

PHA5876C Patient Care VIII: Complex Patients

Spring 2024

4 Credit Hours – A-E Grading

Eighth 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. This course focuses on providing patient-centered care to complex patients who have chronic care needs or serious disorders impacting multiple body systems. 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 these patients.

Teaching Partnership Leader

Kaitlin Alexander, PharmD

Email: kaitlin.alexander@cop.ufl.edu

Office: GNV HPNP 3315

Katherine Vogel Anderson, PharmD

Email: kvanderson@cop.ufl.edu

Office: GNV HPNP 3313

Office Hours: See Canvas for Zoom office hour information

See Appendix A. for Course Directory of Faculty and Staff Contact Information.

Entrustable Professional Activities

This course will prepare you to perform the following activities which the public entrusts a Pharmacist to perform:

Patient Care Provider Domain

1. Collect information to identify a patient's medication-related problems and health-related needs.
 - ST 1.5 Use health records to determine a patient's health-related needs relevant to setting of care and the purpose of the encounter.
2. Analyze information to determine the effects of medication therapy, identify medication-related problems, and prioritize health-related needs.
 - ST2.1. Assess a patient's signs and symptoms to determine whether the patient can be treated within the scope of practice or requires a referral ar
 - ST2.2 Measure an adult patient's **vital signs** and interpret the results (e.g., body temperature, pulse rate, respiration rate, and blood pressure).

- ST2.3 Interpret laboratory test results
 - ST2.4 Identify drug interactions
 - ST2.5 Perform a **comprehensive medication review** (CMR) for a patient.
 - ST2.6 Assess a patient's health literacy using a validated screening tool
 - ST2.7 Compile a prioritized health-related problem list for a patient.
 - ST2.8 Evaluate an existing drug therapy regimen
3. Establish patient-centered goals and create a care plan for a patient in collaboration with the patient, caregiver(s), and other health professionals that is evidence-based and cost-effective
 - ST 3.1 Follow an **evidence-based disease management** protocol.
 - ST3.2 Develop a treatment plan with a patient. (including recommend therapeutic alternatives and generic substitution)
 - ST3.3 Manage drug interactions.
 - ST3.4 Select monitoring parameters to determine the therapeutic and adverse effects related to the treatment plan.
 - ST 3.5 Determine the appropriate time interval(s) to collect monitoring data.
 - ST3.6 Create a patient-specific education plan.
 4. Implement a care plan in collaboration with the patient, caregivers, and other health professionals.
 - ST4.1 Write a note that documents the findings, recommendations, and plan from a patient encounter.
 - ST4.2 Educate a patient regarding the appropriate use of a new medication, device to administer a medication, or self-monitoring test.
 - ST4.4 Assist a patient with behavior change (e.g., use shared decision making and motivational strategies).
 5. Follow-up and monitor a care plan.
 - ST5.1 Collect monitoring data at the appropriate time interval(s).
 - ST5.2 Evaluate the selected monitoring parameters to determine the therapeutic and adverse effects related to the treatment plan.
 - ST5.3 Recommend modifications or adjustments to an existing medication therapy regimen based on patient response.
 - ST5.4 Present a patient case to a colleague during a handoff or **transition of care**.

Interprofessional Team Member Domain

6. Collaborate as a member of an interprofessional team.
 - ST6.1 Contribute medication-related expertise to the team's work.
 - ST6.3 Communicate a patient's medication-related problem(s) to another health professional.
 - ST 6.4 Use setting appropriate communication skills when interacting with others

Information Master Domain

7. Use evidence-based information to advance patient care.
 - ST12.1 Retrieve and analyze scientific literature to make a patient-specific recommendation.

Course-Level Objectives

Given a case of a patient with one or more of the above disorders/pharmacotherapy needs, Integrate knowledge and use clinical reasoning skills in accomplishing the following steps when managing a patient with the disease state:

- 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.
- 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 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.

- 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.
 - 2. 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)
- 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.

Course Pre-requisites

1. Completion of all Year 2 Pharm.D. program coursework including milestones.
2. Satisfactory completion of Block 16 in the PharmD Curriculum

Course Co-requisites

1. PHA5166L Professional Practice Skills Lab VI

Required Textbooks/Readings

1. Roche VF, Zito, SW, Lemke TL, Williams DA. Foye's Principles of Medicinal Chemistry, Wolters Kluwer Health/Lippincott Williams & Wilkins, Philadelphia, PA, 8th Edition, 2020. ISBN-13:978-1-4963-8502-4
2. Brunton L. Goodman and Gilman's The Pharmacological Basis of Therapeutics, McGraw-Hill Professional, New York, NY, 14th Edition, 2023. ISBN: 978-1-264-25807-9 (Available in Access Pharmacy)
3. DiPiro JT, Yee GC, Posey LM, Haines ST, Nolin TD, Ellingrod V. Pharmacotherapy – A Pathophysiologic Approach. McGraw-Hill Professional, New York, NY, 12e, 2023. ISBN: 978-1-264-26454-4 (Available in Access Pharmacy)
4. Krinsky DL, Ferreri SP, Hemstreet B, et al. Handbook of Nonprescription Drugs: An Interactive Approach to Self-care. 20th ed. Washington, D.C.: American Pharmacists Association; 2020.
5. Readings from the primary literature will also be assigned where appropriate and may be accessed through the UF Health Sciences Center Library.

