

# PHA5789C Patient Care VII: Brain and Behavior

Spring 2024

6 Credit Hours – A-E Grading

*Seventh 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 disorders involving the brain and behavior. 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 Leaders

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

*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:

1. 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.
  - ST2.3. Interpret laboratory test results.
  - ST2.5. Assess a patient's health literacy using a validated screening tool.
  - ST2.6. Compile a prioritized health-related problem list for a patient.
  - ST2.7. Evaluate an existing drug therapy regimen.
2. 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.
  - 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.
- 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.
  - ST5.2. 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.
- 6. Collaborate as a member of an interprofessional team.
  - ST6.3. Communicate a patient's medication-related problem(s) to another health professional.
- 7. Identify patients at risk for prevalent diseases in a population.
  - ST7.1. Perform a screening assessment to identify patients at risk for prevalent diseases in a population (e.g., hypertension, diabetes, depression).
- 8. Minimize adverse drug events and medication errors.
  - ST8.1. Assist in the identification of underlying system-associated causes of errors.
  - ST8.2. Report adverse drug events and medication errors to stakeholders.
- 9. Use evidence-based information to advance patient care.
  - ST12.1. Retrieve and analyze scientific literature to make a patient-specific recommendation.

## Course-Level Objectives

Upon completion of this course, the student will be able to:

1. 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.
  - I. 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.
  - II. A holistic review 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.
2. 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.
  - i. Assess the patient's active medical conditions taking into account clinical and patient goals of therapy.
  - ii. Assess the indication, effectiveness, safety, adherence, and convenience (administration, access, affordability) of each medication the patient is taking.
  - iii. 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.

- iv. Formulate a medication therapy problem list, classifying the patient's medication therapy problems based on indication, effectiveness, safety, and compliance.
    - v. Prioritize the patient's medication therapy problems.
  3. 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.
    - i. For each problem, create patient-centered goal(s) in collaboration with the patient/caregiver and other members of the healthcare team.
    - ii. Develop a care plan to manage the patient's active medical conditions and resolve the identified medication therapy problems.
    - iii. Identify monitoring parameters to assess effectiveness, safety, adherence, and quality of life.
  4. Implement: Implement the care plan in collaboration with other health care professionals and the patient/caregiver.
    - i. For each condition and associated recommended strategy to 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 their 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.
    - ii. 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).
  5. 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.

## Course Co-requisites

1. PHA5166L Professional Practice Skills Lab

## Course Outline

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

## Required Textbooks/Readings

1. Foye VF, Zito SW, Lemke T, Williams DA. Foye's Principles of Medicinal Chemistry, Wolters Kluwer Health/Lippincott Williams & Wilkins, Philadelphia, PA, 8<sup>th</sup> Edition, 2020. ISBN-13:978-1-4963-8502-4
  - Previously purchased for PHA5782C
  - Not available via HSC Library

2. Krinsky DL, Ferreri SP, Hemstreet B, et al. Handbook of Nonprescription Drugs: An Interactive Approach to Self-care. 19th ed. Washington, D.C.: American Pharmacists Association; 2018.
  - Not available via HSC Library
  - Previously purchased for PHA5781 Patient Care I
3. Brunton, L., Hilal-Dandan R., Knollmann BC., Goodman & Gilman's The Pharmacological Basis of Therapeutics, McGraw-Hill Education, New York, NY, 14th Edition, 2023. ISBN-978-1-264-25807-9 Available for FREE on Access Pharmacy:  
<https://accesspharmacy.mhmedical.com/book.aspx?bookID=3191>
4. DiPiro JT., Yee GC., Posey LM., Haines ST., Nolin TD., Ellingrod V., Pharmacotherapy: A Pathophysiologic Approach. McGraw-Hill, New York, NY, 12th Edition, 2023. ISBN 978-1-264-26454-4 Available for FREE on Access Pharmacy:  
<https://accesspharmacy.mhmedical.com/book.aspx?bookID=3097>
5. Primary literature readings or other documents will be posted in Canvas.

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 will be posted on Canvas.

## Other Required Learning Resources

None

## Materials & Supplies Fees

None

## Student Evaluation & Grading

Evaluation Methods and How Grades are calculated.

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

*Table 1.1 Evaluation and Grading*

Assessment Item	Grade Percentage
Quizzes (8 @ 2% each) *Single lowest score dropped	14%
Capstone Assignment	5%
In Class Assessment (2 @ 2% each)	4%
Facilitated Case Discussions	2%
Exam 1	20%
Exam 2	25%
Exam 3 (Comprehensive)	30%

Assessment Item	Grade Percentage
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](#) 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 assignments, projects, quizzes, and exams is prohibited in this course. 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 12 required sessions (ALS, Facilitated Discussions, & Capstone). A student who misses greater than 3 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 will not be accepted and will result in a grade of zero.

