

PATHOLOGY OF INJURY AND ILLNESS (ATR 3085)

As of January 16, 2020

Spring 2020: January 16 – May 7, 2020 // Thursdays, 1:30 PM – 4:00 PM

Location: Kinesiology Building Classroom #2

Final Exam date: May 7, 2020, 1:30 PM – 4:00 PM

INSTRUCTOR:

Jehnan Liu, MD PhD

Point Loma Nazarene University Adjunct Professor

Emergency Medicine Physician

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Mobile / Text: (858) 603-5406

Office Hours: Available upon request (preferably before or after class, on campus)

COURSE DESCRIPTION:

An in-depth study of the etiology and treatment of illness. Mechanisms of injury, pathophysiology, risk factor assessment, diagnosis, treatment, and long-term health sequelae serve as the matrix for the study of pathology.

COURSE DESIGN:

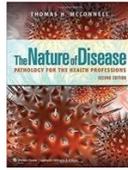
- Traditional lectures
- Problem Based Learning (PBL): In and out of class group activity
- Labs: Physical assessment skills
- Videos
- “Crack the Case” – Each student will research an assigned illness and pretend to be the patient for the class. Through simulation of obtaining a history, physical, vital signs, labs, imaging, differential diagnoses, and management, the class will try to solve the medical mystery.

LEARNING OBJECTIVES:

- Identify the greatest threats to health.
- Understand the pathophysiology and treatment of common disease processes.
- Communicate as clinicians using precise medical terminology.
- Develop problem-solving skills.
- Become self-directed learners.
- Learn to communicate and thrive within a group setting.
- Learn the art of history taking and the science of a physical examination.

COURSE MATERIALS:

1. TEXTBOOK



“The Nature of Disease: Pathology For the Health Professions”. (Second edition)
Thomas H. McConnell.

2. STETHOSCOPE:

Fairly good models available for \$30-50 (we do have some available for loan)

3. www.emedicine.com: free registration

COURSE OUTLINE: (*Agendas are subject to change*)

Jan. 16 (Ch. 1-2)	Introduction Cellular pathology	March 19 (Ch. 10)	Respiratory PBL #4
Jan. 23 (Videos)	Mental Illness PBL #1	March 26 (Ch. 11, 12, 13)	Gastrointestinal
Jan. 30 (Ch. 3)	Immune System Skills lab #1: vital signs	April 2 (Ch. 15)	Quiz #3 Renal
Feb. 6 (Ch. 4)	Quiz #1 Infectious disease	April 16 (Ch. 16 & 17)	Reproductive PBL #5
Feb. 13 (Ch.5&14)	Neoplasia Endocrine PBL #2	April 23 (Ch. 18)	Musculoskeletal Quiz #4
Feb. 20 (Ch. 7)	Quiz #2 Hematology	April 30 (Ch. 19)	Neurology Skills lab #3: neuro exam
Feb. 27 (Ch. 8-9)	Cardiovascular PBL #3	May 7	FINAL EXAM
March 5	MIDTERM Skills Lab #2: Physical exam		

GRADING:

1000 points

Midterm	200 points
Final Exam	200 points
Skills Lab: 3 Sessions	120 points
PBL sessions: 5 Assignments	250 points
Quizzes: 4 Quizzes	200 points
“Crack the Case” Assignment	30 points

Grade	Range
A	≥ 93%
A-	90-92%
B+	87-89%
B	84-86%
B-	80-83%
C+	77-79%
C	74-76%
C-	70-73%
D+	67-69%
D	64-66%
D-	60-63%
F	≤ 59%

OTHER IMPORTANT OBJECTIVES:

- Bring real-life clinical medicine into a college course.
- Equip you with the tools to pursue lifelong learning.
- Provide guidance to those who want to pursue a career in medicine.

ADVICE FOR THE COURSE:

- Enjoy the material
- Pay close attention in class. Exam questions will come from there.

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 becomes an expression of faith. Being of Wesleyan heritage, we aspire to be a learning community where grace is foundational, truth is pursued, and holiness is a way of life.

Kinesiology Core Competencies

ATR 385-2 Pathology of Injury & Illness

AC-36 Identify the signs, symptoms, interventions and, when appropriate, the return-to-participation criteria for:

AC-36a sudden cardiac arrest

AC-36b brain injury including concussion, subdural and epidural hematomas, second impact syndrome and skull fracture

AC-36e exertional sickling associated with sickle cell trait

AC-36f rhabdomyolysis

AC-36g internal hemorrhage

AC-36h diabetic emergencies including hypoglycemia and ketoacidosis

AC-36i asthma attacks

AC-36j systemic allergic reaction, including anaphylactic shock

AC-36k epileptic and non- epileptic seizures

AC-36o local allergic reaction

CE-2 Describe the normal anatomical, systemic, and physiological changes associated with the lifespan.

CE-3 Identify the common congenital and acquired risk factors and causes of musculoskeletal injuries

and common illnesses that may influence physical activity in pediatric, adolescent, adult, and aging populations.

CE-7 Identify the patient's participation restrictions (disabilities) and activity limitations

(functional limitations) to determine the impact of the condition on the patient's life.

