

AUSTIN COMMUNITY COLLEGE  
PHARMACOLOGY FOR HEALTH PROFESSIONS  
HPRS 2300

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**Course Time:** See current course schedule for course time.

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\*THE MORE TIME SPENT IN THIS COURSE, THE BETTER THE CHANCE FOR SUCCESS.\*

**COURSE OVERVIEW**

**I. INTRODUCTION:**

This course is designed to introduce the student to general classifications of drugs, their mechanisms of actions, and patient responses to the medications introduced. Dosage calculations will be covered in detail along with commonly used abbreviations & equivalents. Emphasis will be on various forms of drugs and the routes of administration.

Must provide proof of having pre-requisites before taking this course (Anatomy & Physiology with a grade of C or better or pass the Pre-pharmacology assessment exam(over A and P knowledge), TASP/THEA math passed->230 or Compass math passed (39), or Developmental math course above MATD 0330 with a C or better).

**II. PLAN OF INSTRUCTION:**

MANDATORY:

1. Pharmacology, An introduction, 6<sup>th</sup> edition. Hitner/Nagle, McGraw-Hill: 2011.
2. INSTRUCTOR STUDY GUIDE: HPRS230029R1C - Pharmacology for Health Care Professionals. (packet) – 29<sup>th</sup> edition

3. PHARMACEUTICAL DOSAGE CALCULATIONS WORKBOOK, 8TH EDITION (YELLOW PACKET), ISBN# HPRS 2300D8
4. 12 scan-trons for exams and homework assignments.
5. Internet access at home or at school for checking of blackboard or for drug searches.

RECOMMENDED:

1. Medical Dictionary (Taber's Cyclopedic)
2. Dimensional Analysis for Meds., 4th edition, Curren and Munday, WI Publications; 2010.
3. Nursing current edition drug guide or PDR  
Nursing Drug Handbook, George Spratto,  
ISBN# 1401860389  
**or** Health Professions Drug Guide by  
[www.prenhall.com](http://www.prenhall.com)

**III. SCAN COMPETENCIES:**

Recently, the U.S. Department of Labor established the Secretary's Commission on Achieving Necessary Skills (SCANS) to examine the demands of the workplace and whether the nation's students are capable of meeting those demands. The Commission determined that today's jobs generally require competencies in the following areas:

**Resources:** Identifies, organizes, plans, and allocates resources.

**Interpersonal:** Works with others.

**Information:** Acquires and uses information.

**Systems:** Understands complex interrelationships.

**Technology:** Works with a variety of technologies.

**IV. LEARNING ACTIVITIES:**

1. Lecture will include most of the information necessary to answer all of the review questions. However, additional research may be necessary from resources other than lecture and the textbooks.
2. Learning activities will include discussion, critical thinking exercises, viewing films, and Internet for at home searches.

3. Review of anatomy and physiology is necessary where applicable to specific body systems in order to understand pharmacodynamics and pharmacokinetics.
4. Review questions are provided to be a general guideline for information required on examinations.
5. Dosage calculations will be covered in 2 class sessions. The Learning Lab will offer workshops and one-on-one tutoring to students. Workshop (Saturday) times will be scheduled and times posted after the first week of classes. Students must sign up online through an **ACC computer** at the learning lab, library, media services, or a computer center. The web address is <http://www.austincc.edu/health/workshops/pharm/register.php>. The student must sign up in order to attend. If problems occur while registering, please call 223-5870 for assistance.
6. It is the students responsibility to check blackboard weekly for Announcements, grades, and homework assignments.
7. There will be a discussion board, or a student forum placed on the blackboard on-line site for the course.

**Directions to access Discussion Board or Coffee Break Room:**

You will notice that there is a tab, called: "Discussion Board" or "Communication". When you click on it, it will take you to the coffee break room where you can chat amongst yourselves. You can start chatting with each other by clicking on "add new thread". You are not to discuss any exam material on this board at all. This is only to ask other students general questions, due dates, and other miscellaneous information pertaining to the course. I will not be participating in this coffee break room, it is strictly for you, but I will check it periodically to see the content that is discussed. If you have specific questions that cannot be answered by another classmate or is not responded to, please email me directly.

My email is: [respinos@austincc.edu](mailto:respinos@austincc.edu)

**Coffee Break Room**

This is a forum designated for students to interact with one another in a less formal environment. Students may post questions that their classmates may be able to answer in order to successfully complete this course. I will not be posting to this forum. It is solely for student interaction.

## **V. COURSE RATIONAL:**

This course is designed to help the Nursing and Health Science student to become familiar with drug use and therapy needed for their practice as a health care professional. This course is also designed to help students solve basic and advanced dosage calculation problems needed in the health arena.

