

College of Health Science, MS in Kinesiology

Advanced Practice in Sport Science

3 units
Spring 2024
Mondays from 5:30 pm to 8:00 p
Balboa 150AB
Final Exam:

Instructor title and name:	Dr. Jacob Goodin, CSCS, CPSS, Associate Professor of Kinesiology	
Email:	jgoodin@pointloma.edu	
Office location and hours:	Main Campus: Kinesiology Office Building, Balboa Campus: Kinesiology Office Area	

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 provides advanced study and experience in applied sport science techniques. Advanced skills in training and performance quantification, athlete monitoring techniques, and data management and presentation will be acquired. This includes hands-on data collection opportunities and the creating of a fully functional athlete monitoring dashboard. Students will submit an athlete monitoring dashboard and take a final exam at the completion of the course. *Prerequisite: KIN 6005, KIN 6010, KIN 6065 or equivalent.*

Course Aim and Introduction

This course is designed to layer atop the foundational knowledge of training theory gained in KIN 6065 (Sport and Tactical Strength and Conditioning) by introducing students to the sport science concepts of training load monitoring, performance assessment, and evidence-based training recommendations. These three inter-related concepts constitute the emerging role of the sport scientist within a high-

performance sporting organization. Students will integrate multiple domains of knowledge—periodization and program design, research design and statistics, evidence-based practice, biomechanics, and exercise physiology—and leverage them for the purposes of improved sport performance. Ultimately, a sport scientist's job is to elevate individual and team performance while caring for athletes' overall wellbeing, and to provide decision-makers with relevant and up-to-date information. This course will provide in-depth practical experience in these regards.

Attendance at each session is mandatory and the student is expected to have completed any work prior to the start of class.

Program and Course Learning Outcomes

After completing this course, you should be able to:

- 1. Select appropriate monitoring and testing measures based on sport demands and athlete characteristics.
- 2. Plan and execute a data collection session utilizing sport science technology using valid and reliable testing methodology.
- 3. Critically analyze sport training programs and make evidence-based training recommendations based on athlete monitoring and testing data.
- 4. Design a testing and monitoring dashboard that effectively communicates key metrics to key sport performance staff.

Required Texts and Recommended Study Resources*

French, D., Torres Ronda, L., & NSCA -National Strength & Conditioning Association (Eds.). (2021). *NSCA's Essentials of Sport Science*. Human Kinetics

Purchase on Amazon: https://amzn.to/3Aiunsp

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 8eer weeks. Specific details about how the class meets the credit hour requirement can be provided upon request.

Assessment and Grading

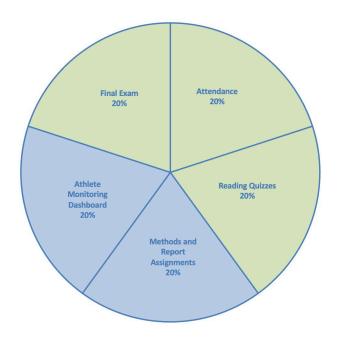
Attendance: 8x10 pts
Reading Quizzes: 8x10 pts
Sport Science Labs: 4x20 pts

• Athlete Monitoring Dashboard: 80pts

• Final Exam: 80 pts

Total: 400 pts

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. The final grade percentage will be rounded to the nearest percent with grades being recorded as follows:



Grade	Percent	Grade	Percent	Grade	Percent
Α	93 - 100	B-	80 - 82.9	D+	67 - 69.9
A-	90 - 92.9	C+	77 - 79.9	D	63 - 66.9
B+	87 - 89.9	С	73 - 76.9	D-	60 - 62.9
В	83 - 86.9	C-	70 - 72.9	F	0 - 59.9

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 the responsibility to first contact the professors. Then if no accommodations can be made, you are responsible to follow through (provided the drop date meets the stated calendar deadline established by the university).

Assignments

1. Attendance & Participation: Each class session will have both didactic and applied components. Attendance to each session is mandatory and there is an expectation that students come prepared to participate fully in classroom discussion, listen actively during lectures and tutorials, and work collaboratively with their peers during lab time. Furthermore, the requirements for this course extend outside of the weekly class lectures. Students will be expected to visit the Human Performance Lab or Human Performance Center throughout the week to complete their group lab assignments. Making time for these sessions with your group is factored into your attendance grade. That said, work and internship schedules will be accounted for and the dedicated student will be successful in scaling schedule-related obstacles.

- **2. Reading Quizzes:** Students will be tested weekly on their readings through the use of short reading comprehension quizzes. These quizzes will cover the textbook assigned reading, but also any ancillary reading assigned for that week as well.
- 3. Sport Science Labs: Approximately every two weeks, students will participate in applied sport science labs that require groups to collect various performance data during and outside of class. Following these sessions, students will formally write up the methods used to collect the data, and compose a mini data report that is intended to be both timely and actionable. Each group will turn in 3 items: methods, dataset, and data report.
 - **a.** The Methods will be written up as a one-page bullet-point word document, outlining step-by-step what was performed and how data was collected.
 - **b.** The Dataset will be a single Excel file, complete with a raw data tab (hand-entered or downloaded from cloud storage), a cleaned data tab, and a data analysis tab with the reports and graphs.
 - c. The Data Report will consist of a one-page PDF report generated from the Excel file. It will communicate the data clearly and effectively. It will be highly "glanceable" and allow for immediate evaluation or action based on the data.
- **4. Athlete Monitoring Dashboard:** The final assignment for this class will be to create an athlete monitoring dashboard in Google Sheets or in Excel. These will be created in groups, and each dashboard will be unique to the specific data each group generates. (Many) More details can be found in Canyas.
- **5.** *Final Exam:* The final exam will be cumulative and cover all the reading and lecture material for the course.

Incompletes and Late Assignments

All assignments are to be submitted/turned in by their assigned dates (midnight). Incompletes will only be assigned under extremely unusual circumstances.

A 10% reduction in grade will be applied for each day an assignment is late.

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, a desire to meet or share any prayer requests with Rev. Portillo, you may 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 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 <u>Graduate Academic and General Policies</u> 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. Any work that utilizes AI-based tools must be clearly identified as such, including the specific tool(s) used. For example, if you use ChatGPT, you must cite ChatGPT including the version number, year, month and day of the query and the statement "Generated using OpenAI. https://chat.openai.com/"

If you have any doubts about using AI, please gain permission from the instructor.

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.

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 <u>Academic Policies</u> for additional detail.

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:
 - o **Zoom Writers Workshops** offered each quad on a variety of helpful topics
 - o **One-to-one appointments** with the Writing Coach
 - o Microlearning YouTube Video Library for helpful tips anytime
 - o Research Help Guide to help you start your research
 - The physical office is located on the third floor of the <u>Mission Valley Regional Center</u> 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!
- <u>Tutoring</u>: 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