UF College of Pharmacy UNIVERSITY of FLORIDA

PHA5784C Patient Care 4: Gastrointestinal and Renal Disorders
Spring 2026 | 6 *Credit Hour – [A-E Grading]*

Fourth of an eight-course sequence that prepares the student to provide patient-centered care by serving as a collaborative interprofessional team-member who is an authority on pharmacotherapy. The course continues to prepare the student to be a collaborative team member since learning involves teamwork. This course focuses on providing patient-centered care to patients who have a gastrointestinal or renal disorder. Learners will develop, integrate, and apply knowledge from the foundational disciplines (i.e., pharmaceutical, social/behavioral/administrative, and clinical sciences) and apply the Pharmacists' Patient Care Process in solving case-based scenarios of patients with gastrointestinal and renal disorders.

Course Prerequisites:

1. *Completion of all Year 1 Pharm.D. program coursework including milestones.*
2. *PHA 5782C, Patient Care 2*

***Course Corequisites*:** PHA 5164L Professional Practice Skills Lab 4

Course Faculty and Staff	
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Faculty and Staff: Who to Contact and Questions to Ask

Office Hours: Please see the Canvas course site for posted office hours.

Faculty Locations:

Gainesville	PTR: MSB 0445, PG-22 PEP: HPNP 2336 POP: DSIT 5th floor CSP: MSB P1-20 MC: MSB P3-12 PC: P-320
Jacksonville	Tower 2, First Floor
Orlando	UFRAC 420

Course Objectives and Educational Outcomes	
Course Objectives | Upon completion of this course, given a case of a patient with one or more of the above disorders/pharmacotherapy needs, the student will be able to integrate knowledge and use:	**Linked Educational Outcome**
i. **Collect**: Gather subjective and objective information and analyze the data in order to understand the relevant medical/medication history and clinical status of the patient. 1. Subjective and objective information is collected through comprehensive medication review with the patient, medical record review, pharmacy profile review, and communication with other members of the health care team. 2. A holistic view is initiated during collection in order to consider physiological, psychological, and sociological variables of the patient and this view is maintained throughout the patient care process.	Provider
ii. **Assess**: Assess the information collected and formulate a problem list consisting of the patient's active medical problems and medication therapy problems in order to prioritize medication therapy recommendations to achieve the patient's overall health goals. 1. Assess the patient's active medical conditions taking into account clinical and patient goals of therapy. 2. Assess the indication, effectiveness, safety, adherence and convenience (administration, access, affordability) of each medication the patient is taking. 3. Include in the assessment an evaluation of risk factors, relevant psychosocial issues, and the need for preventative care or for referral to another healthcare practitioner	Provider

Course Objectives and Educational Outcomes	
for further evaluation 4. Formulate a medication therapy problem list, classifying the patient's medication therapy problems based on indication, effectiveness, safety, and compliance. 5. Prioritize the patient's medication therapy problems.	
iii. **Plan**: Develop an individualized patient-centered care plan in collaboration with other health care professionals and the patient/caregiver that is evidence-based and as affordable as possible. 1. For each problem, create patient-centered goal(s) in collaboration with the patient/caregiver and other members of the healthcare team 2. Develop a care plan to manage the patient's active medical conditions and resolve the identified medication therapy problems. 3. Identify monitoring parameters to assess effectiveness, safety, adherence, and quality of life.	Provider
iv. **Implement**: Implement the care plan in collaboration with other health care professionals and the patient/caregiver. 1. For each condition and associated recommended strategy for resolving identified MTPs, provide the medication order in its entirety, including full drug name, dose, dosage form, route of administration, dosing interval, duration of therapy a. Discuss the care plan with the patient. b. Educate the patient on his/her medications (which may include explanations of medication action, the regimen or its proper discontinuation, proper medication use and storage, expected results and when to expect them, possible adverse effects, and when and how to follow-up or seek additional care. c. Where appropriate, contribute to coordination of care by providing documentation to other providers using an evidence-based method of communication, such as SBAR (Situation, Background, Assessment, Recommendation) or SOAP (Subjective, Objective, Assessment, Plan)	Communicator Provider
v. **Follow-up with the Patient**: Monitor and evaluate the effectiveness of the care plan and modify the plan in collaboration with other health care professionals and the patient/caregiver.	Provider

Course Resources and Fees
Course Outline
See Appendix A. Please routinely check your Google campus calendar and the Canvas course site for any messages about changes in the schedule including meeting dates/times, deadlines, and room changes.

Course Resources and Fees

Required Textbooks/Readings

1. Haines ST, Nolin TD, Ellingrod VL, Posey L, Cocohoba J, Holle L. eds. DiPiro's Pharmacotherapy: A Pathophysiologic Approach, 13th Edition. McGraw Hill; 2026
    - Available via HSC Library – Access Pharmacy
2. Krinsky DL, Ferreri SP, Hemstreet B, et al. Handbook of nonprescription drugs: An interactive approach to self-care.
    - Not available via HSC Library
    - Previously purchased for PHA5781 Patient Care 1

Use UF VPN to access UF Libraries Resources when off-campus. The UF HSC library staff can assist you with questions or issues related to accessing online library materials. For assistance contact your College of Pharmacy librarian or visit the HSC Library Website at this URL:http://www.library.health.ufl.edu/

Suggested Textbooks/Readings

Suggested readings may be posted in Canvas.