Use [UF VPN to access UF Libraries Resources](#) when off-campus. 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

There are no suggested textbooks for this course.

Other Required Learning Resources

None.

Materials & Supplies Fees

None.

Student Evaluation & Grading

Evaluation Methods and How Grades are calculated.

Table 1.1 Evaluation and Grading Above

Assessment Item	Grade Percentage
iRAT (7 @ 1% each)	7%
tRAT (7 @ 0.5% each)	3.5%
JC Assignment (Module 1) - group assignment	2%
Pediatrics (ALS 4) Assignment	2%
Collaborative Practice Agreement Assignment	2%
Capstone 1 Assignment	3%
Capstone 2 Assignment	3%
Facilitated Case Discussion (2 total but 1 graded)	2%
Exam 1	25%
Exam 2	25%
Exam 3 (Comprehensive)	25.5%
Total	100%

Table 1.2 grading scale

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

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](http://curriculum.pharmacy.ufl.edu/current-students/technical-help/) at this URL: <http://curriculum.pharmacy.ufl.edu/current-students/technical-help/>

Artificial Intelligence Use

The use of artificial intelligence (AI) text generators, such as ChatGPT, on quizzes and exams is prohibited in this course. When authorized by the course director/course faculty, students may use AI technologies in the completion of assignments and projects as long as they cite all such use by naming the technology and how it was employed (**this will be stated in the assignment honor code). Students assume full responsibility for all content, including errors and omissions if AI is employed.

As such, course instructors may adjust limitations on AI technology use and must communicate any limitations to students sufficiently in advance of the assignment due date. Failure to cite the use of AI technology or disregarding specific course limitations is considered academic misconduct. **The use of AI on assignments, essays papers, exams, and quizzes when prohibited by course or college instructions is**

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considered cheating and students are violating the UF Regulations 4.040 [Student Honor Code](#) and [Student Conduct Code](#).

It is not acceptable for students to use generative AI for reflective writing, as by its very nature, the process of reflective writing demands that the individual actively engages in the writing process. Delegating this to a natural language processing algorithm may produce convincing outputs, but does not demonstrate development in an individual's professional practice. **Unauthorized use of AI text generators is considered evidence of academic dishonesty.** 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.

Pharm.D. 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 15 required sessions. A student who misses greater than 4 sessions (25% of the required active learning sessions/activities) or laboratory sessions for this course will receive an incomplete in the course and will retake the course during the next offering, resulting in delayed graduation.

Makeup Assignments

Makeup assignments may be required for excused absences from all Active Learning Sessions. Students will be required to complete the makeup assignment within one week of the missed session.

Late Assignments

Late assignments are not accepted.

Accessibility and Belonging Statement

The University of Florida College of Pharmacy strives to stimulate a culture that promotes diversity and inclusion within an exceptional community of students, faculty, and staff. It is our intent that students from all diverse backgrounds and perspectives be well served by this course, that students' learning needs be addressed both in and out of class, and that the diversity that students bring to this class be viewed as a resource, strength, and benefit.

We intend to present materials and activities that are respectful of diversity: gender, sexuality, disability, age, socioeconomic status, ethnicity, race, and culture. Your suggestions are encouraged and appreciated. Please let us know ways to improve the course's effectiveness for you personally or for other students or student groups.

If any of our class meetings conflict with any of your religious events, an excused absence will be provided when requested using the standard UF COP process as detailed in the [UF COP Course policies](#).

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If you feel that you have experienced or witnessed any bias/treatment that falls short of these expectations, you may submit a report through the UF [COP Student Mistreatment Report](#).

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 via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at <https://gatorevals.aa.ufl.edu/students/>. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/>.

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Appendix A. Course Directory

Teaching Partnership Leader/Course Director:

Kaitlin Alexander, PharmD

Email: kaitlin.alexander@cop.ufl.edu

Office: GNV HPNP 3315

Katie Vogel Anderson, PharmD, BCPS

Email: kvanderson@cop.ufl.edu

Office: GNV HPNP 3313

Questions to Ask:

- Concerns about performance
- Guidance when there are performance problems (failing grades)
- General questions about content

Other Teaching Partnership Faculty Members:

John Allen, PharmD, BCPS, BCCCP, FCCM, FCCP

Email: john.allen@cop.ufl.edu

Office: Orlando Campus

Phone: 407-313-7006

William L. (Bill) Allen, JD, MDiv

Email: wmallen@ufl.edu

Office: 1600 SW Archer Road Rm G1-020

Phone: 352-273-515

Teresa Cavanaugh, PharmD, BCPS

Email: tcavanaugh@cop.ufl.edu

Office: HPNP G-234

Phone: 352-294-8943

Lindsey M. Childs-Kean, PharmD., M.P.H., BCPS

Email: lchilds-kean@cop.ufl.edu

Office: HPNP

Phone: 352-273-5715

Emily Cicali, Pharm.D.