## 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](#).

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.bluer.com/ufl/>. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/>.

# Appendix A. Course Directory

## Teaching Partnership Leader/Course Director(s):

John S. Markowitz, Pharm.D., BCPP

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

### Questions to Ask:

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

## Other Teaching Partnership Faculty Members:

Jane V. Aldrich

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## Instructional Designer:

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## Academic Coordinator Gainesville Campus:

Ashleigh Langford

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Jessica Linares or Dante Maldonado

- Email: [jnoriegalinares@ufl.edu](mailto:jnoriegalinares@ufl.edu) or [maldonaldod1@ufl.edu](mailto:maldonaldod1@ufl.edu)
- Office: Orlando Campus
- Phone: 407-313-4087

## Questions to Ask:

- Issues related to course policies (absences, make up exams, missed attendance)
- 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 Examplify and assistance during exams. The Academic Coordinator is the contact person for issues related to grading and posting of ExamSoft grades.)

**Appendix B: Course Outline: See Link Below**

<b>Date / Time</b>	<b>Mod #</b>	<b>Activity</b>	<b>Activity Title</b>	<b>Contact Time (hr)</b>	<b>Responsible</b>
		Module	Module 1: Introduction to Brain Therapeutics		John Markowitz
		Unit	Unit 1.1 Pathophysiology: Brain Neurochemistry		
01/02/24	1.1	Lecture Video	Brain Neurochemistry	0.9	Brandon Warren
		Unit	Unit 1.2 Blood Brain Barrier		
01/02/24	1.2	Lecture Video	Blood Brain Barrier	0.5	Bin Liu
		Unit	Unit 1.3 Pharmacology: Anesthetics		
01/03/24	1.3	Lecture Video	General Anesthesia	0.58	Brandon Warren
	2	Module	Module 2: Neurodegenerative Disorders		John Markowitz
		Unit	Unit 2.1 The Mental Status Exam		
01/03/24	2.1	Lecture Video	Introduction to the Mental Status Exam and Terminology	0.5	Michael Shapiro
		Unit	Unit 2.2 General Principles of Neuropsychiatric Disorder Management		
01/03/24	2.2	Lecture Video	General Principles of Neuropsychiatric Disorder Management	1	John Markowitz
		Unit	Unit 2.3 Medicinal Chemistry of Drugs Used in Parkinson's & Alzheimer's Disease		
01/04/24	2.3.1	Lecture Video	Medicinal Chemistry of Drugs Used for Alzheimer's Disease	0.42	Jane V Aldrich
01/04/24	2.3.2	Lecture Video	Medicinal Chemistry of Drugs Used for Parkinson's Disease	0.5	Jane V Aldrich
		Optional/Supplemental	Foye's Principles of Medicinal Chemistry 8th Ed - Chapter 11: Drugs to Treat Mental, Behavior, and Cognitive Disorders, pages 400-408		
		Optional/Supplemental	Foye's Principles of Medicinal Chemistry 8th Ed - Chapter 10: Drugs Used to Treat Neuromuscular Disorders, pages 267-285		
		Optional/Supplemental	Alzheimer's Disease Drug Pipeline Article		
		Optional/Supplemental	Parkinson's Disease Drug Pipeline Article		
		Unit	Unit 2.4 Pharmacology of Drugs Used in Parkinson's & Alzheimer's Disease		
01/05/24	2.4.1	Lecture Video	Pharmacology of Therapeutics for Parkinson's Disease	1	Bin Liu
01/05/24	2.4.2	Lecture Video	Pharmacology of Therapeutics for Alzheimer's Disease	1	Bin Liu
		Unit	Unit 2.5 Management of Parkinson's Disease		
01/08/24	2.5	Lecture Video	Management of Parkinson's Disease	1.66	John Markowitz
		Other	Study Aid Table - Comprehensive List of Agents Used in the Treatment of Parkinson's Disease		John Markowitz
		Unit	Unit 2.6 Management of Alzheimer's Disease		

