PHAR 7483 Integrated Pharmacotherapy 3 (PTX-3):

Cardiology Spring 2026

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
Tuesday 10:00 am – 12:00 pm
Friday 1:30 - 3:30 pm
W.T. Brookshire Hall Room 235

Course Coordinator
Rachel A. Bratteli, PharmD, BCACP
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Office hours: Tuesdays and Thursdays 12:00 – 1:00 pm via Zoom or by appointment
https://uttyler.zoom.us/j/87613568579?pwd=Q2R5NndDVzBFS0JGN3pReEpPVFFxdz09

- Meeting ID: 876 1356 8579
- Passcode: 181130

Preferred method of contact: Email (rbratteli@uttyler.edu)

Fisch College of Pharmacy (FCOP) and UT Tyler Policies
This is Part 1 of the syllabus. Part 2 contains UT Tyler and the FCOP policies and procedures. 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	PLO(s) Assessed for this CLO (1-12)	EPAs (1-13)	ACPE Appendix 1 (names)	ACCP Didactic Toolkit (names)	NAPLEX (1.1-6.5)	Assessment Methods (1-13)
1. Select appropriate medication therapy for cardiovascular conditions based on principles of physiology, pathophysiology and pharmacology..	1,2	N/A	Human Anatomy Human Physiology Pathology/Pathophysiology	Arrhythmias, atrial Chronic coronary disease (formerly stable ischemic heart disease) Dyslipidemia Heart failure, chronic Hypertension Venous thromboembolism, prevention, and treatment Acute coronary syndromes Advanced cardiac life support Arrhythmias, ventricular Heart failure, acute decompensated Hypertensive crises Peripheral artery disease Stroke (ischemic, hemorrhagic, and transient ischemic attack)		1,2
2. Formulate patient-and disease-specific care plans for pharmacotherapeutic regimens in cardiovascular disorders.	1, 5		Pharmaceutical Calculations Cultural Awareness Patient Safety Pharmacotherapy Self-Care Pharmacotherapy			1,2
3. Design monitoring plans for efficacy, toxicity and adverse effects for pharmacotherapuetic regimens in cardiovascular disorders.	1, 2		Clinical Laboratory Data, Pharmacotherapy			1
4. Predict the biochemical and cellular consequences from	1		Medicinal Chemistry			1,2

the medicinal chemistry of cardiovascular drugs.						

Course Assessment Methods

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

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 - 89.99$\bar{9}$ %
C	70 - 79.99$\bar{9}$ %
D	65.0 - 69.99$\bar{9}$ %
F	< 65.0 %

Appropriate Use of Artificial Intelligence

For this course, during some class assignments, we may leverage AI tools to support your learning, allow you to explore how AI tools can be used, and/or better understand their benefits and limitations. Learning how to use AI is an emerging skill, and we will work through the limitations of these evolving systems together. However, AI will be limited to assignments where AI is a critical component of the learning activity and ***should not be assumed*** an appropriate resource for all assignments. The faculty member will always indicate when and where the use of AI tools for this course is appropriate.

PHAR 7483 Course Schedule

DAY	TOPIC	Instructor	CLO
T: 1/13	Pathophysiology: Normal structure and function; Hypertension; Atherosclerosis, CAD, Cerebrovascular Disease	Brazill	1
F: 1/16	Medicinal Chemistry: Antihypertensives*	Abdelaziz	4
T:1/20	Medicinal Chemistry: Antihyperlipidemics and Anti-arrhythmics	Abdelaziz	4
F: 1/23	Medicinal Chemistry: Antiplatelets, Anticoagulants, Thombolytics, and Anti-thrombotics	Abdelaziz	4
T: 1/27	Medicinal Chemistry: CCB, Vasodilators, and Ionotropes	Abdelaziz	4
F: 1/30	Pharmacotherapy: Hypertension*	Brown	1,2,3
T: 2/3	Pharmacotherapy: Hypertension continued + Hypertensive Crises	Brown	1,2,3
F: 2/6	*****Exam 1: Material through 2/3*****		
T: 2/10	Pathophysiology/Pharmacotherapy: Pulmonary Arterial Hypertension*	Gutierrez	1,2,3
F: 2/13	Pharmacotherapy: Dyslipidemia and intro to ASCVD/CAD*	Gutierrez	1,2,3
T: 2/17	Pharmacotherapy: Dyslipidemia and intro to ASCVD/CAD*	Gutierrez	1,2,3
F: 2/20	Pathophysiology/Pharmacotherapy: PAD	Gutierrez	1,2,3
T: 2/24	Pathophysiology: Chronic Coronary Disease → CCD, ACS; Heart Failure*	Brazill	1
F: 2/27	Pharmacotherapy: Chronic Coronary Disease (stable angina, silent ischemia, CAD) *	Bratteli	1,2,3
T: 3/3	Pharmacotherapy: Acute Coronary Syndrome - unstable angina/NSTEMI, STEMI*	Smith	1,2,3
F: 3/6	******Exam 2: Material through 3/3******		
T: 3/10 & F: 3/13	**Spring Break! Independent Study of REMS sleep and Cocos nucifera**		
T: 3/17	Pharmacotherapy: Chronic Heart Failure – HFrEF	Hooper	1,2,3
F: 3/20	Pharmacotherapy: Chronic Heart Failure - HFrEF continued + HFpEF	Hooper	1,2,3
T: 3/24	Pharmacotherapy: Acute Decompensated Heart Failure*	Smith	1,2,3
F: 3/27	Pharmacotherapy: Anticoagulation - Atrial Fibrillation + Chronic VTE*	Bratteli	1,2,3
T: 3/31	Pharmacotherapy: Venous thromboembolism (Acute Management)*	Smith	1,2,3
F: 4/3	Pharmacotherapy: Atrial Arrhythmia (AFib + Aflutter)	Bratteli	1,2,3
T: 4/7	Comprehensive Review Case: Acute+Chronic Heart Failure	Smith	1,2,3
F: 4/10	Pharmacotherapy: Ventricular Arrythmia*	Bratteli	1,2,3
T: 4/14	Comprehensive Review Case: Atrial + Ventricular Arrythmias	Bratteli	1,2,3
F: 4/17	Comprehensive Review Case: VTE + AFib Anticoagulation	Bratteli	1,2,3
T: 4/21	Pharmacotherapy: Cerebrovascular Disease – Stroke (ischemic + hemorrhagic + TIA)*	Smith	1,2,3
F:4/24	***Final Exam Review***	All	1,2,3
TBD	***1-4pm Final Exam (cumulative + new material through 4/24)***		
***Indicates intended RAT date**			

Commented [RB1]: Removed Pharmacology secondary to PPP course.
Expanded content: Arrhythmias 1 --> 2 days
Added Comprehensive Review Case Days: HF, Arrhythmias, and anticoagulation