

[Download Course Syllabus Here](#)

 <p><b>POINT</b><sup>19</sup>  <b>LOMA</b><sup>02</sup> NAZARENE UNIVERSITY</p>	<p><b>Department of Kinesiology and Health Sciences</b></p> <p><b>KIN 3040L Physiology of Exercise Lab</b></p> <p><b>1 Unit</b></p>
Spring 2026	

<p><b>Meeting days:</b> Section 1: Thursday Section 2: Tuesday</p>	<p><b>Instructor title and name:</b> Sophie Mirth</p>
<p><b>Meeting times:</b> 10-11:50am</p>	<p><b>Phone:</b> 619-849-2918</p>
<p><b>Meeting location:</b> Rohr Science building room 195</p>	<p><b>Email:</b> smirth@pointloma.edu</p>
<p><b>Mid Semester Exam:</b> Practical Exam Week: <b>Final Exam:</b> Practical Lab report (written): Due Finals week</p>	<p><b>Office location and hours:</b> <b>By request</b></p>

### 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

A study of the effects of vigorous physical activity upon the systems of the body; development of an understanding of factors which constitute training of the human body for high levels of health and physical performance.

Specifically, this course will provide students the opportunity to learn how to use equipment in the laboratory, such as the metabolic cart; to collect, analyze, and interpret data from submaximal and maximal exercise tests; and to become proficient using Excel to analyze and visually display data.

### COURSE LEARNING OUTCOMES

1. Demonstrate an understanding of muscle physiology by testing the basic principles (and analyzing the results) including active and passive length-tension relationships and types of contractions (eccentric, concentric, isometric).
2. Measure and interpret the results of the following tests: resting energy expenditure, submaximal exercise test, and maximal exercise test.
3. Measure and interpret the results of both anaerobic power and capacity testing.
4. Measure and interpret the results of an anaerobic/lactate threshold test.

5. Apply the results of maximal oxygen uptake and anaerobic threshold testing to the prescription of continuous vigorous exercise as well as high-intensity interval training.
6. Be able to convert between various units of measure commonly used in exercise physiology.
7. Demonstrate mastery of graphing data in Microsoft Excel.

## REQUIRED TEXTS AND RECOMMENDED STUDY RESOURCES

Students are responsible for having the required course textbooks prior to the first day of class.

All supplemental materials posted on this course site (including articles, book excerpts, or other documents) are provided for your personal academic use. These materials may be protected by copyright law and should not be duplicated or distributed without permission of the copyright owner.

Materials posted on Canvas

## ASSESSMENT AND GRADING

### Educational Opportunities

*Hands on Laboratory Experiences:* Each week in lab you will either be exercising in some way or conducting physiological measurements on a lab partner while he/she is exercising. This will be your primary means of learning in the course. Take advantage of the wonderful equipment available to you and the laboratory experiences designed by your instructor.

*Lab Worksheets and Integration Questions:* After completion of the laboratory activities, you will have some questions to answer that will guide you in analyzing and interpreting the data that you collected during lab. The questions are designed to invite you to apply your individual data collected in the lab and the interpretations that you arrived at to a broader scale that may be applicable to your future careers in an exercise and sports science or allied health field. **Lab worksheets are due on Canvas by the specified day/time (usually one week after completing the lab, before the next class session).**

*Lab Practical:* There will be one lab practical in this course. Students will sign up for individual time slots and be asked to conduct laboratory measures that were learned in lab. Students will be graded on their ability to autonomously conduct the lab procedures as taught by the lab instructor.

Grades will be based on the following percentages:

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

**Attendance:** Students are required to attend class every class session unless they receive permission from the professor in advance, or due to extenuating circumstances. Since class only meets once per week, missing class will put you behind severely. Please make all efforts to come to every lab. If you miss a lab and are therefore unable to complete the worksheet, you will

receive a 0 on that lab. All students must come dressed to participate. Closed toed shoes are required for all lab sessions. If you cannot participate a coach or doctor's note is required ahead of time. Please discuss accommodations with the instructor before class periods.

## **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 [Traditional Undergraduate Records: Final Exam Schedules](#) site. If you find yourself scheduled for three (3) or more final examinations on the same day, you are authorized to contact each professor to arrange a different time for one of those exams. However, unless you have three (3) or more exams on the same day, no requests for alternative final examinations will be granted.

## **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 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 accepted in extremely unusual circumstances. Late assignments incur a 50% deduction in earned grade on that assignment.

**Corrected work:** You will have **one chance** to correct a lab report potentially to still receive full credit. Assignments turned in late will *not* be eligible for this correction opportunity.

## **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 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.

## **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. For all student appeals, faculty and students should follow the procedures outlined 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 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](mailto:EAC@pointloma.edu) or 619-849-2533). 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. Professors are able to view a student's approved accommodations through Accommodate.

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 accommodations.

## **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 withdrawal date or, after that date, receive an "F" grade.

## ARTIFICIAL INTELLIGENCE (AI) POLICY

You are allowed to use Artificial Intelligence (AI) tools (e.g., ChatGPT, Gemini Pro 1.5, GrammarlyGo, Perplexity, etc) 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. If you have any doubts about using AI, please gain permission from the instructor.

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

## LOMABOOKS INSTRUCTIONS FOR STUDENTS

This course is part of our course material delivery program, **LomaBooks**. The bookstore will provide each student with a convenient package containing all required physical materials; all digitally delivered materials will be integrated into Canvas.

You should have received an email from the bookstore confirming the list of materials that will be provided for each of your courses and asking you to select how you would like to receive any printed components (in-store pick up or home delivery). If you have not done so already, please confirm your fulfillment preference so the bookstore can prepare your materials.

For more information about **LomaBooks**, please go: [HERE](#)

## TENTATIVE COURSE SCHEDULE (Sec 1)

Week	Date	Topic	Assignment due
2	Jan 13th or 14th	Review Syllabus and Lab 1: Orientation & Equipment Calibration, Terminology	
2	Jan 20th or 21st	<b>MLK Holiday, No lab observed in both sections</b>	
3	Jan 27th or 28th	Lab 2 Muscular Strength & Power	Lab 1
4	Feb 3rd or 4th	Lab 2 Muscular Strength & Power (if needed)	

5	Feb 10th or 11th	Lab 3: Wingate test (groups by appointment)	Lab 2
6	Feb 17th or 18th	Lab 4: 3-Minute All-Out & Critical Power Calculations (groups by appointment)	Lab 3
7	Feb 24th or 25th	Lab 5: Exercise energy expenditure & EPOC	Lab 4
8	Mar 3rd or 4th	Lab 6: Maximal Oxygen uptake (group 1)	Lab 5
9	Mar 10th or 11th	<b>Spring Break</b>	
10	Mar 17th or 18th	Lab 6: Maximal Oxygen uptake (group 2)	
11	Mar 24th or 25th	Lab practical Exam (in class by appt)	Lab 6
12	Mar 31st or Apr 1st	Lab 7: Exercise Fatigue Threshold Theory & Calculations	
13	Apr 7th or 8th	Lab 8: Heat Lab	Lab 7
14	Apr 14 or 15th	Lab 9: Exercise Prescription Principles	Lab 8
15	Apr 21st and 22nd	<b>Easter Recess observed in both classes</b>	Lab 9 due by Tuesday Apr 22nd at 11:59pm PST in both classes
16	Apr 28th or 29th	Final Lab Report Review	Final Lab Report Due by 11:59pm PST on Monday, May 5th