Physician Assistant Education Department



Master of Science in Medicine

2 units

MSM 6304 FOUNDATIONS IN SURGERY

FALL 2023

Office location: 208	Instructor title and name:	
Office hours: please email to set-up	Steven Gottesfeld, PA-C	
Final Exam and OSCEs: Monday, 8:00am-5:00pm	Phone:	
Meeting location: Balboa Campus, Classroom	Email: Steve.Gottesfeld@sharp.com	
153, Clinical Skills Lab 223		

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 covers the principles of surgery and surgical management. Students will learn about pre-operative care, intraoperative care, post-operative care, common surgical conditions, complications and fluid management. Management of patients with surgical conditions across the lifespan from initial presentation through follow-up for surgical cases will be covered, as will referral when necessary, preventive medicine, and patient education.

COURSE GOALS

Course Goals: This goal of this course is to provide instruction in basic surgical principles and a foundation in emergent management of acutely ill patients. It will provide the student with the basic skills necessary to function capably in an operative suite and in an emergency setting.

PROGRAM LEARNING OUTCOMES

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

- 1. Gather a history and perform a physical examination. (MK, IC, PC, PR)
- 2. Prioritize a differential diagnosis following a clinical encounter. (MK, PC, PB, PR, SB)
- 3. Recommend and interpret common diagnostic and screening tests. (MK, IC, PC, PR, PB, SB)
- 4. Enter and discuss orders and prescriptions. (MK, IC, PC, PR, PB, SB)
- 5. Document a clinical encounter in the patient record (MK, IC, PC, PR)
- 6. Provide an oral presentation of a clinical encounter. (MK, IC, PC, PB, PR)
- 7. Form clinical questions and retrieve evidence to advance patient care. (MK, PC, PR, PB, SB)
- 8. Give or receive a patient handover to transition care responsibility. $^{(MK, PC, PR, IC, PB)}$
- 9. Collaborate as a member of an inter-professional team. MK, IC, PC, PR, PB, SB
- 10. Recognize a patient requiring urgent or emergent care and initiate evaluation and management. (MK, IC, PC, PR, PB, SB)
- 11. Obtain informed consent for tests and/or procedures. $^{MK, IC, PC, PR, PB}$
- 12. Perform general procedures of a physician assistant. MK, IC, PC, PR, PB, SB

Initials indicate PA core competency required to meet the PLO.

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. Document a clinical encounter for a surgical patient including history, physical examination, lab and/or imaging results and a differential diagnoses in the patient record. ((PC4, PC6, IC1, IC2, IC5, PR4, SB1)
- 2. Provide an oral presentation of a clinical encounter for a surgical complaint including discussion of the pathology, laboratory and/or imaging results and justification of the proposed management plan. (PC2; PC6; IC1; IC2; PB1; PR1; PR3)
- 3. Form clinical questions and retrieve evidence to advance patient care. (PC5, PC7, MK3, MK4, PB1, PB3, PB6, PB7, PB3, PB9, PB9
- 4. Recognize a patient requiring urgent or emergent surgical management or the patient in whom the manifestation of systemic disease require surgical management and initiate evaluation and management. (PC1, PC2, PC3, PC4, PC5, PC6, IC6, PR1, PR5)

INSTRUCTIONAL OBJECTIVES

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

1. Describe the general physical layout of the operating theater. Knowledge, B2.08c

- 2. Characterize the personnel on a standard operating team and describe their roles. Comprehension, B2.10a
- 3. Clarify your role as a PA-S on a surgical rotation and determine what steps you should take to prepare yourself to be a team member. Comprehension, B2.10a
- 4. Discuss the role of a PA as part of an interprofessional surgical team. Comprehension, B2.10a, B2.10b, B2.10c
- 5. Identify various operating room equipment and instruments and explain their basic function.

 Knowledge, B2.08c
- 6. Apply concepts of sterile technique, sterile field, scrubbing, gowning and gloving. Application, B2.08c
- 7. Differentiate various types of IV fluids and recommend which type should be used in specific surgical circumstances. Application, B2.08c
- 8. Recognize the surgical indications for blood replacement vs. IV fluids and select the appropriate blood component and quantity. Comprehension, B2.07e, B2.08c
- 9. Given a patient with surgical disease and electrolyte imbalance, analyze the etiology of the electrolyte disturbance and develop a management plan. Analysis, B2.07c
- 10. Demonstrate preoperative and postoperative charting. Application, B2.08c
- 11. Differentiate and discuss preoperative, intraoperative, and postoperative care. Comprehension, B2.08c
- 12. Given a patient across all age groups, with signs or symptoms of a surgical disease or disorder: interview and elicit a comprehensive, relevant medical history, B2.07a perform a complete and focused physical examination and identify the physical findings, B2.07b generate a complete list of differential diagnoses prioritizing them appropriately, B2.07c recommend an appropriate work-up, order and interpret diagnostic studies, B2.07d propose patient management including acute and chronic care plans, B2.07e provide patient education and referral. B2.07f, Evaluation, B2.08c
- 13. Demonstrate skills in surgical patient positioning. Application, B2.08c
- 14. Specify the important elements of both pre-operative assessment and post-operative care with appropriate orders and demonstrate your ability to properly document them.

