Department of Kinesiology
KIN 440
Measurement, Statistics, and Evaluation of Human Performance (3 units)

Spring 2017

Meeting days: T or R + online	**Instructor:** Professor Arnel Aguinaldo
Meeting times: 1:30PM-2:45PM	**Office:** KIN-12
Meeting location: LW 213	**E-mail:** arnelaguinaldo@pointloma.edu
Prerequisites: Upper Division status	**Office hours:** R 3:30-5:00PM or by appointment

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 (ILO)

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.

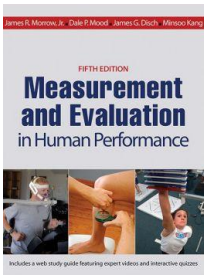
COURSE LEARNING OUTCOMES (CLO)

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 norm-referenced and criterion-referenced data
6. Define and interpret the measurement issues associated with epidemiology and clinical settings

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.

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 (eBook is available here)

- **SPSS Statistics Grad Pack Software (required):**
  SPSS statistical analysis software can be purchased for $49 at ThinkEDU. 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. Download the SPSS Access document for detailed instructions

- **Supplemental Text (recommended only)**:
  Vincent, W.J. and Weir, J.P. (2012). ***Statistics in Kinesiology*** (4th Ed.). Champaign, IL: Human Kinetics. ISBN: 1450402542 (eBook is available here)

- Online lectures, lecture scribbles (instructor "whiteboard" notes), and handouts will be uploaded to the Modules List on a weekly basis throughout the semester via Canvas.
- Technical Resources
- Canvas Help

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.

INCOMPLETES 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.

FINAL 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. No requests for early examinations or alternative days will be approved.

PLNU COPYRIGHT POLICY

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.

PLNU ACADEMIC ACCOMMODATIONS POLICY

If you have a diagnosed disability, please contact PLNU's Disability Resource Center (DRC) within the first two weeks of class to demonstrate need and to register for accommodation by phone at 619-849-2486 or by e-mail at DRC@pointloma.edu. See Disability Resource Center for additional information.

PLNU ATTENDANCE AND PARTICIPATION POLICY

Regular and punctual attendance at all classes is considered essential to optimum academic achievement. If the student is absent from more than 10 percent of class meetings, the faculty member can file a written report which may result in 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. See Academic Policies in the Undergraduate Academic Catalog.

ASSESSMENT 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).
- **Final Project:** Students will complete a research paper proposing the use of the FITNESSGRAM tests in assessing health-related physical fitness in youth students. 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	80	1,2,3
Exam #2	80	4,5,6
Assignments	60	1-6
Participation	30	1,2,3,4,5
Final Project	50 total	1,2,3,4,5
Human Subjects Cert	10	
Manuscript	40	
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Total	300	

POINTS	**GRADE**	**POINTS**	**GRADE**
278-300	A	224-232	
269-277	A-	215-223	C
260-268	B+	206-214	C-
251-259	B	197-205	D+

242-250	B-	188-196	D
233-241	C+	0-187	D-
			F

COURSE SCHEDULE

Date	Details
Thu Jan 12, 2017	First Class Meeting
Tue Jan 17, 2017	NO CLASS (Module 1)
Tue Jan 24, 2017	Class Meeting
	Module 1 Discussion: Measurement Basics
Tue Jan 31, 2017	Class Meeting
	Module 2 Discussion: Descriptive Statistics
	Assignment 1 (click for details)
Tue Feb 7, 2017	Class Meeting
	Module 3 Discussion: Correlation and Prediction
	Assignment 2 (click for details)
Tue Feb 14, 2017	Class Meeting
	Module 4 Discussion: Inferential Statistics I

Date	Details
Tue Feb 21, 2017	Review Session
	Module 5 Discussion: Inferential Statistics II
	Assignment 3 (click for details)
Tue Feb 28, 2017	NO CLASS (Exam 1)
	Exam 1 (Learning Outcomes 1-4)
Tue Mar 7, 2017	NO CLASS (Spring Break)
Tue Mar 14, 2017	Class Meeting
	Module 6 Discussion: Norm-Referenced Reliability
Thu Mar 16, 2017	Lab Reaction Times Due
Tue Mar 21, 2017	Class Meeting
	Module 7 Discussion: Norm-Referenced Validity
	Assignment 4 (click for details)
Tue Mar 28, 2017	Class Meeting
	Module 8 Discussion: Criterion Referenced Testing
	Assignment 5 (click for details)
Tue Apr 4, 2017	Review Session

Date	Details
	Module 9 Discussion: Epidemiology and Diagnostic Testing
	Assignment 6 (click for details)
Tue Apr 11, 2017	Exam 2 (Learning Outcomes 5-6)
Tue Apr 18, 2017	Class Meeting - Final Projects
	Human Subjects Protection (PHRP) Certificate
Thu May 4, 2017	Final Project (click for details)