PHARMACOLOGY

peripheral nervous system, chemical transmission, mechanisms of transmitter release, termination of transmitter action.

Quiz 1 (Chapters 1, 2, 3/4) on Sep 23~24

Week 5 Sep 26

Chapter 7/8. CHOLINERGIC TRANSMISSION

acetylcholine receptors, physiology of cholinergic transmission, effects of drugs on cholinergic transmission.

Week 6 Oct 3

Chapter 9/10. NORADRENERGIC TRANSMISSION

classification, physiology, and drugs.

Exam 1 (Chapters 1, 2, 3/4, 6, 7/8) on Oct 7~8

Week 7 Oct 10

CHAPTER 16. HISTAMINE, SEROTONIN, PURINES, LOCAL HORMONES, CANNABINOIDS

Chapter 19. PEPTIDES AND PROTEINS AS MEDIATORS AND NITRIC OXIDE SIGNALING

Selected from Chapters 18 and 36. ANTI-INFLAMMATORY DRUGS

Assignment 1 Due Oct 17

Week 8 Oct 17

Selected from Chapters 11~14. DRUGS AFFECTING THE HEART, CIRCULATORY SYSTEM, AND BLOOD

Quiz 2 (Chapters 9/10, 16, 18) on Oct 21~22

Week 9 Oct 24

Chapter 15. URINARY SYSTEM

Chapter 20. RESPIRATORY SYSTEM

Week 10 Oct 31

Chapter 62/41. GI TRACT, GLUCOSE METABOLISM, AND OBESITY

Quiz 3 (Chapters 11~14, 15, 20) on Nov 4~5

Week 11 Nov 7

Selected from Chapters 37~40, 42. PITUITARY, ADRENAL CORTEX, THYROID, REPRODUCTIVE SYSTEM, AND BONE METABOLISM

Exam 2 (Chapters 9/10, 16, 19, 11~14, 15, 20, 62/41) on Nov 11~12

Week 12 Nov 14

Chapter 21. DRUGS ACTING ON THE CENTRAL NERVOUS SYSTEM

Week 13 Thanksgiving Holiday

Assignment 2 due Nov. 22

Week 14 Nov 28

Chapter 28. NEURODEGENERATIVE DISEASES, ANESTHETIC AND ANALGESIC DRUGS

Chapter 22. ANXIOLYTIC AND HYPNOTIC drugs

Quiz 4 (Chapters 37~40/42, 21) on Dec 2~3

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Week 15 Dec 5

Chapter 29/30. ANTIPSYCHOTIC AND ANTIDEPRESSANT DRUGS.

Chapter 32. DRUGS OF ABUSE

Exam 3 (Chapters 37~40/42, 28, 21, 22) on Dec 8~10

Final Exam* on Dec 15~17

The final exam is a comprehensive exam that will cover all the chapters.

***Please check the academic calendar for details on holidays and the current semester's start and end dates. The semester begins on August 29, 2022.**

***ALL DATES AND CHAPTERS COVERED ARE TENTATIVE AND SUBJECT TO CHANGE.**

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