Measurements, Statistics, and Evaluation of Human Performance Kinesiology Department: 3 units KIN 440

Instructors Jenny Beers—jbeers@pointloma.edu Thursdays 4:00pm – 5:15pm Online + Thursdays (Hybrid)

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 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.

Institutional Learning Outcomes

- 1. **Learning, Informed by our Faith in Christ** Students will acquire knowledge of human cultures and the physical and natural world while developing skills and habits of the mind that foster lifelong learning.
- 2. **Growing, In a Christ-Centered Faith Community** Students will develop a deeper and more informed understanding of others as they negotiate complex professional, environmental and social contexts.
- 3. **Serving, In a Context of Christian Faith** Students will serve locally and/or globally in vocational and social settings.

Course Description

Study of measurement techniques and instruments, descriptive and inferential statistics and evaluation procedures used in human performance. Principles and techniques of construction, organization, administration, and interpretation involved in human performance research. Includes critical evaluation of data using basic statistical techniques and an evaluation of research design in human performance- related studies.

Course Learning Outcomes

- 1. Identify the basic concepts of measurement, testing, and evaluation in physical education & exercise science
- 2. Describe important issues related to the ethical use of human subjects in research and the role of the institutional review board in protecting them.
- 3. Apply basic statistical procedures in data analysis, utilize Excel and SPSS for statistical analyses and be able to accurately interpret the output
- 4. Apply basic quantitative statistical procedures in data analysis including descriptive statistics, chi-square, t-tests, correlation, regression, and 1- and 2-way ANOVA with post-hoc tests.

- 5. Define and differentiate the concepts and types of reliability and validity used to evaluate normreferenced and criterion-referenced data
- 6. Define and interpret the measurement issues associated with epidemiology and clinical settings

Required Texts and Recommended Resources

Required Text – Morrow, J. R., Jackson, A. W., Disch, J. G., & Mood, D. P. (2016). *Measurement and Evaluation in Human Performance* (5th Ed.). Champaign, IL: Human Kinetics. ISBN: 9781450470438

SPSS Statistics Grad Pack Software – SPSS statistical analysis software can be purchased for \$49 at <u>ThinkEDU (Links to an external site.)Links to an external site.</u>. It is also available to students at the Ryan Library or via a Virtual Desktop Infrastructure or the "Cloud," which allows students to remotely access SPSS virtually anywhere. <u>Download the SPSS Access document for detailed instructions</u>

Attendance and Participation

Regular attendance in class meetings and participation all modules are considered essential to optimum academic achievement. In most cases, a student cannot proceed to a module without completing the preceding module or assignment. This course includes material that builds on each other so going through each weekly module will ensure you meet the learning outcomes of this course. The weekly modules are reached by clicking on the MODULES link in the Canvas course navigation menu. If the student is absent from more than 10 percent of class meetings, the faculty member has the option of filing a written report which may result in de-enrollment. If the absences exceed 20 percent, the student may be de-enrolled without notice. If the date of de-enrollment is past the last date to withdraw from a class, the student will be assigned a grade of W or WF consistent with university policy in the grading section of the catalog. Although attendance will be rarely taken, there is a strong negative correlation between number of absences and grade percentage in this class.

Incomplete and Late Assignments

- All assignments are to be submitted via Canvas by the due date and time listed in the calendar.
- Late work (turned in any time after the due date and time) may be turned in until the last day of class, for a maximum of 50% credit (this is a still a failing grade but is better than zero points).
- Missed exams may ONLY be made up with a legal, written excuse. A missed exam for an approved reason MUST be completed prior to the subsequent module.
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Credit Hour Information

In the interest of providing sufficient time to accomplish the stated Course Learning Outcomes, this class meets the PLNU and WASC 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 course work. The time expectations for this course are shown as follows:

Assignments	Total Course Hours
Reading	20
Writing (Notes)	18
Exam #1	12
Exam #2	12
Assignments	18
Participation	12
Group Project	
Human Subjects Certification	4
Data Collection and Analysis	10
Manuscript	16
Total:	122

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 <u>Academic Policies</u> in the undergrad student catalog.

Academic Accommodations

While all students are expected to meet the minimum academic standards for completion of this course as established by the instructor, students with disabilities may require academic accommodations. At Point Loma Nazarene University, students requesting academic accommodations must file documentation with the <u>Disability Resource Center</u> (DRC), located in the Bond Academic Center. Once the student files documentation, the Disability Resource Center will contact the student's instructors and provide written recommendations for reasonable and

appropriate accommodations to meet the individual needs of the student. See<u>Academic Policies</u> in the undergrad student catalog.

Netiquette Policy

Written communication is an extremely important factor in the online environment. The ability to communicate clearly and effectively is crucial to preserving the mission of Point Loma Nazarene University (PLNU). To help maintain this type of online etiquette (netiquette), here is a list of rules to follow as you proceed through your online courses: <u>PLNU Netiquette</u>

Ferpa Policy

In compliance with federal law, neither PLNU student ID nor social security number should be used in publicly posted grades or returned sets of assignments without student written permission. This class will meet the federal requirements by distributing all grades and papers individually. Also in compliance with FERPA, you will be the only person given information about your progress in this class unless you have designated others to receive it in the "Information Release" section of the student portal. See <u>Policy Statements</u> in the undergrad student catalog.

Assignnment and Grading

- **Assignments:** Students will complete six assignments, most of which will be completed utilizing Excel and/or SPSS statistical software. Write ups need to be submitted via Canvas by the due date. Each assignment is worth 10 pts (60 pts total).
- **Participation:** Each week (module) there will be a Discussion forum where students can post and respond to questions and comments regarding the material covered in that module. Students can earn up to 3 points per module discussion, with full credit given to those who appropriately answer or solve a relevant question or problem. The Discussion forums are intended to be the online place for students can interact with one another as well as with the instructor. The total participation points possible given for the course is 30.
- **Exams:** The 2 scheduled exams will NOT be cumulative per se. However, students should be aware that the material in this class builds upon itself, so that exam questions may require knowledge of earlier material for a complete answer. Exams will be administered through Canvas. Each exam is worth 80 pts (160 pts total).
- **Research Project:** Students will complete a statistical analysis project using data they collect as a group. Students may choose a small group (up to 4 students total), determine a research question with a simple fitness test component, administer the test, collect and analyze the data, and complete a scientific write up. Specific guidelines for the project will be given after Exam 1. A prerequisite for this project is the completion and certificate submission of the NIH Human Subjects Training. The project is worth 50 pts, 10 of which is given for submitting the Human Subjects Training certificate.

Assessment	Points	Course Objectives
Exam #1	Exam #1	1,2,3
Exam #2	Exam #2	4,5,6
Assignments	Assignments	1-6
Participation	Participation	1,2,3,4,5
Group Project	Group Project	1,2,3,4,5
Human Subjects Cert	Human Subjects Cert	
Manuscript	Manuscript	
Total	Total	

Points	Grade	Points	Grade
278-300	А	224-232	С
269-277	A-	215-223	C-
260-268	B+	206-214	C- D+
251-259	В	197-205	D
242-250	B-	188-196	2
233-241	C+	0-187	D-
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