COURSE TITLE & NUMBER: Behavioral Statistics: PSYC1220
CREDITS: 4 (4 Lec/0 Lab)
PREREQUISITE: General Psychology: PSYC 1205

CATALOG DESCRIPTION:
Behavioral Statistics introduces students to basic mathematical and computerized procedures to analyze data in the behavioral sciences. In this course, students will use statistical software to conduct descriptive and inferential data analyses. Students will identify research designs, choose and apply statistical procedures to help to answer psychological and behavioral scientific research questions, as well as read, interpret, and write APA-style Results sections for behavioral science research.

OUTLINE OF MAJOR CONTENT AREAS:
1. Identification of common research design
   A. Scientific method
   B. Hypothesis testing
2. Central tendency and variability
3. Basics of Inferential statistics
   A. Z scores
   B. The normal curve
   C. Sample versus population
   D. Probability
4. Making sense of statistical significance
   A. Effect size
   B. Confidence intervals
   C. Statistical power
5. Choosing appropriate statistical analysis methods
6. Using Excel, JMP, JASP, SPSS, or another appropriate statistical package/program
7. Reporting results in APA format
8. The t-test: One and two Samples (between and within)
9. Introduction to analysis of variance
10. Factorial analysis of variance
11. Correlation
12. Regression
13. Chi-square tests

COURSE GOALS/OBJECTIVES/OUTCOMES:
1. Students will learn how to identify various common research designs.
2. Students will demonstrate an understanding of the mathematics and logic behind selecting and applying statistical procedures appropriate for a given hypothesis, scale of measurement, and research design.
3. Students will perform and describe the statistical procedures commonly used by social scientists including their respective advantages and disadvantages.
4. Students will read, interpret, and summarize basic statistical conclusions from psychological and behavioral science sources accurately and critically evaluate the statistical presentations of others.
5. Students will interpret statistical findings and graphs in the context of their level of statistical significance, confidence intervals, effect sizes, and underlying assumptions, and explain these findings using common language and conventions of the American Psychological Association (APA).
6. Students will use SPSS or another statistical package to build data sets, run univariate analyses, and interpret and display results.

**MNTC GOALS AND COMPETENCIES MET:**
History and the Social and Behavioral Sciences

**HCC CORE COMPETENCIES MET:**
Thinking Creatively and Critically

**STUDENT ASSESSMENT SHALL TAKE PLACE USING INSTRUMENTS SELECTED/DEVELOPED BY THE COURSE INSTRUCTOR.**

**ADDITIONAL INFORMATION:** None

Curriculum Committee Approval Date: January 14, 2019

AASC APPROVAL DATE: January 16, 2019
REVIEW DATE: January 2024