<b>Date / Time</b>	<b>Mod #</b>	<b>Activity</b>	<b>Activity Title</b>	<b>Contact Time (hr)</b>	<b>Responsible</b>
01/08/24	2.6	Lecture Video	Management of Alzheimer's Disease	1	Tracy Leonard
		Optional/Supplemental	Youtube: Kids Interview People with Dementia - Alzheimer's Society, Dementia Action Week 2019		
		Optional/Supplemental	Youtube: Alzheimer's Patient Is Overjoyed Daily When She's Told She's Going to be a Grandma, New York Post		
		Optional/Supplemental	Youtube: Virtual Dementia Simulates Alzheimer's Symptoms		
		Unit	Unit 2.7: Multiple Sclerosis		
01/09/24	2.7	Lecture Video	Multiple Sclerosis	1.5	Philip Melchert
		Unit	Unit 2.8 TC: Appropriate Self-Care (OTC & Herbals) for Patients with Neurodegenerative Disorders		
01/10/24	2.8	Lecture Video	Appropriate Self-Care for Patients with Neurodegenerative Disorders	0.46	Oliver Grundmann
		Unit	Unit 2.9 TC: Quality Assessment to Develop Targets for QI		
01/10/24	2.9	Lecture Video	Quality Assessment to Develop Targets for Quality Improvement	0.5	Rachel Reise
01/11/24 at 10 - 11:50am	1 & 2	Active Learning Session	Active Learning Session 1&2 A: Parkinson's Disease Case Studies	1	Erin Bruce, Jane V Aldrich, John Markowitz, Oliver Grundmann, Rachel Reise, Tracy Leonard
01/11/24 at 1 - 2:50pm	1 & 2	Active Learning Session	Active Learning Session 1&2 B: Alzheimer's Dementia and Multiple Sclerosis Case Studies	1	Erin Bruce, Jane V Aldrich, John Markowitz, Oliver Grundmann, Rachel Reise, Tracy Leonard
01/11/24		Quiz (In Class)	In Class Graded Quiz 1		
	3	Module	Module 3: Psychotic Spectrum Disorders		John Markowitz
		Unit	Unit 3.1 Background/Etiology of Psychotic Spectrum Disorders		
01/11/24	3.1	Lecture Video	Psychotic Spectrum Disorders: Background and Etiology	0.75	John Markowitz
		Unit	Unit 3.2 Pathophysiology of Psychotic Spectrum Disorders		
01/11/24	3.2	Lecture Video	Psychotic Disorders: Pathophysiology	0.58	Matthew Hayes
		Unit	Unit 3.3 Medicinal Chemistry of Drugs Affecting Dopaminergic, Serotonergic Systems, Antipsychotics		
01/12/24	3.3	Lecture Video	Antipsychotics	1.25	Chris McCurdy
		Unit	Unit 3.4 Pharmacology of Antipsychotic Medications		
01/12/24	3.4	Lecture Video	Antipsychotic Drugs: Pharmacology of Therapeutic Effects and Side Effects (2 lecture videos)	1.5	Matthew Hayes
		Unit	Unit 3.5 Management of Psychotic Spectrum Disorders		

