PLNUforward

Physician Assistant Education Department

Master of Science in Medicine

3 units

MSM 6303 FOUNDATIONS IN EMERGENCY MEDICINE

FALL 2024

	Instructor title and name:
	Tanya Mamantov, M.D., MPH
	Guest Lecturers:
	Diana Paddock, PA-C
	Tess Klaristenfeld, M.D.
Office location: 233	
Office hours: please email to set-up	Thomas Bales, PA-C
	Cornelius Jansen, M.D.
	Matthew Colton, PA-C
	Darron Fritz DSc., PA-C
	Donnie Cobbler, PA-C
Final Exam and OSCEs: Friday, November 22	Phone: please email
8:00am-5:00pm	
Meeting location: Balboa Campus, Classroom	Email: tmamanto@pointloma.edu
153, Clinical Skills Lab 223	

	Week 2	
Week 1	Meeting days and times:	Week 3
Meeting days and times:	Monday: 9:00am-12:00pm,	
Tuesday: 1:00pm-5:00pm	1:00pm-4:00pm	Meeting days and times:
Wednesday: 1:00pm-5:00pm	Tuesday: 1:00pm-5:00pm	Monday: 9:00am-12:00pm,
Thursday: 1:00pm-4:00pm	Wednesday: 1:00pm-4:00pm	1:00pm-4:00pm Tuesday: 1:00pm-4:00pm
Friday: 9:00am-12:00pm,	Thursday: 1:00pm-4:00pm	
1:00-3:00pm	Friday: 8:00am-12:00pm,	
	1:00pm-5:00pm	

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 emergent management. There will be a focus on the evaluation and management of emergent conditions covering all organ systems. Management of patients with emergent and life-threatening conditions across the lifespan from initial presentation through follow-up for emergent cases will be covered, as will referral when necessary, preventive medicine, and patient education.

COURSE GOALS

This goal of this course is to provide instruction in emergent management of trauma and acutely ill patients. It will provide the student with the basic skills necessary to function capably in an urgent care or 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 PR = Professionalism IC = Interpersonal Skills & Communication PB = Practice-based Learning PC = Patient Care 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. Obtain a history and perform a focused physical examination relevant to emergent complaint. (PC2; MK1; IC1; IC7; PR1; PR3; PR5)
- 2. Prioritize a differential diagnosis based on the history and physical findings in a patient with an emergent complaint. ^(PC2, PC4, MK2, MK3, MK4, PB1, IC2, PR8)
- 3. Recommend common diagnostic and screening tests, pharmacotherapeutics, and management based on their applicability to the differential diagnosis. ^(PC4, PC5, PC7, PC9, MK1, MK4, PB9, SB3)
- 4. Document a clinical encounter including history, physical examination, lab and/or imaging results and a differential diagnoses in the patient record. ^(PC4, PC6, IC1, IC2, IC5, PR4, SB1)
- 5. Provide an oral presentation of a clinical encounter for an emergent 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)
- 6. Form clinical questions and retrieve evidence to advance patient care. (PC5, PC7, MK3, MK4, PB1, PB3, PB6, PB7, PB8, PB9
- 7. Recognize a patient requiring urgent or emergent care for a condition or the patient in whom the manifestation of systemic disease is an emergent medical condition and initiate evaluation and management. ^(PC1, PC2, PC3, PC4, PC5, PC6, IC6, PR1, PR5)

INSTRUCTIONAL OBJECTIVES

Upon completion of the **PHYSICAL DIAGNOSIS** section of the course, the student will be able to:

1. Demonstrate a focused medical history in the evaluation of an emergent condition. Application, B2.07a

- 2. Perform a complete, but focused physical examination on a patient with an emergent condition, with all special examinations relevant to the involved organ system(s). Application, B2.07b
- 3. Differentiate between normal and abnormal findings in the examination and identify the most likely etiologies. ^{Analysis, B2.07c}
- 4. Relate findings in a physical examination to common emergent conditions. Analysis, B2.07c

Upon completion of the CLINICAL MEDICINE section of this course, the student will be able to: ^{B2.03}

5. Given a patient across all age groups, with any of the following emergent signs or symptoms: 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}

a. Abdominal pain

- i. Acute cholecystitis
- ii. Acute pancreatitis
- iii. Appendicitis
- iv. Cholangitis
- v. Cholelithiasis
- vi. Diverticulitis
- vii. Gastritis
- viii. Intussusception
- ix. Ischemic bowel disease
- x. Obstruction
- xi. Peptic ulcer disease

b. Altered level of consciousness

- i. Arterial embolism/thrombosis
- ii. Arteriovenous malformation
- iii. Cerebral aneurysm
- iv. Delirium
- v. Diabetes mellitus
 - 1. Type 1
 - 2. Type 2
- vi. Focal seizures
- vii. Generalized seizures
- viii. Hyperthyroidism
- ix. Intracranial hemorrhage
- x. Status epilepticus
- xi. Stroke
- xii. Transient ischemic attack

