



Department of Kinesiology

KIN 4010: Therapeutic Exercise

3 Unit

Fall 2022

Meeting Days: M,W

Instructor title and name: Susan Ganz , PhD, ATC

Professor of Kinesiology

Meeting times: 12:10 pm - 1:25 pm

Phone:

Meeting location: K1

Email:

Final Exam: (day/time)

Office location and hours:

Additional info:

Additional info:

#### 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 will provide students with an in-depth exposure to the knowledge and skills that an athletic therapist needs for the appropriate and effective use of exercise to promote healing, return patients to optimal function and enable high performance in athletic participation. *We will explore the theory and practice of active therapeutic techniques to restore human function.* We will use an approach that emphasizes applied biomechanics and functional rehabilitation, exploring various manual therapies, PNF integrations and specific rehabilitation protocols to rehabilitate some of the most common orthopedic pathologies.

#### COURSE LEARNING OUTCOMES

Upon completing this course, you should be able to:

- Articulate & teach the physiological response of the body to trauma and inactivity/immobilization.
- Demonstrate a wide variety of manual and functional therapeutic techniques.
- Perform objective measures to determine the level of function of a patient, the prognosis for recovery and the appropriateness of the therapeutic intervention.
- Outline the indications and contraindications of exercise after injury.
- Create activity-specific functional progressions with appropriate goals in a therapeutic exercise program.
- Describe common surgical techniques and implement a postoperative rehabilitation or reconditioning exercise program.
- Perform movement screening and corrective exercise assessments to restore functional movement patterns for safe return to physical activity.
- Appreciate the importance of functional outcome measures to determine patient health-related quality of life.

## REQUIRED TEXTS AND RECOMMENDED STUDY RESOURCES

**Required** (you may buy 5th or 6th ed)

Prentice, WE. Prentice, WE. Rehabilitation Techniques for Sports Medicine & Athletic Training, 5th ed., McGraw-Hill; 2009., 5th ed., McGraw-Hill; 2009. eTextbook Option: (\$55, 14 day money-back guarantee);

**Recommended:** Arnheim DD, Prentice WE. Principles of Athletic Training. 13th ed. Boston: McGraw –Hill; 2008.

**Supplemental Course Reader;** Library Resource: Kinesiology Subject Guide: Kinesiology Page

## 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 3 unit class delivered over 15 weeks. Specific details about how the class meets the credit hour requirement can be provided upon request. (Based on 37.5 hours of student engagement per credit hour.)

In the interest of providing sufficient time to accomplish the stated Course Learning Outcomes, this class meets the PLNU credit hour policy for a 3 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 112.5 total hours meeting the course learning outcomes. The time estimations are provided in the Canvas modules.

## Distribution of Student Learning Hours

Category	Time Expectation in Hours
In class Participation in Discussions, Groups, etc.	40

## Distribution of Student Learning Hours

Category	Time Expectation in Hours
Reading Assignments	36
Written Assignments	12
Other Assignments & Learning Activities	4.5
Quizzes, Surveys	20
<b>Total Hours</b>	<b>112.5</b>

## COURSE SCHEDULE AND ASSIGNMENTS

### Quizzes

We will have various forms of quizzes during the semester (online, partner, mid-class session).

### Examinations

Unit examinations will be used to measure your mastery of key aspects of the course of study. Exams will be used both in class and online through eclass. Students traveling for team assignments must complete exams before travel.

### Lab Demonstration of Therapeutic Exercise

Students will be evaluated for competence in the following exercises:

1. isometric, isotonic and isokinetic exercise
2. eccentric versus concentric versus econcentric exercise
3. open versus closed kinematic chain exercise
4. elastic, mechanical and manual resistance exercises
5. joint mobilization
6. plyometrics-dynamic reactive exercise

7. proprioceptive neuromuscular facilitation (PNF) for muscular strength/endurance, muscle stretching, and improved range of motion
8. exercises to improve neuromuscular coordination and proprioception
9. passive, active and active-assisted exercise
10. cardiovascular exercise, including the use of stationary bicycles, upper body ergometer, treadmill and stair climber
11. functional rehabilitation and reconditioning, functional progressions
12. sport specific activity

### Functional Progression (FP) OR Corrective Exercise Intervention (CE)

For this assignment, you can choose to design either a functional progression or a Corrective Exercise Intervention.

The Functional Progression can be based on an upper or lower-extremity injury. Exercises should include only those that are *functionally-specific to the athlete's sport or activity*. A variety of exercises should be utilized, with an increase in complexity and a logical, triplanar approach.

If you choose to accomplish the Corrective Exercise Intervention, you should develop a sequence of steps to address a specific movement system impairment or postural distortion syndrome using the NASM's Corrective Exercise Continuum (I will give you access to CES material PRN).

