COLLEGE OF EDUCATION
VALDOSTA STATE UNIVERSITY
DEPARTMENT OF PSYCHOLOGY, COUNSELING AND GUIDANCE
RESEARCH DESIGN AND ANALYSIS
PSYC 8000
THREE (3) SEMESTER HOURS

REQUIRED TEXTBOOKS
Whitley, B. E. (1996). Principles of research in behavioral science. Mountain View, CA:Mayfield.

COURSE DESCRIPTION
Prerequisite: PSYC 5500 or permission of instructor. Design of experimental and correlational research using univarrate, bivariate, and multivariate techniques.

Prerequisite Competencies

Calculate, graph, and summarize nominal, ordinal, interval, and ratio scaled data.

Given a research scenario, identify and explain constructs, independent variables, dependent variables, and operational **definitions.**

In the context of a research example, explain the scientific method, hypothesis testing, random sampling and placement, sampling distribution of the mean,and the logic of Analysis of Variance (ANOVA).

Given a bivariate data set, use traditional hand calculations and a computer software package (e.g., SPSS) to plot, calculate and interpret correlational statistics to include Pearson r and linear regression and prediction.

Given data for a three- or four-group experimental design,, use traditional hand calculations and a computer software package (e.g., SPSS) to calculate and interpret Analysis of Variance (ANOVA), F tests, and control for type 1, error.

Given data for a 2 x 2 factorial experimental design, use computer software (e.g., SPSS) to calculate and interpret ANOVA F tests for main effects and interactions.

Design, conduct, and analyze a two-group experiment.

Using APA style and format write a manuscript describing an experiment

COLLEGE OF EDUCATION CONCEPTUAL FRAMEWORK PRINCIPLES AND CORRESPONDING PROGRAM OUTCOMES

Principle#3:Graduates think systematically about their practice,use research and technology, and contribute to the knowledge base.

1/0 #1: Utilize basic research designs to conduct laboratory and field studies as related to human resources and organizational issues.
1/0 #2: Collect, summarize, analyze, and interpret data utilizing univariate and multivariate statistical procedures.
CC #12: Articulation of the scientific method and knowledge of research and statistical terminology, and the ability to critically evaluate research based on methodology used and draw conclusions. **COURSE OBJECTIVES**
1. Identify and describe the assumptions underlying parametric and non-parametric tests, types of variables, and

statistical analyses associated with applied and basic experiments, quasi-experiments, correlation research, surveys, observation, and case study designs. (I/O#1, I/O#2, CC#12)

2. Given data for a repeated-measures experimental design with at least three levels, use SPSS to analyze and interpret results. (I/O#1, I/O#2, CC#12)

3. Given data from a factorial design with any combination of between-subjects variables and repeatedmeasures variables use SPSS to analyze and interpret data. (I/O#1, I/O#2, CC#12)

4. Given data for a single dependent (criterion) variable arid no less than three Independent (predictor) variables, use SPSS to conduct a multiple regression analysis and interpret data. (I/O#1, I/O#2,CC#12)

5. Design and analyze two one-way experimental designs using three or more levels of a betweensubjects independent variable. and three or more levels of a repeated-measures independent variable and report the results in APA format. (I/O#1, I/O#2, CC#12)

6. Design and analy-ze three factorial experimental designs with at least three levels of each variable (e.g., 3 X 3) for a completely between-subjects design, completely repeated-measures design and a mixed design and report the results in APA format. (I/O#1, I/O#2, CC#12)

7. Design and analyze multiple regression research designs with at least three predictor variables and report the results in APA format. (I/O#1, I/O#2, CC# 12)

8. Write, a research proposal using APA format. (I/O#1, I/O#2, CC#12)

COURSE EVALUATION

Evaluation Instruments/Methods

A. Statistics Notebook. (10%) Students will be required to analyze selected data sets via the SPSS-PC statistics program. The SPSS programs and outputs from analyses should be annotated and kept in the notebook. (Objectives: 2, 3, 4, 5, 6, 7)

B. Written Research Proposal. (40%) Students will complete a research proposal (APA format). The proposal will include a review of literature, a methodology section, and an analysis section. (Students may be required to present these to the class). (Objectives: 1, 8)

C. Tests. (40%) A mid-term and final will be administered. These tests may include multiple-choice. essay, short answer, and/or computational items. (Objectives: 1, 2, 3, 4, 5, 6, 7)

D. Critiques. (10%) Weekly written/oral critiques of research articles. (Objectives: 1, 8)

It should be noted that certain computer skills will be required in this course. The analysis of data will be accomplished via SPSS Windows. I will give you instruction on using SPSS Windows. Each student will need a 3.5 inch diskette. You will also need a calculator.

Final Grading Scale
90-1OO=A
80-89=B
70-79=C
60-69=D
Below 60=F

ATTENDANCE POLICY

The College of Education requires that students adhere to the absence regulations as stated in the University's graduate bulletin, "A student who misses more than 20% of the class work of a course will be subject to receiving a failing grade in the course." Because students are being prepared to accept professional duties and responsibilities, attendance requirements are viewed as critical to developing professionalism.

INSTRUCTOR

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SPECIAL NEEDS STATEMENT

Students requiring classroom accommodations or modifications because of a documented disability should register with the Special Services Program (245-2498) and discuss this need with the instructor at the beginning of the semester.