



TASP/THEA math: minimum score of 230 or COMPASS math: minimum score of 39 or Developmental math course higher than MATD 0330 with a grade of C or better. TASP/THEA exempt students need to provide proof of a Math course or Math Assessment.

## II. PLAN OF INSTRUCTION

### MANDATORY

1. Pharmacology: An Introduction, Henry Hitner, McGraw-Hill, current edition.
2. Pharmaceutical Dosage Calculations Workbook (yellow packet), current edition.
3. Pharmacology for Health Care Professionals. (instructor designed packets), current edition, specific to each course.
4. Scantrons for Unit exams and activities
5. Internet access and ability to access Blackboard

### RECOMMENDED

1. Dimensional Analysis for Medications, Anna Curren, Thomson Delmar Learning, current edition.
2. A Medical Dictionary (Taber's Cyclopedic)
3. A Drug Handbook
4. A calculator

## III. SCANS COMPETENCIES

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:

### **1. Basic Skills**

- Uses all basic skills are used in learning and applying knowledge of Pharmacology to better serve the patient.
- Demonstrates ability to read assignments.
- Demonstrates ability to write thorough assignments and activities.
- Demonstrates ability to read and/or listen to lecture material and take notes.
- Demonstrates ability to speak and/or write about pharmacology.
- Demonstrates ability to perform basic computations for practical dosage calculation problems by choosing from a variety of mathematical techniques.

### **2. Thinking Skills**

- All thinking skills are used in Pharmacology by students preparing for exams, group work, case studies, and class discussions.
- Uses creative thinking when completing assignments.
- Demonstrates ability to make decisions on examinations and assignments.
- Demonstrates ability to problem solve when evaluating drug therapy.
- Demonstrates ability to reason why a particular medication is used to treat a specific disease.

### **3. Personal Qualities**

- Demonstrates responsibility by completing assignments and examinations on time.
- Demonstrates integrity and honesty while completing assignments.
- Demonstrates confidence in Pharmacology knowledge when administering medications after completing this course.

**The following SCANS Competencies are incorporated into a Pharmacology course:**

### **1. Resources**

- Manages time by completing Pharmacology assignments and examinations by their due dates.

- Identifies resources that should be used in classroom and homework exercises.
- Organizes classroom assignments and plans activities to achieve goals.
- Utilizes resources in completing assignments and exams effectively: reference books, computers, computer programs.
- Utilizes resources; i.e., testing centers, library, and student services to accomplish goals.
- Manages time effectively and efficiently when completing assignments.

## **2. Interpersonal**

- Participate as a proactive member of a team when doing group activities and exercises.
- Exhibits ethical behavior.
- Appreciates the knowledge and talent of other members of the group.
- Teaches other students in group discussions on particular topics.
- Obtains counseling and therapeutic information to better serve and educate clients.
- Negotiates to arrive at a clinical decision through critical thinking case studies.

## **3. Information**

- Acquires, organizes, maintains, and evaluates information through lecture and activities for exam preparation.
- Uses computer to process information for mini-reports and drug profile cards.
- Acquires and evaluates information by doing Internet searches for disease-drug mini-reports and drug profile cards.

## **4. Systems**

- Uses critical thinking skills to assess, formulate, and evaluate correct drug therapy in treating certain disease processes.
- Understands normal anatomy and physiology of major body systems.

- Evaluates pathologic disease states in major body systems in relation to appropriate drug therapy.

## 5. Technology

- Selects technology that is appropriate to learning concepts in pharmacology including computers and related technologies; i.e., Blackboard, to reinforce concepts taught in class

## IV. LEARNING ACTIVITIES

1. **Classroom courses:** Students will be presented information in a standard lecture format. Interactive videos on cable or online are optional. Students will engage in activities and be evaluated on mastery of course content throughout the course.

**ITV courses:** Students will be presented information through an instructor-designed packet, view interactive videos on cable or online in a standard lecture format, engage in activities, and be evaluated on mastery of content throughout the course.

**PCM courses:** Students will be presented information through an instructor-designed packet, view online videos in a standard lecture format, engage in activities, take quizzes, and be evaluated on mastery of content throughout the course.

**PRN courses:** Students will be presented information through an instructor-designed packet which includes extensive notes, engage in activities, and be evaluated on mastery of content throughout the course.

2. 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.
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 as a general guideline for information required on examinations.
5. Dosage calculations will be covered in two 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.

