Revised 8/22

NOVA COLLEGE-WIDE COURSE CONTENT SUMMARY
PSY 210 - STATISTICS FOR BEHAVIORAL SCIENCES (4 CR.)

Course Description

Introduces the principles and processes of statistics for behavioral science research. Focuses on selection and application of appropriate statistical tests and accurate interpretation of behavioral science data. Utilizes statistical software for conducting statistical analysis. Lecture 4 hours. Total 4 hours per week.

Please Note: Credit will be awarded for either PSY 210: Statistics for Behavioral Sciences or PSY 213: Statistics for Behavioral Sciences.

General Course Purpose

Statistics for Behavioral Sciences is an applied statistics class focused on analysis and interpretation of data for behavioral science research. This course will prepare students to choose appropriate statistical tests, carry out analyses, interpret results, and write APA-style results summaries. SPSS is currently the preferred statistical software and is required for transfer to some 4-year institutions.

Course Prerequisites/Corequisites

Prerequisite: PSY 200. Corequisite: MTH 245 or equivalent.

Course Objectives

Upon completing the course, the student will be able to:

Scientific Literacy
- Explain how to utilize statistical analysis to help make informed decisions in the behavioral sciences
- Evaluate benefits and implications associated with using hypothesis testing to draw conclusions about behavioral science questions

Quantitative Literacy
- Use statistical software to conduct statistical analyses appropriate to behavioral science research
- Interpret results and output from statistical analysis

Conduct and summarize descriptive statistical analyses
- Differentiate between descriptive and inferential statistics and their appropriate uses
- Compute descriptive statistics appropriate for behavioral science research (e.g., measures of central tendency, measures of variability)
- Accurately interpret statistical findings and results
- Produce appropriate graphic representations of data

Use appropriate statistical tests to conduct inferential statistical analyses
- Identify appropriate statistical tests for specific research questions
- Explain hypothesis testing as the foundation of scientific inquiry, and discuss limitations of hypothesis testing
- Compute inferential statistics appropriate for behavioral science research (e.g., z-test, t-test, ANOVA, correlation, regression)
- Conduct statistical analyses appropriate for behavioral research (descriptive and inferential statistics)

- Use statistical software (e.g., SPSS, R) to conduct statistical analyses

Interpret results of statistical analyses

- Accurately interpret statistical findings and results
- Write accurate summaries of statistical analyses following APA guidelines
- Differentiate between statistical and practical significance
- Accurately report and explain p-values, confidence intervals, and effect sizes
- Discuss limitations of behavioral research (e.g., assumptions, correlation v. causation, replication issues)
- Describe how individual and sociocultural factors can influence conclusions drawn from scientific research

Major Topics to be Included

- Conduct and summarize descriptive statistical analyses
- Use appropriate statistical tests to conduct inferential statistical analyses
- Interpret results of statistical analyses