

## **NOVA COLLEGE-WIDE COURSE CONTENT SUMMARY PSY 213 - STATISTICS FOR BEHAVIORAL SCIENCES (3 CR.)**

### **Course Description**

Introduces the principles and processes of statistics within behavioral research. The emphasis is on understanding and applying statistical tests to behavioral data. Recognition and use of process, based upon knowledge and understanding, is stressed over mathematical derivation. The selection of appropriate statistics, their application and correct decisions of interpretation are conducted within a behavioral research experience. Lecture - 3 hours per week.

### **General Course Purpose**

This course is designed to introduce students to the process and methods of statistics in behavioral research. This course will give students the opportunity to understand and apply statistical tests to behavioral data. Students will be offered opportunities to hone skills in selecting appropriate statistics, applying them, and interpreting their meaning in a behavioral research context.

### **Course Prerequisites/Corequisites**

Prerequisites: PSY 201, PSY 202 or PSY 200 and evidence of proficiency in English are recommended. Satisfactory score on an appropriate proficiency examination in Algebra II or equivalent

### **Course Objectives**

Upon successful completion of the course, the student will be able to:

- Explain the use and importance of statistics with behavioral research
- Identify and apply statistical processes for basic descriptive and inferential use of statistics in research
- Interpret statistical results in terms of how they answer different questions of interest to behavioral sciences researchers
- Perform statistical calculations with use of calculator and/or computer generated statistical analyses

### **Major Topics to be Included**

- General introduction to the construct of statistics
- Scales of measurement
- Frequency distributions
- Measures of central tendency and variability
- Normal distribution and standard scores
- Logic of hypothesis testing (e.g. null and alternative hypotheses, Type I and Type II error)
- Correlation and linear regression
- T-tests
- One- and two-way analysis of variance (ANOVA)

### **Optional topics**

- Nonparametric statistics (e.g. Chi square)
- Introduction to Computer-Based Statistical Packages