

## **PHAR 7484 Integrated Pharmacy 4 (PTX-4): GI, Nutrition, Musculoskeletal**

### **Spring Semester 2021**

#### **Course Description**

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

#### **Additional Course Information**

This course introduces basic science and clinical concepts of pharmacy practice. The focus of this course surrounds scientific and therapeutic aspects of the gastrointestinal and musculoskeletal systems and common diseases affecting those systems. In addition, this course will focus on how to appropriately address nutritional disorders. Development of patient-specific therapeutic plans using non-prescription, non-pharmacological, complementary and prescription modalities will be learned. Ultimately, students will be provided with the knowledge-base and clinical skills necessary to provide pharmaceutical care to patients with gastrointestinal and musculoskeletal disorders.

**Course Credit:** 4 credit hours

**Pre-Requisites:** P2 Standing

**Co-Requisites:** None

#### **Class Meeting Days, Time & Location**

Tuesday 3:00 – 5:00PM, W.T. Brookshire Hall Room 136 and 137

Friday 1:00 – 3:00PM, W.T. Brookshire Hall Room 136 and 137

#### **Course Coordinator**

Shannon D. Rice, Pharm.D., BCGP

W.T. Brookshire Hall Room 256

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Email: [srice@uttyler.edu](mailto:srice@uttyler.edu)

Office hours: TBD (see Canvas course site)

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.pdf>. Syllabus Part 3 contains specific-policies adapted regarding instruction during COVID. 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.utt Tyler.edu/>) or on reserve.

1. Pharmacotherapy: A Pathophysiologic Approach, 10th Edition. DiPiro JT, Talbert RL, Yee GC, et al. McGraw-Hill Education. (©2017) ISBN 978-1-259-58748-1
2. Principles of Pharmacology: The Pathophysiologic Basis of Drug Therapy Fourth Edition, 4<sup>th</sup> Edition. Golan DE, Armstrong EJ, Armstrong AW. Wolters Kluwer. (©2017) ISBN 9781451191004
3. Other required materials will be posted on the classes' Canvas site: [utt Tyler.edu/canvas](http://utt Tyler.edu/canvas).

**Recommended Materials:** None

## 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, active learning strategies:
  - a. Team readiness assessments (tRAT)
  - b. Team application of content and concepts
  - c. Team presentation of content and concepts
  - d. Team project(s)
  - e. SOAP note(s)
4. Independent preparation of reflection papers or other assignments

## Course Learning Outcomes (CLOs)

CLOs	PLO(s) Assessed for this CLO	EPAs	Assessment Methods	Grading Method	PPCP Skill(s) Assessed	ACPE Std. 11 & 12
1. Select appropriate medication therapy for gastrointestinal and musculoskeletal conditions based on principles of physiology, pathophysiology and pharmacology.	1, 2	1.1 1.2	1, 2	ES	1, 2, 3	4
2. Formulate patient-and disease-specific care plans for pharmacotherapeutic regimens in gastrointestinal and musculoskeletal disorders.	1, 2, 4	1.1 1.2 1.3 1.4 4.2	1, 2	ES	1, 2, 3, 4	4
3. Design monitoring plans for efficacy, toxicity and adverse effects for pharmacotherapeutic regimens in renal and respiratory disorders.	1, 2, 6	1.5 3.2	1, 2	ES	3, 4, 5	4
4. Discuss parenteral and enteral nutrition.	1, 2, 9	1.1 1.2 1.3 1.4 1.5	1, 2	ES	1, 2, 3, 4, 5	4

## Course Assessment Methods

	Assessment Method	Description <i>Please provide a brief description of each summative assessment that you plan to use in this course to allow us to identify which ACPE standards are being assessed</i>
1	Final Exam Multiple Choice or Multiple Selection Question(s)	<i>Standard MCQ and Select All that apply questions.</i>
2	Final Exam Open Ended Question(s)	<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), individual and team cumulative assessment tests (iCATs, tCATs), midterm examinations, final written examinations, skills assessments, graded application assignments, participation in team-based projects, peer evaluations and other assessment methods that may include, but not limited to, Objective Structured Clinical Examinations (OSCE). Examinations, RATs and CATs may consist of, but not limited to, multiple-choice, true/false, fill in the blank, 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. For additional information, see examination/assessment policy below.