- xiii. Traumatic brain injury
- c. Back Symptoms
 - i. Cauda equina syndrome
 - ii. Fracture
 - iii. Herniated nucleus pulposus
 - iv. Nephrolithiasis/urolithiasis
 - v. Osteoarthritis
 - vi. Osteomyelitis
 - vii. Pyelonephritis
 - viii. Septic arthritis
 - ix. Spinal epidural abscess
 - x. Spinal stenosis
 - xi. Thoracic outlet syndrome
 - xii. Torticollis
 - xiii. Trauma

d. Bleeding

- i. Anemia
- ii. Clotting factor disorders
- iii. Epistaxis
- iv. Hemorrhoids
- v. Lacerations
- vi. Postpartum hemorrhage
- vii. Sickle cell disease
- viii. TAB
- ix. Thrombocytopenia
- e. Burns
 - i. Superficial Thickness Burns
 - ii. Superficial Partial Thickness burns
 - iii. Deep Partial Thickness Burns
 - iv. Full Thickness Burns

f. Chest pain/discomfort

- i. Acute myocardial infarction
 - 1. Non–ST-segment elevation
 - 2. ST-segment elevation
- ii. Angina pectoris
 - 1. Prinzmetal variant
 - 2. Stable
 - 3. Unstable
- iii. Aortic aneurysm/dissection
- iv. Cardiac tamponade
- v. Esophageal motility disorders
- vi. Esophageal strictures

- vii. Esophageal varices
- viii. Esophagitis
- ix. Gastroesophageal reflux disease
- x. Hypertensive emergencies
- xi. Mallory-Weiss tear
- xii. Pericardial effusion
- xiii. Pleural effusion
- xiv. Pneumothorax
- xv. Pulmonary embolism

<mark>g. Cough</mark>

- i. Acute bronchiolitis
- ii. Acute bronchitis
- iii. Croup
- iv. Influenza
- v. Pertussis
- vi. Pneumonia
- vii. Respiratory syncytial virus infection
- viii. Tuberculosis

h. <u>Diarrhea</u>

- i. Inflammatory bowel disease
- ii. Irritable bowel syndrome

. <u>Dizziness</u>

- i. Acid-base disorders
- ii. Atrial fibrillation/flutter
- iii. Atrioventricular block
- iv. Bundle branch block
- v. Cardiogenic shock
- vi. Concussion
- vii. Dehydration
- viii. Hyperkalemia/hypokalemia
- ix. Hypervolemia
- x. Hyponatremia
- xi. Labyrinthitis
- xii. Orthostatic hypotension
- xiii. Paroxysmal supraventricular tachycardia
- xiv. Postconcussion syndrome
- xv. Premature beats
- xvi. Sick sinus syndrome
- xvii. Sinus arrhythmia
- xviii. Torsades de pointes
- xix. Ventricular fibrillation
- xx. Ventricular tachycardia

xxi. Vertigo

j. Dyspnea/SOB

- i. Acute respiratory distress syndrome
- ii. Asthma
- iii. Emphysema
- iv. Foreign body aspiration
- v. Pleural effusion
- vi. Pneumothorax
- vii. Pulmonary embolism

<mark>k. Edema</mark>

- i. Heart failure
- ii. Venous insufficiency

<mark>I. ENT</mark>

- i. Acute epiglottitis
- ii. Deep neck infection
- iii. Foreign object
- iv. Peritonsillar abscess
- v. Pharyngitis
- vi. Sialadenitis
- m. Eye symptoms
 - i. Amaurosis fugax
 - ii. Conjunctivitis
 - iii. Corneal ulcer/abrasion
 - iv. Foreign object
 - v. Glaucoma
 - vi. Orbital cellulitis
 - vii. Retinal detachment
 - viii. Retinal vascular occlusion

n. <u>Fever</u>

- i. Acute and subacute bacterial endocarditis
- ii. Acute pericarditis
- iii. Influenza
- iv. Malaria
- v. Mastoiditis
- vi. Meningitis
- vii. Methicillin-resistant Staphylococcus aureus infection
- viii. Sepsis/systemic inflammatory response syndrome
- ix. Spinal epidural abscess
- x. Tetanus

Foreign objects in body

- i. ENT
- ii. Ingestion of foreign bodies

- iii. Rectal/anal
- iv. Vaginal

p. GU complaints

- i. Cystitis
- ii. Epididymitis
- iii. Hematuria
- iv. Orchitis
- v. Prostatitis
- vi. Pyelonephritis
- vii. Testicular torsion
- viii. Urethritis

<mark>q. Headaches</mark>

- i. Cluster headache
- ii. Meningitis
- iii. Migraine
- iv. Tension headache

r. Nausea/<u>Vomiting</u>

- i. Gastroenteritis
- ii. Gastroesophageal reflux disease
- iii. SBO
- s. Numbness/Weakness
 - i. CVA
 - ii. Multiple sclerosis
 - iii. Myasthenia gravis
- t. Pain
 - i. Vascular
 - 1. Phlebitis/thrombophlebitis
 - 2. Venous thrombosis
 - ii. Gastrointestinal
 - 1. Abscess/fistula
 - 2. Anal fissure
 - 3. Fecal impaction
 - iii. Musculoskeletal
 - 1. Compartment syndrome
 - 2. Sprain/strain
 - 3. Fractures/dislocations

