Physician Assistant Education Department
Master of Science in Medicine
2 units



# MSM 6101 FUNDAMENTALS OF DERMATOLOGY SPRING 2024

Office location: 204	Instructor title and name:	
Office hours: TBA	Christy Kerr, PA-C	
Final Exam and OSCEs: Monday, 2/6/24,	<b>Phone:</b> 619-849-7953	
8:00am-5:00pm		
Meeting location: Balboa Campus, Classroom	Email: christykerrpac@gmail.com	
154, Clinical Skills Lab 223		
Week 1	Week 2	
Meeting days and times: 1/24/23-1/27/23  Tuesday: 1:00-4:00pm  Wednesday: 1:00-4:00pm  Thursday: 1:00-4:00pm	Meeting days and times: 1/30/23-2/3/23	
	Monday: 9:00am-12:00pm and 1:00-4:00pm	
	Tuesday: 1:00-4:00pm	
	,	
	Wednesday: 1:00-4:00pm	
Friday: 9:00am-12:00pm	Thursday: 1:00-4:00pm	
	Friday: 9:00am-12:00pm	

# **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 epidemiology, etiology, risk factors, pathogenesis, pathophysiology, complications, and differential diagnoses of commonly encountered skin diseases and disorders through symptoms-based and systems-based approaches. Management of patients with these diseases and disorders across the life span from initial presentation through follow-up for acute, chronic, and

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 the appropriate basic science background essential to the understanding of and diagnosis of disease patterns related to the skin and integument, and to provide the student with the skills and knowledge necessary for the diagnosis and management of common dermatologic disorders.

#### 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)

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. Obtain a history and perform a focused physical examination relevant to dermatologic symptoms. (PC2; MK1; IC1; IC7; PR1; PR3; PR5)
- Prioritize a differential diagnosis based on the history and physical findings in a patient with a dermatologic complaint. (PC2, PC4, MK2, MK3, MK4, PB1, IC2, PR8)
- 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)
- <sup>4.</sup> Document a clinical encounter including history, physical examination, lab and/or imaging results and a differential diagnosis in the patient record. ((PC4, PC6, IC1, IC2, IC5, PR4, SB1)

- 5. Provide an oral presentation of a clinical encounter for a dermatologic 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)
- Form clinical questions and retrieve evidence to advance patient care. (PC5, PC7, MK3, MK4, PB1, PB3, PB6, PB7, PB8, PB9)
- Recognize a patient requiring urgent or emergent care for a dermatologic condition or the patient in whom the manifestation of systemic disease is dermatologic and initiate evaluation and management. (PC1, PC2, PC3, PC4, PC5, PC6, IC6, PR1, PR5)

# **INSTRUCTIONAL OBJECTIVES**

Upon completion of the ANATOMY AND PHYSIOLOGY section of the course, the student will be able to:

- 1. Describe the structural features and functions of the epidermis, dermis and subcutaneous layers. Comprehension, B2.02a, B2.02b
- 2. Determine appropriate incision orientation based on various tension/cleavage lines of the skin.

  Evaluation, B2.02a
- 3. Discuss the structure, function and excretions of the exocrine glands. Comprehension, B2.02a, B2.02b
- 4. Explain how the integumentary system responds to injury and describe the process of integumentary system repair. Comprehension, B2.02b
- 5. Describe the effects of aging on the integumentary system. Comprehension, B2.02a, B2.02b
- 6. Summarize factors that influence skin pigmentation at the epidermal and dermal layers. Comprehension, B2.02a, B2.02b

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

- 1. Demonstrate understanding of common inflammatory skin disorders. Comprehension, B2.02c
- 2. Discuss common causes of deformed or discolored nails. Comprehension, B2.02c
- 3. Contrast malignant melanoma, melanocytic nevi and non-melanoma skin cancer. Evaluation, B2.02c
- 4. Classify fungal infections of the skin, hair and nails. Comprehension, B2.02c
- 5. Describe the pathologic course of common viral integumentary disorders. Comprehension, B2.02c
- 6. Classify burn injuries, estimate injury using the "rule of 9s", and determine appropriate management. Evaluation, B2.02c
- 7. Discuss how burns affect skin functions, including fluid and electrolyte balance, thermoregulation, and infection protection. Comprehension, B2.02c
- 8. Determine integumentary system disorders that are indicative of systemic disease. Analysis, B2.02c

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

- <sup>1.</sup> Generate an appropriate and comprehensive dermatologic medical history from patients presenting with signs and symptoms suggestive of dermatologic disease. <sup>Application, B2.07a</sup>
- 2. Conduct a screening skin survey. Application, B2.07b

- 3. Perform a focused physical examination on a patient with suspected dermatologic disease.