Other Required Learning Resources

Non-programmable calculators are required for this course.

Materials & Supplies Fees

n/a

Evaluation and Grading

Student Evaluation & Grading

The Canvas© gradebook will be set-up using the percentages below to compute the grade.

Assessment Item	Grade Percentage
iRATs [N=11; lowest dropped; 1.2% each]	12%
tRATs [N=11; 1.38% each]	8%
Exam 1	23%
Exam 2	23%
Exam 3 (non-cumulative)	23%
Facilitated Case Discussions	2%
SOAP Note	3%
Conducting a Meta-Analysis	1%
Capstone	5%
Total	**100%**

Grading Scale

Percentage	Letter Grade	Percentage	Letter Grade	Percentage	Letter Grade
92.50-100%	A	79.50-82.49%	B-	66.50-69.49%	D+
89.50-92.49%	A-	76.50-79.49%	C+	62.50-66.49%	D
86.50-89.49%	B+	72.50-76.49%	C	59.50-62.49%	D-
82.50-86.49%	B	69.50-72.49%	C-	< 59.50%	E

Rounding of Grades

Final grades in Canvas will be rounded to the 2nd decimal place. If the decimal is X.495 or higher, Canvas will round the grade to X.50. The above scale depicts this policy and grades are determined accordingly. Grade assignment is made using this policy and NO EXCEPTIONS will be made in situations where a student's grade is "close."

University of Florida Honor Pledge and Academic Dishonesty
UF students are bound by The Honor Pledge which states "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Conduct Code specifies a number of behaviors that are in violation of this code and the possible sanctions. Expectations for Artificial Intelligence and when use constitutes academic dishonesty is outlined below. Tendering information (giving your work to another to be copied, giving someone answers to assessment questions, informing another person in a later section about the questions that appear on an assessment that you have taken, or giving or selling a paper to another student), is considered academic dishonesty. If you have any questions or concerns, please consult the course's Teaching Partnership Leader/Course Director or Assistant Dean for Curricular Affairs. See the UF Conduct Code website for more information. If you have any questions or concerns, please consult with the instructor or TAs in this class.

Assignment Descriptions
SOAP Note (3%)
This activity will evaluate students' ability to effectively communicate via written documentation. A templated format will be provided to guide the completion of a full SOAP note with a focus on medication adjustment in patients with renal changes. A rubric will be supplied at time of note assignment. This assignment/assessment is administered in a proctored environment, and exam policies apply. The assignment will be completed and submitted individually. Use of AI is prohibited. Some resources will be required to complete and will be provided at the time of the assignment.
Conducting a meta-analysis (1%)
Class activities include data extraction from original articles, pooled effect-size calculations, results interpretation, and drawing a forest plot. This will not be proctored. Use of AI is prohibited. Some resources will be provided to complete and will be provided at the time of the assignment.
Capstone (5%)
This graded assignment is a cumulative assessment of Modules 1-6 that will be completed within the capstone class session and will consist of multiple choice type questions. This assignment will be taken individually and proctored; exam taking policies will apply. The use of AI is prohibited for this assignment. No resources will be provided.

Course-Related Policies
UF Resources and Policies
University of Florida resources and policies can be found at this URL: https://go.ufl.edu/syllabuspolicies
PharmD Course Policies
The Policies in the following link apply to this course. Review the General Pharm.D. Course Policies carefully, at this URL: http://curriculum.pharmacy.ufl.edu/current-students/course-policies/
Attendance Policy
Attendance is mandatory for active learning sessions such as team-based learning sessions, case discussions, laboratory sessions, and other activities that the instructor designates as required. This course has 20 required sessions (Active Learning Sessions, Facilitated Case Discussions, Capstone). A student who misses greater than 5 session(s) for this course will receive an incomplete in the course and will retake the course during the next offering, resulting in delayed graduation.

Course-Related Policies

Makeup Assignments

Makeup assignments will be required for the in-class graded assignments. Students will be required to complete the makeup assignment within one week of the missed session. Failure to complete a make-up assignment will result in a '0' for the assignment.

Late Assignments

Late assignments will not be accepted.

Educational Technology Use

The following technology below will be used during the course and the student must have the appropriate technology and software.

1. ExamSoft™ Testing Platform
2. Canvas™ Learning Management System

For technical support, navigate to Educational Technology and IT Support Contact Information at this URL: http://curriculum.pharmacy.ufl.edu/current-students/technical-help/

Artificial Intelligence (AI) Use for Assessments

The use of generative AI in *assessments* is prohibited, unless explicitly allowed by the course instructor. Assessments include any submitted work, graded or ungraded, that will be evaluated. These include, but are not limited to, quizzes, exams, assignments, writing projects, etc. If a student is uncertain about the use of AI technology, it is the student's responsibility to ask the instructor prior to beginning the assignment or assessment.

