

## KIN3088: Assessment of Head, Spinal, and Upper Extremity Pathology

	Department of Kinesiology
	KIN3088
4 Units	
Fall 2022	

<b>Meeting days:</b> Monday/Wednesday	<b>Instructor:</b> Casey Waller, PT, DPT
<b>Meeting times:</b> 8-9:15 AM	<b>Phone:</b> (916) 833-8149
<b>Meeting location:</b> KIN1	<b>Email:</b> cwaller@pointloma.edu
<b>Final Exam:</b> Monday, December 12th, 7:30-10 AM	<b>Office location and hours:</b> TBD, as needed

### 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.

### Foundational Explorations Mission

PLNU provides a foundational course of study in the liberal arts informed by the life, death, and resurrection of Jesus Christ. In keeping with the Wesleyan tradition, the curriculum equips students with a broad range of knowledge and skills within and across disciplines to enrich major study, lifelong learning, and vocational service as Christ-like participants in the world's diverse societies and culture.

### COURSE DESCRIPTION

This course equips students to implement the S.O.A.P. method of orthopedic assessment to specific injuries of the axial skeleton, central nervous system, thorax, abdomen and upper extremity. Clinical role-playing in the lab setting will allow students to practice and master injury/illness examination through the use of the differential diagnosis process.

Through class lectures, course readings and the textbook, you will be asked to engage in the critical process of differential diagnosis while conducting orthopedic assessments for the above regions. Most classes will be in a lecture format in order to enable us to cover the wide expanse of material. We will also use segments of class meetings as labs to refine your clinical

assessment skills by using your colleagues as patients. This course is technology-enhanced in the sense that I've made all lecture slides, readings and discussion boards available on Canvas. You are upper division students and should naturally be actively engaged with the course material. My goal in taking this approach is for you to take ownership of your learning and to actively seek knowledge and develop the "clinical mind" rather than being passive 'receivers of knowledge'.

To be successful in this course, you should always take the mindset of actively synthesizing information presented in lecture and lab and applying it to the clinical setting. Specifically, this means that studying for quizzes and tests should involve reviewing and integrating the essential ideas by asking the "Why?" and "So what does this mean?" questions.

## **COURSE LEARNING OUTCOMES**

KIN3088 will prepare you to:

- *Utilize and master the components of the orthopedic examination process (i.e. perform a thorough history, palpate, and utilize Special Tests) to determine the presence of physical problems in patients.*
- *Discover and execute the process of differential diagnosis, which involves determining which pathology-from among a variety of conditions-is the probable cause of an individual's symptoms.*
- *Describe and appraise the etiology, symptoms, signs and management of upper extremity injuries.*
- *Research, summarize, and critique contemporary literature on the evaluation and management of potentially catastrophic injuries to the cervical spine and brain.*
- *Through laboratory sessions, practice and become proficient in the clinical evaluation of upper extremity posture, flexibility, neurological static, and muscular strength.*

## **REQUIRED TEXTS AND RECOMMENDED STUDY RESOURCES**

*Required:*

**Title:** Examination of Orthopedic and Athletic Injuries, 4<sup>th</sup> Ed. (you may buy 3<sup>rd</sup> or 4<sup>th</sup> edition of this book)

**Author:** Chad Starkey; Sara D. Brown

**ISBN:** 978-0-8036-3918-8

**Publisher:** F. A. Davis Company

**Publication Date:** 2015

*Recommended:*

**Title:** Special Tests for Orthopedic Examination, 3<sup>rd</sup> edition

**Author:** Jeff G. Konin; Holly Brader; Jerome A. Isear; Denise L. Wiksten

**ISBN:** ISBN 978-1-55642-741-1

**Publisher:** SLACK, Inc

**Publication Date:** January 28, 2006

**Price:** \$47.95

## **COURSE CREDIT HOUR INFORMATION**

In the interest of providing sufficient time to accomplish the stated Course Learning Outcomes, this class meets the PLNU credit hour policy for a 4 unit class delivered over 16 weeks. It is anticipated that students will spend a minimum of 37.5 participation hours per credit hour on their coursework. For this course, students will spend an estimated 150 total hours meeting the course learning outcomes. The time estimations are provided in the Canvas modules.