 Application, B2.08c
- 15. Recognize major post-operative complications and recommend methods to alleviate them.

 Application, B2.08c
- 16. Demonstrate skills in routine technical procedures necessary for managing care of adult surgical patients. Application, B2.07e
- 17. Recognize the common surgical disorders and patient presentations. Analysis, B2.07c
- 18. Determine surgical management based on the diagnosis of a surgical patient. Application, B2.07e
- 19. Identify common surgical procedures related to each organ system. Knowledge, B2.02a, B2.02b
- 20. Interpret laboratory, diagnostic and radiological tests associated with common surgical diseases. ^{Analysis, B2.07d}
- 21. Justify antibiotic selection for surgical infections. Evaluation, B2.02d
- 22. Identify the prenatal, infant, child, adolescent, adult and the elderly patient requiring emergent surgical intervention. Evaluation, B2.08a

- 23. Differentiate the evaluation and treatment approach in acute, chronic and emergent surgical diseases and disorders. Analysis, B2.07e, B2.08b
- 24. Educate the patient and family on appropriate post-operative care including diet and activity as well as signs/symptoms requiring patient to return. Application, B2.04, B2.08c
- 25. Working with the appropriate health care professional recommend a suitable postsurgical rehabilitation plan as needed. Application, B2.08b
- 26. Discuss common diseases and disorders presenting in the elderly that require surgical management, their varying presentations and propose a management plan including consideration of co-morbidities and polypharmacy. Application, B2.02d, B2.07e, B2.08a
- 27. Discuss common diseases and disorders presenting in pediatric patients that require surgical management, their varying presentations and propose a management plan. Application, B2.02d, B2.07e, B2.08a
- 28. Working with the appropriate health care professional, recommend an appropriate palliative care plan for a patient facing end-of-life decisions. Application, B2.08e
- 29. Working with the appropriate health care professional, develop an appropriate patient education plan as needed. Application, B2.07f
- 30. Working with the appropriate health care professional, recommend an appropriate patient referral plan as needed. Application, B2.07f
- 31. Working with the appropriate health care professional recommend a suitable prevention program as needed. Application, B2.08b
- 32. Demonstrate skills in problem solving and medical decision-making through community learning group case discussions and activities. Application, B2.05
- 33. Demonstrate supportive counseling skills when delivering bad news to a patient. Application, B2.12c

SKILLS OBJECTIVES

Upon completion of this course, the student will demonstrate proficiency in:

- 1. Eliciting a preoperative and postoperative history. Application, B2.07a
- 2. Performing complete and focused preoperative and postoperative physical exam on a surgical patient. Application, B2.07b
- 3. Creating and maintaining a sterile field. Application, B2.09
- 4. Demonstrating and performing surgical scrubbing, gowning and gloving. Application, B2.09
- 5. Performing preoperative skin preparation. Application, B2.09
- 6. Performing surgical wound closure, knot tying, proper surgical dressing application, and postoperative wound care. Application, B2.09
- 7. Properly inserting a peripherally inserted central catheter (PICC) using sterile technique. Application

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

UNIT	HOURS	LECTURES	LABS
Unit I	5	ORIENTATION	Patient History
		PREOPERATIVE CARE	Physical Exam
UNIT I EXAM			
Unit II	20	INTRAOPERATIVE CARE	Sterile Field
			Surgical Scrubbing, Gowning, and Gloving
			Skin Preparation
			Surgical Wound Closure
			Knot Tying
UNIT II EXAM			
Unit III	5	POSTOPERATIVE CARE	Physical Exam
			Surgical Dressing
			Wound Care
UNIT III EXAM			

REQUIRED TEXTS AND RECOMMENDED STUDY RESOURCES

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

Agur, Anne M. R. and Dalley, Arthur F. 2019. Moore's Essential Clinical Anatomy, 6E. LWW

ISBN-13: 9781496369659 ISBN-10: 1486369653

Gilroy, AM and BR MacPherson. 2016. Atlas of Anatomy, 3E. Thieme Medical Publishers.

ISBN-13: 978-1626232525 ISBN-10: 1626232520

**Ganong's Review of Medical Physiology, 26e by Kim E. Barrett, Susan M. Barman, Scott Boitano, Heddwen L. Brooks. McGraw-Hill Education / Medical; 26 edition (2019).

ISBN-10: 007182510X ISBN-13: 978-1260122404

Bates' Guide to Physical Examination and History Taking, 13th Edition by Lynn S. Bickley. LLW, (2022)

ISBN-13: 978-1496398178 ISBN-10: 1496398173 **DeGowin's Diagnostic Examination, 11e Richard F. LeBlond, Donald D. Brown, Manish Suneja, Joseph F. Szot. McGraw-Hill Education / Medical; 11th edition (2020).