  Application, B2.07b
- 4. Utilize supplemental aids appropriately in the diagnosis of skin disorders including magnification, diascopy, and the Wood's light in the examination and interpretation of dermatologic findings.

  Application, B2.07c

Upon completion of the **CLINICAL MEDICINE** section of the course, the student will: B2.03

1. Given a patient across all age groups, with any of the following 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, Evaluate

# **SKIN RASH**

- a. Eczematous Eruptions
  - i. Dermatitis
  - ii. Dyhidrosis
  - iii. Lichen simplex chronicus
- b. Papulosquamous Diseases
  - i. Drug eruptions
  - ii. Lichen planus
  - iii. Mycosis fungicides
  - iv. Pityriasis rosea
  - v. Psoriasis
  - vi. Seborrhea
- c. Pustular
  - i. Acneiform
    - 1. Acne vulgaris
    - 2. Rosacea
    - 3. Perioral dermatitis
  - ii. Infectious
- d. Desquamation
  - i. Erythema multiforme
  - ii. Stevens-Johnson syndrome
  - iii. Toxic epidermal necrolysis
- e. Vesiculobullous
  - i. Bullous pemphigoid
  - ii. Pemphigus vulgaris
- f. Exanthems
  - i. Viral

#### **DISORDERS OF PIGMENTATION**

- i. Hyperpigmentation
- ii. Hypopigmentation

# **ALOPECIA**

- a. Diffuse
- b. Localized
  - i. Scarring
    - 1. Infectious
    - 2. Secondary to skin disease
  - ii. Non-scarring

# **NAIL DISORDERS**

- a. Primary Dermatologic Disease
  - i. Paronychia
- iii. Systemic Disease
  - i. Nail fold
    - 1. Koilonychias
    - 2. Onycholysis
    - 3. Beau's lines
    - 4. Clubbing
  - ii. Nail bed

# **GENITAL LESIONS**

b.

- a. Elevated
  - i. Vesicles
  - ii. Papules/Plaques
    - 1.

2. Non-infectious

- Depressed
  - i. Erosions/Ulcers
    - 1. Painful: chancroid; Behcet's syndrome
    - 2. Painless: chancre; granuloma inguinale; lymphogranuloma venereum

Infectious

ii. Excoriations

# PRURITUS WITHOUT PRIMARY SKIN LESION

- a. Diabetes mellitus
- b. Cholestatic liver disease
- c. Chronic renal failure
- d. Hypo/hyperthyroidism
- e. Lymphoma; leukemia; PCV; essential thrombocythemia; myelodisplastic disease
- f. Delusions of parasitosis

#### **VASCULAR ABNORMALITIES**

- a. Cherry angioma
- b. Telangiectasia
- 2. Given a patient across all age groups, with signs and symptoms suggestive of the following disorders: 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, Evaluate
  - a. Keratotic Lesions
    - i. Actinic keratosis
    - ii. Seborrheic keratosis
  - b. Other cutaneous disorders
    - i. Acanthosis nigricans
    - ii. Burns
    - iii. Hidradenitis suppurativa
    - iv. Lacerations
    - v. Lipomas/epithelial inclusion cysts
    - vi. Melasma
    - vii. Photosensitivity reactions
    - viii. Pilonidal disease
    - ix. Pressure ulcers
    - x. Vitiligo
    - xi. Stasis dermatitis
    - xii. Urticaria
  - c. Neoplasms
    - i. Basal cell carcinoma
    - ii. Kaposi sarcoma
    - iii. Merkel cell
    - iv. Melanoma
    - v. Squamous cell carcinoma
  - d. Insects/Parasites
    - i. Lice
    - ii. Scabies
    - iii. Spider bites
  - e. Viral diseases
    - i. Condyloma acuminatum
    - ii. Exanthems
    - iii. Herpes simplex
    - iv. Molluscum contagiosum
    - v. Varicella-zoster

