ATR687L-1 FA18 - Evidence Based Orthopedic Assessment Of The Lower Extremity

Department of Kinesiology
ATR 687L: Evidence Based Orthopedic Assessment of the Lower Extremity Lab
Number of Units: 1
Fall 2018

Point Loma Nazarene University Mission

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 Department Mission

The mission of the Department of Kinesiology is to prepare students to inform, maintain and improve the health, fitness and quality of life of themselves and the people they serve. The department is committed to educating our students and community in the science and benefits of optimal health and human performance; to developing in all students a lifelong habit of living healthfully; and to preparing students for the variety of career opportunities that utilize Kinesiology as a foundation.

Athletic Training Program Mission

The mission of the Athletic Training Program *is to* challenge and fully equip students to become highly effective allied health care professionals and lifelong learners who incorporate a Christian perspective, academic excellence and professional/relational proficiency. Point Loma's athletic training program will consist of extensive laboratory and clinical experiences designed to provide a multifaceted learning experience that incorporates current research and scholarly instruction. The desired outcome of the curriculum is to emphasize an evidence-based approach to healthcare with the integration of Christian faith to produce intellectually and spiritually sound clinicians who are service oriented and focused on providing patient-centered care. Graduates will achieve the entry-level competencies necessary to take and pass the certification examination offered by the National Athletic Trainers' Association Board of Certification (Links to an external site.)Links to an external site. (NATABOC).

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. To be successful

in this course, students must synthesize information presented in the lecture and laboratory and apply it to the clinical setting.

Graded assignments (e.g., tests, quizzes, assessment outlines and review of literature paper) will be used to help students identify, recall, synthesize and apply the key concepts in orthopedic assessment of the lower extremity.

Program Learning Outcomes

1. To prepare students to demonstrate competency in interpreting evidence-based research and improving clinical standards and practice through clinical question development and research methodology
2. To prepare students to develop expertise in the athletic training domains through an integrative experiential clinical model
3. To equip students with appropriate knowledge and educational foundation required for an entry-level Certified Athletic Trainer
4. To prepare students to establish and understand the importance of inter-professional relationships, while collaborating with other health care professionals to become effective communicators
5. To prepare students to demonstrate preparation, knowledge and skill in the delivery of comprehensive health care to a diverse set of patients with musculoskeletal injuries and conditions and illnesses in a distinctly moral and ethical manner, integrating Christian faith with clinical practice.

Learning Outcomes Of the Class

- Students will be able to perform manipulative and motor skills necessary to perform a comprehensive injury evaluation of the musculoskeletal system
- Students will be able to interpret the results of the injury evaluation and make appropriate decisions, actions and medical referrals
- Students will be able to objectively measure, muscular strength, girth and other measurements as determined for each anatomical structure.
- Identify voluntary muscular movement including proximal to distal attachments of muscles, major motions and functions, and peripheral and segmental nerve innervations in the lower extremity, hip, pelvis and lumbar spine.
- Demonstrate neurological assessment procedures.
- Students will be able to identify indications and contraindications as they relate athletic participation regarding general medical conditions/illnesses and systemic diseases.
- Demonstrate techniques and procedures for evaluating common injuries.
- Demonstrate neurological assessment procedures
- Demonstrate special tests used to evaluate injuries to the lower extremity, hip, pelvis and lumbar spine.

Required Books and Materials

	Title	Orthopedic Physical Assessment
	Author	David J. Magee
	Publisher	Saunders and Elsevier
	ISBN	978-1455709779
	Price	$80-$115
	Title	Special Tests for Orthopedic Examination 4th Edition
	Author	Jeff G. Konin PhD ATC PT, Denise Lebsack PhD ATC, Alison Snyder Valier PhD AT, Jerome A. Isear Jr. MS PT ATC-L
	Publisher	Slack
	ISBN	978-1617119828
	Price	$50-$70

Academic Accommodations

While all students are expected to meet the minimum academic standards for completion of this course, students with disabilities may require academic accommodations. To request academic accommodations, you'll need to file documentation with the Disability Resource Center (DRC), located in the Bond Academic Center. Once documentation is filed, the DRC will contact your instructors and provide written recommendations for reasonable and appropriate accommodation to meet your needs. If you have questions or would like to discuss those or any learning problems, please feel free to contact me. *See Academic Policies for full text.*

FERPA Policy

As a student at Point Loma, you have a legal right to privacy as outlined in the federal FERPA (Family Educational Rights and Privacy Act) legislation. If I post grades or return assignments, I'll do so in a way that does not publicly reveal your name, PLNU student ID, or social security number without your written permission. *See Policy Statements for full text.*

Final Examination 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.

Use of Technology

Point Loma Nazarene University encourages the use of technology for learning, communication, and collaboration. In this course, we will rely on Canvas for accessing course materials, submitting assignments, and collaborating in discussion boards and blogs. We will also use cell phone polling when it enhances our in-class activities. You'll want to make sure you are comfortable with these tools, so take advantage of our computer LabTechs to answer questions and help you with any technology issues. You may also call the Help Desk at x2222.

