

PHAR 7481 Integrated Pharmacotherapy 1 (Ptx-1)
Renal/Respiratory
Fall 2024

Course Description

This course focuses on the application of the knowledge and skills needed for pharmacists to care for patients with various renal and respiratory disorders.

Additional Information on the Course

This course incorporates advanced renal and respiratory pathophysiology and pharmacology in order to prepare students to focus on the pharmacotherapeutics of the renal and respiratory systems and common diseases affecting those systems. Development of patient-specific therapeutic plans using non-prescription, prescription and nonpharmacological modalities will be learned. Ultimately, students will be provided with the knowledge and skills necessary to provide care to patients with renal and respiratory disorders.

Course Credit

4 credit hours

Pre-Requisites

PHAR 7301, PHAR 7613, PHAR 7203

Co-Requisites

None

Class Meeting Days, Time & Location

Thursday **and** Friday, 9:00 am – 11:00 am; W.T. Brookshire Hall room # 235

Course Coordinator

Rebecca Dunn, Pharm.D.

W.T. Brookshire Hall Room 328

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Office hours: 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. 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, 4th Edition. Golan DE, Armstrong EJ, Armstrong AW. Wolters Kluwer. (©2017) ISBN 9781451191004
3. Renal Pathophysiology, 4th Edition. Rennke H, Bradley M, Denker BM. Lippincott Williams & Wilkins. ISBN-13: 978-1451173383
4. Other required materials will be posted on the classes' Canvas site. The site address is: 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. Lecture
5. Active learning
6. Case studies
7. Educational video clips (online and in class)

Course Learning Outcomes (CLOs)

| CLOs | PLO(s) Assessed for this CLO (1-15) | ACPE Std. 11 & 12 (1-4) | Grading Method | Assessment Methods |
|--|--|-------------------------------|-------------------|-----------------------|
| 1. Select appropriate medication therapy for renal and respiratory conditions based on principles of physiology, pathophysiology and pharmacology. | 1, 2 | 4 | ES | 1 |
| 2. Formulate patient-and disease-specific care plans for pharmacotherapeutic regimens in renal and respiratory disorders. | 1, 2, 4 | 4 | ES | 1 |
| 3. Design monitoring plans for efficacy, toxicity and adverse effects for pharmacotherapeutic regimens in renal and respiratory disorders. | 1, 2, 6 | 4 | ES | 1 |

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>FITB, short answer, essay</i> |

Grading Policy & Grade Calculation

Grades will be determined based on evaluation of individual and team readiness assessment tests (iRATs, tRATs), midterm examinations, written examinations, skills assessments, graded application assignments, and participation in team-based projects. 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. **Backwards navigation will not be available on summative assessments (e.g. midterms, final).**

All examinations, tests, and assignments, including the final examination, may be **cumulative**. Students are responsible for material presented during 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 Part 2 of the syllabus (<https://www.utt Tyler.edu/pharmacy/academic-affairs/files/fcop-syllabus-part2-ay2023-24.pdf>).

During the time the course is in progress, students who obtain less than 75% on any summative assessment or a total course grade of less than 75% during a particular semester will receive an academic alert from the course coordinator and the Office of Academic Affairs and be subject to weekly in-course remediation with the course instructor(s).

| Standard Grade Calculation | |
|-----------------------------|-------------|
| Individual Component | 95% |
| iRATs/quizzes | 5% |
| Midterm 1 | 25% |
| Midterm 2 | 25% |
| Final Exam | 40% |
| Team Component | 5% |
| tRATs | 2.5% |
| Applications/Team Projects | 2.5% |
| Total | 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 7481 Course Schedule – Fall 2024

