



Department of Physician Assistant Education
Master of Science in Medicine
3 Units

MSM 6201 PHARMACOTHERAPEUTICS II

Course director: Aileen Chu	Term: Summer 2025
Email: achu@pointloma.edu	Meeting day & time: Wednesdays, 8:30am-12:00pm
	Meeting location: Balboa Campus

PLNU Mission

To Teach ~ To Shape ~ To Send

Point Loma Nazarene University exists to provide higher education in a vital Christian community where minds are engaged and challenged, character is modeled and formed, and service is an expression of faith. Being of Wesleyan heritage, we strive to be a learning community where grace is foundational, truth is pursued, and holiness is a way of life.

COURSE DESCRIPTION

This course provides an introduction to the science of pharmacologic therapy of the disease states covered in the Gastroenterology, Nephrology and Genitourinary, Neurology and Endocrinology didactic courses. In addition to pharmacokinetics and pharmacodynamics, students will learn the indications, contraindications, dosages and adverse effects of commonly prescribed medications for these disorders.

COURSE GOALS

The student will be provided:

1. instruction covering pharmacodynamics and pharmacokinetics to provide a basis for the student's understanding of drug classes and their mechanism of action;
2. instruction covering the precautions or contraindications to the use of a drug;
3. the opportunity to use resource materials for determining proper drug usage;
4. the opportunity to practice writing prescriptions and orders.

PROGRAM LEARNING OUTCOMES

The content in this course will contribute to the student's proficiency in this/these area(s):

4. Enter and discuss orders and prescriptions. (MK, IC, PC, PR, PB, SP)

7. Form clinical questions and retrieve evidence to advance patient care. (MK, PC, PR, PB, SP)
9. Collaborate as a member of an interprofessional team. MK, IC, PC, PR, PB, SB

Initials indicate PA core competency required to meet the PLO/CLO. PA Core Competencies:

MK = Medical Knowledge	IC = Interpersonal Skills & Communication	PC = Patient Care
PR = Professionalism	PB = Practice-based Learning	SB = Systems-based Practice

COURSE LEARNING OUTCOMES

Successful completion of this course requires demonstration of the skills and knowledge outlined here at, minimally, the ADVANCED BEGINNER level:

1. Discuss pharmacotherapy as it relates to pharmacokinetics, and pharmacodynamics. (MK3, MK4)
2. Discuss common pharmacotherapies utilized in the treatment(s) of disease. (MK3, MK4)
3. Evaluate and manage patient's pharmacological therapies associated with acute and chronic disorders. (PC5, PC6)
4. Integrate the knowledge gained in basic science, clinical medicine, and other PA Program courses to develop clinical pharmacological treatment strategies. (PC5, PC6, PC7, SB3, MK4, MK5, PB1, PB2)

INSTRUCTIONAL OBJECTIVES

Upon completion of the **Pharmacology Basics** section of this course, the student will be able to:

1. Evaluate the pharmacokinetic and pharmacodynamic properties of commonly used medications in order to rationalize their indications for use, dosing and adverse effects. Evaluation, B2.02d
2. Classify drugs according to currently accepted categories. Comprehension, B2.02d

Upon completion of the **Pitfalls in Pharmacotherapy** section of this course, the student will be able to:

3. Anticipate, recognize, and manage adverse effects of drugs including side effects, toxicity, allergies, contraindications, drug-drug and food-drug interactions. Analyze, B2.02d
4. Recognize and correct systems-based factors that could negatively impact therapy. Analyze, B2.02d
5. Identify patient-specific biases and challenges that affect therapeutic decision-making. Evaluation, B2.02d

Upon completion of the **Pharmacotherapy Selection** section of this course, the student will be able to:

6. Integrate pharmacologic knowledge to optimize the medication management of common disease states covered in didactic courses 6105, 6106, 6107, and 6108. Synthesis, B2.02d
7. Locate, appraise and integrate evidence from scientific literature to ensure appropriate pharmacotherapy. Synthesis, B2.02d
8. Apply cost-effective health care and resource allocation principles that do not compromise quality of care. Application, B2.02d

Upon completion of the **Follow-Up and Adherence** section of this course, the student will be able to:

9. Outline a plan for follow-up and monitoring of medication regimens. Synthesis, B2.02d

10. Assess effectiveness of the medication regimen in accordance with treatment goals. ^{Evaluation, B2.02d}
11. Provide medication counseling that is appropriate for the patient or caregiver to ensure therapeutic success. ^{Synthesis, B2.02d}

Note: Superscripts identify the Bloom's Taxonomy level for each objective.

