

PHAR 7483 Integrated Pharmacotherapy 3 (PTX-3): Cardiology Spring 2024

Course Description

This integrated pharmacy course focuses on pathophysiology, medicinal chemistry, and pharmacology to develop therapeutic plans for patients with cardiovascular disorders.

Additional Course Information

Upon successful completion of PTX-3, students will have developed skills regarding the pathophysiology, medicinal chemistry, pharmacology, and pharmacotherapy related cardiovascular disorders. Ultimately, this will allow the student to develop individualized patient care plans incorporating evidence-based principles and patient-specific factors.

Course Credit

4 credit hours

Class Meeting Days, Time & Location

Wednesday and Friday

2:00 - 4:00 pm

W.T. Brookshire Hall Room 235

Course Coordinator

Rachel A. Bratteli, PharmD, BCACP

Clinical Associate Professor

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Office hours: Tuesday and Thursday 12-2pm via open Zoom Room or by appointment.

Preferred method of contact: Email

Fisch College of Pharmacy (FCOP) and UT Tyler Policies

This is part 1 of the syllabus. Part 2 contains UT Tyler and the FCOP course policies and procedures.

These are available as a PDF at <https://www.uttyler.edu/pharmacy/academic-affairs/files/fcop-syllabus-policies-part2-2021.pdf>. For experiential courses (i.e., IPPE and/or APPE), the Experiential Manual contains additional policies and instructions that supplement the Syllabus Part 1 and 2. Please note, the experiential manual may contain policies with different deadlines and/or instructions. The manual should be followed in these cases.

Required Materials

Most course required materials are available through the Robert R. Muntz Library. These materials are available either online* (<http://library.uttyler.edu/>) or on reserve at the library.

1. *Pathophysiology of Disease: An Introduction to Clinical Medicine (8th Edition). Hammer GD and McPhee SJ. Lange-McGraw Hill. ISBN: ISBN 978-1-260-02650-4.
2. *Patrick GL. An Introduction to Medicinal Chemistry. 6th edition. Oxford: Oxford University Press; 2017.
3. *Basic and Clinical Pharmacology (12th Edition). Katzung BG, Masters SB, Trevor AJ. Lange-McGraw Hill. ISBN: 978-0-07-176401-8, 2012.
4. *Pharmacotherapy: A Pathophysiologic Approach, 9th Edition. DiPiro JT, Talbert RL, Tee GV, et al. McGraw-Hill Education. (©2014) ISBN: 978-0-07-180053-2.

5. Other required materials will be posted on the classes' Canvas site. The site address is uttyler.edu/canvas.

Course Format

The course may include, but is not limited to, the following activities:

1. Independent study of selected readings
2. Individual readiness assessment tests (iRATs)
3. Team-based learning and active learning strategies:
 - a. Team readiness assessment tests (tRATs)
 - b. Team applications of content and concepts
 - c. Team presentation of content and concepts
 - d. SOAP note(s)
4. Independent preparation of reflection papers or other assignments.

Course Learning Outcomes (CLOs)

CLOs	Related PLO(s)	Assessment Methods	Grading Method	EPA's	AACP Std. 11 & 12
1. Integrate the principles of physiology, pathophysiology, and pharmacology into selection of appropriate medication therapy for cardiovascular disease states.	1,2	1,2	ES	1.1, 1.2, 1.3, 1.4, 1.5, 2.1, 3.1, 3.2, 3.4, 4.1, 4.2	-
2. Predict the biochemical and cellular consequences from the pharmacology of cardiovascular drugs.	1	1,2	ES	1.2, 3.2	-
3. Predict the biochemical and cellular consequences from the medicinal chemistry of cardiovascular drugs.	1	1,2	ES	1.2, 3.2	-
4. Develop and recommend individualized, evidence-based therapeutic and monitoring plans based upon patient-specific factors for cardiovascular disease states.	1,2,4,7,9	1,2	ES	1.1, 1.2, 1.3, 1.4, 1.5, 2.1, 3.1, 3.2, 3.4, 4.1, 4.2	-

Course Assessment Methods

	Assessment Method	Description
1	Final Exam Multiple Choice or Multiple Selection Question(s)	<i>Standard MCQ, open-ended, FITB, matching, and select all that apply questions.</i>
2	Final Exam Open Ended Questions	<i>Handwritten calculations, FITB, short answer</i>

Grading Policy & Grade Calculation

Grades will be determined based on evaluation of individual and team readiness assessment tests (iRATs, tRATs), midterm examinations, final written examinations, skills assessments, graded application assignments, participation in team-based projects, peer evaluations and other assessment methods that may include Objective Structured Clinical Examinations (OSCE). Examinations and RATs may consist of multiple-choice, true/false, short-answer, essay, and problem-based questions.

During the time the course is in progress, students whose cumulative course percentage falls below 70.0% may receive an academic alert and be subject to periodic course content review in special sessions with the course instructor(s). The student’s faculty advisor may receive an academic alert to act upon on the student’s behalf.