| DAY | TOPIC | Instructor | CLO | Disease States |
|---------------------|--|---------------|---------|----------------------------|
| Th: 8/29 | Course Overview (10 minutes) Physiology/Pharmacology: Renal Physiology and Volume Regulation* | Dunn Glavy | 1, 2 | S03.99 |
| Fr: 8/30 | Pathophysiology/Pharmacology: Fluid and Electrolyte Disorders* | Glavy | 1, 2 | S04.05 |
| Th: 9/5 | Pathophysiology/Pharmacology: Acid-Base Disorders* | Glavy | 1, 2 | S04.06 |
| Fr: 9/6 | Clinical Chemistry: Introduction to Laboratory Values* | Dunn | 1, 2, 3 | S20.99 |
| Th: 9/12 | Pharmacotherapy: Na and Water Disorders* | Dunn | 1, 2, 3 | S04.05 |
| Fr: 9/13 | Pharmacotherapy: Na and Water Disorders | Dunn | | S04.07 S04.09 |
| Th: 9/19 | Pharmacotherapy: Ca, Mg, K and Phos Disorders* | Dunn | 1, 2, 3 | S04.05 |
| Fr: 9/20 | Pharmacotherapy: Acid-Base Disorders* | Dunn | 1, 2, 3 | S04.06 |
| Th: 9/26 | Pharmacotherapy: Acid-Base Disorders | Dunn | | |
| Fr: 9/27 | Pathophysiology/Pharmacology: Renal Diseases (AKI, DIKI, CKD)* | Glavy | 1, 2 | S04.01-03 |
| Th: 10/3 | Midterm Exam 1 - covers material through 9/26 | | | |
| F: 10/4 | Clinical Chemistry: Laboratory Values and Evaluation of Renal Function* | Dunn | 1, 2, 3 | S04.04 |
| Th: 10/10 | Pharmacotherapy: Acute Kidney Injury* | Dunn | 1, 2, 3 | S04.01 |
| Fr: 10/11 | Pharmacotherapy: Acute Kidney Injury | Dunn | | S04.12 S11.06 |
| Th: 10/17 | Pharmacotherapy: Drug-induced Kidney Disease* | Dunn | 1, 2, 3 | S04.03 |
| Fr: 10/18 | Pharmacotherapy: Dialysis and Renal Replacement Therapies* | Dunn | 1, 2, 3 | S04.08 |
| Th: 10/24 | CAREER SUCCESS CONFERENCE (required attendance) | | | |
| Fr: 10/25 | Pharmacotherapy: Chronic Kidney Disease* | Dunn | 1, 2, 3 | S04.02 S04.12 S04.13 |
| Th: 10/31 | Pharmacotherapy: Chronic Kidney Disease | Dunn | 1, 2, 3 | S04.02 S04.12 S04.13 |
| Fr: 11/1 | Pathophysiology/Pharmacology/Pharmacotherapy: Anemia (Iron, Folate, B12, Chronic)* | Dunn | 1, 2, 3 | S14.01 |
| Th: 11/7 | Midterm Exam 2 - covers material through 11/1 | | | |
| F: 11/8 | Pathophysiology/Pharmacology: Respiratory Diseases* | Wang | 1, 2 | S02.01-.02 |
| Th: 11/14 | Pharmacotherapy: COPD (acute/chronic)* | Bratteli | 1, 2, 3 | S02.02 |
| Fr: 11/15 | Pharmacotherapy: COPD (acute/chronic) | Bratteli | | |
| Th: 11/21 | Pharmacotherapy: Asthma (acute/chronic/action plans)* | Bratteli | 1, 2, 3 | S02.01 |
| Fr: 11/22 | Pharmacotherapy: Asthma (acute/chronic/action plans) | Bratteli | | |
| Th: 11/28 | THANKSGIVING BREAK (NO CLASS) | | | |
| Fr: 11/29 | THANKSGIVING BREAK (NO CLASS) | | | |
| Th: 12/5 | Pharmacotherapy: Cystic Fibrosis* | Bratteli | 1, 2, 3 | S02.03 |
| Fr: 12/6 | Final Exam Review | All | | |
| M: 12/9 @ 9a | Final Exam (cumulative + new material through 12/6) | | | |

– * Indicates intended dates for RATs.

– Please note that dates, topics, and assignments are subject to change. In the event of a change, you will be given ample notification of the change.