When authorized by the course director/course instructors, students may use AI technologies in the completion of an assessment if they acknowledge all use by naming the technology, describing how it was employed, and adhering to any other requirement stipulated in the assessment's instructions. Failure to acknowledge the use of AI technology or disregarding instructions related to the use of AI for assessments is considered academic misconduct. Students must disclose the use of AI and AI-assisted technologies by following the instructions below.

Application of AI technology must be done with human oversight and control, and students should carefully review and edit the result, as AI can generate outputs that can be incorrect, incomplete, or biased. **Students assume full responsibility for all content, including errors and omissions, if AI is employed.** Additionally, privacy is a concern with AI-generated content. Most commercially available AI systems are not compliant with HIPAA or FERPA protections, inputting patient or student information is prohibited by federal law.

Instructions to acknowledge the use of AI:

Statement: During the preparation of this assignment I/we, [INSERT NAME/S], used [INSERT TOOL / SERVICE] in order to [INSERT REASON OR PURPOSE]. After using this tool/service, I/we reviewed and edited the content as needed and take full responsibility for the content of the submission.

Penalties for unauthorized use:

Unauthorized use of AI text generators for assessments is considered evidence of academic dishonesty (see policy on academic dishonesty).

Guidance on Using AI Tools for Learning

You are welcome to use AI tools to support your learning in this course, including for tasks such as brainstorming, outlining, or summarizing complex topics. However, please be aware that AI-generated content may contain false or misleading information. It is your responsibility to critically evaluate and fact-check any information you use. For all assessments, your responses should be based on the content provided in course materials and lectures.

To protect instructional content and comply with university policies, if you choose to create your own study aids using

Course-Related Policies

AI, instructor materials (e.g., PowerPoint slides, lecture transcripts, course handouts) may only be uploaded to university-supported, secure platforms such as the Navigator suite of AI tools (https://it.ufl.edu/ai/) or Microsoft Copilot (https://copilot.microsoft.com/) using your GatorLink credentials. When using Navigator AI, students should select a model approved for handling sensitive data. Individual instructors may choose not to permit the use of their instructional materials with AI tools. Any course materials that are restricted from AI use will be communicated to students through the course learning management system, Canvas.

Students are prohibited from uploading instructor materials to open or non-university-supported AI tools unless they have received written permission from the course instructor. Students are expected to use AI tools responsibly and must not upload any content that violates copyright laws or terms of use. If you are unsure whether an AI tool is appropriate to use, please consult the instructor.

Disability Resource Center

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the Disability Resource Center. See the Get Started with the DRC webpage on the Disability Resource Center site. It is important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in the semester.

Course Evaluation Process

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online. Students can complete evaluations in three ways:

1. The email they receive from GatorEvals,
2. Their Canvas course menu under GatorEvals, or
3. The central portal at https://my-ufl.bluera.com

Guidance on how to provide constructive feedback is available at https://gatorevals.aa.ufl.edu/students/. Students will be notified when the evaluation period opens. Summaries of course evaluation results are available to students at https://gatorevals.aa.ufl.edu/public-results/

