



COLLEGE OF HEALTH SCIENCES
Master of Science In Athletic Training

Fall 2024

ATR5087/6087 - Assessment of Lower Extremity (3-units)
ATR5087L6087L - Assessment of Lower Extremity Lab (1-unit)

Course Information

Meeting Day: Thursday

Meeting Time: 9:30am - 1:00pm

Final Exam Day: Thursday

Final Exam Time: 9:30 - 12:30

Instructor Information

Instructor: Nicole Cosby, PhD

Email: ncosby@pointloma.edu

Office Hours: By appointment only.

[Download Course Syllabus Here](#)

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 addresses evaluation techniques and care for musculoskeletal injuries to the lower extremities for graduate-level athletic training students. The student must integrate knowledge of anatomical structures, physiology principles, and evaluative techniques to provide a basis for evidence based critical decision-making in an injury management environment.

This course is designed to provide students with a comprehensive hands-on approach to injury evaluation and assessment of lower extremity pathologies. During this lab students will learn and begin to develop a systematic approach to injury evaluation. Students will learn special testing and injury evaluation techniques.

Pre or Corequisite(s): ATR 6087

PROGRAM LEARNING OUTCOMES

The Point Loma Nazarene University MS-AT graduate will be able to:

1. Demonstrate the knowledge and skills required to become a certified athletic trainer.
2. Critically evaluate and integrate the best available evidence for clinical decision making.
3. Deliver new evidence that is intended to change clinical practice to various healthcare communities through scholarly research presentations and symposiums.
4. Describe the importance of collaborating with multiple healthcare professionals and diverse patient populations to improve patient care.
5. Demonstrate preparedness for their vocation and calling.

COURSE LEARNING OUTCOMES

At the completion of the course, the student should be able to:

1. Define terminology pertinent to anatomical positions, motions, and sites related to the lower extremity, hip, pelvis, and lumbar spine. PLO #1, CAATE #70
2. Explain physiological properties of specific tissues (i.e., muscles, tendons, cartilage, bone & nerves), and what impact these properties have on trauma and healing PLO#1, CAATE#70
3. Define the components and demonstrate a primary & secondary survey used for injury assessment. PLO#1, CAATE#71
4. Develop a consistent assessment protocol for evaluating the lower extremity, hip, pelvis and lumbar spine. PLO#1, CAATE#71
5. Acquire the ability to consistently explain assessment findings at both the professional and patient level. PLO#1, CAATE#70,71

6. Identify and describe the common mechanisms, pathologies, signs and symptoms of sport-related injuries of the lower extremity, hip, pelvis and lumbar spine. PLO#1, CAATE#70,71
7. Describe normal motions and positions of the body during all phases of the gait cycle. Correctly identify and use common medical terminology and abbreviations. PLO#1, CAATE#70,71
8. Identify and palpate bony landmarks & soft tissue structures of the lower extremity, pelvis and lumbar spine. PLO#1, CAATE#70,71
9. Describe and demonstrate skill in performing appropriate range of motion tests, manual muscle testing, neurological assessments and special tests for lower extremity, hip, pelvis and sacroiliac injuries. PLO#1, CAATE#70,71

CAATE STANDARDS

Standard 70

Evaluate and manage patients with acute conditions, including triaging conditions that are life threatening or otherwise emergent. These include (but are not limited to) the following conditions:

Fractures and Dislocations

Musculoskeletal Injuries related to the lower extremity, hip, pelvis and sacroiliac joint

Standard 71

Perform an examination to formulate a diagnosis and plan of care for patients with health conditions commonly seen in athletic training practice. This exam includes the following:

Obtaining a medical history from the patient or other individual

Identifying comorbidities and patients with complex medical conditions

Assessing function (including gait)

Selecting and using tests and measures that assess the following, as relevant to the patient's clinical presentation:

Musculoskeletal system

Neurological system

Evaluating all results to determine a plan of care, including referral to the appropriate provider when indicated

REQUIRED TEXTS AND RECOMMENDED STUDY RESOURCES

Lecture

Title: Examination of Orthopedic & Athletic Injuries, 5th edition

Author: Chad Starkey and Sara D. Brown

ISBN: 978-0803690158

Publisher: FA Davis

Price: \$95-\$135

Lab

Title: Special Tests for Orthopedic Examination

Author: Jeff G. Konin PhD ATC PT , Denise Lebsack PhD ATC , Alison Snyder Valier PhD AT , Jerome A. Isear Jr. MS PT ATC-L

