

PHRA 1441/1041
AUSTIN COMMUNITY COLLEGE
Semester:
Course Dates:

Instructor Name
Instructor Title

Semester

Office Email: @austincc.edu
Office Phone: 512-223
Office Hours:

Lab Times **See Course Calendar**

Course Description (CIP 510805)

Study of therapeutic agents, their classifications, properties, actions, and effects on the human body and their role in the management of disease. Provides detailed information regarding drug dosages, side effects, interactions, toxicities, and incompatibilities.

End of Course Outcomes

Categorize the major therapeutic classifications of drugs; distinguish the generic and trade names of drugs; describe the therapeutic use of drugs; and recognize appropriate dosing intervals for drugs, side effects, and interactions

Learning Objectives

- Describe the basic sources of drugs, routes of administration, and factors influencing drug effects.
- Describe the basic principles and theories of drug therapy.
- Define basic physiological and biological terms.
- Explain the use and side effects of prescription and nonprescription drugs commonly used to treat diseases affecting the:
 1. Cardiovascular System
 2. Respiratory System
 3. Gastrointestinal System
 4. Renal System
 5. Nervous System
 6. Endocrine System
 7. Reproductive System
 8. Immune System (anti-infectives)
 9. Muscular System
 10. Skeletal System (bones and joints)
 11. Eyes, Ears, Nose, and Throat
 12. Dermatological System
 13. Hematologic System

Textbook

- Required
Essentials of Pharmacology for Health Occupations, 5th Edition, Woodrow, Delmar – EVC Book Store
ISBN # 978-1-4018-8925-8
- References
Remington's Pharmaceutical Sciences – EVC and Pharmacy Technician Lab Library

Structure and Function of the Body – Pharmacy Technician Lab Library
Current Medical Diagnosis and Treatment – Pharmacy Technician Lab Library
Drug Facts and Comparisons – EVC and Pharmacy Technician Lab Library

Grading

Lecture = 75% of grade

Exams 1-5 = 500 points (100 points each)

Final Exam = 100 points ****

Drug Quizzes 1-5 = 50 points (10 points each)

Final Project = 100 points

Laboratory = 25% of grade

Participation = 50 points

Final Presentation = 200 points

****Students that have an “A” average in **BOTH** lecture and lab components of the course **AND** who have earned an “A” on **ALL** of the 5 lecture exams have the option of being exempt from the final exam. If a student does not meet these criteria, they are required to take the comprehensive final exam.

If a student misses one exam for a documented medical or family emergency, they will be required to take the comprehensive final exam. The grade of the final exam will be averaged in the place of the missed exam grade. If any other exams are missed or if an exam is missed for any other reason, a grade of "0" will be given and the student will be required to take the final exam.

A passing grade (75% or better) is required in both lecture and lab components of the course in order to receive a passing grade for this course.

A minimum passing grade of 75% is required in order to receive a passing grade for the course.

A: 90 – 100% B: 80 – 89% C: 75 – 79% D: 60 – 74% F: 59% and below

Incomplete

To receive an “I,” a student must have a passing average (75% or better) and have completed at least 80% of the course work. The student will NOT be permitted to register for PHRA 2266 (Pharmacy Practicum) until the course has been completed.

Withdrawal

Before considering withdrawal, please contact the instructor. If the student wishes to withdraw from the course it shall be their responsibility, as the instructor shall not withdraw students

Exams

The Pharmacy Technician Program at Austin Community College has adopted a uniform testing policy.

There will be no retests. If a student misses one exam for a documented medical or family emergency, the grade of the final exam will be averaged in the place of the missed exam grade. If any other exams are missed or if an exam is missed for any other reason, a grade of "0" will be given.

If use of a calculator is permitted on an exam, students are only permitted to use a silent, hand-held, non-programmable calculator without a fraction key. Calculators must only be battery or solar powered. Students using cell phones and other calculators are considered cheating.

Assignments

Assignment Submission Guidelines

All assignments must be submitted to the Instructor via email unless otherwise specified. All assignments must be submitted in one of the following formats: Microsoft *Word* Document (*.doc) or Rich-Text Format(*.rtf). **All other formats are unacceptable, will not be graded, and will be returned to the student.** Improperly formatted assignments will be subject to late penalties. All assignments are due at the beginning of class.