<mark>u. Pelvic pain</mark>

- i. Cervicitis
- ii. Ectopic pregnancy
- iii. Ovarian cysts
- iv. Ovarian torsion
- v. PID

vi. Vaginitis

v. Poisoning

- i. Ingestion of toxic substances
- ii. Substance-related and addictive disorders
- w. Psychiatric B2.08d
 - i. Child abuse
 - ii. Domestic violence
 - iii. Elder abuse
 - iv. Major depressive disorder
 - v. Panic disorder
 - vi. Schizophrenia spectrum and other psychotic disorders
 - vii. Sexual abuse
 - viii. Suicidal/homicidal behaviors
- x. Rash/skin lesions
 - i. Cellulitis
 - ii. Drug eruptions
 - iii. Erysipelas
 - iv. Erythema multiforme
 - v. Impetigo
 - vi. Stevens-Johnson syndrome
 - vii. Toxic epidermal necrolysis

<mark>y. Trauma</mark>

- i. Animal bites
- ii. Blowout fracture
- iii. Blunt force trauma
- iv. Globe rupture
- v. Hyphema
- vi. Impaled objects
- vii. Sexual assault

viii. Obstetric Trauma

6. Identify the prenatal, infant, child, adolescent, adult and the elderly patient requiring emergent intervention. ^{Evaluation, B2.08a}

7. Choose a pharmacotherapeutic intervention relating the indications, contraindications, complications, efficacy and effectiveness of the treatment. ^{Evaluation, B2.02d}

8. Justify the ordering of diagnostic tests used in the evaluation of emergent conditions identifying the relevance to diagnosis, risk/benefit and cost. Analysis, B2.07d

9. Working with the appropriate health care professional, develop an appropriate patient education plan as needed. $^{\rm Application,\ B2.07f}$

10 Working with the appropriate health care professional, recommend an appropriate patient referral plan as needed. ^{Application, B2.07f}

11. Working with the appropriate health care professional recommend a suitable prevention program as needed. ^{Application, B2.08b}

12[·] Demonstrate skills in problem solving and medical decision-making through community learning group case discussions and activities. ^{Application, B2.05}

13. 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 history. Application, B2.07a
- 2. Performing complete and focused physical exam of an emergent complaint. Application, B2.07b
- 3. Airway Management. Application, B2.09
- 4. Performing needle decompression, and explaining the indications and contraindications of the procedure. ^{Application, B2.09}
- 5. Demonstrating and performing BLS. Application, B2.09
- 6. Properly performing wound care and dressing application. Application, B2.09
- 7. Properly establishing intraosseous (IO) access, and explaining the indications and contraindications of the procedure. ^{Application}

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

UNIT	HOURS	LECTURES	LABS
Unit I	3	ORIENTATION	Patient History
		Physical Diagnosis	Physical Exam
Unit II	21	Clinical Medicine	Patient History
		1. Abdominal pain	Physical Exam
		2. <u>Altered level of</u>	
		<u>consciousness</u>	
		3. Back Symptoms	
		4. Bleeding	
		5. Burns	
		6. Chest pain/discomfort	
		7. Cough	
		8. <u>Diarrhea</u>	
		9. <u>Dizziness</u>	
		10. Dyspnea/SOB	
		11. Edema	
		12. ENT	

UNIT INSTRUCTION

		13. Eye Symptoms	
Unit III	21	Clinical Medicine	Patient History
		 Fever Foreign objects in body GU complaints Headaches Nausea/<u>Vomiting</u> Numbness/Weakness Pain Pelvic pain Poisoning Psychiatric Rash/skin lesions Trauma 	Physical Exam

REQUIRED TEXTS AND RECOMMENDED STUDY RESOURCES

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

Tintanelli will be the primary text for the EM Course

**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

**Pathophysiology of Disease: An Introduction to Clinical Medicine 8E By Gary D. Hammer, Stephen J. McPhee McGraw-Hill/Lange ISBN: 978-1260026504

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

**Current Diagnosis & Treatment: Emergency Medicine, 8th e Edition Author: C. Keith Stone, Roger L. Humphries
Publisher: McGraw – Hill
ISBN 978-0-07-184061-3
ISSN 0894-2293

Essential Clinical Procedures: 4th Edition by Richard Dehn & David P. Asprey. (2021) Elsevier Health Sciences (ISBN-13: 978-0323624671 ISBN-10: 1455707813

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

Use of Artificial Intelligence (AI) tools (e.g, ChatGPT, iA Writer, Marmot, Botowski) is not permitted and use of these tools will be treated as plagiarism.

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