<b>Date / Time</b>	<b>Mod #</b>	<b>Activity</b>	<b>Activity Title</b>	<b>Contact Time (hr)</b>	<b>Responsible</b>
01/12/24	3.5.1	Lecture Video	Management of Psychotic Spectrum Disorders: Focus on Schizophrenia	2	John Markowitz
01/12/24	3.5.2	Lecture Video	Personalized Medicine and Antipsychotics	0.18	Kelsey Cook
		Other	Study Aid Table - Potential Pharmacokinetic Drug-Drug Interactions with 2nd Generation Antipsychotic Agents		John Markowitz
		Other	Study Aid Table - Second Generation Antipsychotic Medications		John Markowitz
		Optional/Supplemental	Pharmacotherapy: A Pathophysiologic Approach 12th Ed - Chapter 87: Schizophrenia		
		Unit	Unit 3.6 Transcending Concept: Social/Health Disparities - Psychiatric Illness		
01/12/24	3.6	Lecture Video	An Introduction to Mental Health Disparities	0.36	Resident - Monika Trejos Kweyete
		Optional/Supplemental	Links to Resources for Teen Suicide Awareness and Prevention		
		Unit	Unit 3.7 Transcending Concept: Pharmaceutical Dosage Formulations of Psychotropic Drugs		
01/12/24	3.7	Lecture Video	TC: Pharmaceutical Dosage Formulations of Psychotropic Drugs	0.5	Rodrigo Cristofolletti
01/16/24 at 10 - 11:50am	3	Active Learning Session	Active Learning Session 3 A: Psychotic Spectrum Disorders Case Studies	1	Chris McCurdy, John Markowitz, Rodrigo Cristofolletti
01/16/24 at 1 - 2:50pm	3	Active Learning Session	Active Learning Session 3 B: Psychotic Spectrum Disorders Case Studies	1	Chris McCurdy, John Markowitz, Rodrigo Cristofolletti
01/16/24		Quiz (In Class)	In Class Graded Quiz 2		
01/22/24 at 10am 12pm		Exam	Exam 1: Modules 1 3	2.5	
	4	Module	Module 4: Mood Disorders		John Markowitz
		Unit	Unit 4.1 Background and Etiology of Mood Disorders		
01/22/24	4.1	Lecture Video	Background and Etiology of Mood Disorders	1	John Markowitz
		Unit	Unit 4.2 Medicinal Chemistry of Antidepressants		
01/22/24	4.2.1	Lecture Video	Medicinal Chemistry of Antidepressants and Bipolar Disorder - Part 1	0.75	Chengguo Xing
01/22/24	4.2.2	Lecture Video	Medicinal Chemistry of Antidepressants and Bipolar Disorder - Part 2	0.75	Chengguo Xing
		Unit	Unit 4.3 Pharmacology of Antidepressant and Mood Stabilizing Drugs		
01/23/24	4.3.1	Lecture Video	Pharmacology of Antidepressant Agents	1.25	Matthew Hayes
01/23/24	4.3.2	Lecture Video	Pharmacology of Antimanic Agents	0.34	Matthew Hayes
		Unit	Unit 4.4 Management of Depressive Disorders		
01/23/24	4.4	Lecture Video	Management of Depressive Disorders	2	John Markowitz
		Other	Study Aid Table - Summary of Antidepressant Effects on CYP450 Enzymes		John Markowitz

<b>Date / Time</b>	<b>Mod #</b>	<b>Activity</b>	<b>Activity Title</b>	<b>Contact Time (hr)</b>	<b>Responsible</b>
		Other	Study Aid Table - Tricyclic Antidepressants and Relative Receptor Affinities		John Markowitz
		Optional/Supplemental	Pharmacotherapy: A Pathophysiologic Approach 12th Ed - Chapter 88: Major Depressive Disorder		
		Unit	Unit 4.5 Management of Bipolar Disorder		
01/23/24	4.5	Lecture Video	Management of Bipolar Disorder	1.7	John Markowitz
		Other	Study Aid Table - Laboratory Tests and Monitoring for Bipolar Disorder Treated with Mood Stabilizers		John Markowitz
		Other	Study Aid Table - SGA Antipsychotics FDA-Approved for Manifestations of Bipolar Disorder		John Markowitz
		Optional/Supplemental	Pharmacotherapy: A Pathophysiologic Approach 12th Ed - Chapter 89: Bipolar Disorder		
		Unit	Unit 4.6 Transcending Concept: Behavioral Issues in Psychiatric Patients		
01/24/24	4.6	Lecture Video	Behavioral Challenges to Successful Treatment of Psychiatric Patients	0.5	Teresa Elaine Roane
		Unit	Unit 4.7 Transcending Concept: Communication with Patients Who Have Mental Health Problems/Talking About Suicide		
01/24/24	4.7	Lecture Video	Working with Patients in Crisis	1	Alexandra Martinez
		Optional/Supplemental	Suicidal Crisis Reading (PDF)		
		Unit	Unit 4/8 Transcending Concepts: Herbals & Depressive Disorders		
01/25/24	4.8	Lecture Video	Herbals & Depressive Disorders	0.75	Oliver Grundmann
		Unit	Unit 4.9 Personalized Medicine for Mood Disorders		
01/25/24	4.9	Lecture Video	Personalized Medicine and Antidepressants	0.5	Kelsey Cook
01/26/24 at 10 - 11:50am	4	Active Learning Session	Active Learning Session 4 A: Mood Disorders Case Studies	1	Chengguo Xing, John Markowitz, Oliver Grundmann, Teresa Elaine Roane
01/26/24 at 1 - 2:50pm	4	Active Learning Session	Active Learning Session 4 B: Mood Disorders Case Studies	1	Chengguo Xing, John Markowitz, Oliver Grundmann
		Quiz (In Class)	In Class Graded Quiz 3		
01/26/24 at 3 - 3:30pm		Exam Review	Exam 1 Review		
01/29/24 at 9 11am		Active Learning Session Zoom	Facilitated Case Discussion via ZOOM		Erin Bruce, John Markowitz, Karen Whalen
	5	Module	Module 5: Anxiety and Sleep Wake Disorders		John Markowitz
		Unit	Unit 5.1 Background/Etiology of Anxiety & Sleep Wake Disorders		
01/26/24	5.1.1	Lecture Video	Background/Etiology of Anxiety & Sleep-Wake Disorders	1	John Markowitz