## **ASSESSMENT AND GRADING**

### **1. Quizzes (7 quizzes, 10 pts each)**

- *We will use weekly quizzes to assess understanding, keep on track, and then answer any questions that may come up throughout the semester. These quizzes are meant to be low-stakes, non-stressful, and ultimately focused on keeping both myself and our class on track.*

### **2. Patient Case Differential Diagnosis Outlines (DDx) (6 DDx Assignments, 10 pts each)**

- *These outlines require you to demonstrate the differential diagnosis process for various joints. The process refines your ability to determine (“rule in”) an injury from which a patient is suffering while excluding (“ruling out”) conditions that the examination findings do not support.*
- *Utilizing an outline format, outline the History, Inspection, Palpation, and Special Tests (including Functional, Ligamentous, and Neurological tests) used to assess pathologies in the following regions:*
  - *Lumbar and Thoracic Spine*
  - *Abdominal/Thorax*
  - *Cervical Spine*
  - *Brain, Face, EENT, Vestibular*
  - *Shoulder*
  - *Elbow*
  - *Wrist/Hand*
- *Outlines are due as indicated on the course schedule.*
- *Utilize and reference sources to support your findings.*
- *For the History section: after listing a specific question, provide specific rationale for asking that question (i.e., When you ask what a patient ate for breakfast, what specific symptom are you evaluating?)*
- *For Special Tests section: provide the specific pathology ruled-out with each test (e.g., When you perform the Straight Leg Raise, what specific pathology are you attempting to rule in/out?).*

### **3. Current Concepts Critique (1 assignment, 50 pts)**

- *To supplement the textbook and our in-class discussions, you will be asked to read “current concepts” articles published recently in sports medicine journals throughout the semester and write a 1-2 page synthesis paper. The topics of the articles will be of your choosing and must coincide with topics covered in class lecture. The intent of this assignment is for you to be exposed to recent advances in the assessment, surgical repair, and prevention of particular upper extremity injuries. \*\*You will be asked to share key findings during class in order to facilitate discussion.*
- *In groups of 3-4 students, choose 2 articles on a topic of your choosing to discuss, complete write up, and cover during class session (date shown on course schedule). Only one critique required per group, but there must be evidence that each member actively engaged in article finding, group discussion, write up, and class discussion.*

*Format: each critique should be no longer than 1-2 double-spaced pages, 12pt font*

*Specific contents: the four components required for each critique are:*

*Bibliographic information (e.g., author, title, journal, volume, pages, year)*

*Key points of article (focus on new information/new perspective learned)*

*Critique: Strengths & Weaknesses of each article*

*Synthesis: Practical applications of the information presented (cite the “take-home” lesson)*

### **4. Lab Practical (2 midterm practical, 30 pts each; Final practical, 50 pts)**

- *Lab practicals will be assigned at the completion of each anatomically specific unit to evaluate student mastery of the psychomotor skills required of the allied health care professional. You will be given a patient case, and asked to demonstrate and interpret the results of the most pertinent assessments.*
- *These will take place on the day of each unit exam. You and a partner will be given a patient case with prompts. An example has been posted on canvas to be used in preparation.*
- *During the practical exam you should demonstrate:*
  - *Creation of comprehensive objective exam for the involved region*
  - *Specific direction on patient positioning, direction of testing, S/S of a positive test, and pathology that each test rules in/out*
  - *Ability to interpret exam findings in order to rule up or down a suspected pathology*
  - *Wherever possible, comment on the reliability, sensitivity, specificity and predictive ability of the special tests that you choose (It is critical to understand which are the most clinically useful and valuable tests to choose when conducting a differential evaluation.*

### **5. Lecture Exams (2 Exams, 50 pts each; 1 “Mini-Exam”, 30 pts; and Final exam, 100 pts)**

- *We will have unit examinations to measure your mastery of the material. The final exam will be comprehensive and will require that you have a firm grasp of the orthopedic evaluation process for all joints of the upper extremity that we cover in class. It benefits you to speak with me early about if you will be unable to complete the exam by the indicated date, or if a family emergency has come up. There are no provisions for early or make-up examinations if you do not communicate clearly in advance.*
- *Examinations should be regarded as an assessment of your readiness to progress toward your given allied health care profession. They will also serve as a learning experience because I will provide detailed feedback for you. Finally, they are an opportunity to be accountable for your learning.*

### **6. Executive Summary: Review of Current Literature (1 assignment, 100 pts)**

- *Requirements: A formal paper is required based upon a thorough review and critical analysis of the current literature on one of the topics below. While a traditional research paper requires extensive analysis and writing, an executive summary summarizes or reviews the main points of a current topic for an audience that may not have time to read the literature on that topic. An effective executive summary analyzes and summarizes the most important points of the topic, and will often make a recommendation based on the analysis. Executive summaries are “stand alone” documents that give an audience the best current advice on a topic.*
- *Expectations are high for this paper; the finished product should be of such quality as to be eligible for submission to a peer-reviewed journal or to a student-writing contest (such as the NATA, APTA, or other foundation). You are free to select a topic of your choice on which to write your executive summary (your title does not have to match these exactly. Be innovative, but please have your professor review your working title if it deviates from those below.) I will have you turn in your Abstract, Introduction and Sources on a separate occasion before the final paper.*
- *Examples:*
  - *Evidence-based diagnosis and treatment of the Sacroiliac Joint*
  - *Assessment of the Cervical Spine: pathomechanics, injuries and management strategies*
  - *Classification systems for lumbar spine pathology: which classification system is best?*
  - *Evidence based treatment and return to play guidelines for Mild Traumatic Brain Injury.*
  - *“Differential Diagnosis of Glenohumeral Impingement Syndromes”*
  - *“Differential Diagnosis of Glenohumeral Instability” or “Surgical options for treating anterior glenohumeral instability”.*
  - *Another topic which has been approved by Dr. Waller.*