ISBN: 978-1617119828

Publisher: Slack

Price: \$57-\$77

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 15 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 & GRADING

Assignment Name	Number	Points	Total Points	Knowledge Assessed
Class Assignments				
Units 1-6 Discussion Board Lectures	6	5	30	Discussion Board
Units 1-6 Injury Assessment Outlines	3	30	150	Written

Goniometry Videos	1	100	100	Video
Goniometry Discussion Board	3	20	60	
Unit 1 Fracture Assignment	1	30	30	Written
Unit 1 Injury Evaluation Assignment	1	40	40	Written
Unit 1 Lower Quarter Screen Assignment	1	50	50	Written and Video
Unit 2 Muscle Activity Sheets	1	30	30	Written
Unit 2 Gait Analysis	1	40	40	Written
Written Exams and Quizzes				
Knowledge Check Kahoots	3	5	15	In Class Quiz
Unit 1 Quiz	1	24	24	In Class Quiz
Unit 1 Exam	1	49	49	Online
Unit 2-3 Exam	1	88	88	In Class Test
Unit 4 Exam	1	74	74	In Class Test
Unit 5 Exam	1	75	75	In Class Test
Final Exam	1	148	148	In Class Test
Exam Reflections	4	5	20	
Practical Exams				
Unit 3	1	100	100	In Class
Unit 4	1	100	100	In Class

Unit 5	1	100	100	In Class
Final Practical	1	100	100	In Class
Point Totals			1423	

ASSIGNMENT DETAILS

Lecture Discussion Boards (5 points each)

Students will be required to watch weekly online lectures and then respond within the discussion board prompts. These discussion boards are designed to ensure that the student is engaging in the online lecture.

Discussion Board Expectations

Initial Post should be at least 300 words in length and responses at least 200 words in length.

Please see specific discussion board posts for other requirements

Quizzes

Multiple choice and select questions that are designed to assess your content knowledge following the lecture and classroom learning. These are designed to prepare students for the board of certification examination.

Kahoots (5 points each)

In class quizzes to gauge student understanding on lecture content. Students MUST be present in class to receive full credit for this quiz.

Fracture Assignment (30 points)

As a way to address CAATE standard #70 and to ensure that students have an understanding of different fracture types you are being asked to critically think about the implications of specific fractures on growth, function and participation in sport. Additionally, students will be asked to decide how to splint the fracture and if the fracture should be reduced.

Injury Evaluation Process and Concept Mapping (40 points)

Students will be asked to create a concept map of the injury evaluation process following the three part lecture online. You will be asked to provide an in depth analysis of the SOAP and HIPS process and to really consider all of the interdisciplinary pathways. This homework assignment will also address CAATE standard #71.

LATE SUBMISSION POLICY

Late submissions are not allowed unless in the event of an unusual circumstance, which will need to be approved by faculty **prior to the day** and time the assignment is due. If you turn in a late assignment, you will receive a 10% deduction in your grade for each day the assignment is late.

ASSESSMENT & GRADING SCALE

Course Assignment Distribution	Grade Scale	
Lecture Content - 60% of Grade	A = 92.5-100	C = 73.5-77.4
Lab Content - 40% of Grade	A- = 89.5-92.4	C- = 69.5-73.4
	B+ = 87.5-89.4	D+ = 67.5-69.4
	B = 83.5-87.4	D = 63.5-67.4
	B- = 79.5-83.4	D- = 59.5-63.4
	C+ = 77.5-79.4	F = Less than 59.4

Students must complete the required program hours in the major (program) from Point Loma Nazarene University with a minimum grade of "C" in each course and an overall 3.00 grade point average.

Grading System

Traditional letter grades (A, B, C, D, F) including plus and minus grades are used to indicate the level of scholarship earned for each course. Except for the correction of an error, all traditional letter grades are final at the conclusion of the academic term. Once the degree has been posted on the student's official transcript, no change of grade action is allowed for courses leading to the degree. The grade of C is the lowest grade acceptable for graduate credit.