You are welcome to bring your laptop, iPad, and/or cell phone to class—but please make sure you use them appropriately and responsibly. ***If a tech tool becomes a distraction or disruption while class is in session, I will ask you to put it away or invite you to no longer bring it to class.***

Academic Dishonesty

Students should demonstrate academic honesty by doing original work and by giving appropriate credit to the ideas of others. As stated 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. Such acts include plagiarism, copying of class assignments, and copying or other fraudulent behavior on examinations. 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." *See Academic Policies for full text*.

Course Assignments

Special Testing Videos (100 points)

You will be asked to partner with 4 of your colleagues to produce an educational video on cluster testing for an assignment joint within the body. Each group will be assigned a common injury within the lower extremity and be asked to research and present a cluster of tests that would be most effective at ruling in and ruling out pathologies based on the current evidence. Students will be asked to do the following in each video:

1. Present the epidemiology and significance of the injury within the lower extremity and athletic/general population
2. Present a cluster of special tests (that they found in the research or text) that a clinician should/could use in a quick assessment
3. Provide justification for the tests presented in the video (should include current research - within the last 5 years, can you use the text)
4. Perform the special tests and provide verbal instruction on how to perform (in other words, step by step instructions)

The students are responsible for uploading the video to youtube…once the video is uploaded to youtube you will then copy and paste your link into the assigned joint specific discussion board to start the discussion. This video should be uploaded on the assigned due date so that others have a chance to comment and provide feedback.

Gait Video Analysis (50 points)

Students will be responsible for taking video of 4 friends while walking and then providing a gait analysis of each walking gait. Students will upload a video for each friend (no longer than 60 seconds in length each) and upload a separate word document as well. See canvas for gait analysis sheet.

Oral Practical Examinations (100 points each)

Practical exams are intended to assess each student's ability to perform the skills associated with
the assessment of injuries to the lower extremity, as well as the lumbar spine. Practical exams
will test the performance of skills in the context of completing all or part of an injury evaluation
while progressing through the athletic training education program.

Special Testing - Self Reflections (20 points)

Students will be video recorded during lab class during special testing and patient encounters. Following the class period those recordings will be posted for the student to review and self reflect on the following:

1. What went right?
2. Where did you feel the most uncomfortable?
3. Where do you need improvement during the evaluation process?

SOAP Note Assignments (30 points)

For each unit in this course students will complete a SOAP note evaluation based on a case study scenario. Students will be expected to use abbreviations and medical terminology when necessary!

Course Grading

GRADE	Percent - Based off of total points
A	94-100
A-	90-93
B+	88-89
B	84-87
B-	80-83

Tentative Schedule

ATR 687L - Evidence Based Orthopedic Assessment Lower Extremity Lab Laboratory Calendar			
Week	**Date**	**Laboratory**	**Assignments**
1	8-30	Injury Evaluation Process **SOAP Notes**	
2	9-6	Injury Evaluation Process **Lower Quarter Screening**	
3	9-13	Pelvis **Range of motion, Manual Muscle Testing, Palpation**	
4	9-20	Pelvis **Palpation, Special Testing**	
5	9-27	Pelvis Lab Practical	Sign up by **clicking here (Links to an external site.)Links to an external site.**
6	10-4	Thigh and Hip **ROM, Manual Muscle Testing**	
7	10-11	Thigh and Hip **Palpation, Special Testing**	
8	10-18	Thigh and Hip Lab Practical	
9	10-25	Patellofemoral & Knee **Range of motion, Manual Muscle Testing, Palpation**	Self Reflection #1 Due Special Testing Video #1 ACL, PCL, MCL, LCL Jenna Eddie

10	11-1	Patellofemoral & Knee **Palpation, Special Tests**	Special Testing Video #2 PFP, OCD, Patellar Ligment Justine, Anika and Nicole
11	11-8	Patellofemoral & Knee **Palpation, Special Tests**	
12	11-15	Patellofemoral & Knee Lab Practical	
13	11-22	Thanksgiving	
14	11-29	Lower Leg, Ankle, & Foot **Palpation, Special Tests**	*Special Testing Video #3* *Jarret, Dom and Danny*
15	12-6	Static Posture and Gait	Gait Video Analysis
Finals	12-13	**Oral Lab Practical**	

No	Competency
CE-4	Describe the principles and concepts of body movement, including normal osteokinematics and arthrokinematics.
CE-20a	history taking
CE-20b	inspection/observation
CE-20c	palpation
CE-20d	functional assessment
CE-20e	selective tissue testing techniques / special tests
CE-20f	neurological assessments (sensory, motor, reflexes, balance, cognitive function)
CE-21a	Assessment of posture, gait, and movement patterns
CE-21b	Palpation
CE-21c	Muscle function assessment
CE-21d	Assessment of quantity and quality of osteokinematic joint motion
CE-21e	Capsular and ligamentous stress testing
CE-21f	Joint play (arthrokinematics)
CE-21g	Selective tissue examination techniques / special tests
CE-21h	Neurologic function (sensory, motor, reflexes, balance, cognition)
CE-22	Determine when the findings of an examination warrant referral of the patient.
HA-9	Identify the components that comprise a comprehensive medical record.
CIP-4b	lower extremity