Date / Time	Mod #	Activity	Activity Title	Contact Time (hr)	Responsible
		Unit	Unit 5.2 Medicinal Chemistry of Benzodiazepines (Anxiolytics & Sleep), Non-Benzodiazepines		
01/26/24	5.2	Lecture Video	Medicinal Chemistry of Anxiety & Sleep-Wake	1.5	Chris McCurdy
		Unit	Unit 5.3 Pharmacology of Benzodiazepines (anxiolytics & sleep), Non-Benzodiazepines		
01/29/24	5.3.1	Lecture Video	Sedatives and Anxiolytics: Benzodiazepines	0.42	Brandon Warren
01/29/24	5.3.2	Lecture Video	Non-Benzodiazepine Anxiolytics	0.16	Brandon Warren
01/29/24	5.3.3	Lecture Video	Other Sedatives	0.32	Brandon Warren
		Unit	Unit 5.4 Management of Sleep-Wake Disorders		
01/29/24	5.4	Lecture Video	Management of Sleep-Wake Disorders	1.4	John Markowitz
		Other	Study Aid Table - FDA-Approved Hypnotic Agents -- All Classes		John Markowitz
		Other	Study Aid Table - Medications Available for Treating Manifestations of Narcolepsy		John Markowitz
		Other	Study Aid Table - Therapeutic Options for Restless Legs Syndrome		John Markowitz
		Optional/Supplemental	Pharmacotherapy: A Pathophysiologic Approach 12th Ed - Chapter 92: Sleep-Wake Disorders		
		Unit	Unit 5.5 Management of Anxiety Disorders I (Generalized Anxiety, Panic, Social Anxiety Disorders)		
01/30/24	5.5	Lecture Video	Management of Anxiety Disorders I	1.2	John Markowitz
		Other	Study Aid Table - Benzodiazepines with FDA-Approved Indications for Anxiety Disorders		John Markowitz
		Other	Study Aid Table - Antidepressants Agents FDA-Approved for Anxiety Disorders		John Markowitz
		Optional/Supplemental	Pharmacotherapy: A Pathophysiologic Approach 12th Ed - Chapter 90: Anxiety Disorders: Generalized, Anxiety, Panic, and Social Anxiety Disorders		
		Unit	Unit 5.6 Management of Anxiety Disorders II (PTSD, Obsessive Compulsive)		
01/30/24	5.6	Lecture Video	Management of Anxiety Disorders II	0.66	John Markowitz
		Optional/Supplemental	Pharmacotherapy: A Pathophysiologic Approach 12th Ed - Chapter 91: Post-Traumatic Stress Disorder and Obsessive-Compulsive Disorder		
		Unit	Unit 5.7 Transcending Concept: Case Control Studies & Self-Controlled Designs (sampling, ORs vs RRs, specific biases)		
01/30/24	5.7	Lecture Video	Case Control Studies & Self-Controlled Designs	0.5	Amie Goodin
		Unit	Unit 5.8 Transcending Concept: Self-Care (Herbals): Sleep Anxiolytics		
01/30/24	5.8	Lecture Video	TC: Self-Care (Herbals): Sleep and Anxiolytics	0.75	Oliver Grundmann
		Unit	Unit 5.9 Transcending Concept: Self-Care (OTC): Sleep Disorders (OTC)		
01/30/24	5.9	Lecture Video	OTC Treatment of Sleep Disorders	0.75	Erin Lyn St Onge

