GROSSMONT COLLEGE

COURSE OUTLINE OF RECORD

Curriculum Committee Approval: 03/22/2022

GCCCD Governing Board Approval: 04/19/2022

PSYCHOLOGY 205 – RESEARCH METHODS IN PSYCHOLOGY

1. Course Number Course Title Semester Units

PSY 205 Research Methods in Psychology 4

Semester Hours

3.5 hours lecture: 56-63 hours 112-126 outside-of-class hours

1.5 hours lab: 24-27 hours 192-216 total hours

1. Prerequisite

A “C” grade or higher or “Pass” in Psychology 120 and Psychology 215 or Anthropology 215 or Sociology 215 **or** Math 160 or equivalent.

Corequisite

None

Recommended Preparation

None

1. Catalog Description

An introduction to the scientific methodology used in psychology and the behavioral sciences. This course surveys various psychological research methods with an emphasis on research design, experimental procedures, descriptive methods, mixed methods (qualitative and quantitative) instrumentation, and the collection, analysis, interpretation, and reporting of research data. Research design and methodology will be examined through a review of research in a variety of the sub-disciplines of psychology. The laboratory is designed to complement the lectures and allow each student to design and conduct psychological research.

4. Course Objectives

Our students will:

a. Describe the fundamentals of the scientific method.

b. Critically evaluate empirical research reports.

c. Synthesize a body of research findings with an understanding of APA style and format.

d. Create testable hypotheses.

e. Compare a variety of research designs including: experimental and non-experimental methods, qualitative and quantitative methods, and standard research practices.

f. Analyze the strengths and limitations of experimentally based research designs

g. Evaluate the ethical treatment of human and animal participants in research and the institutional requirements for conducting research.

h. Assess the generalizability of study results.

i. Demonstrate proficiency in APA style.

j. Analyze quantitative data using SPSS or other software for hypothesis testing and academic presentation.

1. Instructional Facilities

a. Standard classroom

b. Computer laboratory equipped with SPSS software.

6. Special Materials Required of Students

None

7. Course Content

1. Introduction

1) Scientific and nonscientific approaches to knowledge

2) Dependent and independent variables

3) Validity and reliability

4) Scientific method and its goals

5) Causal and correlational relationships

1. Ethical Issues in the Conduct of Psychological Research

1) APA ethical standards

2) Risk/benefit ratio of research

3) Use of deception in research

4) Steps in ethical decision making

1. Descriptive Methods — Observation

1) Observational techniques

2) Rationale for using intervention methods of research

3) Reactivity, demand characteristics, observer bias, expectancy effects and other biases

1. Descriptive Methods — Survey Research

1) Positive, negative, and zero correlational measures

2) Factors affecting reliability and validity

3) Basic terms of sampling

4) Different research designs

5) Unobtrusive Measures of Behavior

1. Experimental Methods — Independent Group Designs

1) Relevant characteristics

2) Conditions

3) Experimental control

4) Random groups design and independent groups design

5) Analysis of independent groups design

6) Stating plausible competing hypotheses

1. Experimental Methods — Repeated Measures Designs

1) Reasons to use repeated measures designs

2) Methods for counterbalancing practice effects

3) Limitations of repeated measures designs

4) Problem of differential transfer

5) Computation of descriptive statistics

6) Comprehensive review of ANOVA designs.

1. Experimental Methods — Complex Designs

Simple and complex designs

1. Experiments based on number of independent variables and number of levels of each independent variable

1) Main effects and interaction effects using both table and graph methods

2) Analysis of complex designs with and without interactions

1. Applied Research — Single-Case Research Design

1) Nature, advantages, and disadvantages of case studies

2) Various single-case study designs

3) Ethical issues

1. Applied Research — Quasi-Experimental Designs; Program Evaluation

1) How settings differ

2) Characteristics of true experiments and quasi-experiments

3) True experiments and threats to internal and external validity

4) Identify quasi-experimental designs

1. Writing psychological reports

1) APA style and format

2) Presentations and publications

8. Method of Instruction

a. Lecture and discussion

b. Demonstrations

c. Small group discussion and projects

d. Statistical software presentations

e. In class projects illustrating procedures and technology discussed in lecture.

f. Multimedia presentations

9. Methods of Evaluating Student Performance

* 1. Quizzes and exams will measure the student’s ability to apply their understanding of research methods.
  2. Quizzes and exams will consist of multiple choice, short answer, and essay questions.
  3. Written assignments will evaluate the student’s ability to analyze research findings from various types of experimental designs and methods.
  4. Research projects to collect and analyze data and present research findings. Examples include an APA style and formatted research report or a Research Poster Presentation.
  5. Comprehensive written final exam

10. Outside Class Assignments

Weekly reading of assigned chapters in textbook is required before class meetings

Weekly reading of relevant web sources: American Psychological Association at [www.apa.org](http://www.apa.org), Library searches of academic findings.

c. Written assignments that synthesizes current research findings. Examples include a literature review paper.

1. Collect survey data and prepare presentation

11. Representative Texts:

a. Representative Texts:

1) American Psychological Association. *Publication Manual of the American Psychological Association.* Sixth edition. Washington, D.C.: APA Press. 2010.

2) Cozby, P.C. *Methods in Behavioral Research*. 13th edition. New York: McGraw Hill. 2017.

3) Morling, B. *Research Methods in Psychology.* 4th edition. New York: W. W. Norton & Company, Inc.2021

b. Supplementary texts and workbooks:

None

Addendum: Student Learning Outcomes

Upon completion of this course, our students will be able to do the following:

1. Describe the strengths and limitations of the different research designs used in the behavioral sciences.
2. Analyze peer reviewed research papers to identify study design, independent and dependent variables, as well as summarize study results and conclusions.
3. Develop and test hypotheses using statistical procedures appropriate for various research methods and questions.
4. Evaluate the degree to which various research methodologies and measures meet ethical guidelines.
5. Produce an American Psychological Association (APA) style research paper, including the abstract, introduction, methods, results, discussion, and references.