CE-20 Use standard techniques and procedures for the clinical examination of common injuries, conditions, illnesses, and diseases including, but not limited to:

CE-20g respiratory assessments (auscultation, percussion, respirations, peakflow)

CE-20h circulatory assessments (pulse, blood pressure, auscultation)

CE-20i abdominal assessments (percussion, palpation, auscultation)

CE-20j other clinical assessments (otoscope, urinalysis, glucometer, temperature, ophthalmoscope)

CE-21 Assess and interpret findings from a physical examination that is based on the patient's clinical presentation. This exam can include:

CE-21i Cardiovascular function (including differentiation between normal and abnormal heart sounds, blood pressure, and heart rate)

CE-21j Pulmonary function (including differentiation between normal breath sounds, percussion sounds, number and characteristics of respirations, peak expiratory flow)

CE-21k Gastrointestinal function (including differentiation between normal and abnormal bowel sounds)

CE-21l Genitourinary function (urinalysis)

CE-21m Ocular function (vision, ophthalmoscope)

CE-21n Function of the ear, nose, and throat (including otoscopic evaluation)

CE-21o Dermatological assessment

CE-21p Other assessments (glucometer, temperature)

CE-22 Determine when the findings of an examination warrant referral of the patient to a physician. appropriate clinical reasoning in the selection of assessment procedures and interpretation of history and physical examination findings in order to formulate a differential diagnosis and/or diagnosis. Based on the history, physical examination, and patient goals, implement the appropriate treatment strategy to include medications (with physician involvement as necessary). Determine whether patient referral is needed, and identify potential restrictions in activities and participation. Formulate and communicate the appropriate return to activity protocol.

PHP-5 Explain the precautions and risk factors associated with physical activity in persons with common congenital and acquired abnormalities, disabilities, and diseases.

PHP-15 Use a glucometer to monitor blood glucose levels, determine participation status, and make referral decisions.

PHP-16 Use a peak-flow meter to monitor a patient's asthma symptoms, determine participation status, and make referral decisions.

PHP-17 Explain the etiology and prevention guidelines associated with the leading causes of sudden death during physical activity, including but not limited to:

PHP-17a Cardiac arrhythmia or arrest

PHP-17b Asthma

PHP-17e Hyponatremia

PHP-17f Exertional sickling

PHP-24 Summarize the general principles of health maintenance and personal hygiene, including skin care, dental hygiene, sanitation, immunizations, avoidance of infectious and contagious diseases, diet, rest, exercise, and weight control.

PHP-29 Explain the basic concepts and practice of fitness and wellness screening.

PS-13 Identify and describe the basic signs and symptoms of mental health disorders

(eg, psychosis, neurosis; sub-clinical mood disturbances (eg, depression, anxiety); and personal/social conflict (eg, adjustment to injury, family problems, academic or emotional stress, personal assault or abuse, sexual assault or harassment) that may indicate the need

for referral to a mental healthcare professional.

TI-3 Differentiate between palliative and primary pain-control interventions.

ATTENDANCE & PARTICIPATION:

Regular and punctual attendance at all classes is considered essential to optimum academic achievement. If the student is absent from more than 10 percent of class meetings, the faculty member has the option of filing a written report, which may result in de-enrollment. If the absences exceed 20 percent, the student may be de-enrolled without notice. If the date of de-enrollment is past the last date to withdraw from a class, the student will be assigned a grade of W or WF consistent with university policy in the grading section of the catalog. See [Academic Policies](#) in the (undergrad/graduate as appropriate) academic catalog.

ACADEMIC HONESTY:

Students should demonstrate academic honesty by doing original work and by giving appropriate credit to the ideas of others. As explained in the university catalog, 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. Violations of university academic honesty include cheating, plagiarism, falsification, aiding the academic dishonesty of others, or malicious misuse of university resources. A faculty member who believes a situation involving academic dishonesty has been detected may assign a failing grade for a) that particular assignment or examination, and/or b) the course following the procedure in the university catalog. Students may appeal also using the procedure in the university catalog. See [Academic Policies](#) for further information.

ACADEMIC ACCOMMODATIONS:

While all students are expected to meet the minimum academic standards for completion of this course as established by the instructor, students with disabilities may request academic accommodations. At Point Loma Nazarene University, students must request that academic accommodations by filing documentation with the [Disability Resource Center](#) (DRC), located in the Bond Academic Center. Once the student files documentation, the Disability Resource Center will contact the student's instructors and provide written recommendations for reasonable and appropriate accommodations to meet the individual needs of the student. See [Academic Policies](#) in the (undergrad/graduate as appropriate) academic catalog.

FERPA POLICY:

In compliance with federal law, neither PLNU student ID nor social security number should be used in publicly posted grades or returned sets of assignments without student written permission. This class will meet the federal requirements by (Note: each faculty member should choose one strategy to use: distributing all grades and papers individually; requesting and filing written student permission; or assigning each student a unique class ID number not identifiable on the alphabetic roster.). Also in compliance with FERPA, you will be the only person given information about your progress in this class unless you have designated others to receive it in the "Information Release" section of the student portal. See [Policy Statements](#) in the (undergrad/ graduate as appropriate) academic catalog.

FINAL EXAM POLICY:

Successful completion of this class requires taking the final examination **on its scheduled day**. The final examination schedule is posted on the [Class Schedules](#) site. No requests for early examinations or alternative days will be approved.