All examinations, tests, and assignments, including the final examination, may be **cumulative**. Students are responsible for material presented during the prior courses. The grading scale for all graded material is below. **The final course grade will be assigned according to the calculated percentage and the percentages will not be rounded upward or downward.**

Standard Grade Calculation*			Total
Individual Component	iRATs/Individual applications	15%	95%
	Assessment 1	25%	
	Assessment 2	25%	
	Final Exam	30%	
Team Component	tRATs/Team applications	5%	5%
Individual + Team Component			100%

**The final course letter grade will be determined according to the following grading scheme:*

A	90 - 100 %
B	80 - 89.999 %
C	70 - 79.999 %
D	65.0 - 69.999 %
F	< 65.0 %

PHAR 7483 Course Schedule

DAY	TOPIC	Instructor	CLO	Disease States
W: 1/17	Introduction to course + concept map & Pathophysiology: Normal structure and function; Hypertension; Atherosclerosis → CAD/Cerebrovascular Disease	Brazill	1	S01.01, S01.08 S01.12A
F: 1/19	Medicinal Chemistry: Antihypertensives*	Abdelaziz	1,3	S01.01
W:1/24	Pharmacology: Antihypertensives	Brazill	1	S01.01
F: 1/26	Pharmacology: Vasoactive agents	Brazill	2	S01.07
W: 1/31	Medicinal Chemistry: Antihyperlipidemics (1 hr) + Pharmacology: Antihyperlipidemics (1 hr)	Abdelaziz /Brazill	1,2,3	S01.01 S01.08 S01.07
F: 2/2	Pharmacology + Medicinal Chemistry: Anti-arrhythmics + anti-thrombotics (1 hr)	Brazill/ Abdelaziz	1,3	S01.05A S01.06 S01.09
W: 2/7	Pharmacology: Antiplatelets, Anticoagulants, & Thombolytics	Brazill	2	S01.03 S01.04 S01.06 S01.05A S01.05B
F: 2/9	***Exam 1: Material through 2/7***			
W: 2/14	Pharmacotherapy: Hypertension*	Yett	1,4	S01.01
F: 2/16	Pharmacotherapy: Hypertension continued + Hypertensive Crises	Yett	1,4	S01.01 S01.15
W: 2/21	Pharmacotherapy: Dyslipidemia and intro to ASCVD/CAD*	Gutierrez	1,4	S01.08 S01.12 A
F: 2/23	Pharmacotherapy: Dyslipidemia and intro to ASCVD/CAD*	Gutierrez	1,4	S01.08 S01.12A
W: 2/28	Pathophysiology/Pharmacotherapy: PAH*	Yett	1,4	S01.17
F: 3/1	Pathophysiology/Pharmacotherapy: PAD + Content Review	Yett	1,4	S01.16
W: 3/6	Pathophysiology: Ischemic heart disease → SIHD, ACS; Heart Failure*	Brazill	1	S01.03 S01.04 S01.02A
F: 3/8	Medicinal Chemistry: Inotropes + CCBs + Vasodilators*	Abdelaziz	1,3	S01.03 S01.04 S01.07
W: 3/13 & F: 3/15	Spring Break! Independent Study of REMS sleep and Cocos nucifera			
W: 3/20	Exam 2 Review			
F: 3/22	***Exam 2: Material through 3/8***			
W: 3/27	Pharmacotherapy: Stable Ischemic Heart Disease (stable angina, silent ischemia, CAD) *	Yett	1,4	S01.03 S01.12 A S01.12B
F: 3/29	Pharmacotherapy: Acute Coronary Syndrome - unstable angina/NSTEMI, STEMI*	Smith	1,4	S01.04

Commented [RB1]: Antihypertensives and antihyperlipidemics became 2 days (+2 hr)

Commented [RB2R1]: Antiplatelets, anticoagulants, and thrombolytics combined from 2 days to 1 day (-2 hr)

Commented [RB3]: 2 days for Tier 3 topic (+2 hr)

Commented [RB4]: PAH separated to its own day from HTN emergency (+2 hr)

Commented [RB5]: PAD separated form SIHD with a content review (+2 hr)

Commented [RB6]: Decreased to 1 day (-2 hr)

W: 4/3	Pharmacotherapy: Chronic Heart Failure – HFrEF*	Hooper	1,4	S01.02A
F: 4/5	Pharmacotherapy: Chronic Heart Failure - HFrEF continued + HFpEF	Hooper	1,4	S01.02A
W: 4/10	Pharmacotherapy: Acute Decompensated Heart Failure*	Smith	1,4	S01.02B
F: 4/12	Pharmacotherapy: Venous thromboembolism (Prophylaxis and Acute Management)*	Smith	1,4	S01.06 S14.06
W: 4/17	Pharmacotherapy: Arrhythmias (AFib, Aflutter, Ventricular)*	Dunn	1,4	S01.05A S01.05B
F: 4/19	Pharmacotherapy: Chronic Anticoagulation Management (VTE and AFib)	Bratteli	1,4	S01.05A S01.12B
W: 4/24	Pharmacotherapy: Stroke (ischemic + hemorrhagic + TIA)*	Dunn	1,4	S01.09
F:4/26	Final Exam Review	All		
Tu: 4/30	1-4pm Final Exam (cumulative + new material through 4/24)			
*Indicates intended RAT date				

Commented [RD7]: Combined to 1 day (-2 hr)

Commented [RD8]: Pathophysiology removed (-2 hr)

Commented [RD9]: Instead of a final exam review, does VTE or chronic anticoagulation need more time? We could push everything back. Or get rid of Exam 2 review and push everything up and keep final exam review.