Appendix A: Course Outline

Date / Time [Recommended for Independent Study]	Mod#	Activity	Activity Title	Contact Time (min)	Responsible
	1	Module	PUD and GERD		Erin St Onge
	1.1	Unit	Pharmacology of GI Drugs Part I		Erin St Onge
01/16/26	1.1	Lecture Video	Pharmacology of GI Drugs I: Gastric acid reducing drugs	45	Erin St Onge
	1.2	Unit	Medicinal Chemistry of GI Drugs		Chengguo Xing
01/16/26	1.2.1	Lecture Video	Medicinal Chemistry of Gastrointestinal Drugs: Part 1 H2 antagonists	42	Chengguo Xing
01/16/26	1.2.2	Lecture Video	Medicinal Chemistry of Gastrointestinal Drugs: Part 2 Proton Pump Inhibitors (PPIs)	44	Chengguo Xing
	1.3	Unit	Management of Peptic Ulcer Disease		Erin St Onge
01/16/26	1.3	Lecture Video	Peptic Ulcer Disease (PUD)	62	Erin St Onge
	1.4	Unit	Management of GERD		Erin St Onge
01/20/26	1.4	Lecture Video	Gastroesophageal Reflux Disease (GERD)	78	Erin St Onge
	1.5	Unit	Evidence-Based Practice		Haesuk Park
01/20/26	1.5	Reading (PDF)	Walker E et al. Meta-analysis: Its strengths and limitations. Cleveland Clinic Journal of Medicine 2008;75(6):431-439	60	Haesuk Park
01/20/26	1.5	Reading (PDF)	Yu EW, Bauer SR, Bain PA, Bauer DC. Proton pump inhibitors and risk of fractures: a meta-analysis of 11 international studies. Am J Med. 2011 Jun;124(6):519-26.	50	Haesuk Park
	1.6	Unit	Self-Care for Heartburn and Dyspepsia		Erin St Onge
01/20/26	1.6	Lecture Video	Self-Care for Heartburn and Dyspepsia	37	Erin St Onge
	1.7	Unit	Pharmacogenomics for Gastrointestinal Disorders		Maddie Norris
01/20/26	1.7	Lecture Video	Pharmacogenomics for Gastrointestinal Disorders	56	Maddie Norris
1/22/26 from 8am-9:50am	1	Active Learning Session	Active Learning Session 1: Ulcers & GERD (2 hours)	50	Chengguo Xing, Erin St Onge, Haesuk Park, Maddie Norris
	1.1-1.7	Quiz (iRAT/tRAT)	iRAT/tRAT 1		Erin St Onge
1/22/26 from 10am-11:50am	1	Active Learning Session	Active Learning Session 2: Ulcers & GERD (2 hours)	50	Chengguo Xing, Erin St Onge, Haesuk Park, Maddie Norris
		Assignment (Graded)	Conducting a meta-analysis		Haesuk Park
	2	Module	Common Gastrointestinal Complaints and Inflammatory Bowel Disease		Adonice Khoury, Erin St Onge
	2.1	Unit	Pharmacology of GI Drugs Part II:		Erin St Onge
01/22/26	2.1.1	Lecture Video	Nausea and Vomiting	46	Erin St Onge
01/22/26	2.1.2	Lecture Video	Diarrhea and Constipation	39	Erin St Onge

Date / Time [Recommended for Independent Study]	Mod#	Activity	Activity Title	Contact Time (min)	Responsible
01/22/26	2.1.4	Lecture Video	Irritable Bowel Syndrome (IBS)	17	Erin St Onge
	2.2	Unit	Medicinal Chemistry of GI Drugs		Chengguo Xing
01/22/26	2.2	Lecture Video	Medicinal Chemistry of GI Drugs – Diarrhea, IBS, and nausea/vomiting	49	Chengguo Xing
	2.3	Unit	Management of Nausea & Vomiting—including Self-care		Erin St Onge
01/22/26	2.3	Lecture Video	Nausea and Vomiting	71	Erin St Onge
	2.4	Unit	Management of Diarrhea, Constipation, Irritable Bowel Syndrome		Erin St Onge
01/22/26	2.4	Lecture Video	Managment of Diarrhea, Constipation and IBS	81	Erin St Onge
	2.5	Unit	Behavioral: Managing the effect of stress on the GI system		Teresa Cavanaugh
01/23/26	2.5	Reading--PDF	Moloney RD, Johnson AC, O'Mahony SM et al. Stress and the microbiota-gut-brain axis in visceral pain: Relevance to irritable bowel syndrome. CNS Neuroscience & Therapeutics 2016;22:102-117.	100	Teresa Cavanaugh
01/23/26	2.5	Video Other	How to make Stress your Friend, Kelley McGonigal	5	Teresa Cavanaugh
01/23/26	2.5	Video Other	How stress affects your body - Sharon Horesh Bergquist	14	Teresa Cavanaugh
01/23/26	2.5	Other	Study Guide		Teresa Cavanaugh
	2.6	Unit	Herbals and supplements in digestive disorders		Oliver Grundmann
01/23/26	2.6	Lecture Video	Self-care -- GI disorders supplement use	53	Oliver Grundmann
1/26/26 from 10am-11:50am	2.1-2.6	Active Learning Session	Active Learning Session 3: Common GI Complaints (2 hours)	50	Chengguo Xing, Erin Lyn St Onge, Oliver Grundmann, Teresa Cavanaugh
	2.1-2.6	Quiz (iRAT/tRAT)	iRAT/tRAT 2		Erin St Onge
	2.7	Unit	Pharmacology of Selected Anti-inflammatory Agents: Aminosalicylates, Azathioprine, Biologicals		Adonice Khoury
01/26/26	2.7	Lecture Video	Pharmacology of Selected Anti-Inflammatory Agents	51	Adonice Khoury
	2.8	Unit	Medicinal Chemistry of Selected Anti-inflammatory Agents: Aminosalicylates, Azathioprine, Biologicals		Chengguo Xing
01/26/26	2.8	Lecture Video	Medicinal Chemistry of Selected Anti-inflammatory Agents	20	Chengguo Xing
	2.9	Unit	Management of Inflammatory Bowel Disease		Adonice Khoury
01/26/26	2.9.1	Lecture Video	Inflammatory Bowel Disease (IBD) Part 1: Disease Overview and Intro to Treatment	54	Adonice Khoury
01/26/26	2.9.2	Lecture Video	Inflammatory Bowel Disease (IBD) Part 2: Evidence-Based Patient Management	52	Adonice Khoury