Date / Time	Mod #	Activity	Activity Title	Contact Time (hr)	Responsible
		Optional/Supplemental	Chapter 46 - Insomnia, Drowsiness, and Fatigue. In: Krinsky DL, Ferreri SP, Hemstreet B, et al. Handbook of Nonprescription Drugs: An Interactive Approach to Self-Care. 20 ed. Washington, D.C.		
01/31/24 at 10 - 11:50am	5	Active Learning Session	Active Learning Session 5 A: Anxiety and Sleep-Wake Case Studies	1	Amie Goodin, Brandon Warren, Chris McCurdy, Erin Lyn St Onge, John Markowitz, Oliver Grundmann
01/31/24 at 1 - 2:50pm	5	Active Learning Session	Active Learning Session 5 B: Anxiety and Sleep-Wake Case Studies	1	Amie Goodin, Brandon Warren, Chris McCurdy, Erin Lyn St Onge, John Markowitz, Oliver Grundmann
01/31/24		Quiz (In Class)	In Class Graded Quiz 4		
	6	Module	Module 6: Epilepsy		Bethany Shoulders
		Unit	Unit 6.1 Introduction to Epilepsy.		
01/31/24	6.1	Lecture Video	Introduction to Epilepsy through the PPCP	0.58	Bethany Shoulders
		Unit	Unit 6.2 Medicinal Chemistry of Drugs Used in Epilepsy		
01/31/24	6.2	Lecture Video	Medicinal Chemistry of Drugs Used in Epilepsy	1	Chris McCurdy
		Unit	Unit 6.3 Pharmacology of Drugs Used in Epilepsy		
02/01/24	6.3.1	Lecture Video	Anti-Epilepsy Drugs: Barbiturates & Benzodiazepines	0.5	Brandon Warren
02/01/24	6.3.2	Lecture Video	Pharmacology of Other Antiepileptic Drugs (2 parts)	1.5	Charles Jason Frazier
		Unit	Unit 6.4 Management of Epilepsy		
02/02/24	6.4	Lecture Video	Management of Epilepsy through PPCP	0.78	Bethany Shoulders
02/02/24 at 1 - 2:50pm	ALS 6	Active Learning Session	Active Learning Session 6 A: Epilepsy Case Studies	1	Bethany Shoulders, Brandon Warren, Charles Jason Frazier, Chris McCurdy
		Unit	Unit 6.5 Management of Epilepsy in Special Populations		
02/02/24	6.5	Lecture Video	Management of Epilepsy: Special Populations	0.5	Kalen Manasco
		Unit	Unit 6.6 Acute Management of Epilepsy		
02/02/24	6.6	Lecture Video	Acute Management of Epilepsy	0.6	Bethany Shoulders
		Unit	Unit 6.7 Transcending Concept: Pharmacokinetics-Phenytoin, Phenobarbital, Valproic Acid		
02/02/24	6.7	Lecture Video	Pharmacokinetics of Anticonvulsants	0.5	Rodrigo Cristofolletti
		Unit	Unit 6.8 Transcending Concept: Legal & Ethical Issues with Epilepsy Patients		
02/02/24	6.8	Lecture Video	Driving and Persons with Epilepsy (PWE)	0.25	Bill Allen
		Unit	Unit 6.9 Personalized Medicine for Epilepsy		
02/02/24	6.9	Lecture Video	Precision Medicine for Epilepsy	0.25	Brian Gawronski



<b>Date / Time</b>	<b>Mod #</b>	<b>Activity</b>	<b>Activity Title</b>	<b>Contact Time (hr)</b>	<b>Responsible</b>
02/05/24 at 8 - 9:50am	ALS 6	Active Learning Session	Active Learning Session 6 B: Epilepsy Case Studies	1	Bethany Shoulders, Bill Allen, Brian Gawronski, Rodrigo Cristofolletti
02/05/24		Quiz (In Class)	In Class Graded Quiz 5		
		Assignment (Graded)	In Class Assessment		
02/07/24 at 9 11am	4 6	Exam	Exam 2: Modules 4 6	2.5	
	7	Module	Module 7: Other Neuropsychiatric Disorders		John Markowitz
	7.1	Unit	Unit 7.1: Etiology and Pathophysiology of Migraine and ADHD		
02/07/24	7.1.1	Lecture Video	Etiology and Pathophysiology of Migraine	1	Bin Liu
02/07/24	7.1.2	Lecture Video	Etiology and Pathophysiology of ADHD	0.32	Matthew Hayes
		Unit	Unit 7.2 Medicinal Chemistry of Drugs Used in Migraine Disorders		
02/08/24	7.2	Lecture Video	Medicinal Chemistry of Drugs Used in Migraine Disorders	0.5	Chris McCurdy
		Unit	Unit 7.3 Management of Migraine		
02/08/24	7.3	Lecture Video	Management of Migraine	1	Katherine L Vogel Anderson
		Unit	Unit 7.4 Medicinal Chemistry of Drugs Used in ADHD		
02/09/24	7.4	Lecture Video	Medicinal Chemistry of Drugs Used in ADHD	0.4	Chris McCurdy
		Unit	Unit 7.5 Pharmacology of Drugs Used in ADHD		
02/09/24	7.5	Lecture Video	Pharmacology of Drugs Used in ADHD	0.3	Matthew Hayes
		Unit	Unit 7.6 Management of ADHD		
02/09/24	7.6	Lecture Video	Management of ADHD	1.36	John Markowitz
		Other	Study Aid Table - Available Methylphenidate Formulations		John Markowitz
		Optional/Supplemental	Pharmacotherapy: A Pathophysiologic Approach 12th Ed - Chapter 82: Attention Deficit/Hyperactivity Disorder		
		Unit	Unit 7.7 Transcending Concept: Interprofessional Team Conflicts		
02/09/24	7.7	Lecture Video	Transcending Concept: Team Conflict	0.3	Katherine L Vogel Anderson
		Unit	Unit 7.8 Transcending Concept: Patient Reported Outcomes (PROs) and Cost Effective Analysis (CEA)		
02/09/24	7.8	Lecture Video	Patient Reported Outcomes and Cost Effective Analysis	0.5	Amie Goodin
02/12/24 at 10 - 11:50am	ALS 7	Active Learning Session	Active Learning Session 7A: Other Neuropsychiatric Disorders Case Studies	1	Amie Goodin, Chris McCurdy, Erin Bruce, Katherine L Vogel Anderson

