

## PHAR 7586 Integrated Pharmacotherapy 6: Psychiatry, Neurology, and Pain Management Fall 2025

### Course Description

This course integrates knowledge pathophysiology, pharmacology, and pharmacotherapy to make appropriate treatment recommendations for pain management and for patients with psychiatric and neurologic disorders.

### Additional Course Information

This course introduces the pharmacy student to a variety of psychiatric and neurologic disorders. Students will integrate knowledge of pathophysiology, pharmacology, pharmacokinetics, and pharmacotherapy to make appropriate treatment recommendations.

**Course Credit:** 5 credit hours

**Pre-Requisites:** P3 standing

**Co-Requisites:** None

### Class Meeting Days, Time & Location:

Mondays, 1:00 pm – 3:30 pm and Tuesdays, 2:00-4:30 pm; W.T. Brookshire Hall 234

**\*\*EXCEPT FOR TUESDAY 9/2. THIS CLASS SESSION WILL MEET ON WEDNESDAY 9/3 FROM 9-11:30 AM IN 234\*\***

### Course Coordinator:

Rachel A. Bratteli, PharmD, BCACP

W.T. Brookshire Hall - Room 250

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

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

### 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.

1. \*DiPiro JT, Talbert RL, Yee GC, Matzke GR, Wells BG, Posey L. eds. Pharmacotherapy: A Pathophysiologic Approach, 11e. New York, NY: McGraw-Hill. 2020.
2. \*DiPiro JT, Yee GC, Posey LM, Haines ST, Nolin TD, Ellingrod VL. eds. DiPiro's Pharmacotherapy: A Pathophysiologic Approach, 12e. New York, NY: McGraw-Hill. 2022.
3. \*Hammer GD and McPhee SJ, eds. Pathophysiology of Disease: An Introduction to Clinical Medicine (8th Edition). Lange-McGraw Hill. 2019.
4. \*Katzung BG, Vanderah TW, eds. Basic and Clinical Pharmacology (15th Edition). Lange-McGraw Hill. 2021.
5. Other required materials will be posted on the class Canvas site

### Recommended Materials

The course recommended materials are on reserve at the Robert R. Muntz Library.

1. Lee M. Basic Skills in Interpreting Laboratory Data. 5th Edition. American Society of Health-System Pharmacists. 2013. ISBN: 978-1-58528-343-9
2. Roche VF, Zito SW, Lemke TL, Williams DA, eds. Foye's Principles of Medicinal Chemistry, 8th ed. Wolters Kluwer Health. 2019. ISBN 978-1-49638-502-4

### Course Format

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

1. Independent study of selected readings
2. Individual readiness assessment tests (iRATs)
3. Lecture
4. Active learning strategies
5. Team-based learning strategies:
  - a. Team readiness assessment tests (tRATs)
  - b. Team application of content and concepts

### Course Learning Outcomes (CLOs)

| CLOs                                                                                                | PLO(s)    | EPAs | ACPE Appendix 1 (names)                                                                                       | ACCP Didactic Toolkit (names)                                                                                                                              | NAPLEX (1.A.1 – 5.D)                                                                               | Assessment Methods (1-13) |
|-----------------------------------------------------------------------------------------------------|-----------|------|---------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|---------------------------|
| 1. Identify psychiatric and neurologic disorders and medication-related problems in these patients. | 1,2       | N/A  | Pathology/Pathophysiology<br>Pharmacology<br>Clinical Laboratory Data<br>Patient Assessment<br>Patient Safety | Headache<br>Pain,<br>neuropathic<br>Pain,<br>nociceptive<br>Epilepsy<br>Essential tremor<br>Fibromyalgia<br>Multiple sclerosis<br>Neurocognitive disorders | 2.A.3,<br>2.A.4,<br>2.A.5<br>3.A,<br>3.B,<br>3.C,<br>3.C.1,<br>3.C.2,<br>3.C.3,<br>3.C.4,<br>3.C.5 | 1, 2, 3, 9                |
| 2. Evaluate pharmacologic treatment options for pain management and                                 | 1,2,5,7,9 | N/A  | Pharmacotherapy<br>Pharmacology                                                                               | Parkinson's<br>Sleep-wake disorders<br>Status epilepticus<br>Anxiety disorders<br>Depressive                                                               | 1.A.1,<br>2.A.1,<br>2.A.2,<br>3.D,<br>3.D.1,<br>3.D.2,<br>3.D.3                                    | 1, 2, 3, 9                |