Date / Time [Recommended for Independent Study]	Mod#	Activity	Activity Title	Contact Time (min)	Responsible
01/26/26	2.9	Reading--Web	Scribano, et al. "Use of antibiotics in the treatment of Crohn's disease." World J Gastroenterol 19.5 (2013): 648-653.	25	Adonice Khoury
1/28/26 from 3pm-4:50pm	2.7-2.9	Active Learning Session	Active Learning Session 4: Inflammatory Bowel Disease (2 hours)	50	Adonice Khoury, Chengguo Xing
	2.7-2.9	Quiz (iRAT/tRAT)	iRAT/tRAT 3		Adonice Khoury
1/30/26 from 1pm-3pm	1-2	Exam	Exam 1	100	Adonice Khoury, Erin St Onge
1/30/26 from 3pm-3:20pm		Exam Review	Exam 1 Review		
	3	Module	Hepatic Disease		Lindsey Childs-Kean
	3.1	Unit	Pharmacology of Hepatitis Antivirals		Lindsey Childs-Kean
01/28/26	3.1	Lecture Video	Pharmacology of Hepatitis Antivirals	28	Lindsey Childs-Kean
	3.2	Unit	Management of Viral Hepatitis		Lindsey Childs-Kean
01/28/26	3.2	Lecture Video	Management of Viral Hepatitis	47	Lindsey Childs-Kean
	3.3	Unit	Management of Portal Hypertension & Cirrhosis		Adonice Khoury
01/29/26	3.3.1	Lecture Video	Cirrhosis and Portal Hypertension Part 1: Background & Clinical Presentation	43	Adonice Khoury
01/29/26	3.3.2	Lecture Video	Cirrhosis and Portal Hypertension Part 2: Management	57	Adonice Khoury
	3.4	Unit	Pharmacokinetics: PKDosing in hepatic dysfunction		
01/29/26	3.4	Lecture Video	Pharmacokinetic Dosing in Liver Disease	27	Lola Bakare
	3.5	Unit	Drug Delivery Systems: Drug Administration in Patients with GI Disorders		
01/29/26	3.5	Lecture Video	Administering Medications Through Enteral Tubes	28	Lola Bakare
	3.6	Unit	Management of Drug Interactions		
01/30/26	3.6	Lecture Video	Assessment and Management of Drug-Drug Interactions	37	Lola Bakare
	3.7	Unit	Communications - Patients: Communicating with patients when an error occurs		Veena Venugopalan
01/30/26	3.7	Lecture Video	Communicating with patients when an error occurs	19	Veena Venugopalan
2/4/26 from 10am-11:50am	3-3.7	Active Learning Session	Active Learning Session 5: Cirrhosis and Hepatitis (2 hours)	50	Lindsey Childs-Kean, Lola Bakare, Veena Venugopalan
	3-3.7	Quiz (iRAT/tRAT)	iRAT/tRAT 4		Lindsey Childs-Kean
2/4/26 from 1pm-2:50pm	3-3.7	Active Learning Session	Active Learning Session 6: Cirrhosis and Hepatitis (2 hours)	50	Adonice Khoury, Lola Bakare

Date / Time [Recommended for Independent Study]	Mod#	Activity	Activity Title	Contact Time (min)	Responsible
2/5/26 from 9am-10:50am		Facilitated Case Discussion	Facilitated Case Discussion 1: Cirrhosis and Heart Failure	50	Adonice Khoury, Lindsey Childs-Kean, Lola Bakare, Thakful Rattanasuwan, Tyler Bui
	4	Module	Gastrointestinal Infections		Lindsey Childs-Kean
	4.1	Unit	Management of Gastrointestinal Infections and C. Diff		Lindsey Childs-Kean
02/04/26	4.1	Lecture Video	Management of GI Infections	60	Lindsey Childs-Kean
	4.2	Unit	Management of Intra-abdominal Infections		Jodi Taylor
02/04/26	4.2.1	Lecture Video	Part 1: Introduction	15	Jodi Taylor
02/04/26	4.2.2	Lecture Video	Part 2: Treatment of Complicated Intraabdominal Infection	26	Jodi Taylor
02/04/26	4.2.3	Lecture Video	Part 3: Treatment of Appendicitis, Diverticulitis, and Peritonitis	11	Jodi Taylor
02/04/26	4	Reading	Wagner JL, Gross AE. Intra-abdominal Infections. In: Haines ST, Nolin TD, Ellingrod VL, Posey L, Cocohoba J, Holle L. eds. DiPiro's Pharmacotherapy: A Pathophysiologic Approach, 13th Edition. McGraw Hill; 2026.	25	Jodi Taylor
	4.3	Unit	Interprofessional Communication: Present Oral/Written Plan Using Evidence		Katherine L Vogel Anderson
02/05/26	4.3	Lecture Video	Interprofessional Communication: Present Oral/Written Plan Using Evidence	36	Katherine L Vogel Anderson
	4.4	Unit	Communications - Patients: MI		Teresa Elaine Roane
02/05/26	4.4.1	Lecture Video	Intro to comMIt modules	15	Teresa Elaine Roane
02/05/26	4.4.2	Other	comMIt elearning Module 4: Developing Rapport and the Synergy of MI	75	Teresa Elaine Roane
2/9/26 from 8am-9:50am	4-4.4.2	Active Learning Session	Active Learning Session 7: Gastrointestinal Infections and Communications (2 hours)	50	Jodi Taylor
	4.1-4.4.2	Quiz (iRAT/tRAT)	iRAT/tRAT 5		Lindsey Childs-Kean
2/9/26 from 10am-11:50am	4-4.4.2	Active Learning Session	Active Learning Session 8: Gastrointestinal Infections and Communications (2 hours)	50	Katherine L Vogel Anderson, Lindsey Childs-Kean, Teresa Elaine Roane
	5	Module	Nutrition & Weight Management		Carol Anne Motycka
	5.1	Unit	Med Chem, Pharmacology and Intro to Pharmacotherapy of Vitamins		
02/09/26	5.1	Lecture Video	Medicinal Chemistry of Vitamins	40	Wenjun Xie
02/09/26	5.1	Other	Self-Assess: Know your numbers!		Carol Anne Motycka

