

 <p>POINT LOMA NAZARENE UNIVERSITY</p>	<p>Department of Kinesiology College of Health Science KIN 3001 Fitness Assessment and Exercise Prescription 3 units</p>
<p>Spring 2024</p>	

<p>Meeting days: TuTR</p>	<p>Kristen Snyman, PhD, CSCS*D Associate Professor of Kinesiology</p>
<p>Meeting times: 1:30 – 2:45 pm</p>	<p>Phone: 619-849-7979</p>
<p>Meeting location: Kinesiology 2</p>	<p>Email: ksnyman@pointloma.edu</p>
<p>Final Exam: Take home final: Tuesday April 30th by 11:59 pm PST</p>	<p>Office location and hours: Kinesiology Office #8 *Office hours: M: 3:00 – 3:30pm; THUR: 9:30 – 12pm & Zoom Sign up here:</p>

*If you have any questions about the material in this course, feel free to stop by during my office hours as listed above or as listed on canvas for my zoom office hours. Either set up

an appointment or simply drop by. I do get meetings scheduled during these office hours so I am not always available at these times. I will also be in my office at other, unscheduled times. If my office hours don't work for your schedule, e-mail or stop by and we can set up an appointment to meet.

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

In-depth study of the principles and techniques used to assess health and physical fitness and to design and prescribe exercise programs and physical activities. Students will acquire the knowledge and skills necessary to address the fitness needs of apparently healthy populations, those with medical considerations, and athletic populations.

Program and Course Learning Outcomes

Upon completion of this course, the student will:

1. Recognize the importance of physical activity in the prevention of hypokinetic diseases.
2. Develop knowledge of the principles of physical fitness assessment, interpretation of results, and exercise prescription.
3. Have the opportunity for practical experiences using field and laboratory tests for the appraisal of physical fitness status and the design of individualized exercise programs in the following areas:
 - A) health screening & risk stratification

- B) cardiorespiratory fitness
 - C) muscular strength & endurance
 - D) body composition & weight management
 - E) flexibility & posture
4. Develop knowledge of the principle of exercise for individuals with controlled cardiovascular, pulmonary, and metabolic diseases.
 5. Identify and describe the theories and models used to explain physical activity behavior changes.

Prerequisites

KIN 3040: Exercise Physiology & KIN 3040L: Exercise Physiology Lab

Required Texts and Recommended Study Resources

Title: ACSM’s Resources for The Exercise Physiologist
 Author: ACSM: American College of Sports Medicine
 ISBN-13: 978-1496329264
 Publisher: Lippincott, Williams, Wilkens
 Publication Date: 2017

Email

Email will be the **MAIN** form of communication used by the professor outside of class. Students are expected to check their email at least **ONCE A DAY**. If you know of issues with your @pointloma.edu account please notify the professor immediately.

Assessment and Grading

Grades will be based on the following:

Course Grading

A	B	C	D	F
A 94-100	B+ 88-89	C+ 78-79	D+ 68-69	F Less than 59
A- 90-93	B 84-87	C 74-77	D 64-67	

	B- 80-83	C- 70-73	D- 60-63	
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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. 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.

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 and assessments posted in Canvas. Late work will be accepted up to 3 days past the posted deadlines with the following automatic deductions (20% 1 day, 30% 2 days, 40% 3 days). Deductions are made prior to assessment of other elements. Incompletes will only be assigned in extremely unusual circumstances.

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 your professor or the [Office of Spiritual 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.

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.

Artificial Intelligence (AI) Policy

Use of Artificial Intelligence (AI) tools (e.g, ChatGPT, iA Writer, Marmot, Botowski) is not permitted, and use of these tools will be treated as plagiarism.

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 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.

Language and 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.

You may report an incident(s) using the [Bias Incident Reporting Form](#).

Sexual Misconduct and 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.

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 an "F" grade.