Late Work

As a general rule, it is best to submit assignments ahead of the deadline as to avoid last-minute problems. Late assignments will be subject to a 10-point penalty if submitted after the posted deadline and then a reduction of 10-points per day thereafter. Assignments will not be accepted if submitted 4 or more days after the posted deadline. THIS INCLUDES WEEKENDS.

Course Requirements and Attendance Policy

Attendance

Attendance at ALL lab meetings is required. Students will sign-in at every class meeting. Your signature constitutes your presence. The student is required to notify an instructor if an absence is anticipated. A student who is five (5) minutes late is considered **tardy**. A tardy will result in a 5 point deduction from that day's lab grade. It is the student's responsibility to keep track of his/her attendance record and for all assignments, materials, examinations, etc., missed. Students who are absent from the mandatory laboratory sessions will be subject to a zero for any graded course exercises for the day, as well as the daily lab grade. If a student is absent, the student is responsible for contacting the instructor to obtain any handouts or missed assignments.

Dress Code

The student will be expected to attend class clean and neatly dressed. The dress code for lab is what a student would expect in an actual community or hospital environment. During lab, students are required to wear close-toed shoes, and long pants (NO SHORTS ALLOWED). If you show up to lab in flip-flops or any open-toed footwear you will be asked to leave and you will be considered absent for that lab.

Cell Phones and Pagers

Students must turn off or mute all cell phones and pagers during lab and class time.

Food and Beverages

Other than sealable bottles, food and beverage items are prohibited in the classroom and laboratory.

Promotion, Failure, and/or Dismissal from the Department

A minimum grade of "C" (75%) is required in both lecture and laboratory components of all pharmacy technician courses. If a student fails either component of a combined lecture/lab course, the final grade posted will be that of the failed portion of the course.

Any student may be withdrawn from the program due to excessive absences and/or consistently failing to meet class assignments, for disruptive conduct during lecture or lab, or for displaying conduct detrimental to the ethics of a Pharmacy Technician.

The student may utilize the approved Student Grievance Procedure of Austin Community College as detailed in the ACC Student Handbook in the disposition of a grievance or complaint without fear of recrimination or retaliation as a result of filing a grievance.

The Pharmacy Technician faculty and staff understand that learning in group-situations can be beneficial. Some assignments will involve group participation; however, each student is expected to demonstrate his/her own competency by doing his/her own work. Any student caught cheating on examinations or other assignments will be subject to disciplinary action, including academic penalty and possible withdrawal from the program.

SCANS Competencies

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In 1990, 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 our nation's students are capable of meeting those demands. The Commission determined that today's jobs generally require competencies in the following areas:

- A. Resources: Identifies, organizes, plans and allocates resources
- B. Interpersonal: Works with others
- C. Information: Acquires and uses information
- D. Systems: Understands complex interrelationships
- E. Technology: Works with a variety of technologies

The Texas Higher Education Coordinating Board requires that all degree plans in institutions of higher education incorporate these competencies and identify to the student how these competencies are achieved in course objectives.

This course, Pharmacotherapy, incorporates the SCANS competencies in the following ways:

- A. Resources
 - 1. Identifies resources to be used in laboratory exercises
 - 2. Organizes laboratory assignments and plans groups activities to achieve goal
 - 3. Utilizes resources available in laboratory effectively: reference books, computers, computer programs
 - 4. Manages time effectively and efficiently when completing assignments
 - 5. Manages human resources effectively and efficiently when completing assignments
- B. Interpersonal
 - 1. Demonstrates an understanding of the profession of Pharmacy
 - 2. Exhibits ethical behavior
 - 3. Appreciates the knowledge and talent of other members of the health care team
 - 4. Demonstrates ability to work within group situations in laboratory exercises
 - 5. Participates as a member of a team
- C. Information
 - 1. Acquires and evaluates information
 - 2. Organizes and maintains information
 - 3. Uses computers to process information
- D. Systems
 - 1. Understands how medications relate to and affect each other (drug interactions)
 - 2. Understands how medications relate to, affect and cure disease states (drug-disease state interactions)
 - 3. Understands how food affects medications (drug-food interactions)
- E. Technology
 - 1. Operates computers in laboratory
 - 2. Use problem-solving skills to solve laboratory assignments
 - 3. Uses technology in classroom presentations
- F. Basic Skills
 - 1. Demonstrates ability to read assignments
 - 2. Demonstrates ability to write through exams and laboratory assignments
 - 3. Demonstrates ability to listen to lecture material and take notes
 - 4. Demonstrates ability to speak in front of class during laboratory assignments
- G. Thinking Skills
 - 1. Uses creative thinking when completing assignments
 - 2. Demonstrates ability to make decisions on examinations and laboratory assignments