GENERAL INFORMATION & POLICIES

PLNU SPIRITUAL CARE

PLNU strives to be a place where you grow as whole persons. To this end we provide resources for our graduate students to encounter God and grow in their Christian faith. At the Balboa campus we have an onsite chaplain, Rev. Kevin Portillo who is available during class break times across the week. If you have questions, desire to meet with Rev. Portillo or prayer requests you can contact him directly at KevinPortillo@pointloma.edu.

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

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. For all student appeals, faculty and students should follow the procedures outlined in the University Catalog. See [Graduate Academic and General Policies](#) for definitions of kinds of academic dishonesty and for further policy information.

ARTIFICIAL INTELLIGENCE (AI) POLICY

You are allowed to use Artificial Intelligence (AI) tools (e.g, ChatGPT, iA Writer, Marmot, Botowski) to generate ideas, but you are not allowed to use AI tools to generate content (text, video, audio, images) that will end up in any work submitted to be graded for this course (unless otherwise permitted). If you have any doubts about using AI, please gain permission from the instructor.

If the professor determines that you have used AI to generate content and the work being turned in is not your own you will automatically receive a zero on that assignment.

CONTENT WARNING

I acknowledge that each of you comes to PLNU with your own unique life experiences. This contributes to the way you perceive various types of information. In [class name], all of the class content, including that which may be intellectually or emotionally challenging, has been intentionally curated to achieve the learning goals for this course. The decision to include such material is not taken lightly. These topics include [list topics]. If you encounter a topic that is intellectually challenging for you, it can manifest in feelings of discomfort and upset. In response, I encourage you to come talk to me or your friends or family about it. Class topics are discussed for the sole purpose of expanding your intellectual engagement in the area of [subject/major], and I will support you throughout your learning in this course.

TRIGGER WARNING

I acknowledge that each of you comes to PLNU with your own unique life experiences. This contributes to the way you perceive several types of information. In [class name], we will cover a variety of topics, some of which you may find triggering. These topics include [list topics]. Each time this topic appears in a reading or unit, it is marked on the syllabus. The experience of being triggered versus intellectually challenged are different. The main difference is that an individual must have experienced trauma to experience being triggered, whereas an intellectual challenge has nothing to do with trauma. If you are a trauma survivor and encounter a topic in this class that is triggering for you, you may feel overwhelmed or panicked and find it difficult to concentrate. In response, I encourage you to take the necessary steps for your emotional safety. This may include leaving class while the topic is discussed or talking to a therapist at the Counseling Center. Should you choose to sit out on discussion of a certain topic, know that you are still responsible for the material; but we can discuss if there are other methods for accessing that material and for assessing your learning on that material. Class topics are discussed for the sole purpose of expanding your intellectual engagement in the area of [subject/major], and I will support you throughout your learning in this course.

PLNU ACADEMIC ACCOMMODATIONS POLICY

PLNU is committed to providing equal opportunity for participation in all its programs, services, and activities in accordance with the Americans with Disabilities Act (ADA). Students with disabilities may request course-related accommodations by contacting the Educational Access Center (EAC), located in the Bond Academic Center (EAC@pointloma.edu or 619-849-2486). Once a student's eligibility for an accommodation has been determined, the EAC will work with the student to create an Accommodation Plan (AP) that outlines allowed accommodations. The EAC makes accommodations available to professors at the student's request.

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. Accommodations are not retroactive so clarifying with the professor at the outset is one of the best ways to promote positive academic outcomes.

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. Students cannot assume that because they had accommodations in the past, their eligibility at PLNU is automatic. All determinations at PLNU must go through the EAC process. This is to protect the privacy of students with disabilities who may not want to disclose this information and are not asking for any special accommodations.

LANGUAGE & BELONGING

Point Loma Nazarene University faculty are committed to helping create a safe and hospitable learning environment for all students. As Christian scholars we are keenly aware of the power of language and believe in treating others with dignity. As such, it is important that our language be equitable, inclusive, and prejudice free. Inclusive/Bias-free language is the standard outlined by all major academic style guides, including MLA, APA, and Chicago, and it is the expected norm in university-level work. Good writing and speaking do not use unsubstantiated or irrelevant generalizations about personal qualities such as age, disability, economic class, ethnicity, marital status, parentage, political or religious beliefs, race, gender, sex, or sexual orientation. Inclusive language also avoids using stereotypes or terminology that demeans persons or groups based on age, disability, class, ethnicity, gender, race, language, or national origin. Respectful use of language is particularly important when referring to those outside of the religious and lifestyle commitments of those in the PLNU community. By working toward precision and clarity of language, we mark ourselves as serious and respectful scholars, and we model the Christ-like quality of hospitality.