Email: emily.cicali@cop.ufl.edu

Office: GNV

Phone: 352-273-7919

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David DeRemer, Pharm.D., BCOP, FCCP

Email: dderemer@cop.ufl.edu

Office: HPNP 3308

Phone: 352-294-8891

Eric Dietrich, PharmD

Email: dietrich@cop.ufl.edu

Office: HPNP 3307

Phone: 352-294-5648

Julio Duarte, Pharm.D., Ph.D.

Email: juliod@cop.ufl.edu

Office: HSC PG-21

Phone: 352-273-8132

Eric Egelund, Ph.D., PharmD

Email: eegeund@ufl.edu

Office: JAX

Phone: 904-244-9876

Carinda Feild, PharmD, FCCM

Email: cfeild@cop.ufl.edu

Office: ORL

Phone: 727-394-6213

Adonice Khoury, PharmD, BCPS

Email: akhoury@cop.ufl.edu

Office: HPNP

Phone: 352-273-8136

Kalen Manasco, PharmD, BCPS, FPPAG

Email: kmanasco@cop.ufl.edu

Office: HPNP 3310

Phone: 352-294-8749

Charles Peloquin, PharmD

Email: peloquin@cop.ufl.edu

Office: GNV

Phone: 352-273-6266

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Bradley Phillips, Pharm.D.

Email: bradnp@cop.ufl.edu

Office: GNV

Phone: 352-273-6236

Barbara Santevecchi, Pharm.D., BCPS, BCIDP

Email: BSantevecchi@cop.ufl.edu

Office: HPNP

Phone: 352-273-5393

Bethany Shoulders, Pharm.D., BCPPS

Email: brshoulders@cop.ufl.edu

Office: GNV

Phone: 352-294-8780

Shelley Stevens, Pharm.D.

Email: shelley.stevens@va.gov

Office: VA

Instructional Designer:

Chris Egan, M.Ed, NRP, CHSE

- Email: cegan@ufl.edu
- Phone: 352-294-5636

Academic Coordinator Gainesville Campus:

Ashleigh Langford

- Email: lynn8597@cop.ufl.edu
- Office: HPNP 4309
- Phone: 352-273-6284

Educational Coordinators

Chanita Beaufort or Katie Orben

- Email: cbeaufort@ufl.edu or korben06@ufl.edu
- Office: Jacksonville Campus
- Phone: 904-244-9590

Jessica Linares or Dante Maldonado

- Email: jnoriegalinares@ufl.edu or maldonaldod1@ufl.edu
- Office: Orlando Campus
- Phone: 407-313-4087

Questions to Ask:

- Issues related to course policies (absences, make up exams, missed attendance)

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- Absence/tardy requests (Only the Academic Coordinator handles absence requests)
- Questions about dates, deadlines, meeting place
- Availability of handouts and other course materials
- Assignment directions
- Questions about grade entries in gradebook (missing grades, incorrect grade)
- Assistance with ExamSoft® (Distance campus students may contact the Educational Coordinator for use of Exemplify and assistance during exams. The Academic Coordinator is the contact person for issues related to grading and posting of ExamSoft grades.)

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Appendix B. Course Outline

Date / Time	Mod #	Activity	Activity Title	Contact Time (hr)	Responsible
	1	Module	Acute Care/Critical Care		Kaitlin Alexander
	1.1	Unit	Introduction to Critical Care		
03/04/24	1.1.1	Lecture Video	Introduction to Critical Care: Part 1	0.8	Kaitlin Alexander
03/04/24	1.1.2	Lecture Video	Introduction to Critical Care: Part 2	0.7	Kaitlin Alexander
		Other	Critical Care Worksheet		
		Optional/Supplemental	Student Guide to the ICU		
		Optional/Supplemental	Vincent J. Give your patient a fast hug (at least) once a day. Crit Care Med. 2005;33(6):1225-1230.		
		Optional/Supplemental	Vicent WR, Hatton KW. Critically ill patients need "FAST HUGS BID" (an updated mnemonic). Crit Care Med. 2009;37(7):2326-7.		
		Optional/Supplemental	Cawley MJ. Advanced Modes of Mechanical Ventilation: Introduction for the Critical Care Pharmacist. J Pharm Pract. 2019;32(2):186-198.		
	1.2	Unit	TPN/Nutrition		
03/04/24	1.2.1	Lecture Video	Parenteral Nutrition	1	Bethany Ruth Shoulders
03/04/24	1.2.2	Lecture Video	Parenteral Nutrition: PPCP and Stepwise Approach	0.76	Bethany Ruth Shoulders
		Optional/Supplemental	NAPLEX® Review Guide: Chapter 38 - Parenteral Nutrition		
	1.3	Unit	TC: Specialized Patients in Critical Care		
03/04/24	1.3.1	Lecture Video	Specialized Patients in Critical Care	1.3	Bethany Ruth Shoulders
03/04/24	1.3.2	Optional/Supplemental	Youtube Video: Modes of Therapy - CRRT Explained!		Bethany Ruth Shoulders
03/04/24	1.3.3	Optional/Supplemental	Youtube Video: Artic Sun 5000 Overview		Bethany Ruth Shoulders
	1.4	Unit	Management of Pain, Agitation, and Delirium in the Critically Ill Patient		
03/05/24	1.4.1	Lecture Video	Management of Pain, Agitation, and Delirium in the Critically Ill Patient (divided into four separate parts/videos)	2.44	Carinda J Feild
		Optional/Supplemental	Neuromuscular Blockade Management in the Critically Ill Patient. Journal of Intensive Care (2020) 8:37		
		Optional/Supplemental	Dipiro Pharmacotherapy 12ed Chapter e27.		