Standard Grade Calculation*	
<b>Individual Component</b>	<b>95%</b>
iRATs	15%
Midterm 1	25%
Midterm 2	25%
Final Exam	30%
<b>Team Component</b>	<b>5%</b>
tRATs	2.5%
Team Application(s)/Team Projects	2.5%
<b>Total</b>	<b>100%</b>

**\*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 7484 Course Schedule

Day	Topic	Instructor	CLO	Disease States
1/11-1/15	Clinical Evaluation of the Gastrointestinal Tract *	Dunn - Online		S03.13
1/12	Physiology & Pharmacology: Gastrointestinal Review and Disorders of Gastric Acid *	Wang	1, 2	S03.13
1/15	Pathophysiology & Pharmacology: Nausea & Vomiting *	Wang	1, 2	S03.01 S03.02 S03.09
1/19	Pharmacotherapy: Nausea and Vomiting *	Rice	1, 2, 3	S03.09
1/22	Pharmacotherapy: GERD, Dyspepsia, Heartburn *	Rice	1, 2, 3	S03.01
1/26	Pharmacotherapy: GERD, Dyspepsia, Heartburn	Rice	1, 2, 3	S03.01
1/29	Pharmacotherapy: Peptic Ulcer Disease *	Rice	1, 2, 3	S03.02
2/2	Pharmacotherapy: Gastrointestinal Bleeding *	Dunn	1, 2, 3	S03.13
<b>2/5</b>	<b>Midterm Exam 1 - Covers material 1/11 through 2/2</b>			
2/9	Pathophysiology & Pharmacology: Diarrhea, Constipation, IBS (i.e. disorders of gastrointestinal motility and water flux) *	Wang	1, 2	S03.07 S03.08 S03.10
2/12	Pharmacotherapy: Diarrhea & Constipation *	Yett	1,2, 3	S03.07 S03.08
2/16	Pharmacotherapy: Irritable Bowel Syndrome *	Yett	1,2, 3	S03.10
2/19	Pharmacotherapy & Communication: Cirrhosis *	Dunn	1, 2, 3	S03.04
2/23	Pharmacotherapy & Communication: Cirrhosis	Dunn	1, 2, 3	S03.04
2/26	Pharmacotherapy: Drug-Induced Liver Disease *	Rice	1, 2, 3	S03.05
3/2	Pharmacotherapy: Malabsorptive Syndrome *	Romerill	4	S03.13 S17.05
3/5	Pharmacotherapy: Parenteral Nutrition *	Romerill	4	S03.13 S17.01
3/16	Pharmacotherapy: Enteral Nutrition *	Romerill	4	S03.13 S17.02
3/19	Pharmacotherapy: Pancreatitis *	Rice	1, 2, 3	S03.11
<b>3/23</b>	<b>Midterm Exam 2 - Covers material 2/9 through 3/19</b>			

Day	Topic	Instructor	CLO	Disease States
3/26	Pathophysiology & Pharmacology: Inflammation, Autoimmunity, Immunosuppression and Pain *	Pearson	1, 2	S03.03 S10.01 S10.06 S11.01 S11.02 S11.03
3/30	Pathophysiology & Pharmacology: Inflammation, Autoimmunity, Immunosuppression and Pain	Pearson	1, 2	S03.03 S10.01 S10.06 S11.01 S11.02 S11.03
4/2	Pharmacotherapy: Inflammatory Bowel Disease *	Newsome	1, 2, 3	S03.03
4/6	Pharmacotherapy: Inflammatory Bowel Disease	Newsome	1, 2, 3	S03.03
4/9	Pharmacotherapy: Systemic Lupus Erythematosus *	Newsome	1, 2, 3	S10.01
4/13	Pharmacotherapy: Systemic Lupus Erythematosus	Newsome	1, 2, 3	S10.01
4/16	Pharmacotherapy: Rheumatoid Arthritis *	Newsome	1, 2, 3	S11.01
4/20	Pharmacotherapy: Gout *	Rice	1, 2, 3	S11.03
4/23	Pharmacotherapy: Osteoarthritis *	Bratteli	1, 2, 3	S11.02
TBD	<b>Cumulative Final Exam (+ new material 3/25 through 4/23)</b>			
<b>*Indicates intended dates of iRATs</b>				