Bemidji State University

PSY 3401: Basic Statistics for Research

A. COURSE DESCRIPTION

Credits: 4

Lecture Hours/Week: *.*

Lab Hours/Week: *.*

OJT Hours/Week: *.*

Prerequisites: None

Corequisites: None

MnTC Goals: None

Measures of central tendency, variability, and shape; t-tests; correlation; linear regression; chi-square tests; and one-way analysis of variance. Emphasis is on the use of appropriate statistical procedures for research using SPSS statistical software. Prerequisite: Completion of Liberal Education mathematics requirement (Category 4).

B. COURSE EFFECTIVE DATES: 06/02/2008 - Present

C. OUTLINE OF MAJOR CONTENT AREAS

1. PASW tutorial, data files and data manipulation
2. Tables and graphs; shapes of distributions
3. Central tendency, variability, and z-scores
4. Normal curve, sample vs. population, and probability
5. Correlation and regression
6. Introduction to hypothesis testing
7. Inferential statistics
8. Effect size and statistical power
9. Inferential statistics: one sample t-test and paired samples t-test
10. Inferential statistics: independent samples t-test
11. Inferential statistics: analysis of variance
12. Inferential statistics: chi-square and other nonparametrics

D. LEARNING OUTCOMES (General)

1. develop conceptual understanding. This includes understanding the logic/mathematics underlying the statistical procedures covered in the course and knowing the assumptions which must be met for the valid application of these procedures.
2. develop PASW skills. This includes being able to build data files using the statistical computer package PASW and being able to create and interpret PASW output for the statistical procedures covered in the class.
3. develop applications skills. This includes knowing the appropriate statistical procedure to employ in a research situation and the ability to follow proper format in the written communication of research results.

E. Minnesota Transfer Curriculum Goal Area(s) and Competencies

None

F. LEARNER OUTCOMES ASSESSMENT

As noted on course syllabus

G. SPECIAL INFORMATION

None noted