**\*\*Please create your exercises using either video, PPT, or using the PDF format on the [Athletic Training Clinic's website](#) (Links to an external site.)**  
**[Here is a good template:](#) Links to an external site.**

For the FP, you must view the *Functional Video Digest Series* (Gary Gray, PT) most appropriate for your chosen joint. This is for your benefit and will enhance your treatment approach. You should be prepared to share your progression with colleagues. ***See Appendix 1 for list of videos.***

### Discussion Board Participation

I have supplemented the course text and lecture materials with current evidence-based medical literature. These readings will be provided via electronic access to journal articles and systematic reviews. It is expected that course material will be read **before** the scheduled lecture so that informed and lively discussion may be the primary focus of class meetings. The aim of supplemental reading is to increase awareness of the variety of thought and approaches concerning therapeutic exercise, and to keep you current with contemporary practice.

After certain readings, and prior to the in-class discussion, you will respond to questions on the Discussion Board on eclass. At other times, I will also ask you to summarize the key points of outside readings by

outlining the major points of the article prior to class. You should be ready to discuss these outlines with your colleagues in class, and refine the ideas together through JigSaw activities.

### Final Exam

Exam: A cumulative review of course Competencies will be evaluated in exam format.

### Group Rehabilitation Project

You will collaborate with a colleague(s) to produce a comprehensive rehabilitation intervention for a post-surgical case. Your group will present the program in Powerpoint/Prezi format similar to a professional conference symposium. I will invite the Kinesiology department students and faculty to our symposium. *Please note that your work as members of the group will be disseminated to other students and faculty; although your grade and any other sensitive material will not be shared.*

### Topics for Group Project (postoperative rehab programs):

- Bankart Repair
- ACL with/without meniscal repair
- Lumbar spine disc herniation w/without spondylopathy
- UCL repair: “Tommy John” reconstruction
- Modified Brostrom repair for Chronic Ankle Instability
- Dynamic warmup and flexibility program for a team or group (injury prevention approach)
  - e. ACL prevention program, or ankle/knee injury prevention in BKB
- TRX strength and flexibility program
  
- High Intensity Interval Training Program (HIIT: Interval Circuit training) for performance enhancement or prevention of disease
- Corrective exercise intervention

### ASSESSMENT AND GRADING

1. Quizzes not to exceed 5@10 pts each	50
2. Examinations <u>3@100</u> pts each	300
3. Demonstration of Therapeutic Exercise in lab <u>5@20</u> pts each	100
4. Functional Progression/Rehab Class (30/20)	30/20
5. Participation in Discussion Board	40
6. Final exam/Group Rehab. Project	<u>200</u>

**TOTAL 750**

*All assignments are due at the beginning of the class period in which they were assigned. Classes missed due to athletic events, planned family functions or athletic training assignments must be planned and arranged with the professor before class.*

*NOTE: It is your responsibility to maintain your class schedule. Should the need arise to drop this course (personal emergencies, poor performance, etc.), you have responsibility to follow through (provided the drop date meets the stated calendar deadline established by the university), not the instructor.*

## ASSESSMENT AND GRADING

**Note:** Clearly define a grading policy to avoid any confusion concerning expectations. It is most helpful if at least two things are present: 1) a point distribution and 2) a grading scale.

Student grades will be posted in the Canvas grade book no later than midnight on Tuesday of each week beginning in Week Two of this course. It is important to read the comments posted in the grade book as these comments are intended to help students improve their work. Final grades will be posted within one week of the end of the class. Grades will be based on the following:

### Standard Grade Scale Based on Percentages

A	B	C	D	F
A 93-100	B+ 87-89	C+ 77-79	D+ 67-69	F Less than 59
A- 90-92	B 83-86	C 73-76	D 63-66	
	B- 80-82	C- 70-72	D- 60-62	

## 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 AuthorizationLinks to an external site.](#) 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 PoliciesLinks to an external site.](#) 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](mailto:DRC@pointloma.edu) [Links to an external site.](#) 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.

### PLNU ATTENDANCE AND PARTICIPATION POLICY

Regular and punctual attendance at all **synchronous** class sessions is considered essential to optimum academic achievement. If the student is absent for more than 10 percent of class sessions (virtual or face-to-face), 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 PoliciesLinks to an external site.](#) 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.

## **SPIRITUAL CARE**

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

If students have questions, a desire to meet with the chaplain or have prayer requests you can contact the [Office of Spiritual Development Links to an external site.](#)

## **USE OF TECHNOLOGY**

In order to be successful in the online environment, you'll need to meet the minimum technology and system requirements; please refer to the *Technology and System Requirements* [Links to an external site.](#)information.

Problems with technology do not relieve you of the responsibility of participating, turning in your assignments, or completing your class work.