If you (or someone you know) have experienced other forms of discrimination or bias, you can find more information on reporting and resources at www.pointloma.edu/bias.

SEXUAL MISCONDUCT & DISCRIMINATION

In support of a safe learning environment, 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 accommodations and resources are available through the Title IX Office at pointloma.edu/Title-IX. Please be aware that under Title IX of the Education Amendments of 1972, faculty and staff are 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 or find a list of campus pastors at pointloma.edu/title-ix or as shown in the PLNU Spiritual Care section of this syllabus.

If you (or someone you know) have experienced other forms of discrimination or bias, you can find more information on reporting and resources at www.pointloma.edu/bias

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.

Please keep in mind that courses in the athletic training program only meet once a week. This means a student can miss up to two class sessions before being de-enrolled.

PLNU COURSE MODALITY DEFINITIONS

Online Courses: These are courses with class meetings where all instruction and interaction is fully online.

- a. Synchronous Courses: At least one class meeting takes place at a designated time.
- b. Asynchronous Courses: All class meetings are asynchronous.

Hybrid Courses: These are courses with class meetings that take place both in the classroom and online synchronously and/or asynchronously.

In-Person Courses: These are courses that meet in person with the instructor and students in a physical classroom setting. With approval by the area dean, this may include up to 25% of qualified class interactions through a Learning Management System (such as Canvas).

Synchronous Attendance/Participation Definition

For synchronous courses which have specific scheduled meeting times (including in-person, hybrid, and synchronous online courses), absences are counted from the first official meeting of the class regardless of the date of the student's enrollment. For courses with specific attendance requirements, those requirements are outlined in the course syllabus.

Note: For synchronous courses with an online asynchronous week, refer to the Online Asynchronous Class Attendance policy listed below.

Online Asynchronous Attendance/Participation Definition

Students taking online courses with no specific scheduled meeting times are expected to actively engage throughout each week of the course. Attendance is defined as participating in an academic activity within the online classroom which includes, but is not limited to:

- Engaging in an online discussion
- Submitting an assignment
- Taking an exam
- Participating in online labs
- Initiating contact with faculty member within the learning management system to discuss course content

Note: Logging into the course does not qualify as participation and will not be counted as meeting the attendance requirement.

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 requires 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.

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

GPS ACADEMIC RESOURCES

PLNU offers the following free academic resources virtually for Graduate Professional Studies (GPS) Students. Visit myPLNU through the links below for more information.

- [The GPS Writing Center](#) offers:
 - **Zoom Writers Workshops** offered each quad on a variety of helpful topics
 - **One-to-one appointments** with the Writing Coach
 - **Microlearning YouTube Video Library** for helpful tips anytime
 - [Research Help Guide](#) to help you start your research
 - The physical office is located on the third floor of the [Mission Valley Regional Center](#) off the student lounge
- **[Academic Writing Resources Course](#)**: Found on your Canvas Dashboard, this course is non-credit with 24/7 access, no time limits, and self-paced content. [Watch a quick video run-through](#) and take time now to explore!
- **Grammarly**: Students have unlimited FREE access to Grammarly for Education, a trusted tool designed to help enhance writing skills by providing real-time feedback, identifying areas for improvement, and providing suggestions. Grammarly's Generative AI is NOT available with our student accounts.
- **[Tutoring](#)**: Students have access to 24/7 live or scheduled subject tutoring through Tutor.com, including a Paper Drop-Off Service with feedback within 12 hours.

We are here to support you! Contact us anytime: GPSWritingCenter@pointloma.edu

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.

