



Masters of Science in Medicine

MSM 6600 A Cardiology Elective

2025

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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 5-week full-time elective clinical experience provides students with practical exposure to the evaluation and management of patients with cardiovascular conditions. Clinical training may occur in the hospital, outpatient clinic, or specialty cardiology settings under the supervision of a preceptor. Students are expected to apply foundational medical knowledge, interpret diagnostic studies, and participate in the care of patients with both acute and chronic cardiac conditions. Schedules will mirror the preceptor's, which may include nights, weekends, and holidays.

COURSE GOALS

The goal of the 5-week Infectious Disease Elective clinical rotation is to:

1. Utilize innovative systems within the elective rotation that prepare students for clinical practice while enhancing their performance on standardized national exams, meeting or exceeding NCCPA PANCE expectations for conditions in the subspecialty of Infectious Disease.
2. Place students at a clinical site where they can gain proficiency in the diagnosis and management of conditions commonly encountered in the cardiac specialty setting.
3. Promote interdisciplinary collaboration in the cardiac specialty setting, fostering critical thinking and advanced medical problem-solving skills.

PROGRAM LEARNING OUTCOMES

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

- PLO 1. Gather a history and perform a physical examination. ^{PC, KP, ICS, P, PPD}
- PLO 2. Prioritize a differential diagnosis following a clinical encounter. ^{PC, KP, PBLI, ICS, PPD}
- PLO 3. Recommend and interpret common diagnostic and screening tests. ^{PC, KP, PBLI, SBP, PPD}
- PLO 4. Enter and discuss orders and prescriptions. ^{PC, PBLI, ICS, SBP, PPD}
- PLO 5. Document a clinical encounter in the patient record. ^{PC, ICS, P, SBP, PPD}
- PLO 6. Provide an oral presentation of a clinical encounter. ^{PC, PBLI, ICS, P, PPD}
- PLO 7. Form clinical questions and retrieve evidence to advance patient care. ^{KP, PBLI, ICS, P, PPD}
- PLO 8. Give or receive a patient handover to transition care responsibilities. ^{PC, PBLI, ICS, P, PPD}
- PLO 9. Collaborate as a member of an inter-professional team. ^{ICS, P, SBP, IPC, PPD}
- PLO 10. Recognize a patient requiring urgent or emergent care and initiate evaluation and management. ^{PC, ICS, PPD}
- PLO 11. Obtain informed consent for tests and/or procedures. ^{PC, ICS, SBP, PPD}

Initials indicate PA core competency domains required to meet the PLO.

PA Core Competency Domains: Patient Care (PC), Knowledge for Practice (KP), Practice-based Learning and Improvement (PBLI), Interpersonal and Communication Skills (ICS), Professionalism (P), Systems-Based Practice (SBP), Interprofessional Collaboration (IC), Personal and Professional Development (PPD)

COURSE LEARNING OUTCOMES

Students must meet or exceed the Competent level in all defined learning outcomes to pass this course.

CLO 1. Elicit a focused history and physical examination for a patients presenting with a cardiac condition.
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CLO 2. Prioritize a differential diagnosis that incorporates history, physical examination, and diagnostic data for a patient with a cardiac condition.

CLO 3. Recommend and interpret appropriate laboratory and diagnostic studies to support the differential diagnosis and management of a patient with a cardiac condition.
CLO 4. Develop an evidence-based management plan for a patient presenting with a cardiac condition.
CLO 5. Present a clinical encounter for a patient with a cardiac condition, including relevant pathology, laboratory, and imaging findings, and justify the proposed management plan.
CLO 6. Recognize urgent or emergent presentations of cardiac conditions and initiate appropriate management.
CLO 7. Communicate clearly and respectfully with patients and families regarding diagnostic findings, treatment options, and follow-up plans.
CLO 8. Document a clinical encounter appropriate to the cardiac setting.
CLO 9. Collaborate with the interprofessional healthcare team to coordinate care and optimize patient outcomes in the cardiac setting.
CLO 10. Form clinical questions and retrieve evidence to guide clinical decision-making in a patient with a cardiac concern.