<b>Date / Time</b>	<b>Mod #</b>	<b>Activity</b>	<b>Activity Title</b>	<b>Contact Time (hr)</b>	<b>Responsible</b>
02/12/24 at 1 - 2:50pm	ALS 7	Active Learning Session	Active Learning Session 7B: Other Neuropsychiatric Disorders Case Studies	1	Amie Goodin, Chris McCurdy, Erin Bruce, John Markowitz, Katherine L Vogel Anderson
02/12/24		Quiz (In Class)	In Class Graded Quiz 6		
02/12/24 at 3 - 3:30pm		Exam Review	Exam 2 Review		
	8	Module	Module 8: Substance Use Disorders and Clinical Toxicology		Carol Anne Motycka
		Unit	Unit 8.1 Etiology and Epidemiology of Substance Use Disorders		
02/12/24	8.1	Lecture Video	Etiology and Epidemiology of Substance Use Disorders	0.75	Carol Anne Motycka
		Optional/Supplemental	Drug Addiction - Neurobiology of Behavior Gone Awry; ASAM Principles of Addiction Medicine 5th Ed. Chapter 1 pages 3-14		
		Optional/Supplemental	Epidemiology of Substance Use Disorders; ASAM Principles of Addiction Medicine 5th Ed. Chapter 2 pages 19-27		
		Unit	Unit 8.2 Pharmacology of Addiction Treatment: Ethanol		
02/13/24	8.2	Lecture Video	Pharmacology of Addiction Treatment: Ethanol	1.25	Matthew Hayes
		Unit	Unit 8.3 Medicinal Chemistry of Addiction Treatment Including Ethanol		
02/13/24	8.3	Lecture Video	Medicinal Chemistry of Addiction Treatment Including Ethanol	0.5	Jane V Aldrich
		Unit	Unit 8.4 Management of Substance Use Disorders I		
02/13/24	8.4.1	Lecture Video	Management of Substance Use Disorders I	1.2	Carol Anne Motycka
02/13/24	8.4.2	Video Other	PRN Discussion	0.3	Carol Anne Motycka
		Optional/Supplemental	The Treatment of Drug Addiction: An Overview; ASAM Principles of Addiction Medicine 5th Ed. Chapter 24 pages 389-400		
		Optional/Supplemental	Naloxone Training Video - Injectable Naloxone		
		Optional/Supplemental	Naloxone Training Video - Narcan Nasal Spray		
		Unit	Unit 8.5 Management of Substance Use Disorders II		
02/13/24	8.5	Lecture Video	Management of Substance Use Disorders II	1.25	Carol Anne Motycka
		Unit	Unit 8.6 Management of Substance Use Disorders III		
02/14/24	8.6.1	Lecture Video	Management of Substance Use Disorders III - Part 1	0.92	Carol Anne Motycka
02/14/24	8.6.2	Lecture Video	Management of Substance Use Disorders III - Part 2	0.5	Carol Anne Motycka

