

Integrated Pharmacotherapy 5 (Ptx-5)
Endocrine/Gynecologic/Urologic
PHAR 7585
Spring Semester 2024

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

Day/Time: Tuesday 2pm-4pm and Thursday 2p – 5p

Location: W.T. Brookshire Hall room 235

Course Coordinator

Jonathan S. Newsome, PharmD, BCGP

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Office hours: Mondays 12p - 2p and by appointment (preferred)

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 at <https://www.uttyler.edu/pharmacy/academic-affairs/files/fcop-syllabus-policies.pdf>. 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*, 11e. McGraw-Hill Education, 2020. ISBN: 978-1-260-11681-6
2. Dipiro JT, Talbert RL, Yee GC, et. al. *Pharmacotherapy: A Pathophysiologic Approach*, 12e. McGraw-Hill Education, 2023. ISBN: 978-1-264-26454-4
3. O'Connell M, Smith JA. eds. *Women's Health Across the Lifespan*, 2e. McGraw Hill; 2019.

4. Basic Skills in Interpreting Laboratory Data. 5th Edition. Lee M. American Society of Health-System Pharmacist. ISBN: 978-1-58528-343-9, 2013.
5. 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/comprehensive cases
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	PLO(s) Assessed for this CLO (1-15)	EPAs (1-13)	Assessment Methods	Grading Method ⁴	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, 3, 6, 8, 10, 12	ES, Rubric	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, 3, 6, 8, 10, 12	ES, Rubric	1,2
3. Amend treatment strategies to meet the needs of special populations of patients with glucose intolerance.	1,2,8	2,3,4,5	1, 3, 6, 8, 10, 12	ES, Rubric	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	3,4,5	1, 3, 6, 8, 10, 12	ES, Rubric	1,2
5. Analyze transgender patient cases and develop patient treatment plans	n/a	-	1, 3, 6, 8, 10, 12	ES, Rubric	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	Skills Assessment	
5	OSCE	
6	Team Project	Various case applications and comprehensive cases
7	Individual Project	
8	Oral Presentation	Team Journal Club (abbreviated) and/or oral case defense
9	Poster Presentation	
10	SOAP Note	Team SOAP notes for comprehensive cases
11	Reflection Essay	
12	Simulation	
13	Internship/Observation	
14	Other. Please specify:	

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.

Standard Grade Calculation	
iRATs and iApplications*	5%
Assessment 1	20%
Assessment 2	20%
Assessment 3	20%
Final Written Exam	30%
Comprehensive cases / tRATs and tApplications	5%
Total	100%

*Lowest 2 individual (iRAT or iApp eligible) 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 %

Course Schedule PHAR 7585

Week	Date	Topic	Instructor	CLOs	Disease States
1	1/16	Course Overview Biochemistry: Endocrine Disorders	Newsome Pearson	1	S19
	1/18	Pathophysiology/Pharmacology: HPA Axis/Adrenal Disorders and HPT Axis/Thyroid Disorders Diabetes Mellitus, Type I and II and Complications	Wang	1,2,4	S07.01 S07.02 S07.03 S07.04
2	1/23	Medicinal Chemistry: Diabetes Mellitus, Type I and II	Abdelaziz	1	S07.02
	1/25	Pharmacotherapy: Thyroid Disorders	Newsome	1	S07.01
3	1/29	Pharmacotherapy: Addison's and Cushing's Diseases	Newsome	1,2,4	S07.02
	1/31	Pharmacotherapy: Nutrition and Obesity Pharmacotherapy: Diabetes Mellitus risk factors and metabolic syndrome	Newsome	1,2,4	S07.01
	2/6	Assessment I			
4	2/8	Pharmacotherapy: Type I DM	Wallace-Gay	1,2,4	S07.01
	2/13	Pharmacotherapy: Type II DM	Wallace-Gay	1,2,4	S07.01
5	2/15	Pharmacotherapy: Type II DM	Wallace-Gay	1,2,4	S07.01
	2/20	Pharmacotherapy: DM Micro and Macrovascular complications	Yett	1,2,4	S07.01
6	2/22	Pharmacotherapy: DM Special Populations	Newsome	1,2,4	S07.01
	2/27	Assessment II	All		
7	2/29	Pathophysiology: Menstrual Cycle Pathophysiology: Polycystic Ovary Syndrome	Wallace-Gay	1,2,4	S19
	3/5	Comprehensive Case Day			
8	3/7	Pharmacotherapy: Pregnancy, Lactation/Breastfeeding, and Pre/Post-natal Care	Wallace-Gay	1,2,4	S19
		Spring Break (3/11 – 3/15)			
	3/19	Pharmacotherapy: Contraception	Yett	1,2,4	S08.01
9	3/21	Pharmacotherapy: Menstrual Cycle Disorders (dysmenorrhea and menorrhagia)	Yett	1,2,4	S19
	3/26	Pharmacotherapy: Polycystic Ovary Syndrome Pharmacotherapy: Infertility, Endometriosis, and Uterine fibroids	Wallace-Gay	1,2,4	S19
10	3/28	Medicinal Chemistry: Calcium, Vitamin D, SERMS, and Bisphosphanates	Abdelaziz	1	S19
	4/2	Pathophysiology: Menopause and Osteoporosis	Newsome	1,2,4	S19 S11.04
11	4/4	Pharmacotherapy: Menopause and Osteoporosis	Newsome	1,2,4	S19 S11.04
	4/9	Assessment III	All		
12	4/11	Biochemistry: Nitric oxide and Anabolic-androgenic steroids	Pearson	1	S19
	4/16	Comprehensive Case Day			

13	4/18	Pathophysiology: BPH and ED Pharmacotherapy: BPH and ED	Newsome	1,2,4	S09.01 S09.02
	4/23	Pharmacology: Female Sexual Dysfunction Pathophysiology: Urinary Incontinence Pharmacotherapy: Urinary Incontinence and Neurogenic Bladder	Newsome	1,2,4	S19
14	4/25	Pharmacotherapy: Transgender Care Considerations	Wallace-Gay	1,5	S19
	4/25	Comprehensive Case Day	All		
15	5/2	Final Exam			