INSTRUCTIONAL OBJECTIVES

The following are the required learning objectives for the Elective Cardiology clinical rotation. Students are responsible for meeting these objectives whether or not clinical examples are seen during the rotation experience. At the conclusion of the rotation, it is expected that the student will be able to do the following:

Alignment to Core Competencies and Program Learning Outcomes

IO 1. Gather a complete and accurate focused history for a patient in a cardiac clinical setting.
IO 2. Perform a focused physical exam on a patient with a cardiac concern.
IO 3. Generate a differential diagnosis based on the history, the physical examination, results of any diagnostic studies performed, and clinical knowledge of common cardiac conditions.
IO 4. Order and interpret laboratory, diagnostic, and screening studies commonly used in the cardiac specialty.
IO 5a. Develop an evidence-based management plan for the cardiac patient requiring acute care.
IO 5b. Develop an evidence-based management plan for the cardiac patient requiring chronic care.
IO 6. Select appropriate pharmacological agents, incorporating knowledge of side effects, risks, benefits, drug interactions, and patient safety parameters.
IO 7. Differentiate between the cardiac patient requiring urgent care and an emergent cardiac condition and initiate management as appropriate.
IO 8. Demonstrate broad fundamental medical knowledge regarding common cardiac conditions.
IO 9. Communicates effectively and respectfully with patients and their families, demonstrating sensitivity to social and cultural traditions.
IO 10. Written documentation is clear, accurate, organized, and thorough.
IO 11. Presents cases accurately reflecting chronology, details of physical findings, differential diagnoses,

lab or imaging results and proposed treatment plan.
IO 12. Educate patients and families regarding common cardiac conditions.
IO13. Interpret an EKG
IO 14. Demonstrates effective collaboration with other members of the healthcare team.
IO 15. Obtain, analyze, and use the medical literature and other information resources to address medical questions and to sustain professional growth.
IO 16. Identifies strengths and weaknesses in knowledge and skills based on self-evaluation; seeks opportunities to increase knowledge and skills to sustain professional growth.
IO 17. Solicits, accepts, and acts on feedback to make effective improvements.
IO 18. Demonstrates appropriate respect, honesty, integrity, adherence to ethical standards of behaviors and legal standards
IO 19. Demonstrates accountability through timeliness and attends events as scheduled; meets all deadlines; dependable; punctual; communicates promptly when delayed
IO 20. Readily assumes responsibility. Works well with the team; is self-motivated.

ALIGNMENT OF ORGAN SYSTEM-BASED CONDITIONS

For the conditions linked below, the student must define the etiology, identify the signs and symptoms, generate appropriate differential diagnoses, recommend a diagnostic workup, recognize risk factors, recommend prevention strategies and treatment, and provide patient education as appropriate. Students are responsible for this knowledge whether or not clinical examples are seen during the rotation experience.

- [PANCE MEDICAL CONTENT LIST](#) (See Medical Content Category- Cardiovascular)
- [PAEA END OF CURRICULUM CONTENT LIST](#)

RECOMMENDED STUDY RESOURCES

Note: Although there are no required textbooks for these rotations, students are encouraged to use textbooks and resources that are pertinent to the discipline of their study. The titles below are recommendations provided through Access Medicine.

****Title:** *Current Diagnosis & Treatment: Cardiology*, 6th Edition
Author/Editor: Michael H. Crawford, MD
Publisher: McGraw-Hill Education / Medical
ISBN-10: 1264643578
ISBN-13: 978-1264643578

****Title:** *ECG Core Curriculum* (1st Edition)
Author/Editor: Franklin H. Zimmerman, MD
Publisher: McGraw-Hill Medical (aka McGraw-Hill / Medical)

ISBN-10: 0071785213
ISBN-13: 978-0071785211

Recommended downloads for handheld devices:

- Epocrates
- Medscape
- PubSearch
- Medical Calc

NOTE: Individual preceptors may include other resources. You will be notified of these resources by each preceptor. *If your preceptor does not offer additional resources, ask them what resources they like to use.*

ROTATION EVALUATION PROCESS

Rotation assessment grades are based on the Clinical Competency Modules listed below.

A. Rotation and Callback activities	25%
B. History and Physical Written Assignment	25%
C. End of Rotation Written/MCQ Examination	25%
D. Clinical Performance Evaluation	25%

Each Clinical Competency Module comprises 25% of the final course grade and is evaluated on a pass/fail basis.