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Date / Time	Mod #	Activity	Activity Title	Contact Time (hr)	Responsible
		Optional/Supplemental	Clinical Practice Guidelines for the Prevention and Management of Pain, Agitation/Sedation, Delirium, Immobility, and Sleep Disruption in Adult Patients in the ICU. Crit Care Med. 2018; 46(9). e825-e873.		
		Optional/Supplemental	Clinical Practice Guidelines for the management of Pain, Agitation, Delirium, Immobility, and Sleep Disruption in Adult Patients in the Intensive Care Unit PADIS Guidelines: Executive Summary Crit Care Med 2018; 46(9):1532-1548		
		Optional/Supplemental	Sedation and Delirium in the Intensive Care Unit N Engl J Med 2014; 370:444-54		
		Optional/Supplemental	Pain Management Principles in the Critically Ill Chest 2009;1 35:1075-1086		
		Optional/Supplemental	Clinical Practice Guidelines for Sustained Neuromuscular Blockade in the Adult Critically Ill Patient Crit Care Med 2016; 44:2079-2103		
		Optional/Supplemental	PAD Scale Supplement Document (PDF)		
	1.5	Unit	Shock States		
03/05/24	1.5.1	Lecture Video	Principles of Shock Management - Pathophysiology and Monitoring	1	Carinda J Feild
03/05/24	1.5.2	Lecture Video	Hypovolemic Shock	0.9	Carinda J Feild
		Optional/Supplemental	Shock Glossary (PDF)		
		Optional/Supplemental	Shock Syndromes. Dipro Pharmacotherapy 12ed Chapter e42.		
		Optional/Supplemental	Circulatory Shock N Engl J Med 2013;369:1726-34.		
		Optional/Supplemental	Resuscitation Fluids N Engl J Med 2013;369:1243-51 (for the hypovolemic shock section)		
	1.6	Unit	Management of Patients with Sepsis		
03/06/24	1.6.1	Lecture Video	Sepsis and Septic Shock (divided into two separate parts/videos)	1.72	Carinda J Feild
		Optional/Supplemental	Severe Sepsis and Septic Shock N Engl J Med 2013;369;840-51		
		Optional/Supplemental	Dipro 12th Edition Chapter 142		
		Optional/Supplemental	Surviving sepsis campaign: international guidelines for management of sepsis and septic shock 2021. Intensive Care Med. 2021;47(11):1181-1247.		
		Optional/Supplemental	Executive Summary: Surviving Sepsis Campaign: International Guidelines for Management of Severe Sepsis and Septic Shock: 2021 CritCareMed. 2021;49(11) 1974-1982		

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Date / Time	Mod #	Activity	Activity Title	Contact Time (hr)	Responsible
		Optional/Supplemental	Sepsis Figures Supplement (PDF)		
		Optional/Supplemental	The Third International Consensus Definitions for Sepsis and Septic Shock (Sepsis-3) JAMA. 2016;315(8): 801-810		
03/08/24 at 10 - 11:50am	1	Active Learning Session	Active Learning Session 1A - Intro, Special Patients, TPN, PAD	1	Bethany Ruth Shoulders, Carinda J Feild, Kaitlin Alexander
		Quiz (iRAT/tRAT)	Quiz 1		Kaitlin Alexander
03/08/24 at 1 - 2:50pm	1	Active Learning Session	Active Learning Session 1B - Shock & Sepsis	1	Carinda J Feild, Kaitlin Alexander
			SPRING BREAK		
	1.7	Unit	CV Emergencies		
03/18/24	1.7.1	Lecture Video	Cardiovascular Emergencies Part 1	0.58	Bethany Ruth Shoulders
03/18/24	1.7.2	Lecture Video	Cardiovascular Emergencies Part 2	0.58	Bethany Ruth Shoulders
03/18/24	1.7.3	Lecture Video	Pulmonary Hypertension	1	Julio Duarte
		Optional/Supplemental	2019 Update of CHEST Guidelines for Therapy for Pulmonary Arterial Hypertension in Adults. CHEST 2019; 55(3):565-586.		
		Optional/Supplemental	2022 ESC/ERS Guidelines for the diagnosis and treatment of pulmonary hypertension. European Heart Journal 2022; 43(38):3618–3731.		
03/18/24	1.7.4	Lecture Video	Acute Decompensated Heart Failure (ADHF)	1	Bethany Ruth Shoulders
	1.8	Unit	Acute Arrhythmias, ACLS		
03/19/24	1.8.1	Lecture Video	Cardiac Arrest & ACLS - Part 1	0.64	Kaitlin Alexander
03/19/24	1.8.2	Lecture Video	Cardiac Arrest & ACLS - Part 2	0.47	Kaitlin Alexander
03/19/24	1.8.3	Lecture Video	Pediatric Advanced Life Support (PALS)	0.34	Jacob Barnett
		Optional/Supplemental	Part 3: Adult Basic and Advanced Life Support: 2020 American Heart Association Guidelines for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care. Circulation;142(16_suppl_2):S366-S468		
	1.9	Unit	TC: Law & Ethics (Palliative Care, Advanced Directives, Power of Attorney)		
03/19/24	1.9.1	Lecture Video	Intro to Palliative Care	2	Shelley Stevens
03/19/24	1.9.2	Reading	Various Types of Advance Directives (PDF)	0.5	Bill Allen
03/20/24 at 8 - 9:50am	1	Active Learning Session	Active Learning Session 1C - CV Emergencies, PH, & ADHF	1	Bethany Ruth Shoulders, Julio Duarte
03/20/24	1.7-1.9	Quiz (iRAT/tRAT)	Quiz 2		Kaitlin Alexander

