Psychology 2990- Research Analysis

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Overview

This course is an introduction to statistics. The emphasis will tend to be on the theoretical foundations of applied quantitative methods.

The required text is Understanding Statistics in the Behavioral Sciences, by Robert R. Pagano (7th or 8 th Edition); Thomson-Wadsworth, 2004 - ISBN# 0-534-61767-0.

Lectures will serve in presenting conceptual material discussed by Pagano to the student. As such, the focus of this course will be conceptual as opposed to mechanical. Statistical applications will be learned within the context of the laboratory sessions as a means to help the student better understand the conceptual information presented during lectures.

There will be three (3) exams in this course. The format of these exams will be multiple choice and true/false answers. The Third (3rd) exam will represent the course "Final Exam". The "Final Exam" is comprehensive (although, the instructor reserves certain "degrees of freedom" in weighting past material versus new material).

As a general rule, there will be NO exams given to individuals at times OTHER than those for the class. Please do not ask to take exams early or late.

The final grade in this course will be based on an approximate 'straight' percentage analysis of performance. Thus, an 'A' grade will reflect about 90% of the total point allocation, 'B' about 80%, etc.

Attendance: Attendance will be taken in lecture since class participation is an integral feature of the course, but is not required. Students who must miss lectures should arrange to "borrow" notes from peers. Lab attendance is required since participation in class activities is necessary to complete lab assignments.

Lab: The Lab Instructor will administer the lab. The lab is intended to complement lectures by providing a forum for discussion of practical issues related to the topics covered in class. Lab activity will illustrate problems and issues relevant to Statistics, and lab projects will provide students with applied experiences that complement the course content. Statistical software for data analysis will be used as a means to help the student better understand the conceptual information presented during lectures. In addition, the software will help establish a level of computer competency that is essential for graduate level work in psychology and other fields. The lab will constitute 30% of course grade.

Academic Dishonesty: All academic infractions (e.g., plagiarism) will be dealt with strictly according to the academic honesty policy and procedures established by the university. If a student is found dishonest in any aspect of this class, the student will receive an "F" in the course.

Schedule*

Class: First Meeting — Syllabus Overview- Opening Remarks – The Size of the Sun

Week 1 – Statistics and Science

Week 2 – Measurement

Week 3 – Distributions

Week 4 –Central Tendency and Variance

Week 5 –The Normal Curve and Standardization

Week 6 – Correlation

Week 7 – Linear Regression

Week 8 –Sampling and Probability

Week 9 – The Binomial Distribution

Week 10 – Hypothesis Testing

Week 11 –Power

Week 12 – Sampling Distributions

Week 13 – Students t Test for Single Samples

Week 14 – Students t Test for Independent and Correlated Groups

Week 15/16 - ANOVA

***Details of this syllabus are subject to change.*