All grades are determined using a competency-based rubric with defined levels of performance: Novice, Advanced Beginner, Competent, and Proficient. Refer to Canvas for detailed rubric criteria.

A pass (25%) is defined as completing all module components at a level of Competent or above.

Failure to meet the level of Competent or above in any content area will result in Primary Remediation. If the Primary Remediation outcome meets the Competent level or higher as specified in the rubric, the student will receive a pass.

An unsuccessful Primary Remediation will result in a secondary remediation. While the secondary remediation must demonstrate competency, no credit (0%) will be awarded for the module.

If a student is unable to demonstrate competency after the secondary remediation, the student will be subject to SPPC referral, which may result in course failure or dismissal.

Faculty will define and document remediation outcomes within Canvas.

Given the unique structure of the clinical year, remediation for the identified deficiency may take place **within 24 hours**.

For further details on course remediation, please refer to the *PLNU PA Program Student Handbook* and the [24/25 Clinical Manual](#).

A. Rotation and Callback Activities:

- a. Rotation activities include instructional and assessment activities.
(Refer to Canvas for further details of the specific rotation activities)
- b. Callback activities include the **Transition to Practice (TTP)/Capstone** curriculum and **Grand Rounds**.
(Refer to Canvas for specific details, schedules, and requirements)

Professionalism Expectation:

Incomplete or missed assignments and/or failure to attend Callback activities are considered a professionalism concern and will trigger a Professionalism Violation as outlined in the PLNU PA Student Handbook (2024–2025).

Failure to meet professionalism standards initiates the following 4-step process (Handbook, p. 24):

1. Verbal warning (documented)
2. Written warning (referred to SPPC and documented)
3. Final written warning and SPPC appearance
4. Dismissal from the program

B. History and Physical Written Assignment

At the end of each elective clinical rotation, students are required to submit a complete written History and Physical. This written assignment is one of the tools used to assess how well the PA student gathers, synthesizes, and documents the important information necessary to care for the patient. The assignment is graded as pass/fail. If the H and P is not written at a competent level for a PA student, they will meet with the DCE or designee to create a plan for addressing areas of deficiency.

C. End of Rotation Examination:

This comprehensive written assessment is used to determine if the student has obtained the medical knowledge consistent with the instructional objectives.

D. Clinical Performance:

This pass/fail assessment reflects and integrates the students' performance at the clinical site through multiple forms of communication and data gathering, including but not limited to the Preceptor Evaluation Form, Faculty Communication with the Clinical Site, Student Progress and Feedback, and the Mid Rotation Preceptor Evaluation Form:

- The clinical year is divided into three grading blocks: **Block A (Rotations 1-3), Block B (Rotations 4-6), and Block C (Rotations 7-9)**. Student performance will be assessed using a competency-based rubric specific to each block with defined levels of performance: Novice, Advanced Beginner, Competent, and Proficient.

Grading Progression:

The expectations for clinical performance on the **preceptor evaluation** will increase across Blocks A, B and C to reflect the student's growth in knowledge, skills, and professionalism.

Pass/Fail Requirements: As defined below, students must achieve a >70% Competent for each rotation in Block A, >85% Competent in each rotation for Block B, and 100% Competent in each rotation for Block C to successfully complete the clinical year.

A "Novice" level in any category, in any rotation, will result in failure of the clinical evaluation and referral to SPPC. The grading progression for each block is reflected below:

Block A (Rotation 1-3)	70% of all preceptor evaluation components must be at the Competent level or higher.
Block B (Rotation 4-6)	85% of all preceptor evaluation components must be at the Competent level or higher.
Block C (Rotation 7-9)	100% of all preceptor evaluation components must be at the Competent or higher level.

- **Faculty Communication with Clinical Site:** Faculty engage in ongoing dialogue with the clinical site, including the preceptor, to gather qualitative and contextual insights about the student's performance.
- **Student Progress and Feedback:** Discussions with the student about their clinical experiences and any relevant documentation provided to the faculty.
- **Mid Rotation Preceptor Evaluation Form:** Students must complete a Mid-Rotation Preceptor Evaluation with the preceptor most familiar with their performance to receive constructive, actionable feedback, identify areas for improvement, and make necessary adjustments before the End-of-Rotation Evaluation. *Refer to the Canvas Course for specific details.*

The following Student Evaluation tasks are mandatory and will be graded on a complete/incomplete basis:

- Electronic entries of timesheets
- Electronic entries of patient encounters
- Course surveys, including but not limited to:
 - Safety check-in
 - Mid-rotation Reflection
 - Mid-rotation Preceptor Evaluation

- Student evaluation of site and preceptor.