Course Modality Definitions

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

Important Dates

Jan 9th Classes Begin
Jan 19th – Last day to drop semester classes
Jan 15th- Martin Luther King Jr. Holiday
March 4 – 8th – Spring Recess
March 28 – Apr 2nd – Easter Recess
April 26th – Classes end Spring Semester
April 29 – May 3rd – Final Examinations

This course helps prepare students to sit for the ACSM Certified Personal Trainer or Certified Exercise Physiologist certification.

Course Assignments

Discussion Boards & Reflection Assignments (15 points each)

Each week a Discussion board / reflection assignment will be given. The board will open on Monday and close Friday. All initial posts must be made by Wednesday and final peer responses by Friday at 11:59pm PST. You will be provided with either an article to read and discuss or a prompt to respond to. There will be 10 discussion boards throughout the course.

Field Activities (30 points each)

A significant amount of time in class will be dedicated to fitness assessments and exercise prescription activities. You will collect data among your class peers as well as from the University community to complete exercise guidelines and prescriptions. 1 Lecture period each week will be dedicated to these in-class or field activities. Attendance is required for credit. Pre-lecture videos/readings will be provided prior to these activity days along with active learning prompts to help guide your learning.

Reading Quizzes (10 points each)

A reading quiz will be given during the first 15 minutes of activity lecture days. These quizzes will cover material from the pre lecture video/readings. All quizzes will be T/F or MC. Quizzes will be administered through iClicker or canvas. No make ups will be given. There will be 10 quizzes throughout the course.

Course Examinations

Exams (3 @ 50 points each)

The exam will be designed to test the students' comprehension of the material presented via lectures and independent studying of the textbook. Questions will include: multiple choice, fill in the blank, matching, true/false, short answer, and essay formats.

Final Exam (100 points)

The final exam will be cumulative and summative. Information from the entire semester will be tested.

Knowledge, Skills, and Abilities (KSAs) for students in Exercise Science ACSM Certified Health Fitness Specialist

KIN 3001: Fitness Assessment & Exercise prescription

KSA#'s	KSA description
	GENERAL POPULATION/CORE:EXERCISE PHYSIOLOGY AND RELATED EXERCISE SCIENCE
1.1.8	Knowledge of biomechanical principles that underlie performance of the following activities: walking, jogging, running, swimming, cycling, weight lifting, and carrying or moving objects.
1.1.9	Ability to describe the systems for the production of energy.
1.1.10	Knowledge of the role of aerobic and anaerobic energy systems in the performance of various physical activities.
1.1.14	Knowledge of the anatomic and physiologic adaptations associated with strength training.
1.1.15	Knowledge of the physiologic principles related to warm-up and cool-down.
1.1.16	Knowledge of the common theories of muscle fatigue and delayed onset muscle soreness (DOMS).
1.1.17	Knowledge of the physiologic adaptations that occur at rest and during submaximal and maximal exercise following chronic aerobic and anaerobic exercise training.

1.1.18	Knowledge of the differences in cardiorespiratory response to acute graded exercise between conditioned and unconditioned individuals.
1.1.28	Knowledge of and ability to describe the implications of ventilatory threshold (anaerobic threshold) as it relates to exercise training and cardiorespiratory assessment.
1.1.29	Knowledge of and ability to describe the physiologic adaptations of the pulmonary system that occur at rest and during submaximal and maximal exercise following chronic aerobic and anaerobic training.
1.1.34	Knowledge of and ability to describe the changes that occur in maturation from childhood to adulthood for the following: skeletal muscle, bone structure, reaction time, coordination, posture, heat and cold tolerance, maximal oxygen consumption, strength, flexibility, body composition, resting and maximal heart rate, and resting and maximal blood pressure.
1.1.35	Knowledge of the effect of the aging process on the musculoskeletal and cardiovascular structure and function at rest, during exercise, and during recovery.
1.1.36	Knowledge of the following terms: progressive resistance, isotonic/isometric, concentric, eccentric, atrophy, hyperplasia, hypertrophy, sets, repetitions, plyometrics, Valsalva maneuver.