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Date / Time	Mod #	Activity	Activity Title	Contact Time (hr)	Responsible
03/20/24 at 10 - 11:50am	1	Active Learning Session	Active Learning Session 1D - ACLS/PALS, Palliative Care & Adv. directives	1	Bill Allen, Kaitlin Alexander, Shelley Stevens
		Assignment (Graded)	Journal Club Presentation		Kaitlin Alexander
03/22/24 at 9 - 11am		Facilitated Case Discussion	Facilitated Discussion 1 - Critical Care	2	Bethany Ruth Shoulders, Don Johnson, Jacob Barnett, Kaitlin Alexander, Kalen Manasco
03/25/24 at 1 - 3pm		Exam	Exam 1 - Covers Module 1 (2 hours)	2	Eric A Dietrich, Kaitlin Alexander
	2	Module	Module 2: Stroke, TOC, Ambulatory Care: Practice Models & Administration		Eric A Dietrich
	2.1	Unit	Stroke		
03/26/24	2.1.1	Lecture Video	Acute Ischemic Stroke	0.7	Kaitlin Alexander
03/26/24	2.1.2	Lecture Video	Hemorrhagic Stroke	1	Anna Kroninger
03/26/24	2.1.3	Lecture Video	Primary Prevention of Stroke	1.18	Eric A Dietrich
03/26/24	2.1.4	Lecture Video	Secondary Prevention of Stroke	1.14	Eric A Dietrich
03/26/24	2.1.5	Reading	AHA Stroke in Young Adults	0.25	Eric A Dietrich
		Optional/Supplemental	(Dipiro) Pharmacotherapy: A Pathophysiologic Approach, 12th ed., Chapter 39. "Stroke".		
		Optional/Supplemental	2021 Guideline for the Prevention of Stroke in Patients With Stroke and Transient Ischemic Attack: A Guideline From the American Heart Association/American Stroke Association. https://pubmed.ncbi.nlm.nih.gov/34024117/		
		Optional/Supplemental	Guidelines for the Early Management of Patients With Acute Ischemic Stroke: 2019 Update to the 2018 Guidelines for the Early Management of Acute Ischemic Stroke: A Guideline for Healthcare Professionals From the American Heart Association/American Stroke Association. https://pubmed.ncbi.nlm.nih.gov/31662037/		
		Optional/Supplemental	Tenecteplase Thrombolysis for Acute Ischemic Stroke. https://pubmed.ncbi.nlm.nih.gov/33045929/		
		Optional/Supplemental	2019 AHA/ACC/HRS Focused Update of the 2014 AHA/ACC/HRS Guideline for the Management of Patients With Atrial Fibrillation: A Report of the American College of Cardiology/American Heart Association Task Force on Clinical Practice Guidelines and the Heart Rhythm Society in Collaboration With the Society of Thoracic Surgeons. https://pubmed.ncbi.nlm.nih.gov/30686041/		