## **VI. COURSE OBJECTIVES:**

1. Define the basic terminology associated with Pharmacology.
2. Define the legislative laws regulating Pharmacology.
3. Recall the commonly used equivalents and abbreviations used in Pharmacology.
4. Demonstration of solving basic and advanced dosage calculation problems.
5. Describe normal physiological conditions within the body.
6. Describe the pathophysiology of certain disease processes.
7. Identify the therapy used in treating certain disease processes.
8. Describe the importance of using certain drug therapies.
9. State the side effects of the drug therapies.
10. Discuss the mechanism of action of major classifications of drugs.
11. Recall the side effects associated with each major classification of drugs.
12. State the uses of major drug classifications.
13. Discuss appropriate patient teaching in regards to specific drug therapy classifications.
14. Apply the drug therapy information used to treat certain disease processes.

## **VII. TESTING REQUIREMENTS:**

1. Six unit examinations are required. A grade must be recorded for each of the six unit exams in order to receive a final course grade.
2. Three dosage calculation exams are required, with a minimum passing grade of 80% on each to attain the PASS requirement for the course. Two additional exams will be available, if needed, after

- the first three have been taken. Failure to attain 80% on three of the five available calculations will result in a FAIL on this course requirement. This will result in a failing grade of "F" for the entire course. These exams do not count for lecture grade average.
3. All dosage calculation exams are to be taken in the testing center. The exams will be available in all of the testing centers (RVS, NRG, RGC, CYP, PIN, EVC, SAC, SMG, RRC, and FBG). **These exams will be submitted online through BlackBoard at an ACC Testing Center.**
  4. Regardless of the circumstances, if a unit lecture exam is missed, a make-up exam will be offered at the end of the semester. This make-up exam can only be taken at the ACC RVS/EVC Testing Center. The exam will be comprehensive, covering material from **ALL** units; and will replace the missed exam.
  5. No retakes on any unit or dosage exams will be allowed.
  6. For students who do poorly on a test and want to improve their in-class lecture exam average, there will be an optional comprehensive make-up exam. The grade made on this exam will replace the lowest grade and will be included when calculating course grade as stipulated in the course syllabus under the "grading." If a student takes the comprehensive make-up and the score is lower than the lowest test grade, the comprehensive make-up exam will still be used in determining the student's final course grade based on the points of the six exams. Make-up exam will be given at EVC testing center at the end of semester. No exceptions.
  7. Students will be given only one opportunity to exercise this make-up exam option. If a student misses two exams, the make-up exam will replace the missed exam and the other exam will become a zero.
  8. All students should record their answers on their scantron and provided answer sheet. There will be no writing or marking on the examination.
  9. **All exams and graded answer sheets will be retained by the instructor. Any student who removes a graded examination from the classroom may receive a zero for that examination. All graded exams must be turned back in to the instructor prior to leaving the classroom.**
  10. Basic calculators may be used on the dosage calculation exams.

11. All five dosage calculation exams are of equal difficulty. Each exam will cover the entire dosage calculations worksheet/workbook, and dosage calculations section in yellow packet. Each exam is different only by the questions asked and numbers used. Each exam covers the same amount of material.
12. Students will be penalized 10 points per class period on late homework assignments. No work will be accepted 1 week after the due date. There are no exceptions!!
13. **It is the student's responsibility to keep up with dates that exams are scheduled.** Refer to the attached proposed class and testing schedule.

### VIII. GRADING:

1. The final course grade will be determined by an average of the unit exams and the "pass/fail" rating on the dosage calculations exams.\* This represents 90% or 600 points of the course.
2. 10% or 62 points of final course grade can be from quizzes, case studies, and other special assignments.
3. Grading grid for this course is as follows:

662-592	A	with a "pass" on dosage calculations
591-526	B	with a "pass" on dosage calculations
525-460**	C	with a "pass" on dosage calculations
459-394	D	with a "pass" on dosage calculations
<393	F	

\*Pass on the dosage calculations exams is defined as an 80% on three of the five dosage exams available to the student. This average is not a part of the final course grade . . . only a pass/fail grade is derived from these exams.

The results on all dosage exams will take **1 week** from the last test date.

\*\*The minimum grade that will be accepted for credit in any of the Health Science programs at Austin Community College is "C".

## **IX. COURSE POLICIES:**

### **1. Discipline Policies**

Students are responsible for withdrawing themselves from class. Students who do not progress satisfactorily, and do not keep up with the deadlines are responsible for their withdrawal. If the student is failing and does not withdraw, the student will be assigned an F.

**Please consult the current course schedule to find out the final day to withdraw.**

Incompletes are given at the discretion of the instructor if the student has completed the first four lecture exams with a passing grade and two attempts on dosage calculations.

The student needs to keep up with the schedule and test due dates, as this is very essential in order to become a responsible health practitioner.

My class notes will NOT be available to the students for copying.

Remember, Pharmacology is a whole new language. A new language requires a lot of time and effort to learn.

### **2. Academic Dishonesty**

Acts prohibited by the college for which discipline may be administered include scholastic dishonesty, including but not limited to cheating on an exam or quiz, plagiarizing, and unauthorized collaboration with another in preparing outside work. Academic work submitted by students shall be the result of their thought, research or self-expression. Academic work is defined as, but not limited to tests, quizzes, whether taken electronically or on paper; projects, either individual or group; classroom presentations, and homework.

The penalty for academic dishonesty is an automatic failing grade of "F" in the course.

### **3. Students with Disabilities**

Each ACC campus offers support services for students with documented physical or psychological disabilities. Students with

disabilities must request reasonable accommodations through the Office for Students with Disabilities on the campus where they expect to take the majority of their classes. Students are encouraged to do this three weeks before the start of the semester.

**X. OTHER MISC. INFORMATION:**

**Please turn off cell phones and pagers when in class.**

Per college policy, children are not allowed to attend classes.

**Student concerns:** *“Any student who has a complaint involving the course should first attempt to resolve the matter with the instructor directly involved.”*

*“If the student is unable to resolve the complaint with the person directly involved, the student should contact the Department Chair, Dr. R. R. Espinosa at [respinos@austincc.edu](mailto:respinos@austincc.edu) in an attempt to resolve the matter.”*

This class is relatively fast pace so the student should study every day and not just before the exam.

Remember, not everybody knows everything there is to know about drugs and Pharmacology, therefore, there will be times when reference books are needed and questions asked will be answered next class period, if there is even an answer.

**\*\*Dosage Calculations Exam Reviews:** For students wanting to see what kinds of problems missed on their dosage exam, the student will need to contact the instructor via email to obtain a form that will list the types of problems missed. This form will be given to the learning lab specialist by the student at the **instructor designated campus** for review.

Check fliers for dates of available individual dosage calculations specialists. The specialist will review dosage calculations with the student.\*\*

## **XI. HINTS FOR SUCCESS IN PHARMACOLOGY FOR HEALTH PROFESSIONS:**

- Keep up with assignments. Do all assigned reading and practice calculations according to schedule. Playing “catch-up” is very difficult.
- Get help early with dosage calculations if needed. Workshops and individual tutoring is available in the Learning Lab for students having difficulty.
- Answer all review questions in detail. This will provide the majority of information needed for the unit exams.
- Be sure to have essential equivalents memorized before attempting the dosage calculations exams. It is impossible to convert dosage problems if the proper equivalents are not known.
- **REMEMBER . . .** You have an instructor who is willing to help you if you during established office hours should you need some extra assistance.
- Student needs to practice the self-test questions at the end of workbook packet purchased for the course. Working through this will give the student “concepts” that will be beneficial in preparing for the exam.

Note:	The student for Exams #2-6 needs to spend ample time learning the generic to brand of the drug and be able to match the drug to the appropriate classification because this represents anywhere from 15-30 points one each exam. Drug classification is very essential component in this course.
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## **XIII. EXAMPLES OF LEARNING TOOLS:**

1. Instructions for processing a **Drug Profile Sheet:**
  - These sheets are to be done for your own benefit and should be used to study for the exams. Three for each unit exam.
  - These sheets are due on the dates of the exams for credit.(no late ones will be accepted. No exceptions)
  - Information should be typed and include the following information for full credit:
    1. Name of Drug – Brand and Generic
    2. Drug Class
    3. Mechanism of Action (MOA)

4. Major Uses (list several, if applicable)
5. Side Effects (list several)
6. General Dosing; ex: bid, tid qd
7. Counseling Tips for Patient, "What you would want to be told if you were on this drug." --Patient education--
8. Important characteristics that stand out for that particular drug. Must include "a" through "e" for full credit.
  - a. Couple of major drug interactions
  - b. Half life OR onset of action OR DOA of drug
  - c. Contraindications(list two)
  - d. Pregnancy Safety Category
  - e. Organ to Metabolize OR Organ to Excrete

\*\*There will be times when you will have to fill out a medication sheet for the drugs of that particular unit. This will be announced.\*\*

**2. Instruction for Processing Drug Cards: \*Beneficial for exam preparation!**

- These sets of cards are to help you study the drugs for the matching section on each exam #2-6.
- These cards are not to be turned in.
- Buy about 200 3x5 note cards and include on 1 side on the card the following:

Side 1:

- 1) Drug "Brand" name
- 2) Drug MOA

Side: 2

- 1) Generic Name
- 2) Classification of Drug

Use this to learn the drugs and their classification. This makes a good study tool.

**Please consult the current course schedule to find out important dates such as holidays and the final withdrawal date.**