Date / Time [Recommended for Independent Study]	Mod#	Activity	Activity Title	Contact Time (min)	Responsible
	5.2	Unit	Effects of Vitamin Deficiencies		Carol Anne Motycka
02/09/26	5.2	Video Other	Dietary Supplements--What you need to know	2	Carol Anne Motycka
02/09/26	5.2	Reading	OTC Handbook for Non Prescription Drugs--Chapter 23	25	Carol Anne Motycka
	5.3	Unit	Introduction to Obesity		Carol Anne Motycka
02/09/26	5.3	Lecture Video	Introduction to Obesity	40	Carol Anne Motycka
	5.4	Unit	Pharmacology of Weight Loss Agents/Stimulants		James Taylor
02/09/26	5.4	Lecture Video	Pharmacology of Weight Loss Agents	26	James Taylor
	5.5	Unit	Med Chem of Weight Loss Agents/Stimulants		
02/09/26	5.5	Lecture Video	Med Chem of Weight Loss Agents/Stimulants	17	Wenjun Xie
	5.6	Unit	Pharmacotherapy of Weight loss Agents		Carol Anne Motycka
02/10/26	5.6	Lecture Video	Pharmacotherapy of Weight Loss medications	54	Carol Anne Motycka
	5.7	Unit	Pediatric Obesity		Carol Anne Motycka
02/10/26	5.7.1	Lecture Video	Pediatric Obesity	33	Carol Anne Motycka
02/10/26	5.7.2	Video Other	The Weight of the Nation: Children in Crisis (YouTube)	68	Carol Anne Motycka
	5.8	Unit	Specialized Populations: Obesity and Bariatric Dosing		Carol Anne Motycka
02/10/26	5.8.1	Lecture Video	Obesity and Bariatric Surgery Dosing	51	Carol Anne Motycka
	5.9	Unit	Herbals & Supplements Used in Weight Loss: Sports Nutrition		Oliver Grundmann
02/10/26	5.9.1	Lecture Video	Weight Management Supplements	37	Oliver Grundmann
02/10/26	5.9.2	Lecture Video	Sports Nutrition	37	Oliver Grundmann
2/12/26 from 1pm-2:50pm	5.1-5.5	Active Learning Session	Active Learning Session 9: Weight Loss and Vitamins (2 hours)	50	Carol Anne Motycka, James Taylor
	5.1-5.9.2	Quiz (iRAT/tRAT)	iRAT/tRAT 6		Carol Anne Motycka
2/12/26 from 3pm-4:50pm	5.6-5.9	Active Learning Session	Active Learning Session 10: Weight Loss and Vitamins (2hours)	50	Carol Anne Motycka, Oliver Grundmann
2/13/26 from 9am-10:50am		Facilitated Case Discussion	Facilitated Case Discussion 2: Obesity and Cardiovascular	50	Eric A Dietrich, Jason Powell, Katie Vogel-Anderson, Teresa Elaine Roane, Tracy Leonard, Tyler Bui
	6	Module	Colorectal Cancer		David DeRemer