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Date / Time	Mod #	Activity	Activity Title	Contact Time (hr)	Responsible
		Optional/Supplemental	2020 ACC Expert Consensus Decision Pathway on Management of Bleeding in Patients on Oral Anticoagulants: A Report of the American College of Cardiology Solution Set Oversight Committee.		
		Optional/Supplemental	2022 Guideline for the Management of Patients With Spontaneous Intracerebral Hemorrhage: A Guideline From the American Heart Association/American Stroke Association.		
	2.2	Unit	TC: Interprofessional - Collaborative in Situations Involving Transitions of Care		
03/27/24	2.2.1	Lecture Video	Transitions of Care	0.5	Jacob Barnett
	2.3	Unit	Ambulatory Care Practice		
03/27/24	2.3.1	Lecture Video	Ambulatory Care	0.5	Eric A Dietrich
		Optional/Supplemental	2014 AJHP "Defining and advancing ambulatory care pharmacy practice: It is time to lengthen our stride" (pages 1348-1354) (PDF)		
	2.4	Unit	Practice Agreements and Protocols		
03/27/24	2.4.1	Reading	Read: Advancing Team-Based Care through CPAs (pages 2-3,9-11)	0.5	Eric A Dietrich
03/27/24	2.4.2	Reading	Read: 64B16-27.830 Florida Administrative Code	0.25	Eric A Dietrich
03/27/24	2.4.3	Lecture Video	Collaborative Practice Agreements	0.5	Eric A Dietrich
		Assignment (Graded)	Team Assignment - Develop a practice agreement		Eric A Dietrich
	2.5	Unit	TC: Health Disparities in Stroke		
03/27/24	2.5.1	Lecture Video	Health Disparities in Stroke	0.58	John Allen
03/29/24 at 10 - 11:50am	2	Active Learning Session	Active Learning Session 2 - Stroke/TOC/Amb Care	1	Eric A Dietrich, Kaitlin Alexander
03/29/24 at 1 - 2:50pm	2	Active Learning Session	*New for 2024* -- 2nd Module 2 ALS session on Stroke		
	2	Quiz (iRAT/tRAT)	Quiz 3		Eric A Dietrich, Kaitlin Alexander
04/01/24 at 8 - 11:30am		Other	Capstone 1: Ambulatory Care (4 hour work up)	2	Bradley Phillips, Eric A Dietrich
	3	Module	Complex Infectious Disease Disorders		Lindsey Marie Childs-Kean
	3.1	Unit	Meningitis		
04/01/24	3.1.1	Lecture Video	Meningitis and Encephalitis	0.66	Akshara Patel, Kaitlin Alexander
04/01/24	3.1.2	Lecture Video	Meningitis in Pediatric Patients	0.58	Kalen Manasco
	3.2	Unit	Infective Endocarditis		

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Date / Time	Mod #	Activity	Activity Title	Contact Time (hr)	Responsible
04/02/24	3.2.1	Lecture Video	Infective Endocarditis Part 1: Introduction & Clinical Presentation	0.56	Adonice Paul Khoury
04/02/24	3.2.2	Lecture Video	Infective Endocarditis Part 2: Diagnosis & Treatment	0.76	Adonice Paul Khoury
		Optional/Supplemental	Pharmacotherapy First: Infective Endocarditis (PDF)		
		Optional/Supplemental	Baddour LM, Wilson WR, Bayer AS, et al. Infective Endocarditis in Adults: Diagnosis, Antimicrobial Therapy, and Management of Complications: Circulation. 2015 Oct 13; 132:00-00		
		Optional/Supplemental	Habib G, et al. Eur Heart J 2015;36:3075-3123		
		Optional/Supplemental	Gould FK, et al. J Antimicrob Chemother 2012;67:269-89		
		Optional/Supplemental	Wilson W, et al. Prevention of infective endocarditis: Circulation 2007; 116:1736		
	3.3	Unit	Tuberculosis		
04/02/24	3.3.1	Lecture Video	Treatment of Tuberculosis and Multidrug-Resistant Tuberculosis	1.5	Charles A Peloquin
	3.3.2	Video Other	TB Scenario Videos (set of 4)	0.1	
		Optional/Supplemental	Tutorial on Treatment of TB in CPT		
		Optional/Supplemental	Official ATS/CDC/IDSA Clinical Practice Guidelines: Treatment of Drug-Susceptible Tuberculosis		
		Optional/Supplemental	Official ATS/CDC/IDSA Clinical Practice Guidelines: Treatment of Drug-Susceptible Tuberculosis - Appendix C: Drugs in Current Use (PDF)		
		Optional/Supplemental	Treatment of Tuberculosis (CPT paper)		
04/03/24 at 8 - 9:50am	3	Active Learning Session	Active Learning Session 3A - Case Studies in Endocarditis, Tuberculosis, & Meningitis	1	Adonice Paul Khoury, Charles A Peloquin, Kaitlin Alexander
04/03/24	3.1-3.3	Quiz (iRAT/tRAT)	Quiz 4		Adonice Paul Khoury, Charles A Peloquin, Kaitlin Alexander
	3.4	Unit	HIV		
04/03/24	3.4.1	Lecture Video	Introduction to HIV	0.6	Eric Free Egelund
04/03/24	3.4.2	Lecture Video	Integrase Inhibitors	0.5	Eric Free Egelund
04/03/24	3.4.3	Lecture Video	NNRTIs	0.3	Eric Free Egelund
04/03/24	3.4.4	Lecture Video	Protease Inhibitors	0.28	Eric Free Egelund
04/03/24	3.4.5	Lecture Video	NRTIs	0.4	Eric Free Egelund
04/03/24	3.4.6	Lecture Video	Entry Inhibitors	0.28	Eric Free Egelund