- vi. Verrucae
- f. Bacterial infections
  - i. Cellulitis
  - ii. Erysipelas
  - iii. Impetigo
  - iv. Folliculitis
- g. Fungal infections
  - i. Candidiasis
  - ii. Dermatophytes
- Differentiate between the cutaneous diseases listed above relative to their etiology (autoimmune, neoplastic, infectious, and inherited). Analysis, B2.07c
- 4. Propose treatments for the management of common dermatologic diseases. Application, B2.07e
- 5. Identify and perform common diagnostic tests in the evaluation of frequently encountered dermatologic diseases. Application, B2.07d
- 6. Interpret dermatologic manifestations of internal disease. Application, B2.07c
- 7. Differentiate between acute, chronic and emergent dermatologic disease and the differences in management. Analysis, B2.08b
- 8. Educate a patient on commonly utilized methods to prevent dermatologic disease. Knowledge, B2.08b
- 9. Discuss common dermatologic disorders presenting in children and in the elderly, their varying presentations and propose a management plan including consideration of age, co-morbidities and polypharmacy. Application, B2.02d, B2.07e, B2.08a
- <sup>10.</sup> Working with the appropriate health care professional, develop an appropriate patient education plan as needed. <sup>Application, B2.07f</sup>
- <sup>11.</sup> Working with the appropriate health care professional, recommend an appropriate patient referral plan as needed. <sup>Application, B2.07f</sup>
- 12. Working with the appropriate health care professional recommend a suitable rehabilitation plan as needed. Application, B2.08b
- 13. Working with the appropriate health care professional, recommend an appropriate palliative care plan for a patient facing end-of-life decisions. Application, B2.08e
- 14. Demonstrate skills in problem solving and medical decision-making through community learning group case discussions and activities. Application, B2.05
- 15. 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 a complete and focused dermatologic physical examination. Application, B2.07b
- 3. Accurately performing a punch biopsy and explaining the indications and contraindications of the procedure. Application, B2.09

- 4. Accurately performing an excisional biopsy and explaining the indications and contraindications of the procedure. Application, B2.09
- 5. Accurately performing a shave biopsy and explaining the indications and contraindications of the procedure. Application, B2.09
- 6. Performing basic suturing skills and techniques.  $^{\text{Application, B2.09}}$

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

# **UNIT INSTRUCTION**

UNIT	HOURS	LECTURES	LABS
Unit I	5	ORIENTATION Anatomy and Physiology	
		Pathophysiology	
	10	PHYSICAL DIAGNOSIS	Patient History
		CLINICAL MEDICINE	Physical Exam
		Signs and Symptoms	Shave biopsy
Unit II	15	CLINICAL MEDICINE	Patient History
		Signs and Symptoms	Physical Exam
			Punch biopsy
			Excisional biopsy

# REQUIRED TEXTS AND RECOMMENDED STUDY RESOURCES

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

\*\*Harrison's Principles of Internal Medicine 20/E (Vol.1 & Vol.2) 20th Edition by Dennis L. Kasper, Anthony S. Fauci, Stephen Hauser, Dan Longo, J. Larry Jameson, Joseph Loscalzo

ISBN-13: 978-1259644030 ISBN-10: 0071802150

\*\*Pathophysiology of Disease, 8<sup>th</sup> edition, Gary Hammer, Stephen J. McPhee McGraw-Hill 2019

ISBN-13: 978-1-260-02650-4

ISSN 1079-6185

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

ISBN-13: 978-1496398178 ISBN-10: 1496398173

\*\*Clinical Dermatology Soutor C, & Hordinsky M.K.(Eds.), (2017). McGraw Hill.

ISBN-13: 978-0071769150

\*\* Fitzpatrick's Dermatology, *9e*. Kang S, & Amagai M, & Bruckner A.L., & Enk A.H., & Margolis D.J., & McMichael A.J., & Orringer J.S.(Eds.), (2019). McGraw Hill.

ISBN-13: 978-0071837798

\*\*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

\*\*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

\*\*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

\*\*Current Medical Diagnosis and Treatment 2021, 60e

Author: Maxine A. Papadakis, Stephen J. Mcphee, Eds. & Michael Rabow, Assoc Ed

Publisher: McGraw-Hill ISBN: 978-1260469868

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

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

ISBN-10: 1455707813

\*\*Fitzpatrick's Color Atlas and Synopsis of Clinical Dermatology, 7e,

Klaus Wolff, Richard Allen Johnson, Arturo P. Saavedra

ISBN-13: 978-0071793025 ISBN-10: 007179302X

American Academy of Dermatology Educational Modules <a href="https://www.aad.org/education">https://www.aad.org/education</a>

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, reading assignments, community learning activities, and clinical skills labs. The class schedule and assignments can be found in Canvas.

#### 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.

- 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. No partial credit will be given for late assignments. Incompletes will only be assigned under extremely unusual circumstances. Late assignments receiving no credit must still be submitted. 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 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 (5<sup>th</sup> edition) addressed in this course: B2.02(a)(b)(c)(d), B2.03, B2.05, B2.07, B2.08, B2.09, B2.12(c), B4.03b, B4.03c, B4.03e