|                                                                                                                                                            |           |     |                                                               |                                                                                                                                                            |                                                                 |            |
|------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----|---------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|------------|
| psychiatric and neurologic disorders.                                                                                                                      |           |     |                                                               | disorders<br>Insomnia<br>Opioid use disorder<br>Tobacco/nicotine use disorder<br>Alcohol use disorder<br>ADHD<br>Bipolar disorder<br>Schizophrenia<br>PTSD |                                                                 |            |
| 3. Recommend appropriate non-pharmacologic and pharmacologic treatment options for pain management and patients with psychiatric and neurologic disorders. | 1,2,5,7,9 | N/A | Pharmacotherapy                                               |                                                                                                                                                            | 1.A.1,<br>2.A.1,<br>2.A.2,<br>3.D,<br>3.D.1,<br>3.D.2,<br>3.D.3 | 1, 2, 3, 9 |
| 4. Educate patients and caregivers about psychiatric and neurologic medications.                                                                           | 3,4,5,12  | N/A | Professional Communication<br>Pharmacology<br>Pharmacotherapy |                                                                                                                                                            | 3.E,<br>3.E.1,<br>3.E.3                                         | 1, 2, 3, 9 |

### Course Summative Assessment Methods

|   | Assessment/Examination Method               |
|---|---------------------------------------------|
| 1 | Question-based examination (ExamSoft-based) |

### Grading Policy & Grade Calculation

Grades will be determined based on evaluation of assignments, formative assessments (for learning), and summative assessments (for mastery). For all intents and purposes, final examinations are synonymous with summative assessments. Assessments may consist of, but are not limited to, multiple-choice, true/false, fill in the blank, short-answer, essay, and problem-based questions. They may also include a variety of formats beyond the traditional question-based written examination, as each CLO may require different methods to determine student achievement.

Assignments, formative, and summative assessments 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.

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 Applications/Activities/iRATs | 5%          |
| Midterm 1                                | 20%         |
| Midterm 2                                | 20%         |
| Midterm 3                                | 20%         |
| Final Exam                               | 30%         |
| Team Applications                        | 5%          |
| <b>Total</b>                             | <b>100%</b> |

***\*The final course letter grade will be as follows:***

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

### **Appropriate Use of Artificial Intelligence**

For this course, Artificial intelligence (AI) tools (such as ChatGPT or Copilot) are permitted only for specific assignments or situations. ***When AI use is permissible, it will be clearly stated*** in the assignment directions, and all use of AI must be appropriately acknowledged and cited. Otherwise, ***the default is that AI is not allowed*** during any stage of an assignment.