ISBN-10: 0071814477 ISBN-13: 978-1260134872

**Symptom to Diagnosis: An Evidence-Based Guide, 4e.

Scott D. C. Stern, Adam S. Cifu, Diane Altkorn

McGraw-Hill/Lange

ISBN-13: 978-1-260-12111-7

**Tintinalli's Emergency Medicine: A Comprehensive Study Guide, Ninth Edition (Emergency Medicine (Tintinalli)) 9th Edition

by Judith Tintinalli (Author), J. Stapczynski (Author), O. John Ma (Author), David Cline (Author),

Rita Cydulka (Author), Garth Meckler (Author)

ISBN-13: 978-1260019933 ISBN-10: 0071484809

Essential Clinical Procedures: 4th Edition by Richard Dehn & David P. Asprey.

(2021) Elsevier Health Sciences (ISBN-13: 978-0323624671

ISBN-10: 1455707813

**Schwartz's Principles of Surgery, 11th edition

by F. Brunicardi (Author), Dana Andersen (Author), Timothy Billiar (Author), David Dunn (Author), John G. Hunter (Author), Jeffrey Matthews (Author), Raphael E. Pollock (Author). McGraw-Hill Education / Medical;

ISBN-10: 0071796754 ISBN-13: 978-1259835353

**Current Diagnosis & Treatment: Surgery, 15th Edition

Author: Gerald M. Doherty Publisher: McGraw – Hill ISBN 978-12601222213

ISSN: 0894-227

Recommended: (not available in Access Medicine)

Cecil Essentials of Medicine: Edition 10 Edward J Wing, Fred J. Schiffman Elsevier Health Sciences, (2022)

ISBN-13: 978-0323722711 ISBN-10: 143771899X

Textbook of Physical Diagnosis: History and Examination With STUDENT CONSULT Online Access, 8e (Textbook of Physical Diagnosis (Swartz)) 8th Edition by Mark H. Swartz MD FACP (Author).

Saunders; 8th edition, (2021) ISBN-13: 978-0323672924 ISBN-10: 0323221483

LEARNING MODALITIES

Modalities include lectures, on-line pre-lecture activities, reading assignments, community learning activities, and clinical skills labs. The class schedule and assignments can be found in Canvas.

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:
 - PE and clinical skills labs appropriately dressed and with all necessary equipment
 - examinations on the date and time for which they are schedule
 - Community learning group
- 2. We expect
 - active participation in all class activities.
 - completion of all class preparatory assignments prior to commencement of class.
 - respect for the class, peers and faculty.
 - 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 (written and practical) on their respective scheduled days. No requests for early examinations or alternative days will be approved.

ASSESSMENT AND GRADING

Student course grades are calculated using all assessment tools utilized during the course. These include quizzes, written examinations, written assignments, practicums, and evaluation of skills.

Learning community groups will be utilized to provide case-based instruction. A clinical case will be presented to each group by the group mentor. Students are expected to utilize knowledge acquired from prior readings and lectures, as well as self/group directed learning to work up the case, develop a working diagnosis, a differential diagnosis and a therapeutic regimen which will include a follow-up plan

and patient education. Effective interpersonal communication, clinical reasoning and problem solving abilities, professional behavior and teamwork are paramount to success and development as clinicians. Cases will be issued no more frequently than every other week. There will be 2 cases in this module. Students will receive a collective grade for this exercise.

Learning community group performance expectations include; demonstrating effective interpersonal communication, clinical reasoning and problem solving abilities, professional behavior and teamwork skills. Application, B2.05, B4.03b, B4.03c, B4.03e

ACTIVITY	% OF GRADE
Learning Community	5%
Case Study H&P	5 %
Written Examination	50%
Skills OSCE	15%
Patient-centered OSCE	25%

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.

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 authorize 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 <u>Academic Honesty Policy</u> in the Graduate and Professional Studies Catalog for definitions of kinds of academic dishonesty and for further policy information.

PLNU ACADEMIC ACCOMMODATIONS POLICY

While all students are expected to meet the minimum standards for completion of this course as established by the instructor, students with disabilities may require academic adjustments, modifications or auxiliary aids/services. At Point Loma Nazarene University (PLNU), these students are requested to register with the Disability Resource Center (DRC), located in the Bond Academic Center. (DRC@pointloma.edu or 619-849-2486). The DRC's policies and procedures for assisting such students in the development of an appropriate academic adjustment plan (AP) allows PLNU to comply with Section 504 of the Rehabilitation Act and the Americans with Disabilities Act. Section 504 (a) prohibits discrimination against students with special needs and guarantees all qualified students equal access to and benefits of PLNU programs and activities. After the student files the required documentation, the DRC, in conjunction with the student, will develop an AP to meet that student's specific learning needs. The DRC will thereafter email the student's AP to all faculty who teach courses in which the student is enrolled each semester. The AP must be implemented in all such courses.

If students do not wish to avail themselves of some or all of the elements of their AP in a particular course, it is the responsibility of those students to notify their professor in that course. PLNU highly

recommends that DRC students speak with their professors during the first two weeks of each semester about the applicability of their AP in that particular course and/or if they do not desire to take advantage of some or all of the elements of their AP in that course.

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(a)(b)(d), B2.04, B2.05, B2.07(a-f), B2.08(a)(b)(c)(), B2.09, B2.10(a)(b)(c), B2.12(c), B4.03b, B4.03c, B4.03e