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Date / Time	Mod #	Activity	Activity Title	Contact Time (hr)	Responsible
04/03/24	3.4.7	Lecture Video	Pediatrics	0.4	Eric Free Egelund
04/03/24	3.4.8	Lecture Video	Geriatric Patients & Other Populations	0.28	Eric Free Egelund
	3.5	Unit	HIV Opportunistic Infections		
04/04/24	3.5.1	Lecture Video	HIV-Related Opportunistic Infections	0.25	Lindsey Marie Childs-Kean
04/04/24	3.5.2	Lecture Video	Pneumocystis Pneumonia (PCP)	0.25	Lindsey Marie Childs-Kean
04/04/24	3.5.3	Lecture Video	Toxoplasmosis Encephalitis	0.25	Lindsey Marie Childs-Kean
04/04/24	3.5.4	Lecture Video	Mycobacterium Avium Complex (MAC)	0.22	Lindsey Marie Childs-Kean
04/04/24	3.5.5	Lecture Video	Other OIs/Summary	0.27	Lindsey Marie Childs-Kean
04/04/24	3.5.6	Video Other	Why it's so hard to cure HIV	0.1	Lindsey Marie Childs-Kean
04/04/24	3.5.6	Video Other	Faces of HIV: Omar's Story	0.1	Lindsey Marie Childs-Kean
04/04/24	3.5.6	Video Other	Faces of HIV: Anthony's Story	0.1	Lindsey Marie Childs-Kean
04/04/24	3.5.6	Video Other	Faces of HIV: Tracey's Story	0.1	Lindsey Marie Childs-Kean
		Optional/Supplemental	Guidelines for the Prevention and Treatment of Opportunistic Infections in HIV-Infected Adults and Adolescents		
		Optional/Supplemental	Quizlet Practice Assessment for Module 5		
04/05/24 at 9 - 9:30am		Exam Review	Exam 1 Review		
04/05/24 at 10 - 11:50am	3	Active Learning Session	Active Learning Session 3B: Tuberculosis, HIV, Opportunistic Infections (4 hour work up)	1	Charles A Peloquin, Eric Free Egelund, Lindsey Marie Childs-Kean
	3.4-3.5	Quiz (iRAT/tRAT)	Quiz 5		Kaitlin Alexander
04/05/24 at 1 - 2:50pm	3	Active Learning Session	Active Learning Session 3C: Tuberculosis, HIV, Opportunistic Infections (4 hour work up)	1	Charles A Peloquin, Eric Free Egelund, Lindsey Marie Childs-Kean
04/08/24 at 2 - 4pm		Facilitated Case Discussion	Facilitated Discussion 2 - HIV/CAP via Zoom	2	Anthony Casapao, Chris Jankowski, Eric A Dietrich, Eric Free Egelund, James Morales, Kaitlin Alexander, Lindsey Marie Childs-Kean

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Date / Time	Mod #	Activity	Activity Title	Contact Time (hr)	Responsible
04/10/24 at 10am - 12pm		Exam	Exam 2 - Covers Modules 2 & 3		
	4	Module	Special Populations –Pediatrics		Kalen Manasco
	4.1	Unit	Pediatrics in Ambulatory Care: Management of Otitis Media		
04/11/24	4.1.1	Lecture Video	Management of Otitis Media	0.64	Kalen Manasco
		Optional/Supplemental	Lieberthal AS, et al. The Diagnosis and Management of Acute Otitis Media. Pediatrics. 2013; 131:e964-99.		
		Optional/Supplemental	Lee G, et al. Upper Respiratory Tract Infections: In DiPiro, JT, ed. Pharmacotherapy: A Pathophysiologic Approach. New York, NY: McGraw-Hill, 2023.		
		Optional/Supplemental	AOM 2013 Guidelines (PDF)		
	4.2	Unit	Advanced Topics in Pediatrics		
04/11/24	4.2.1	Lecture Video	Advanced Topics in Pediatrics	1.16	Kalen Manasco
04/11/24	4.2.2	Lecture Video	Pathophysiology and Treatment of Cystic Fibrosis	1.28	Kalen Manasco
		Optional/Supplemental	Lu H and Rosenbaum S. Developmental pharmacokinetics in pediatric populations. J Pediatr Pharmacol Ther 2014; 19(4): 262-276.		
		Optional/Supplemental	Pharmacotherapy, 12th ed: Chapter E20, E22.		
		Optional/Supplemental	Kearns, et al. Developmental pharmacology-drug disposition, action and therapy in infants and children. N Engl J Med 2003; 349: 1157-67.		
		Optional/Supplemental	Meyers, et al. Key Potentially Inappropriate Drugs in Pediatrics: The KIDs List J Pediatr Pharmacol Ther 2020;25(3):175-191.		
	4.3	Unit	Congenital Heart Disease		
04/11/24	4.3.1	Lecture Video	Congenital Heart Disease	0.74	Tori Gray
04/12/24 at 10 - 11:50am	4	Active Learning Session	Active Learning Session 4A : Case Studies in Pediatrics (2 hour work up)	1	Kalen Manasco
04/12/24		Quiz (iRAT/tRAT)	Quiz 6		Kalen Manasco
04/12/24 at 1 - 2:50pm	4	Active Learning Session	Active Learning Session 4B : Case Studies in Pediatrics (2 hour work up)	1	Kalen Manasco
		Assignment (Graded)	In Class Individual Graded Assignment		Kalen Manasco
04/17/24 at 3 - 3:30pm		Course Evaluation	Course Evaluation		
04/17/24 at 3:30 - 4pm		Exam Review	Exam 2 Review		

