Statistics and Evaluation - KINE 394
Fall 2017/MWF 10:00-10:50; Blow Hall, room 332

Professor: Michael Deschenes, Ph.D.               Office: Adair 404A
Telephone: 221-2778                                Office Hours: by appointment
E-mail: mrdesc@wm.edu

Course Description
This course is designed to familiarize the student with the techniques of measurement, evaluation and statistics in the related fields of Health Sciences, and Exercise Science. In addition, the student will gain an understanding of the design, analysis, and reporting of research.

Objectives
The successful completion of this course will enable the student to:
1. understand the role of evaluation in teaching, allied health, or the research process.
2. demonstrate an understanding of fundamental statistical procedures: central tendency, variability, correlation, t-tests, analysis of variance, and regression.
3. demonstrate an appreciation of the proper use and role of statistics in the analysis and evaluation of information.
4. use calculators and personal computers for data analysis and scoring assessments.

Course Evaluation
The student’s final grade will be based as follows:
- Exam #1 = 25%
- Exam #2 = 25%
- Final Exam (comprehensive) = 40%
- Homework = 10%

Required Textbook
Schedule of Lecture Topics

1. Introduction, Measurement and Evaluation in Physical Education, Exercise Science and Allied Health
   a. measurement, statistics, and research (ch 1, delete “validity” pp.10-12)
   b. organizing and displaying scores (ch. 2)
   c. measures of central tendency (ch. 4)
   d. measures of variability (ch. 5)
   e. percentile scores and other standard scores (ch 3)
   f. normal curve and sampling error (ch. 6)

   Exam #1

   g. t-Test (ch. 10)
   h. analysis of variance - ANOVA (ch. 11, 12)
   i. correlation and regression (ch. 8)
   j. non-parametric analyses (ch. 16)

   Exam #2

3. Reliability and Objectivity (ch. 13)
4. Validity
5. Evaluating Achievement
6. Evaluating Knowledge

   Final Exam (comprehensive)

USE FORMULAS PROVIDED IN CLASS, NOT THOSE FOUND IN TEXTBOOK!!!!!!