UNIT INSTRUCTION

UNIT	Hours	LECTURES (subject to minor modifications)
Unit I	22.5	Pharmacy fundamentals 1. Rx writing and calculations 2. Medication safety 3. Pharmacy law and DEA regulations Gastrointestinal 4. Intraabdominal infections 5. GI motility, anti-inflammatory, and acid-suppressive agents 6. Liver disease – supportive agents and prescribing precautions, alcoholism Nephrology and Genitourinary 7. Fluid & Electrolytes 8. Renal disease – supportive agents and prescribing precautions 9. Urologic disorders, including infections 10. Introduction to solid organ transplants
Unit II	22.5	Neurology 11. Narcotics and sedative-hypnotics 12. Seizure disorder 13. Neuropathy

		14. Stroke 15. Headache and migraine 16. Parkinson's and Alzheimer's Disease Endocrine 17. Diabetes mellitus 18. Thyroid 19. Corticosteroids and the HPA axis 20. Hormonal replacement
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REQUIRED TEXTS AND RECOMMENDED STUDY RESOURCES

Note: Texts prefaced with double asterisks are provided in Access Medicine.

- ** Katzung BG, Vanderah TW. eds. *Basic & Clinical Pharmacology*, 15e. McGraw Hill; 2021
- ** Brunton LL, Hilal-Dandan R, Knollmann BC. eds. *Goodman & Gilman's: The Pharmacological Basis of Therapeutics*, 13e. McGraw Hill; 2017.
- Epocrates – available as mobile app and online (<https://online.epocrates.com>)
- Medscape – available as mobile app and online (<https://medscape.com>)

LEARNING MODALITIES

Modalities include lectures, reading assignments, and community learning activities. The class schedule and assignments can be found in Canvas.

PLNU ATTENDANCE AND PARTICIPATION POLICY

Regular and punctual attendance at all classes is considered essential to optimum academic achievement. However, we recognize that as adults you have other life responsibilities and challenges that may interfere. Ultimately you are responsible for your education and your ability to demonstrate mastery of the course and program objectives.

1. You MUST attend:
 1. PE and clinical skills labs appropriately dressed and with all necessary equipment
 2. examinations on the date and time for which they are schedule
 3. Community learning group
2. We expect

4. active participation in all class activities.
 5. completion of all class preparatory assignments prior to commencement of class.
 6. respect for the class, peers and faculty.
 7. on-time arrival for all classes, laboratories, learning groups or any scheduled activities.
- Routine tardiness demonstrates a lack of professionalism and will not be tolerated

INCOMPLETES AND LATE ASSIGNMENTS

All assignments are to be submitted/turned in by the beginning of the class session when they are due—including assignments posted in Canvas. Failure to meet the deadline will result in a loss of 10% each day the assignment is not turned in to the requesting faculty member. Incompletes will only be assigned under extremely unusual circumstances. Students failing an examination or practicum must complete the designated remediation (See REMEDIATION below) within the assigned time.

FINAL EXAMINATION POLICY

Successful completion of this class requires taking the final examinations **on their respective scheduled days**. No requests for early examinations or alternative days will be approved.

ASSESSMENT AND GRADING

Quizzes- faculty will administer frequent quizzes prior to each lecture for each organ system discussed. Advanced reading of the material prior to the lecture is required.

Written examinations - MSM 6201 will include three (3) written examinations worth 25% each of the overall course grade.

Grading

The final grade will be calculated based on the following distribution:

Quizzes	20%
Unit I exam	30%
Unit II exam	30%
Course learning interaction (including case assignments, discussions)	20%

All assignments and evaluations must be completed in the timeframe determined by the course director. Students receiving less than 70% on a quiz or examination must meet with the course instructor and faculty advisor to address remediation. For additional regarding the Remediation Policy refer to the PA Program Student Handbook.

Grading will be in keeping with Point Loma Nazarene University policy for graduate programs and grading will be as follows:

A=93-100	C=73-76
A-=92-90	C-=70-72

B+=87-89	D+=67-69
B=83-86	D=63-66
B-=80-82	D-=60-62
C+=77-79	F=0-59

REMEDIATION

Remediation is the process by which both the student and the program are assured that performance indicating a deficiency in knowledge or skills is subsequently demonstrated to be satisfactory. This may include a re-test over missed material, a skills demonstration or a review of missed material with completion of corrected answers. It is important to note that this is content remediation, not grade remediation and no grade will be changed based on these activities.

Within 48 hours of the posting of a grade of <70%, the student MUST contact the course director to discuss the student's performance and create a remediation plan. Unless otherwise directed by the course director, remediation activities must be completed within 5 days.

Student Success

The Center for Student Success supports our Graduate and Professional Studies students throughout their academic journey. We provide student services such as academic advising and planning, resource workshops, and connect students to career services, writing support, tutorial services, and wellness resources. The Center itself is located on the first floor of the Mission Valley Campus. If you have any questions about how to access resources at PLNU, please start by reaching out to the Center for Student Success [by email](#) or by phone at 619-563-2850. Please visit [myPLNU Student Success](#) for more details. If you are in the School of Education, please contact [SOE Advising](#).