3. Demonstrates ability to problem solve when evaluating drug therapies
 4. Demonstrates ability to reason why a particular medication is used to treat a specific disease
- H. Personal Skills
1. Demonstrates responsibility to complete part of group assignments
 2. Demonstrates integrity and honesty during assignments

Award: Pharmacy Technician - Certificate	
<i>Program Level Student Learning Outcomes:</i>	
1.	<p><i>Define the process for obtaining and maintaining technician certification and registration, and list the benefits of involvement in pharmacy professional organizations.</i></p> <p>Includes the following ASHP objectives:</p> <ol style="list-style-type: none"> 11. Assist the pharmacist in monitoring the practice site and/or service area for compliance with federal, state, and local laws; regulations; and professional standards. 20. Understand the principles for managing change. 22. Appreciate the benefits of active involvement in local, state, and national technician and other pharmacy organizations. 23. Appreciate the value of obtaining technician certification. 24. Understand the importance of and resources for staying current with changes in pharmacy practice.
2.	<p><i>Demonstrate the pharmacy technician duties that are performed in the community pharmacy setting.</i></p> <p>Includes the following ASHP objectives:</p> <ol style="list-style-type: none"> 2. Receive and screen prescriptions/medication orders for completeness and authenticity. 7. Assist the pharmacist in the identification of patients who desire/require counseling to optimize the use of medications, equipment, and devices. 8. Initiate, verify, assist in the adjudication of, and collect payment and/or initiate billing for pharmacy services and goods.
3.	<p><i>Demonstrate the pharmacy technician duties that are performed in the institutional pharmacy setting.</i></p> <p>Includes the following ASHP objectives:</p> <ol style="list-style-type: none"> 3. Prepare medications for distribution. 4. Verify the measurements, for distribution. 9. Purchase pharmaceuticals, devices, and supplies according to an established purchasing program. 10. Control the inventory of medications, equipment, and supplies according to an established plan.
4.	<p><i>Describe the legal, ethical, and communication responsibilities related to serving a diverse patient and customer population.</i></p> <p>Includes the following ASHP objectives:</p> <ol style="list-style-type: none"> 16. Take personal responsibility for assisting the pharmacist in improving direct patient care. 21. Appreciate the need to adapt direct patient care to meet the needs of diversity. 29. Maintain confidentiality of patient and proprietary business information.
5.	<p><i>Manage issues related to conflict resolution, communication, teamwork, and time management.</i></p> <p>Includes the following ASHP objectives:</p> <ol style="list-style-type: none"> 19. Resolve conflicts through negotiation. 25. Communicate clearly when speaking and or in writing. 27. Efficiently solve problems commonly encountered in one's own work. 31. Efficiently manage one's work whether performed alone or as part of a team. 32. Function effectively as a member of the health care team. 33. Balance obligations to one's self, relationships, and work in a way that minimizes stress.