## V. COURSE RATIONALE

This course is designed to help the Allied Health 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

Upon completion of this course, the student will be able to:

1. Define the basic terminology associated with Pharmacology.
2. Define the legislation regulating Pharmacology.
3. Recall the commonly used equivalents and abbreviations used in Pharmacology.
4. Demonstrate ability to solve basic and advanced dosage calculation problems.
5. Describe normal physiologic 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 drug therapies.
10. Discuss the mechanism of action of major classifications of drugs.
11. Recall the side effects associated with each major classification of drug.
12. State the uses of major drug classifications.
13. Discuss appropriate patient teaching in regard 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.

### **Classroom Courses:**

All theory exams are administered in the classroom. All dosage exams must be taken in the testing centers.

### **PRN, ITV, and PCM Courses:**

All theory exams and all dosage exams must be taken in the testing centers.

2. Three dosage calculations 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.
3. All dosage calculations exams are to be taken in the testing center. The exams will be available in all of the testing centers (EVC, RVS, NRG, RGC, CYP, PIN, SAC, RRH, SMC, and FBG).
4. Regardless of the circumstances, if a unit theory exam is missed, a comprehensive make up exam will be offered at the end of the semester. This make up exam can only be taken at the end of the semester, and can only be taken at the EVC Testing Center. The exam is comprehensive, covering material from all units, and will replace the missed exam.
5. For students who perform poorly on an exam and want to improve their theory 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 the course grade. If a student takes the comprehensive make up exam and the score is lower than the lowest test grade, the comprehensive exam grade will still be used in determining the student's final course grade based on the average of the six exams. The make up exam will be administered at the EVC Testing Center at the end of the semester. No exceptions will be granted.
6. No retakes on any unit or dosage exams will be allowed.
7. Calculators may be used on the dosage calculations exams.
8. All five calculations exams are of equal difficulty. Each exam will cover the entire dosage calculations worksheet/workbook, and dosage calculations section in packet. Each exam is different only by the questions asked and numbers used. Each exam covers the same amount of material.
9. **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 approximately 90% of the course.
2. Approximately 10% of the final course grade will be derived from grades on quizzes, case studies, and other special assignments.
3. Grading grids for this course vary among different course delivery methods.

The grading grid for the classroom courses appears below:

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 & below	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 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 expected to participate appropriately in the classroom. This includes, but is not limited to helping with exercises, demonstrations, and asking clarifying questions. Inappropriate participation, which includes but is not limited to talking during lecture, use of cell phones/pagers, 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 Head of Allied Health Sciences, and possible removal from the course. Please refer to the ACC Student Handbook for additional information.

## 2. WITHDRAWALS AND INCOMPLETES

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 initiating their withdrawal. If the student is failing and does not withdraw, the student will be assigned an F. No retroactive withdrawals are given.

The withdrawal deadline date is published in the Academic Calendar for each semester.

Incompletes are given at the discretion of the instructor if the student has a passing average on four unit examinations and at least 2 attempts on dosage calculation examinations).

## 3. 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.

**All electronic devices must be turned off during all examinations. If this directive is not followed, a charge of academic dishonesty could result.**

The penalty for academic dishonesty is an automatic failing grade of "F" in the course. If the student withdraws from the course after the offense, the instructor will re-instate and the failing grade given as stated.

## 4. OFFICE OF 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 MISCELLANEOUS INFORMATION

All cell phones and pagers must be TURNED OFF when in class.

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

The student needs to keep up with the schedule and test due dates and meet deadlines responsibly as this is very essential in becoming a responsible health practitioner.

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

## 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 all essential abbreviations and 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 need some extra assistance. If office hours are not convenient, the instructor can refer you to someone that should be able to help with the problem you may be having with the course.

- Students need to refer to the course packet prepared by their instructor for specific course directions.

## XII. EXAMPLES OF LEARNING TOOLS

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.

### 1. Instructions for processing a **Drug Profile Card**:

- These cards are to be done for your own benefit and should be used to study for the exams. Three for each unit exam.
- These cards are due the dates of the exams for credit. (no exceptions)
- Buy 4x6 note cards (around 50) and include the following information:
  1. Name of Drug – Brand and Generic
  2. Drug Class
  3. Mechanism of Action (MOA)
  4. Major Uses
  5. Side Effects
  6. General Dosing; ex: bid, tid qd
  7. Counseling Tips for Patient
  8. Important characteristics that stand out for that particular drug. (Something of interest that makes that drug unique)

### 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.

### **IMPORTANT DATES TO REMEMBER:**

Withdrawal date:

Holidays:

Deadlines: