

Integrated Pharmacotherapy 5 (Ptx-5)
Endocrine/Gynecologic/Urologic
PHAR 7585
Fall Semester 2021

Catalogue Description

This integrated pharmacy course focuses on pathophysiology, medicinal chemistry, and pharmacology to develop therapeutic plans for patients with endocrine disorders as well as specific men's and women's health conditions (i.e., menopause and benign prostatic hyperplasia).

Course Description

Utilizing a pathophysiological approach, this integrated course introduces therapeutic topics in endocrinology and men's and women's health. It provides a review and update of student knowledge pertaining to the pharmacology and an introduction of therapeutic approaches for endocrine disease states. Emphasis is placed on consideration for the drug therapy used, therapeutic goals, treatment plans, dosing regimens, and therapeutic endpoints.

Course Credit

5 credit hours

Class Meeting Days, Time & Location

Monday 2:00 pm – 4:00 pm

Thursday 2:00 pm – 5:00 pm

W.T. Brookshire Hall rooms 133

Course Coordinator

Takova D. Wallace-Gay, PharmD, BCACP

W.T. Brookshire Hall Room 248

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Office hours: Wednesday 12-2 pm and 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 and Part 3 contains policies specific to COVID-19, if applicable. This is available at <https://www.uttyler.edu/pharmacy/academic-affairs/>. 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, et. al. Pharmacotherapy: A Pathophysiologic Approach, 10e. McGraw-Hill Education, 2014. ISBN: 978-1-259-58748-1
2. Dipiro JT, Talbert RL, Yee GC, et. al. Pharmacotherapy: A Pathophysiologic Approach, 11e. McGraw-Hill Education, 2020. ISBN: 978-1-260-116818-6
3. Basic Skills in Interpreting Laboratory Data. 5th Edition. Lee M. American Society of Health-System Pharmacist. ISBN: 978-1-58528-343-9, 2013.
4. Katzung BG, Masters SB, Trevor AJ. Basic and Clinical Pharmacology 12e. Lange-McGraw Hill, 2012. ISBN: 978-0-07-176401-8.

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

Recommended Materials

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

1. Patient Assessment in Pharmacy. Herrier RN, Apgar DA, et. al. McGraw-Hill Education. ISBN: 978-0-07-175194-0, 2015.
2. Angaran DM, Whalen K. Medication Therapy Management: A Comprehensive Approach. McGraw-Hill Education, 2015. ISBN: 978-0-07-184869-5
3. Krinsky DL, Berardi RR, Ferreri SP et.al. Handbook of Nonprescription Drugs: An Interactive Approach to Self-Care 17e. American Pharmacist Association, 2014. ISBN: 978-1-58212-160-4
4. Leon Shargel, Susanna Wu-Pong, Andrew B.C. Yu Applied Biopharmaceutics & Pharmacokinetics, 6e. McGraw-Hill Education, 2012. ISBN: 978-0-07-160393-5

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. Individual assignments
4. Team projects
5. Team-based learning, active learning strategies:
 - a. Team readiness assessment tests (tRATs)
 - b. Team application of content and concepts

Course Learning Outcomes (CLOs)

| CLOs | Related PLO(s) (1-15) | EPAs (1.1-6.1) | Assessment Methods | Grading Method ⁴ | PPCP Skill(s) Assessed (1-5) | AACP Std. 11 & 12 (1-4) |
|---|-----------------------|-------------------------|--------------------|-----------------------------|------------------------------|-------------------------|
| 1. Demonstrate understanding of thyroid disorders, diabetes, and gynecologic and urinary disorders and associated risk factors and complications by utilizing pathophysiology, pharmacology, biochemistry, medicinal chemistry and therapeutic knowledge. | 1, 2, 5, 7, 8 | 1.1, 1.2, 1.3, 1.4, 1.5 | 1, 3, 6, 8, 10, 12 | ES, Rubric | 1, 2 | 1,2 |
| 2. Demonstrate understanding of endocrine gynecologic/obstetric, and urologic conditions by utilizing pathophysiology, pharmacology and therapeutic knowledge. | 1, 2, 5, 7, 8 | 1.1, 1.2, 1.3, 1.4, 1.5 | 1, 3, 6, 8, 10, 12 | ES, Rubric | 1, 2 | 1,2 |
| 3. Amend treatment strategies to meet the needs of special populations of patients with glucose intolerance. | 1,2,8 | 1.1, 1.2, 1.3, 1.4, 1.5 | 1, 3, 6, 8, 10, 12 | ES, Rubric | 1, 2 | 2,4 |
| 4. Develop treatment plans for patients with varying endocrine, gynecologic, and urologic disorders and the resulting complications and comorbidities. | 1, 2, 5, 6, 7, 8 | 1.3, 1.5 | 1, 3, 6, 8, 10, 12 | ES, Rubric | 1, 2, 3, 5 | 1,2 |
| 5. Analyze transgender patient cases and develop patient treatment plans | n/a | 1.1, 1.2, 1.3, 1.4, 1.5 | 1, 3, 6, 8, 10, 12 | ES, Rubric | 1, 2 | 1,2 |

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) | Standard MCQ, T/F and Select all that apply questions. |
| 2 | Final Exam Open Ended Question(s) | Fill in the blank and short answer questions |
| 3 | Comprehensive Case | Written or Oral Comprehensive Case |
| 4 | Team Project | Various case applications and comprehensive cases |
| 5 | Oral Presentation | Team Journal Club (abbreviated) and/or oral case defense |
| 6 | SOAP Note | Team SOAP notes for comprehensive cases |

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 Objective Structured Clinical Examinations (OSCE). Examinations, RATs and CATs may consist of multiple-choice, true/false, short-answer, essay, and problem-based questions. **Backwards navigation will not be available on summative assessments (e.g., midterms, final).**

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.

Case Studies Expectations

Attendance and full participation are a student obligation and expectation. Each Case Studies session will be assigned to a course for 2% of the grade. At the discretion of the session's assigned course coordinator, absences from a case session may be either approved or unapproved. Students are expected to notify the session's assigned course coordinator *as soon as possible, and no later than 9 AM the morning of the requested absence, with supporting documentation of the absence provided within 3 days of the absence per the College of Pharmacy Policies available in Part 2 of the Syllabus.*

Case Study Schedule

Case Studies will be held over four sessions on Mondays from 9:00 AM to 12:00 PM. Although each session's attendance deduction is assigned to a specific course, case content is not limited to that course and content from current and previous courses will be integrated into case day activities.

| P3 Fall 2021 Case Study Schedule | | | | |
|---|----------------|------------------------------|------------------------------------|--|
| Session | Date | Assigned Course Grade | Assigned Course Coordinator | Case Instructors/Developers |
| 1 | Sept 13 | Practice Case | ALL | Parmentier Wallace-Gay Wooster Weller |
| 2 | Oct 4 | PHAR 7295 | Weller | Wooster Weller |
| 3 | Oct 25 | PHAR 7585 | Wallace-Gay | Wallace-Gay |
| 4 | Nov 15 | PHAR 7586 | Parmentier | Parmentier |

| Standard Grade Calculation | |
|---------------------------------------|-------------|
| iRATs* | 12.5% |
| iApplications | 2.5% |
| Assessment 1 | 25% |
| Assessment 2 | 25% |
| Final Written Exam | 30% |
| Comprehensive case day (10/25) | 2% |
| tRATs/tApplications | 3% |
| Total | 100% |