Tentative Schedule

Orthopedic Assessment of Lower Extremity Injuries

Lecture and Lab Calendar

Week	Lecture	Assignments and Reading	Lab
UNIT ONE - THE INJURY EVALUATION PROCESS (CHAPTER 1 and 4)			
1	<u>Injury Evaluation Process Part I</u> <u>Injury Evaluation Process Part II</u> <u>Injury Evaluation Process Part III</u>	Chapter 1 Chapter 4 In class: Case Studies Application	<u>SOAP NOTE Review</u> and Medical Terminology Abbreviation Quiz <u>LQS</u>
UNIT TWO - POSTURE and GAIT (CHAPTER 6-7)			
Week	Lecture	Assignments and Reading	Lab

2	<u>Healthy Gait Patterns and Static Posture</u> <u>Pathological Gait Patterns</u>	Reading: Chapter 6 Assignment Due: <u>Concept Mapping - Injury Evaluation Process</u> Assignment Due: <u>Fracture Assignment</u>	Gait LQS <u>Gait Lecture Lab</u>
		Reading: Chapter 7 Assignment: Online Exam #1	
UNIT THREE - LOWER LEG, ANKLE, FOOT, TOES (CHAPTER 8-9)			
Week	Lecture	Assignments and Reading	Lab

3	<u>Foot and Toes Part I</u>	Reading: Chapter 8 Goniometry Video #1 Assignment: Goniometry Video #1 DB Assignment: <u>Muscle Activity Sheets</u>	
	<u>Foot and Toes Part II</u>	Reading: Chapter 8	LQS Assignment <u>Foot and Toe Lab Part I</u> <u>Foot and Toe Lab Part II</u>
4	Foot finished <u>Ankle and Lower Leg Part I</u>	Reading: Chapter 8-9 Goniometry Video #2 Assignment: Goniometry Video #2 DB	
	<u>Ankle and Lower Leg Part I</u>	Reading: Chapter 9 Watch: How to complete the injury assessment outline	<u>Ankle Lab Part I</u>
5	<u>Ankle and Lower Leg Part II</u>	Reading: Chapter 9 Assignment Due: <u>Injury Assessment Outlines - The Ankle, Foot, Toes</u>	
	Written Exam Unit 2	Gait Analysis Video	Foot, Toe, Ankle Lab Practical
UNIT FOUR - KNEE JOINT (CHAPTER 10-11)			
Week	Lecture	Assignments and Reading	Lab

6	<u>Knee Joint Anatomy Part I</u>	Reading: Chapter 10-11	
	<u>Knee Joint Anatomy Part II</u>	Reading: Chapter 10-11 Assignment: special Testing Video Knee Group 1	<u>Knee Palpations, Goni and MMT</u> <u>Knee Special Tests</u>
7	<u>Pathologies of the knee</u>	Reading: Chapter 10-11	
	<u>Pathologies of the knee</u>	Reading: Chapter 10-11	<u>Knee Special Tests (same video)</u>
8	<u>PFP Anatomy</u>	Reading: Chapter 10-11 Goniometry Video #3 Goniometry Video #3 DB	
	<u>PFP Pathologies</u>	Reading: Chapter 10-11 Assignment Due: Knee <u>Injury Assessment Outline</u>	PFP Lab
9	Knee Case Studies		
	Unit Exam		Lab Practical
UNIT FIVE- HIP and THIGH (CHAPTER 12)			

10	<u>Clinical Anatomy</u>	Reading: Chapter 12 Special Testing Video Hip	
	<u>Observation, History</u>	Reading: Chapter 12 Assignment Due:	<u>Hip Lab</u>
11	<u>Pathologies of the Hip and Thigh</u>	Reading: Chapter 12	
	<u>Pathologies of the hip and thigh (same lecture review)</u>	Reading: Chapter 12	<u>Hip Lab</u> (Same Video As Last Week)
12	UNIT EXAM	Hip and Thigh Injury Assessment Outline	
UNIT SIX- THE PELVIS (CHAPTER 12)			

12	<u>Clinical Anatomy of Pelvis</u>	Reading: Chapter 12	Hip Lab Practical
13	<u>Clinical Anatomy of Pelvis</u>	Assignment: Hip and Pelvis Injury Assessment Outline	
	THANKSGIVING BREAK	THANKSGIVING BREAK	THANKSGIVING BREAK
14	<u>SIJ Pathologies</u>	Reading: Chapter 12	
	<u>SIJ Pathology</u>	Reading: 664-679	<u>Pelvis Lab</u>
15	UNIT EXAM	Pelvis	
			<u>Pelvis Lab</u>
Finals	Final Examination Cumulative 8:00-10:30		
Finals	Final Lab Practical 8:00-12:00		