Date / Time [Recommended for Independent Study]	Mod#	Activity	Activity Title	Contact Time (min)	Responsible
	6.1	Unit	Management of Colorectal Cancer		David DeRemer
02/12/26	6.1	Lecture Video	Management of Colorectal Cancer	60	David DeRemer
	6.2	Unit	Transcending Concept - Health and Wellness: Colorectal Screening		David DeRemer
02/12/26	6.2	Lecture Video	Colorectal Screening	41	David DeRemer
	6.3	Unit	Pathophysiology of Anemias		Adonice Khoury
02/13/26	6.3.1	Lecture Video	Anemias: Pathophysiology, Clinical Presentation & Laboratory Evaluation, Part I: Intro and Overview	26	Adonice Khoury
02/13/26	6.3.2	Lecture Video	Anemias: Pathophysiology, Clinical Presentation & Laboratory Evaluation, Part 2: Specific Anemias	30	Adonice Khoury
	6.4	Unit	Therapeutics of Anemias		Adonice Khoury
02/13/26	6.4.1	Lecture Video	Management of Iron Deficiency Anemia (IDA)	41	Adonice Khoury
02/13/26	6.4.2	Lecture Video	Management of Macrocytic Anemias and Other Anemias	20	Adonice Khoury
2/16/26 from 1pm-2:50pm	6-6.4	Active Learning Session	Active Learning Session 11: Colorectal Cancer and anemia (2 hours)	50	Adonice Khoury, David DeRemer
	6.1-6.4	Quiz (iRAT/tRAT)	iRAT/tRAT 7		David DeRemer
2/19/26 from 1pm-3pm	3-6	Exam	Exam 2	100	Adonice Khoury, Erin St Onge
2/19/26 from 3pm-3:20pm		Exam Review	Exam 2 Review		
	7	Module	Introduction to the Renal System		Carinda Feild
	7.1	Unit	Pathophysiology of the Renal System		Lihui Yuan
02/16/26	7.1	Lecture Video	Pathophysiology of the Renal System	66	Lihui Yuan
	7.2	Unit	Fluids		Carinda Feild
02/16/26	7.2	Lecture Video	IV Fluids	47	Carinda Feild
	7.3	Unit	Electrolyte Disorders		Jodi Taylor
02/17/26	7.3.1	Lecture Video	Sodium and Chloride	43	Jodi Taylor
02/17/26	7.3.2	Lecture Video	Potassium and Magnesium	29	Jodi Taylor
02/17/26	7.3.3	Lecture Video	Calcium and Phosphorous	18	Jodi Taylor
	7.4	Unit	Acid-Base Balance		Carinda Feild
02/18/26	7.4	Lecture Video	Acid-Base Disorder	71	Carinda Feild
	7.5	Unit	Estimating Renal Function		Lola Bakare
02/18/26	7.5	Lecture Video	Estimating Renal Function - Clinical Examples	20	Lola Bakare
	7.6	Unit	Pharmacokinetic: Dosing in Renal Dysfunction		Lola Bakare
02/18/26	7.6	Lecture Video	Pharmacokinetic Dosing in Kidney Dysfunction	22	Lola Bakare
2/23/26 from 10am-11:50am	7.1-7.6	Active Learning Session	Active Learning Session 12: Renal Impairment (2 hours)	50	Carinda Feild, Jodi Taylor, Lihui Yuan, Lola Bakare

Date / Time [Recommended for Independent Study]	Mod#	Activity	Activity Title	Contact Time (min)	Responsible
	7.1-7.6	Quiz (iRAT/tRAT)	iRAT/tRAT #8		Carinda Feild
2/23/26 from 1pm-2:50pm	7.1-7.6	Active Learning Session	Active Learning Session 13: Renal Impairment (2 hours)	50	Carinda Feild, Jodi Taylor, Lihui Yuan, Lola Bakare
During Class	7-7.5	Assignment (Graded)	Templated renal/Pharmacokinetics SOAP note		
	8	Module	Renal Failure & Disease		
	8.1	Unit	Acute Kidney Injury		Lola Bakare
02/23/26	8.1.1	Lecture Video	Acute Kidney Injury-Part 1-Background	25	Lola Bakare
02/23/26	8.1.2	Lecture Video	Acute Kidney Injury-Part 2-Clinical Presentation	18	Lola Bakare
02/23/26	8.1.3	Lecture Video	Acute Kidney Injury-Part 3-Prevention&Treatment	42	Lola Bakare
	8.2	Unit	Drug-Induced Kidney Disease		Lola Bakare
02/23/26	8.2.1	Lecture Video	Drug-Induced Kidney Disease	28	Lola Bakare
2/25/26 from 3pm-4:50pm	8-8.2.2	Active Learning Session	Active Learning Session 14: Acute Renal Failure (2 hours)	50	Lola Bakare
	8.1-8.2	Quiz (iRAT/tRAT)	iRAT/tRAT 9		Lola Bakare
	8.3	Unit	Chronic Kidney Disease		Tyler Bui
02/25/26	8.3.1	Lecture Video	Introduction to Chronic Kidney Disease	57	Tyler Bui
02/25/26	8.3.2	Lecture Video	Chronic Kidney Disease: Anemia	28	Tyler Bui
02/25/26	8.3.3	Lecture Video	Chronic Kidney Disease: Mineral & Bone Disorders	19	Tyler Bui
02/25/26	8.3.4	Lecture Video	Chronic Kidney Disease: Complications Wrap-up	45	Tyler Bui
02/25/26	8.3.5	Lecture Video	Chronic Kidney Disease: ESRD & Patient Case		Tyler Bui
	8.3	Optional/Supplemental	Living Well with Kidney Failure, Part 5: Hemodialysis		Tyler Bui
	8.3	Optional/Supplemental	Living Well with Kidney Failure, Part 4: Peritoneal Dialysis		Tyler Bui
	8.4	Unit	Informatics: Foundation Informatics – Data Quality in CDSS		Khoa Nguyen
02/26/26	8.4	Lecture Video	Health Information & Informatics—Foundation Informatics – Data Quality in CDSS	42	Khoa Nguyen
	8.5	Unit	Pharmacokinetics: Drug Individualization—Dialysis; Hemodialysis and Peritoneal Dialysis		Lola Bakare
02/26/26	8.5.1	Lecture Video	Pharmacokinetics: Drug Individualization—Dialysis; Hemodialysis and Peritoneal Dialysis	17	Lola Bakare
	8.6	Unit	Patient Safety/Med Errors in CKD		Lola Bakare
02/26/26	8.6	Reading (PDF)	Whittaker CF. Medication Safety Principles and Practice in CKD. Clin J Am Soc Nephrol. 2018; 13(11): 1738–1746.	25	Lola Bakare