6.	<p><i>Demonstrate proper technique in the operation of pharmacy equipment, supplies, and processes.</i></p> <p>Includes the following ASHP objectives:</p> <ol style="list-style-type: none"> 5. Distribute medications. 6. Assist the pharmacist in the administration of immunizations. 12. Maintain pharmacy equipment and facilities. 13. Assist the pharmacist in preparing, storing, and distributing investigational medication products.
7.	<p><i>Utilize appropriate procedures to assist the pharmacist in medication management and medication error prevention.</i></p> <p>Includes the following ASHP objectives:</p> <ol style="list-style-type: none"> 1. Assist the pharmacist in collecting, organizing, and evaluating information for direct patient care, medication use review, and departmental management. 14. Assist the pharmacist in the monitoring of medication therapy. 15. Participate in the pharmacy department's process for preventing medication misadventures. 30. Understand direct patient care delivery systems in multiple practice settings. 34. Understand the use and side effects of prescription and nonprescription medications used to treat common disease states.
8.	<p><i>Demonstrate effective application of pharmacy knowledge and skill in the pharmacy practicum externship.</i></p> <p>Includes the following ASHP objectives:</p> <ol style="list-style-type: none"> 17. Display ethical conduct in all job-related activities. 18. Maintain an image appropriate for the profession of pharmacy. 26. Maximize work efficiency through the use of technology. 28. Display a caring attitude toward patients in all aspects of job responsibilities. 35. Assist the pharmacist in assuring the quality of all pharmaceutical services.

Statement on Students with Disabilities

Each ACC campus offers support services for students with documented disabilities. Students with disabilities who need classroom, academic or other accommodations must request them through the Office for Students with Disabilities (OSD). Students are encouraged to request accommodations when they register for courses or at least three weeks before the start of the semester, otherwise the provision of accommodations may be delayed.

Students who have received approval for accommodations from OSD for this course must provide the instructor with the 'Notice of Approved Accommodations' from OSD before accommodations will be provided. Arrangements for academic accommodations can only be made after the instructor receives the 'Notice of Approved Accommodations' from the student.

Students with approved accommodations are encouraged to submit the 'Notice of Approved Accommodations' to the instructor at the beginning of the semester because a reasonable amount of time may be needed to prepare and arrange for the accommodations. Additional information about the Office for Students with Disabilities is available at <http://www.austincc.edu/support/osd/>

Safety Statement

Austin Community College is committed to providing a safe and healthy environment for study and work. You are expected to learn and comply with ACC environmental, health and safety procedures and agree to follow ACC safety policies. Additional information on these can be found at <http://www.austincc.edu/ehs>. Because some health and safety circumstances are beyond our control, we ask that you become familiar with the Emergency Procedures poster and Campus Safety Plan map in each classroom. Additional information about emergency procedures and how to sign up for ACC

Emergency Alerts to be notified in the event of a serious emergency can be found at <http://www.austincc.edu/emergency/>.

Please note, you are expected to conduct yourself professionally with respect and courtesy to all. Anyone who thoughtlessly or intentionally jeopardizes the health or safety of another individual will be dismissed from the day's activity, may be withdrawn from the class, and/or barred from attending future activities.

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Student and Instructional Services

ACC strives to provide exemplary support to its students and offers a broad variety of opportunities and services. Information on these services and support systems is available at: <http://www.austincc.edu/s4/> Links to many student services and other information can be found at: <http://www.austincc.edu/current/> ACC Learning Labs provide free tutoring services to all ACC students currently enrolled in the course to be tutored. The tutor schedule for each Learning Lab may be found at: <http://www.austincc.edu/tutor/students/tutoring.php>

For help setting up your ACCeID, ACC Gmail, or ACC Blackboard, see a Learning Lab Technician at any ACC Learning Lab.

Statement on Scholastic Dishonesty

A student attending ACC assumes responsibility for conduct compatible with the mission of the college as an educational institution. Students have the responsibility to submit coursework that is the result of their own thought, research, or self-expression. Students must follow all instructions given by faculty or designated college representatives when taking examinations, placement assessments, tests, quizzes, and evaluations. Actions constituting scholastic dishonesty include, but are not limited to, plagiarism, cheating, fabrication, collusion, and falsifying documents. Penalties for scholastic dishonesty will depend upon the nature of the violation and may range from lowering a grade on one assignment to an "F" in the course and/or expulsion from the college. See the Student Standards of Conduct and Disciplinary Process and other policies at <http://www.austincc.edu/current/needtoknow>

Student Rights and Responsibilities

Students at the college have the rights accorded by the U.S. Constitution to freedom of speech, peaceful assembly, petition, and association. These rights carry with them the responsibility to accord the same rights to others in the college community and not to interfere with or disrupt the educational process. Opportunity for students to examine and question pertinent data and assumptions of a given discipline, guided by the evidence of scholarly research, is appropriate in a learning environment. This concept is accompanied by an equally demanding concept of responsibility on the part of the student. As willing partners in learning, students must comply with college rules and procedures.