*Lowest 2 iRAT grades will be dropped from your overall iRAT/iApp percentage

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

PHAR 7585 Course Schedule

| Day M (2pm-4pm) Th (2pm-5pm) | Topic | Instructor | CLO ¹ | Dis Sta Ca |
|------------------------------------|---|------------------------|------------------|--------------------------|
| M: 8/23* | Course Overview (~10 minutes) Biochemistry: Endocrine Disorders | Wallace-Gay Pearson | 1 | S07 S07 |
| Th: 8/26 | Pathophysiology/Pharmacology: HPA Axis/Adrenal Disorders and HPT Axis/Thyroid Disorders Diabetes Mellitus, Type I and Type II and Complications | Wang | 1,2, 4 | S07 S07 S07 S07 |
| M: 8/30* | Pharmacotherapy: Addison's and Cushing's Diseases | Yang | 1,2, 4 | S07 S07 S07 |
| Th: 9/2 | Pharmacotherapy: Thyroid Disorders | Wallace-Gay | 1,2,4 | S07 S07 |
| M: 9/6 | Holiday: Labor Day | | | |
| Th: 9/9* | Medicinal Chemistry: Diabetes Mellitus, Type I and Type 2 | Abdelaziz | 1 | S7. |
| M: 9/13 (Case day 9am-noon) | Pharmacotherapy: Nutrition and Obesity Pharmacotherapy: Diabetes Mellitus (DM) risk factors and metabolic syndrome | Newsome | 1,2,4 | S17 S17 S07 S07 |
| Th: 9/16* | Pharmacotherapy: Type I DM | Wallace-Gay | 1,2,4 | S07 |
| M: 9/20 | Pharmacotherapy: Type II DM | Wallace-Gay | 1,2,4 | S07 |
| Th: 9/23 | Pharmacotherapy: Type II DM | Wallace-Gay | 1,2,4 | S07 |
| M: 9/27* | Pharmacotherapy: DM Microvascular Complications Pharmacotherapy: DM Macrovascular Complications | Yett | 1,2,4 | S07 |
| Th: 9/30 | Pharmacotherapy: DM Special Populations | Newsome | 1,2,4 | S07 S07 S08 S07 |
| M: 10/4 (Case day 9am-noon) | Assessment 1 Review Session | | | |
| Th: 10/7 | Assessment 1 [8/23-10/4] | | | |
| M: 10/11 | Pathophysiology: Menstrual Cycle Pathophysiology: Polycystic Ovary Syndrome | Wallace-Gay | 1 | S08 S08 |
| Th: 10/14* | Pharmacotherapy: Pregnancy, Lactation/Breastfeeding, and Pre/Post-natal Care | Wallace-Gay | 1,2,4 | S08 |

| | | | | |
|--|--|-------------|-------|-------------------|
| | Assessment 1 Follow-up Review | | | S08 S08 |
| M: 10/18* | Pharmacotherapy: Contraception | Yett | 1,2,4 | S08 |
| Th: 10/21 | Pharmacotherapy: Menstrual Cycle Disorders (dysmenorrhea and menorrhagia) | Yett | 1,2,4 | S08 |
| M: 10/25 (Case day 9am-noon)* | Pharmacotherapy: Polycystic Ovary Syndrome Pharmacotherapy: Infertility, Endometriosis, and Uterine fibroids | Wallace-Gay | 1,2,4 | S08 S08 S08 |
| Th: 10/28* | Medicinal Chemistry: Calcium, Vitamin D, SERMS, and Bisphosphonates | Abdelaziz | 1 | S11 |
| M: 11/1* | Pathophysiology: Menopause and Osteoporosis | Newsome | 1 | S08 S11 |
| Th: 11/4 | UT Tyler Career Success Conference | | | |
| M: 11/8* | Pharmacotherapy: Menopause and Osteoporosis | Wallace-Gay | 1,2,4 | S08 S11 |
| Th: 11/11 | Assessment 2 Review | | | |
| M: 11/15* (Case day 9am-noon) | Biochemistry: Nitric oxide and Anabolic-androgenic steroids | Pearson | 1 | S09 |
| Th: 11/18 | Pathophysiology: BPH and ED Pharmacotherapy: BPH and ED, and Low T | Newsome | 1,2,4 | S09 S09 S07 |
| 11/22-11/26 | Holiday: Thanksgiving Break | | | |
| M: 11/29* | Pharmacology: Female Sexual Dysfunction Pathophysiology: Urinary Incontinence Pharmacotherapy: Urinary Incontinence and Neurogenic Bladder | Snella | 1,2,4 | S08 S09 S09 |
| Th: 12/2 | Pharmacotherapy: Transgender Care Considerations | Wallace-Gay | 1,5 | S07 |
| M: 12/6 (1pm-4pm) | Comprehensive Final Assessment | | | |

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