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Date / Time	Mod #	Activity	Activity Title	Contact Time (hr)	Responsible
	5	Module	Transplant and Oncology		Eric A Dietrich
	5.1	Unit	AML		
04/15/24	5.1.1	Lecture Video	Acute Myeloid Leukemia (AML)	1.18	Lauren Bivacca
	5.2	Unit	Oncologic Emergencies		
04/15/24	5.2.1	Lecture Video	Oncologic Emergencies	1	David DeRemer
		Optional/Supplemental	Howard SC et al. N Engl J Med 2011 May 12;364(19):1844-54 (PDF)		
		Optional/Supplemental	Lewis MA et al. CA Cancer J Clin 2011;61:287-314 (read pages 287- 301) (PDF)		
	5.3	Unit	Neutropenic Fever		
04/15/24	5.3.1	Lecture Video	Neutropenic Fever	1.3	Barbara Santevecchi
		Optional/Supplemental	Mueller SW, Fish DN. Infections in Immunocompromised Patients. In: DiPiro JT, Yee GC, Haines ST, Nolin TD, Ellingrod VL, Michael Posey LL. eds. DiPiro's Pharmacotherapy: A Pathophysiologic Approach, 12e. (Chapter 145: Infections in Immunocompromised Patients)		
		Optional/Supplemental	2018 ASCO and IDSA Outpatient Management Update (Taplitz RA et al. J Clin Oncol 2018 May;36:1443-53)		
		Optional/Supplemental	2018 ASCO and IDSA Antimicrobial Prophylaxis Update (Taplitz RA et al. J Clin Oncol 2018 Oct;36:3043-54)		
		Optional/Supplemental	2022 NCCN Guidelines- Prevention and Treatment of Cancer-Related Infections (https://www.nccn.org/professionals/physician_gls/pdf/infections.pdf)- requires login, can create account for free		
	5.4	Unit	Introduction to Transplantation		
04/16/24	5.4.1	Reading	Read: Understanding the Immune System and How it Works	0.5	Teresa Cavanaugh
04/16/24	5.4.2	Lecture Video	Introduction to Solid Organ Transplant	0.64	Teresa Cavanaugh
04/16/24	5.4.3	Lecture Video	Transplant Induction Therapies	0.25	Teresa Cavanaugh
04/16/24	5.4.4	Lecture Video	Transplant Maintenance Medications	0.75	Teresa Cavanaugh
04/16/24	5.4.5	Lecture Video	Long-Term Maintenance of Transplant Recipients	0.5	Teresa Cavanaugh
04/16/24	5.4.6	Lecture Video	Organ Rejection	0.25	Teresa Cavanaugh
		Optional/Supplemental	Transplant Study Guide		
	5.5	Unit	TC: Personalized Medicine - Transplantation		
04/16/24	5.5.1	Lecture Video	Personalized Medicine - Transplantation	0.5	Emily Cicali
	5.6	Unit	TC: Drug Information Resources		
04/16/24	5.6.1	Lecture Video	Drug Information Resources	1.37	Julie Al Bahou

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Date / Time	Mod #	Activity	Activity Title	Contact Time (hr)	Responsible
		Optional/Supplemental	Useful Guidelines (PDF)		
04/17/24 at 10 - 11:50am	5	Active Learning Session	Active Learning Session 5A - Oncology	1	Barbara Santevecchi, David DeRemer
	5.1-5.6	Quiz (iRAT/tRAT)	Quiz 7		
04/17/24 at 1 - 2:50pm	5	Active Learning Session	Active Learning Session 5B - Transplant	1	Emily Cicali, Teresa Cavanaugh
		Quiz (In Class)	Capstone 1 Ambulatory Care Assessment Quiz		
		Course Evaluation	Course Evaluation		
		Assignment (Graded)	Assignment: Capstone 1 Assignment		Eric A Dietrich
04/19/24 at 8 - 11:30am		Other	Capstone 2: Critical Care (4 hour work up)	2	Carinda J Feild, Kaitlin Alexander
04/19/24		In-class Activity	Capstone 2 Escape Room		
04/19/24		Assignment (Graded)	Assignment: Capstone 2 Assignment		Carinda J Feild, Kaitlin Alexander
04/23/24 at 9 - 11:30am	1-6	Exam	Exam 3 -- Cumulative (2.5 hours)		Eric A Dietrich, Kaitlin Alexander
04/26/24 at 8:30 - 9am		Exam Review	Final Exam Review		
			Total Contact Time in Course:	67.73	