**Grades will be based on the following:**

### Assignment:

- Quizzes 7@10 pts each=70 pts
- Patient Case Ddx Outlines (6@5 pts each)=30 pts
- Midterm Lab Practicals 2@30 pts each=60 pts
- Written Exams 2@50 pts and 1@30 pts=130 pts
- Executive Summary=100 pts
- Current Concepts Critique=50 pts
- Final Exam Written (100 pts) and Practical Exam (50 pts)=150 pts

**Sample Standard Grade Scale Based on Percentages**

<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>F</b>
A 94-100	B+ 87-89	C+ 77-79	D+ 67-69	F Less than 59
A- 90-93	B 84-86	C 74-76	D 64-66	
	B- 80-83	C- 70-73	D- 60-63	

### **SPIRITUAL CARE**

PLNU strives to be a place where students grow as whole persons. To this end, we provide resources for our students to encounter God and grow in their Christian faith.

If you have questions, a desire to meet with the chaplain, or if you have prayer requests, you can contact the [Office of Student Life and Formation](#).

### **STATE AUTHORIZATION**

State authorization is a formal determination by a state that Point Loma Nazarene University is approved to conduct activities regulated by that state. In certain states outside California, Point Loma Nazarene University is not authorized to enroll online (distance education) students. If a student moves to another state after admission to the program and/or enrollment in an online course, continuation within the program and/or course will depend on whether Point Loma Nazarene University is authorized to offer distance education courses in that state. It is the student's responsibility to notify the institution of any change in his or her physical location. Refer to the map on [State Authorization](#) to view which states allow online (distance education) outside of California.

### **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. Incompletes will only be assigned in extremely unusual circumstances.

### **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 [Academic Policies](#) for definitions of kinds of academic dishonesty and for further policy information.

### **PLNU ACADEMIC ACCOMMODATIONS POLICY**

PLNU is committed to providing equal opportunity for participation in all its programs, services, and activities. Students with disabilities may request course-related accommodations by contacting the Educational Access Center (EAC), located in the Bond Academic Center ([EAC@pointloma.edu](mailto:EAC@pointloma.edu) or 619-849-2486). Once a student's eligibility for an accommodation has been determined, the EAC will issue an academic accommodation plan ("AP") to all faculty who teach courses in which the student is enrolled each semester.

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 and/or if they do not wish to utilize some or all of the elements of their AP in that course.

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.

### **SEXUAL MISCONDUCT AND DISCRIMINATION**

Point Loma Nazarene University faculty are committed to helping create a safe learning environment for all students. If you (or someone you know) have experienced any form of sexual discrimination or misconduct, including sexual assault, dating or domestic violence, or stalking, know that help and support are available through the Title IX Office at [pointloma.edu/Title-IX](http://pointloma.edu/Title-IX). Please be aware that under Title IX of the Education Amendments of 1972, it is required to disclose information about such misconduct to the Title IX Office.

If you wish to speak to a confidential employee who does not have this reporting responsibility, you can contact Counseling Services at [counselingservices@pointloma.edu](mailto:counselingservices@pointloma.edu) or find a list of campus pastors at [pointloma.edu/title-ix](http://pointloma.edu/title-ix)

### **COURSE MODALITY DEFINITIONS**

**1. In-Person:** Course meetings are face-to-face with no more than 25% online delivery.

**2. Online:** Coursework is completed 100% online and asynchronously.

**3. Online Synchronous:** Coursework is completed 100% online with required weekly online class meetings.

**4. Hybrid:** Courses that meet face-to-face with required online components.

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## **PLNU ATTENDANCE AND PARTICIPATION POLICY**

Regular and punctual attendance at all class sessions is considered essential to optimum academic achievement. 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 drop date or, after that date, receive the appropriate grade for their work and participation.

In some courses, a portion of the credit hour content will be delivered **asynchronously** and attendance will be determined by submitting the assignments by the posted due dates. See [Academic Policies](#) in the Undergraduate Academic Catalog. If absences exceed these limits but are due to university excused health issues, an exception will be granted.

### **Asynchronous Attendance/Participation Definition**

A day of attendance in asynchronous content is determined as contributing a substantive note, assignment, discussion, or submission by the posted due date. Failure to meet these standards will result in an absence for that day. Instructors will determine how many asynchronous attendance days are required each week.

## **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 require 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.