

CUYAMACA COLLEGE
COURSE OUTLINE OF RECORD

PSYCHOLOGY 205 – RESEARCH METHODS IN PSYCHOLOGY

3.5 hours lecture, 1.5 hours laboratory, 4 units

Catalog Description

Introduction to scientific methodology in psychology. Emphasis is placed on descriptive, experimental, and applied research. Students will learn the American Psychological Association writing style for empirical report writing. This course is intended for psychology majors and behavioral science students interested in the processes of research. The laboratory component of this course is designed to complement the lectures and allow each student to design and conduct a psychological research study.

Prerequisite

“C” grade or higher or “Pass” in PSY 120, and 215 or Math 160 or equivalent

Entrance Skills

Without the following skills, competencies and/or knowledge, students entering this course will be highly unlikely to succeed:

- 1) Distinguishing Basic Psychological Terminology
 - a. Identify terms used within psychology
 - b. Distinguish sub-areas within psychology
 - c. Identify different approaches
- 2) Psychological perspectives
 - a. Identify the various perspectives from which psychologists interpret and explain behavior
 - b. Describe methods of behavioral control from various fields of psychology
 - c. Discuss different factors contributing to changes in behavior
- 3) Apply Research
 - a. Scientific method
 - b. Identify basic types of research methods
 - c. Delineate the different strengths and weaknesses of each method
 - d. Apply research-based critical thinking
 - e. Use and misuse of statistics
- 4) Analysis of Data
 - a. Hypothesis development and setup
 - b. Enter data into spreadsheet
 - c. Code data appropriate to scale used
 - d. Choose appropriate analysis based on variables
 - e. Produce graphs to show results of analysis
 - f. Derive conclusions from data applied to hypothesis

Course Content

- 1) Introduction to the American Psychological Association (APA)
 - a. Style
 - b. Format
- 2) Research Methods
 - a. Empirical research
 - b. Descriptive methods
 - c. Naturalistic observation
 - d. Laboratory observation

- e. Surveys and questionnaires
 - f. Case studies
 - g. Correlation studies
 - h. Archival research
 - i. Qualitative versus quantitative research
- 3) Experimental Design
- a. Experimental methods
 - b. Independent groups
 - c. Random groups
 - d. Control
 - e. Placebos
 - f. Double blind
 - g. Yoked control
 - h. Dependent groups
 - i. Complex designs
 - j. Factorial designs
 - k. Interaction
 - l. Meta analysis
- 4) Ethics in psychological research
- a. Human participants
 - b. Animal participants
 - c. Institutional review boards
 - d. Informed consent
 - e. Debriefing
- 5) Writing psychological reports
- a. APA style
 - b. Presentations and publications

Course Objectives

Students will be able to:

- 1) Define, describe, and employ the American Psychological Association (APA) style and format in order to write empirical reports.
- 2) Distinguish among the descriptive methods in empirical research in order to determine appropriate research methods.
- 3) Differentiate between qualitative and quantitative research methods in order to determine appropriate research methods.
- 4) Compare strengths and limitations of experimentally based research designs in order to determine appropriate research methods.
- 5) Propose experimental research designs incorporating independent groups, dependent groups, complex designs and applied methods in order to conduct research.
- 6) Apply appropriate research designs to test hypotheses.
- 7) Design and conduct experiments following appropriate ethical treatment of human and animal participants in behavioral research guidelines.

Method of Evaluation

A grading system will be established by the instructor and implemented uniformly. Grades will be based on demonstrated proficiency in subject matter determined by multiple measurements for evaluation, one of which must be essay exams, skills demonstration or, where appropriate, the symbol system.

- 1) Quizzes and exams that measure students' ability to recognize, describe, explain, and provide examples of the patterns, processes, and relationships associated with procedures of conducting experiments in psychology.
- 2) Written assignments that demonstrate students' ability to describe research findings from various types of experimental designs and methods.

- 3) Group projects to collect data and present research findings in various delivery methods.

Special Materials Required of Student

None

Minimum Instructional Facilities

- 1) Smart classroom with writing boards
- 2) Access to open computer lab

Methods of Instruction:

- 1) Lecture and discussion
- 2) Discussion seminar
- 3) Collaborative learning
- 4) Multimedia presentations

Out-of-Class Assignments

- 1) Reading of various articles and textbook sources
- 2) LRC research using academic databases
- 3) Survey development and data collection

Texts and References

- 1) Required (representative examples):
 - a. Gravetter, Frederick. *Research Methods for the Behavioral Sciences*. 8th edition. Cengage, 2015. ISBN: 1111342253
 - b. Shaughnessy, et al. *Research Methods in Psychology*. 11th edition. McGraw-Hill, 2016. ISBN: 0077825365
 - c. Rajiv S. Jhangiani, I-Chant A. Chiang, Carrie Cuttler, and Dana C. Leighton: *Research methods in Psychology*.
- 2) Supplemental: *Publication Manual of the American Psychological Association*. 7th edition. American Psychological Association, 2019.

Student Learning Outcomes

Upon successful completion of this course, students will be able to:

- 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 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.