1.1.37	Knowledge of and skill to demonstrate exercises designed to enhance muscular strength and/or endurance of specific major muscle groups.
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1.1.38	Knowledge of and skill to demonstrate exercises for enhancing musculoskeletal flexibility.
1.1.42	Knowledge of the primary action and joint range of motion for each major muscle group.
1.1.43	Ability to locate the anatomic landmarks for palpation of peripheral pulses and blood pressures.
	GENERAL POPULATION/CORE: PATHOPHYSIOLOGY AND RISK FACTORS
1.2.1	Knowledge of the physiologic and metabolic responses to exercise associated with chronic disease (heart disease, hypertension, diabetes mellitus, and pulmonary disease).
1.2.6	Knowledge of the risk-factor thresholds for ACSM risk stratification, which includes genetic and lifestyle factors related to the development of CAD.
	GENERAL POPULATION/CORE: HEALTH APPRAISAL, FITNESS AND CLINICAL EXERCISE TESTING
1.3.1	Knowledge of and ability to discuss the physiologic basis of the major components of physical fitness: flexibility, cardiovascular fitness, muscular strength, muscular endurance, and body composition.
1.3.2	Knowledge of the value of the health/medical history.
1.3.3	Knowledge of the value of a medical clearance before exercise participation.
1.3.4	Knowledge of and the ability to perform risk stratification and its implications toward medical clearance before administration of an exercise test or participation in an exercise program.
1.3.6	Knowledge of the limitations of informed consent and medical clearance before exercise testing.

1.3.8	Skill in accurately measuring heart rate and blood pressure, and obtaining rating of perceived exertion (RPE) at rest and during exercise according to established guidelines.
1.3.9	Skill in measuring skinfold sites, skeletal diameters, and girth measurements used for estimating body composition.
1.3.15	Ability to explain the purpose and procedures and perform the monitoring (heart rate, RPE, and blood pressure) of clients before, during, and after cardiorespiratory fitness testing.
1.3.16	Ability to instruct participants in the use of equipment and test procedures.
1.3.17	Ability to explain the purpose of testing, determine an appropriate submaximal or maximal protocol, and perform an assessment of cardiovascular fitness on the treadmill or cycle ergometer.
	GENERAL POPULATION/CORE: EXERCISE PRESCRIPTION AND PROGRAMMING
1.7.6	Knowledge of the differences in the development of an exercise prescription for children, adolescents, and older participants.
1.7.7	Knowledge of and ability to describe the unique adaptations to exercise training in children, adolescents, and older participants with regard to strength, functional capacity, and motor skills.
1.7.8	Knowledge of common orthopedic and cardiovascular considerations for older participants and the ability to describe modifications in exercise prescription that are indicated.

1.10.17	Ability to identify the components that contribute to the maintenance of a safe environment, including
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	equipment operation and maintenance, proper sanitation, safety and maintenance of exercise areas, and overall facility maintenance.
1.10.18	Knowledge of basic ergonomics to address daily activities that may cause musculoskeletal problems in the workplace and the ability to recommend exercises to alleviate symptoms caused by repetitive movements.
	GENERAL POPULATION/CORE:PROGRAM ADMINISTRATION, QUALITY ASSURANCE, AND OUTCOME ASSESSMENT
1.11.1	Knowledge of the Health Fitness Specialist's role in administration and program management within a health/fitness facility.
1.11.2	Knowledge of and the ability to use the documentation required when a client shows signs or symptoms during an exercise session and should be referred to a physician.
1.11.8	Ability to create and maintain records pertaining to participant exercise adherence, retention, and goal setting.
	CARDIOVASCULAR: PATHOPHYSIOLOGY AND RISK FACTORS
2.2.1	Knowledge of cardiovascular risk factors or conditions that may require consultation with medical personnel before testing or training, including inappropriate changes of resting or exercise heart rate and blood pressure, new onset discomfort in chest, neck, shoulder, or arm; changes in the pattern of discomfort during rest or exercise; fainting or dizzy spells; and claudication.
2.2.2	Knowledge of the pathophysiology of myocardial ischemia and infarction.