Date / Time [Recommended for Independent Study]	Mod#	Activity	Activity Title	Contact Time (min)	Responsible
	8.7	Unit	Health Disparities; Health Literacy—Renal Patients		Tyler Bui
02/26/26	8.7.1	Lecture Video	Health disparities and health literacy of renal patients	22	Tyler Bui
02/26/26	8.7.2	Reading (PDF)	Pharmacist's role in reducing medication-related racial disparities in African American patients with chronic kidney disease (Gray et al. 2022)	15	Tyler Bui
02/26/26	8.7.3	Reading (PDF)	Norbert Lameire, Raymond Vanholder, Health literacy problems of kidney patients, Nephrology Dialysis Transplantation, Volume 36, Issue 7, July 2021, Pages 1155–1157,	15	Tyler Bui
02/26/26		Optional/Supplemental	Chronic Kidney Disease Disparities: Educational Guide for Primary Care. Centers for Medicare & Medicaid Services.		Tyler Bui
	8.8	Unit	Law & Ethics: Professionalism		Bill Allen
02/26/26	8.8	Lecture Video	Distributive Justice in Allocation of Dialysis & Kidney Transplants	52	Bill Allen
2/27/26 from 10am-11:50am	8.31-8.8	Active Learning Session	Active Learning Session 15: Chronic Renal Failure (2 hours)	50	Bill Allen, Tyler Bui
	8.3-8.8	Quiz (iRAT/tRAT)	iRAT/tRAT 10		
2/27/26 from 1pm-2:50pm	8.3-8.8	Active Learning Session	Active Learning Session 16: Chronic Renal Failure (2 hours)	50	Bill Allen, Tyler Bui
	9	Module	Infectious Diseases of the Genitourinary Tract		Barbara Santevecchi
	9.1	Unit	Complicated UTIs		Barbara Santevecchi
02/27/26	9.1.1	Lecture Video	Complicated UTIs: Overview and Management	34	Barbara Santevecchi
02/27/26	9.1.2	Lecture Video	Catheter-associated UTI	42	Barbara Santevecchi
02/27/26	9.1.3	Lecture Video	Acute Bacterial Prostatitis	22	Barbara Santevecchi
	9.2	Unit	UTIs in Special Populations		Barbara Santevecchi
02/27/26	9.2	Lecture Video	UTIs in Special Populations	35	Barbara Santevecchi
	9.3	Unit	Candiduria		Barbara Santevecchi
02/27/26	9.3	Lecture Video	Candiduria	35	Barbara Santevecchi
3/2/26 from 1pm-2:50pm	9.1-9.3	Active Learning Session	Active Learning Session 17: Complicated UTIs and Special Populations (2 hours)	50	Barbara Santevecchi
	9.1-9.3	Quiz (iRAT/tRAT)	iRAT/tRAT 11		Barbara Santevecchi
3/2/26 from 2:50pm-3:10pm		Course Evaluation	Patient Care 4 Course Evaluation - Required Attendance		

Date / Time [Recommended for Independent Study]	Mod#	Activity	Activity Title	Contact Time (min)	Responsible
3/4/26 from 1pm-4:50pm	1-9	Active Learning Session	PC4 Capstone (4 hours)	200	Adonice Khoury, Barbara Santevecchi, Carinda Feild, Carol Anne Motycka, David DeRemer, Erin St Onge
During Class		Assignment (Graded)	Capstone Assignment: Module 1-6 Graded Assessment		Adonice Khoury, Erin Lyn St Onge
3/6/26 from 1pm-3pm	7-9	Exam	Final Exam: Modules 7-9 (2 hours)		Adonice Khoury, Erin Lyn St Onge
3/6/26 from 3pm-3:20pm		Exam Review	Exam 3 Review		
			Total Contact Hours	93	