## PHAR 7586 Course Schedule

| Week                                                                                                                                                                                                                              | Day                                          | TOPIC                                                                  | Instructor            | CLO     |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|------------------------------------------------------------------------|-----------------------|---------|
| 1                                                                                                                                                                                                                                 | M: 8/25                                      | Course Overview<br>Medicinal Chemistry: Anticonvulsants and Opioids    | Bratteli<br>Abdelaziz | 2       |
|                                                                                                                                                                                                                                   | Tu: 8/26                                     | Medicinal Chemistry: Anti-Parkinson’s agents and Antipsychotics        | Abdelaziz             | 2       |
| 2                                                                                                                                                                                                                                 | M: 9/1                                       | Labor Day                                                              |                       |         |
|                                                                                                                                                                                                                                   | 9/3<br>Wednesday<br>**WTB 324<br>9-11:30am** | Medicinal Chemistry: Sedative/Hypnotic/Anxiolytics and Antidepressants | Abdelaziz             | 2       |
| 3                                                                                                                                                                                                                                 | M: 9/8                                       | Pharmacotherapy: Mild-Moderate Pain                                    | Cocchio               | 1,2,3,4 |
|                                                                                                                                                                                                                                   | Tu: 9/9                                      | Pharmacotherapy: Severe Pain                                           | Cocchio               | 1,2,3,4 |
| 4                                                                                                                                                                                                                                 | M: 9/15                                      | Midterm 1                                                              |                       |         |
|                                                                                                                                                                                                                                   | Tu: 9/16                                     | Pharmacotherapy: Neuropathic pain                                      | Schwartz              | 1,2,3,4 |
| 5                                                                                                                                                                                                                                 | M: 9/22                                      | Pharmacotherapy: Headache/Migraine                                     | Cocchio               | 1,2,3,4 |
|                                                                                                                                                                                                                                   | Tu: 9/23                                     | Pharmacotherapy: Multiple Sclerosis/Fibromyalgia                       | Cocchio               | 1,2,3,4 |
| 6                                                                                                                                                                                                                                 | M: 9/29                                      | Pharmacotherapy: Alcohol Use Disorder                                  | Cocchio               | 1,2,3,4 |
|                                                                                                                                                                                                                                   | Tu: 9/30                                     | Pharmacotherapy: Opioid Use Disorder                                   | Beall                 | 1,2,3,4 |
| 7                                                                                                                                                                                                                                 | M: 10/6                                      | Midterm 2                                                              |                       |         |
|                                                                                                                                                                                                                                   | Tu: 10/7                                     | Pharmacotherapy: Smoking Cessation                                     | Beall                 | 1,2,3,4 |
| 8                                                                                                                                                                                                                                 | M: 10/13                                     | Pharmacotherapy: Epilepsy                                              | Cocchio               | 1,2,3,4 |
|                                                                                                                                                                                                                                   | Tu: 10/14                                    | Pharmacotherapy: Essential Tremor                                      | Cocchio               | 1,2,3,4 |
| 9                                                                                                                                                                                                                                 | M: 10/20                                     | Pharmacotherapy: Parkinson’s Disease                                   | Cocchio               | 1,2,3,4 |
|                                                                                                                                                                                                                                   | Tu: 10/21                                    | Pharmacotherapy: Alzheimer’s Disease                                   | Schwartz              | 1,2,3,4 |
| 10                                                                                                                                                                                                                                | M: 10/27                                     | Pharmacotherapy: Schizophrenia                                         | Bratteli              | 1,2,3,4 |
|                                                                                                                                                                                                                                   | Tu: 10/28                                    | Pharmacotherapy: ADHD                                                  | Brown                 | 1,2,3,4 |
| 11                                                                                                                                                                                                                                | M: 11/3                                      | Midterm 3                                                              |                       |         |
|                                                                                                                                                                                                                                   | Tu: 11/4                                     | Pharmacotherapy: Anxiety Disorders                                     | Brown                 | 1,2,3,4 |
| 12                                                                                                                                                                                                                                | M: 11/10                                     | Pharmacotherapy: Depression                                            | Brown                 | 1,2,3,4 |
|                                                                                                                                                                                                                                   | Tu: 11/11                                    | Pharmacotherapy: Depression                                            | Brown                 | 1,2,3,4 |
| 13                                                                                                                                                                                                                                | M: 11/17                                     | Pharmacotherapy: Insomnia /Narcolepsy/RLS/OSA/Other sleep disorders    | Brazill               | 1,2,3,4 |
|                                                                                                                                                                                                                                   | Tu: 11/18                                    | Pharmacotherapy: PTSD                                                  | Bratteli              | 1,2,3,4 |
|                                                                                                                                                                                                                                   | M: 11/24                                     | Thanksgiving                                                           |                       |         |
|                                                                                                                                                                                                                                   | Tu: 11/25                                    | Thanksgiving                                                           |                       |         |
| 14                                                                                                                                                                                                                                | M: 12/1                                      | Pharmacotherapy: Bipolar Disorder                                      | Brown                 | 1,2,3,4 |
|                                                                                                                                                                                                                                   | Tu: 12/2                                     | Final Review                                                           | All                   |         |
| 15                                                                                                                                                                                                                                | Thursday<br>12/11                            | Cumulative Final Exam (9a – 12p)                                       |                       |         |
| 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. Lecturer will inform students if there is an iRAT/tRAT for that lecture day. |                                              |                                                                        |                       |         |