<b>Date / Time</b>	<b>Mod #</b>	<b>Activity</b>	<b>Activity Title</b>	<b>Contact Time (hr)</b>	<b>Responsible</b>
		Optional/Supplemental	Medication Guide - For a Safe Recovery (PDF)		
		Optional/Supplemental	Youtube Video - What's an AA Meeting Like?		
		Unit	Unit 8.7 Transcending Concept: Health/Wellness - Tobacco Management and Drug Testing		
02/14/24	8.7.1	Lecture Video	Tobacco/Nicotine Management	0.66	Carol Anne Motycka
02/14/24	8.7.2	Lecture Video	At Home Drug Testing	0.28	Carol Anne Motycka
		Unit	Unit 8.8 Transcending Concept: Legal & Ethical Issues - Substance Abuse		
02/14/24	8.8.1	Reading	465.015 Violations and Penalties	0.1	Bill Allen
02/14/24	8.8.2	Video Other	Youtube: Prescription Drug Abuse: Red Flags for Pharmacists and Pharmacy Technicians	0.25	Bill Allen
		Unit	Unit 8.9 Clinical Toxicology Emergencies		
02/14/24	8.9.1	Lecture Video	Clinical Toxicology Emergencies: Assessment	0.66	Dawn Sollee
02/14/24	8.9.2	Lecture Video	Clinical Toxicology Emergencies: Treatment	1	Dawn Sollee
02/15/24	8.9.3	Lecture Video	Clinical Toxicology Emergencies: Cases	0.66	Dawn Sollee
		Unit	Unit 8.10 Transcending Concept: Personalized Medicine for Brain & Behavior Disorders		
02/15/24	8.10	Lecture Video	Personalized Medicine for Anxiolytics and ADHD	0.18	Kelsey Cook
02/16/24 at 10 - 11:50am	ALS 8	Active Learning Session	Active Learning Session 8A: Substance Abuse Case Studies	1	Carol Anne Motycka, Jane V Aldrich
02/16/24 at 1 - 2:50pm	ALS 8	Active Learning Session	Active Learning Session 8B: Substance Abuse Case Studies	1	Bill Allen, Carol Anne Motycka, Dawn Sollee
02/16/24		Assignment (Graded)	In Class Assessment		
02/16/24		Quiz (In Class)	In Class Graded Quiz 7		
02/19/24 at 9 11am		Active Learning Session Zoom	Facilitated Case Discussion via ZOOM		Carol Anne Motycka, Eric Egelund, Robin Moorman Li, Teresa Elaine Roane, Tracy Leonard
		Module	Module 9: Special Populations Geriatrics		Katherine L Vogel Anderson
		Unit	Management of Glaucoma		
02/16/24	9.1	Lecture Video	Glaucoma	1.24	Jason Powell
		Unit	Advanced Topics in Geriatrics		
02/16/24	9.2.1	Lecture Video	Advanced Topics in Geriatrics	1.5	Katherine L Vogel Anderson
		Optional/Supplemental	American Geriatrics Society 2019 Updated AGS Beers Criteria for Potentially Inappropriate Medication Use in Older Adults (PDF)		
		Optional/Supplemental	American Geriatrics Society 2022 Updated AGS Beers Criteria for Potentially Inappropriate Medication Use in Older Adults (PDF)		

<b>Date / Time</b>	<b>Mod #</b>	<b>Activity</b>	<b>Activity Title</b>	<b>Contact Time (hr)</b>	<b>Responsible</b>
		Unit	Transcending Concept: Special Populations-Geriatric Dosing		
02/19/24	9.3	Lecture Video	Geriatric Dosing	0.5	Katherine L Vogel Anderson
		Unit	Motivational Interviewing: Addressing the Patient's Issue		
02/19/24	9.4.1	Lecture Video	Introduction to the ComMlt Modules	0.25	Teresa Elaine Roane
02/19/24	9.4.2	Video Other	Motivational Interviewing: Addressing the Patient's Issue (comMlt Module 6)	0.5	Teresa Elaine Roane
		Unit	Transcending Concept: Self Care (OTC and Herbals)		
02/19/24	9.5	Lecture Video	Geriatrics and Over the Counter Medications	0.5	Katherine L Vogel Anderson
02/19/24 at 3 - 4:50pm		Active Learning Session	Active Learning Session 9: Geriatrics Case Studies	1	Jason Powell, Katherine L Vogel Anderson, Teresa Elaine Roane
02/19/24		Quiz (In Class)	In Class Graded Quiz 8		
02/20/24		Course Evaluation	Course Evaluation (Will take place at start of class)		
02/20/24 at 1 - 4:30 pm		Other	Capstone	3	Bethany Shoulders, Carol Anne Motycka, John Markowitz
02/23/24 at 9 11:30am		Exam	Final Exam: Modules 1 9 (Comprehensive)		
03/08/24 at 3 - 3:30pm		Exam Review	Final Exam Review		
			<b>Total Contact Hours in Course:</b>	<b>87.93</b>	