Please refer to the Canvas Course for specific task details.

Faculty retain the authority to issue a failing grade for the rotation if any task is marked incomplete or is submitted late. Exceptions or extensions will only be granted under documented extenuating circumstances and at the sole discretion of the faculty. For further details, schedules, and specific requirements, refer to the Canvas course materials.

In addition, faculty retain the authority to issue a failing grade for the rotation if the student:

- Demonstrates unacceptable evaluation for professionalism
- Has excessive or unexcused absences from the rotation site

Exceptions or extensions will only be granted under documented extenuating circumstances and at the sole discretion of the faculty. *Refer to the Clinical Manual for specific details.*

The Final Course Grade 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

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 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 (EAC@pointloma.edu or 619-849-2533). 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 allowed 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 AP in that particular course. Accommodations are not retroactive so 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 should contact the EAC as early as possible (i.e., ideally before the beginning of the semester) to assure appropriate accommodations can be provided. 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 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.

PLNU ATTENDANCE AND PARTICIPATION POLICY

Regular and punctual attendance at all class sessions is considered essential to optimum academic achievement. Therefore, regular attendance and participation in each course are minimal requirements.

If the student is absent for more than 10 percent of class sessions, the faculty member will issue a written warning of de-enrollment. If the absences exceed 20 percent, the student may be de-enrolled without notice until the university withdrawal date or, after that date, receive an "F" grade.

Students who anticipate being absent for an entire week of a course should contact the instructor in advance for approval and make arrangements to complete the required coursework and/or alternative assignments assigned at the discretion of the instructor. Acceptance of late work is at the discretion of the instructor and does not waive attendance requirements.

Refer to [Academic Policies](#) for additional detail.

Please note that PA Department attendance policy supercedes the University attendance policy.

USE OF TECHNOLOGY

In order to be successful in the online or hybrid environment, you'll need to meet the minimum technology and system requirements; please refer to the [Technology and System Requirements](#) information. Additionally, students are required to have headphone speakers, microphone, or webcams compatible with their computer available to use. Please note that any course with online proctored exams requires a computer with a camera (tablets are not compatible) to complete exams online.

Problems with technology do not relieve you of the responsibility of participating, turning in your assignments, or completing your class work.

LANGUAGE AND BELONGING

Point Loma Nazarene University faculty are committed to helping create a safe and hospitable environment for all students. As Christian scholars we are keenly aware of the power of language and believe in treating others with dignity. As such, it is important that our language be equitable, inclusive, and prejudice free. Inclusive/Bias-free language is the standard outlined by all major guides, including MLA, APA, and Chicago, and it is the expected norm in university-level work. Good writing and speaking do not use unsubstantiated or irrelevant generalizations about personal qualities such as age, disability, economic class, ethnicity, marital status, parentage, political or race, gender, sex, or sexual orientation. Inclusive language also avoids using stereotypes or that demeans persons or groups based on age, disability, class, ethnicity, gender, race, language, or national origin. Respectful use of language is particularly important when referring to those outside the religious and lifestyle commitments of those in the PLNU community. By working toward and clarity of language, we mark ourselves as serious and respectful scholars, and we model the Christ-like quality of hospitality.

If you (or someone you know) have experienced other forms of discrimination, you can find more information on reporting and resources at www.pointloma.edu/nondiscrimination.

SPIRITUAL CARE AND CHAPLAIN SERVICES

PLNU strives to be a place where you grow as a whole person. To this end, we provide resources for our graduate students to encounter God and grow in their Christian faith. At the Balboa campus, we have an onsite chaplain, Rev. Kevin Portillo, who is available during class break times across the week. If you have questions, a desire to meet or share any prayer requests with Rev. Portillo, you may contact him directly at KevinPortillo@pointloma.edu. Rev. Portillo's cell number is 760-594.4957 if you need a more immediate response.

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

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