Statement on Academic Freedom

Institutions of higher education are conducted for the common good. The common good depends upon a search for truth and upon free expression. In this course the professor and students shall strive to protect free inquiry and the open exchange of facts, ideas, and opinions. Students are free to take exception to views offered in this course and to reserve judgment about debatable issues. Grades will not be affected by personal views. With this freedom comes the responsibility of civility and a respect for a diversity of ideas and opinions. This means that students must take turns speaking, listen to others speak without interruption, and refrain from name-calling or other personal attacks.

Pharmacy Drug Therapy and Treatment
PHRA 1441/1041

Master Course Calendar – Distance Learning

Week	Date	System	Topic	Assignment	Quizzes
1			Introduction / Drug Names and References	Read Chapters 2 and 3	
			Medication Preparations and Supplies	Read Chapters 4 and 27	
			Drugs and Older Adults		
2		Cardiovascular	Cardiovascular Drugs	Read Chapter 25	DQ #1
			ONSITE LAB DAY #1 (9 AM – NOON, EVC Rm #9223)		
3			Exam 1 (Chapters 2, 3, 4, 27 and 25) Due		
		Respiratory	Respiratory System Drugs	Read Chapter 26	
4		GI	Gastrointestinal Drugs	Read Chapter 16	
5		Renal	Urinary System Drugs	Read Chapter 15	DQ #2
			ONSITE LAB DAY #2 (9 AM – NOON, EVC Rm #9223)		
6			Exam 2 (Chapters 26, 16 and 15) Due		
		Nervous	Autonomic Nervous System Drugs	Read Chapter 13	
7			Psych. Medications, Alcohol, and Drug Abuse	Read Chapter 20	
			Anticonvulsants, Antiparkinsonian Drugs, and Agents for Alzheimer's Disease	Read Chapter 22	
			ONSITE LAB DAY #3 (9 AM – NOON, EVC Rm #9223)		
8			Analgesics, Sedatives, and Hypnotics	Read Chapter 19	DQ #3
			Exam 3 (Chapters 13, 20, 22 and 19) Due		
			Mid-term Student Progress Evaluations		
9		Endocrine	Endocrine System Drugs	Read Chapter 23	
		Reproductive	Reproductive System Drugs	Read Chapter 24	
10		Immune	Anti-infective Drugs	Read Chapters 17 and 14	
			Anti-neoplastic Drugs		DQ #4
			ONSITE LAB DAY #4 (9 AM – NOON, EVC Rm #9223)		
11			Exam 4 (Chapters 23, 24, 17 and 14) Due		

		Muscular/Skeletal	Musculoskeletal and Anti-Inflammatory Drugs	Read Chapter 21	
12		EENT	Eye Medications and Antihistamines	Read Chapter 18 and 26 (pgs. 509-511)	
		Dermatologic	Skin Medications	Read Chapter 12	
13		Hematologic	Hematologic Disorders and Medications	See class handouts	
		Vitamins/Herbs	Vitamins, Minerals, and Herbs	Read Chapter 11	
			<u>ONSITE LAB DAY #5 (9 AM – NOON, EVC Rm #9223)</u>		
14			Course Review Onsite EVC Rm# 9227, 5:45 – 8 P.M.		DQ #5
			LAST DAY TO WITHDRAW FROM CLASSES – 5 P.M.		
			Exam 5 (Chapters 21, 18, 26, 12, 11 and handouts) Due		
15			<i>ONSITE LAB DAY #6 (9 AM – NOON, EVC Rm #9223)</i>		
			<i>PROJECT PRESENTATIONS</i>		
16			Final Exam (Comprehensive) Due – Only available at EVC Testing Center		
			No Class		