



**Recommended:**

6. A medical dictionary (Taber's)

Recommended Website:

[www.library.austincc.edu](http://www.library.austincc.edu)

### **III. Instructional Methodology:**

Theory will be presented through lecture presentations and will be facilitated by handouts, overheads, media, and group discussions. Additional research will be encouraged through use of the Internet and other reliable resources.

### **IV. Course Rationale:**

Pharmacology is a special language that is used in the medical field by various health care professionals. Introductions to pharmacology will familiarize the beginning health science student to medication usage and their classification for a better understanding of the patient/client treatment. This course will provide valuable drug information to the health science student in order to provide the best patient care possible.

### **V. Course Objectives:**

Upon Completion of this course, the student will be able to master the following objectives.

#### **Unit I: Introduction to Pharmacology**

1. Define the principle concepts of pharmaceutical terms introduced.
2. Recall common prescription abbreviations related to route of administration and frequency of dosage.
3. Name four sources of drugs.
4. Identify a selected list of drugs according to generic and proprietary name by the use of a reference.
5. Review the different drug legislation passed starting from 1906-1983.

6. Identify all the different routes of administration of medications to a patient.
7. Identify the different dosage form types available for medications.
8. Identify drugs according to the current schedule proposed by the controlled substance act.
9. Define the principles of drug administration.
10. Identify a select list of drug adverse reactions and patient teaching by use of a reference book.
11. Identify the therapy used in treating certain disease processes.
12. Discuss the mechanism of action of major classifications of drugs.
13. Recall the side effects associated with major classifications of drugs.
14. Discuss appropriate patient teaching in regards to specific drug therapy classifications.
15. State the uses of major drug classifications.
16. Apply the drug therapy information used to treat certain disease processes.
17. Define Local and general anesthetics
18. Discuss Local and general anesthetics as it applies in pain management.

## **VII: Course Goals:**

### **Unit I**

Define the basic terminology associated with the study of pharmacology as stated in course objectives.

## **Unit II**

The student will recall, describe, and apply the major classification of drugs, which are to include, but not limited to: uses, mechanism of action, side effects, and other pertinent information needed for that particular drug category. The following drug categories will be covered in unit II.

1. Anti-infectives
2. Respiratory System Drug Therapy
3. Antineoplastics/Immunosuppressives

## **Unit III**

The student will recall, describe, and apply the major classification of drugs, which are to include, but not limited to: uses, mechanism of action, side effects, and other pertinent information needed for that particular drug category. The following drug categories will be covered in Unit III.

4. Cardiovascular System Drug Therapy
5. Anti-hypertensive / Urinary System Drug Therapy
6. Anti-coagulant/Coagulant/ and Thrombolytic Enzymes Drug Therapy
7. Anti-hyperlipidemics Drug Therapy

## **Unit IV**

The student will recall, describe, and apply the major classification of drugs, which are to include, but not limited to: uses, mechanism of action, side effects, and other pertinent information needed for that particular drug category. The following drug categories will be covered in Unit IV.

8. Central Nervous System Drug Therapy
9. Autonomic Nervous System Therapy
10. Local and General Anesthetics as it applies in pain Management.

## Unit V

The student will recall, describe, and apply the major classification of drugs, which are to include, but not limited to: uses, mechanism of action, side effects, and other pertinent information needed for that particular drug category. The following drug categories will be covered in Unit V.

11. Endocrine System Drug Therapy(Diabetes)
12. Gastro-Intestinal Tract Drug Therapy
13. Emphasis on oral drug induced side effect.

## VI. 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 SCANS competencies are based on the following three foundations:

### **Basic Skills:**

- All basic skills (read and listen) are used in learning and applying Pharmacology to better service the patient.
- Demonstrates ability to write and/or speak through assignments and activities.

### **Thinking Skills:**

- All thinking skills are used in Pharmacology by students preparing for exams, group work, case studies, and class discussions.

### **Personal Qualities:**

- Pharmacology students will show responsibility by completing assignments and examinations on time.

- Students should have confidence in Pharmacology knowledge when working with medications in the clinical environment by completing this course.

## **How SCAN Competencies are incorporated into a Pharmacology course:**

### **1. Resources Uses:**

- Manages time by completing Pharmacology assignments and examinations by their due dates.
- Uses library and student services as valuable resources.

### **2. Interpersonal Skills:**

- Students are given the opportunity to participate as a member of a team when doing group activities, exercises, and discussion boards online.
- Teach other students in group discussions on particular topics.
- Obtaining counseling/patient teaching therapeutic information to better service and educate clients/pateints.
- Through critical thinking case studies, students will negotiate to arrive at a clinical decision.

### **3. Information Literacy:**

- Organizes and maintains information through lecture and for exam preparation.
- Uses computer to process information for special assignments.
- Acquires and evaluates information by doing Internet searches for drug classification special assignment (mini-report) and drug flash cards.

### **4. Systems Skills:**

- Discuss how medications relate to and affect each other (drug interactions).
- Discuss how medications relate to , affect and cure disease states (drug-disease state interactions)
- Discuss how food affects medications (drug food interactions)

### 5. Technology Skills:

- Use the computer to reinforce concepts taught in class through the use of CD-ROM educational software, where applicable, and, blackboard use.

## VII. Course Evaluation/Grading:

### A. Examinations:

1. There will be (5) five exams given, each representing 15% or 100 points of your total course grade. This will represent 83% or 500 points of your total course grade. The exam format will vary in format. The exam may have multiple choice, multiple-multiple choice, short answer, abbreviations, and matching questions. This exam will be given on computer at the EVC computer lab for classroom courses and at the testing center for distance learning courses.
  2. The last exam is not comprehensive. The last exam will only test on the last bit of material presented in Unit V.
  3. **No make-up** examinations will be given unless prior arrangements have been made and/or extreme circumstances exist at the scheduled time of the examination. The Professor will consider these circumstances after talking with the student.
  4. **No re-takes** on any unit examination will be allowed.
  5. It is the student's responsibility to take the examinations by the scheduled deadlines. Refer to the attached proposed study and testing schedule.
- B. 15% or 90 points of the course grade will come from take home assignments, possible quizzes, and projects appropriate for the topic of discussion, and case studies pertaining to drug classification and treatment of diseases or conditions. This is to be researched using several references. (Approximately 6 assignments)
- C. 2% or 10 points of the course grade will come from in-class activities. The activity days maybe unannounced and can not be

made up. The student must be present to entire class period to receive the participation points for the activity. There will be approximately 2 short activity days.

\*\*\*These assignments and Exams represent 100% of the course grade. \*\*\*

**\*\* 10 points per class period for late homework will penalize assignments. Assignments will not be accepted one week after their due date. No exceptions\*\***

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**GRADE SCHEME:**

600-537 = A  
536-477 = B  
476-417 = C  
416-357 = D  
0 – 356 = F

A minimum grade of "C" will be accepted by Health Science Programs at Austin Community College.

**VIII. 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.

**The withdrawal date is: See college catalog for this information**

Incompletes are given at the discretion of the instructor if the student has completed the first three lecture exams with a passing average.

Students are expected to participate appropriately in the classroom. This includes, but not limited to helping with exercises,

demonstrations, and asking clarifying questions. Inappropriate participation which includes, but not limited to talking during lecture, use of cell phone, and interrupting others may disrupt the learning process and is subject to disciplinary action.

Disciplinary action may include a discussion with the instructor for the first offense, a discipline referral to the Dean of student services for a repeated offense, a meeting with the Department Chair of Allied Health Sciences or Dean of Health Sciences, and possible removal from the course. Please refer to the ACC Student Handbook for additional information.

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.

## **IX. Other Pertinent information for course and student success:**

1. Keep up with assignments. Do all assigned reading according to the schedule. Playing "catch-up is very difficult."
2. It is the student's responsibility to check the blackboard site weekly for information; such as, announcements, grades, and homework.
3. There will be a discussion board, or a student forum placed on the blackboard site online for the course.
4. Turn off cell phones when in class. All electronic devices will be turned off during exams. If not, this could result in a charge of academic dishonesty.
5. **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 follow the established guidelines provided in the student handbook."
6. Per ACC guidelines, children may not be attending classes. No exceptions.
7. Answer all review questions/objectives in detail. The review will cover the majority of the information necessary to succeed in the theory exams.
8. **Spend time learning the drug name (brand and generic) to the appropriate classification.**
9. Visit the textbook web-site for additional application/analysis type questions.
9. 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.

## **X. Learning Tools:**

### **Drug Flash cards: (optional)**

This will assist the student in study the drugs for the matching section of each exam (Units 2-5).

Purchase about 250 3"X5"-note cards and include:

Side #1:

1. Drug Brand name
2. Drug MOA

Side #2:

1. Drug Generic name
2. Classification of Drug



## **Proposed Course Schedule (Subject to Change)**

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Lecture #1	Syllabus, Introduction to Pharmacology, Pharmaceutical terms, Abbreviations, Sources of drugs. Information obtained from reference books (take home assignment) Text: Chapter 1-4 and 6
Lecture #2	Drug Legislation, Controlled Substance Act, Dose response curves, time response curves Text: Chapter 1-5 and WATCH module for Unit 1 online under the "Assignment" tab. - Please print notes online for this module. Do not use packet notes.
Lecture #3	Pharmacokinetics, Dosage Forms, Different Routes of Drug Administration: Advantages and Disadvantages Text: Chapter 1-4 and 6 <u>(Homework#1 is due)</u>
Lecture #4	Continuation of Introduction to Pharmacology and Begin anti-infectives Text: Chapter 21-22
Lecture #5	Exam # -1 Unit 1 (1 hour over intro information); 2 <sup>nd</sup> hour: Anti-infectives (antibiotics, anti-fungals)
Lecture #6	Text: Chapter 21-22 Anti-infectives (cont.), (anti-virals, anti-parasitics) Respiratory System Drug Therapy (decongestants, anti-histamines, etc.) Text: Chapter 24 <u>(Homework#2 is due)</u>
Lecture #7	Anti-neoplastics, Immunosuppressives Text: Chapter 23 (Homework#3)

- Lecture #8                      Exam #2-Unit 2 (1 hour over Anti-infectives, Respiratory, and Anti-neoplastics);
- 2<sup>nd</sup> hour: Cardiovascular System Drug Therapy  
Text: Chapter 15, 16-17
- Lecture #9                      Cardiovascular System Drug Therapy (cont.);  
Anti-hypertensive Drug Therapy (kidney function);  
Text: Chapter 14, 27  
(Homework#4 is due)
- Lecture #10                     Cardiovascular System, (Cont.)  
Text: Chapters 13, 19
- Lecture #11                     Exam #3 (one hour over cardiovascular system information)
- 2<sup>nd</sup> hour: CNS: Central Nervous System (CNS) and Drug Therapy; anti- depressants, anti-mania,  
  
Text: chapter 9, 10
- Lecture #12                     Central Nervous System (CNS) and Drug Therapy; anti-psychotics, anti-Parkinson drug therapy; anti-convulsants, sedative-hypnotics, and anti-anxiety
- Text: Chapter 9, 10, 7, and 8
- Lecture #13                     Narcotic and Non-Narcotic Analgesics, General and Local Anesthetics  
Begin Diabetes  
Text: Chapter 5, 11, 12, 29  
(Homework#5 is due)
- Lecture #14                     Exam #4-Unit 4 ( 1 hour over CNS information)
- 2<sup>nd</sup> hour: Diabetes Drug Therapy
- Lecture #15                     Endocrine System Drug Therapy (steroids)/Thyroid Disease/Sex Hormones  
Text: Chapter 29 and 30  
(Homework#6 is due)

Lecture #16

Digestive System Drug Therapy-Peptic Ulcer Disease (PUD)

Text: Chapter 26 and WATCH video under Unit 5 folder online titled "Peptic Ulcer Disease" or at the library under HPRS 2300 Video #30.

- Must have RealPlayer 10.0 installed to watch this video online-.

Drugs used to induced oral side effects-Self study:  
In notes

Final Exam #5 Unit 5 (1 hour over Endocrine system)

End of Semester