State Authorization

State authorization is a formal determination by a state that Point Loma Nazarene University is approved to conduct activities regulated by that state. In certain states outside California, Point Loma Nazarene University is not authorized to enroll online (distance education) students. If a student moves to another state after admission to the program and/or enrollment in an online course, continuation within the program and/or course will depend on whether Point Loma Nazarene University is authorized to offer distance education courses in that state. It is the student's responsibility to notify the institution of any change in his or her physical location. Refer to the map on [State Authorization](#) to view which states allow distance education outside California.

PLNU Copyright Policy

Point Loma Nazarene University, as a non-profit educational institution, is entitled by law to use materials protected by the US Copyright Act for classroom education. Any use of those materials outside the class may violate the law.

PLNU Recording Notification

In order to enhance the learning experience, please be advised that this course may be recorded by the professor for educational purposes, and access to these recordings will be limited to enrolled students and authorized personnel.

Note that all recordings are subject to copyright protection. Any unauthorized distribution or publication of these recordings without written approval from the University (refer to the Dean) is strictly prohibited.

PLNU ACADEMIC HONESTY POLICY

Students should demonstrate academic honesty by doing original work and by giving appropriate credit to the ideas of others. Academic dishonesty is the act of presenting information, ideas, and/or concepts as one's own when in reality they are the results of another person's creativity and effort. A faculty member who believes a situation involving academic dishonesty has been detected may assign a failing grade for that assignment or examination, or, depending on the seriousness of the offense, for the course. Faculty should follow and students may appeal using the procedure in the university Catalog. See the [Academic Honesty Policy](#) in the Graduate and Professional Studies Catalog for definitions of kinds of academic dishonesty and for further policy information.

PLNU Academic Behavior Policy

Both faculty and students at Point Loma Nazarene University have the right to expect a safe and ordered environment for learning. Students are expected to take the initiative to learn and conduct themselves in a mature and civil manner in the classroom environment. Any student behavior that is disruptive or threatening is a serious affront to Point Loma Nazarene University as a learning community. Students who fail to adhere to these behavioral standards may be subject to disciplinary action, including removal from class or further university sanctions. For a full definition of disruptive behavior, response procedures, and the appeal process, please consult the [Academic Behavior Policy](#) in the [University Catalog](#).

ARTIFICIAL INTELLIGENCE (AI) POLICY

You are allowed to use Artificial Intelligence (AI) tools (e.g., ChatGPT, Gemini Pro GrammarlyGo, Perplexity, etc.) in this course. Any work that utilizes AI-based tools must be clearly identified as such, including the specific tool(s) used. Please use this [Purdue resource](#) to guide your citations when using AI.

PLNU Academic Accommodations Policy

PLNU is committed to providing equal opportunity for participation in all its programs, services, and activities in accordance with the Americans with Disabilities Act (ADA). Students with disabilities may request course-related accommodations by contacting the Educational Access Center (EAC), located in the Bond Academic Center on the PL campus, the first floor of the Balboa campus, and the second floor of the Mission Valley campus. For all students, including the Bakersfield campus, virtual appointments are available. You can reach the Educational Access Center (EAC) [by email](#) or phone at 619-849-2533. Students can access both requests for and evidence of disability through the Accommodate link off the main page of [OneLogin](#). Once a student's eligibility for an accommodation has been determined, the EAC will work with the student to create an Accommodation Plan (AP) that outlines approved accommodations. Professors are able to view a student's approved accommodations through [Accommodate](#).

PLNU highly recommends that students speak with their professors during the first two weeks of each semester/term about the implementation of their approved accommodations in that particular course. Accommodations are not retroactive; as such, clarifying with the professor at the outset is one of the best ways to promote positive academic outcomes.

Students who need accommodations for a disability-related need should contact the EAC as early as possible (i.e., ideally before the beginning of the semester) to assure appropriate accommodations can be provided. In accordance with ADA, accommodations cannot constitute a fundamental alteration to course outcomes; therefore, planning ahead is vital in establishing appropriate accommodations for equal access to this course. It is the student's responsibility to make the first contact with the EAC. Students cannot assume that because they had accommodations in the past, their eligibility at PLNU is automatic. All determinations at PLNU must go through the EAC eligibility process. This is to protect the privacy of students with disabilities who may not want to disclose this information and are not asking for any accommodations.

This syllabus is subject to change. Students are encouraged to check course messages and emails in order to remain current.

ARC-PA standards (5th edition) addressed in this course: B2.02(d)