

CALIFORNIA STATE UNIVERSITY CHANNEL ISLANDS

NEW COURSE PROPOSAL

PROGRAM AREA

1. Catalog Description of the Course. [Include the course prefix, number, full title, and units. Provide a course narrative including prerequisites and corequisites. If any of the following apply, include in the description: Repeatability (May be repeated to a maximum of ___ units); time distribution (Lecture ___ hours, laboratory ___ hours); non-traditional grading system (Graded CR/NC, ABC/NC). Follow accepted catalog format.]

PSY 300 PSYCHOLOGICAL RESEARCH AND STATISTICAL METHODS I, 3 units

Two hours lecture and two hours lab per week

Prerequisite: PSY 202, 212, 213, 217 and Upper Division standing, or consent of the instructor.

Introduction to research methodology and a basic framework to evaluate social and behavioral science research. Topics include how to apply the scientific method within the field of psychology and the social sciences, ethical guidelines and issues related to the research in, and practice of, psychology, how to evaluate research and popular claims in psychology with a critical eye, and computer applications related to statistics and research. Coursework on inferential and descriptive statistical methods will build on material from PSY 202.

2. Mode of Instruction.

Table with 4 columns: Mode of Instruction, Units, Hours per Unit, Benchmark Enrollment. Rows include Lecture, Seminar, Laboratory, and Activity.

3. Justification and Learning Objectives for the Course. (Indicate whether required or elective, and whether it meets University Writing, and/or Language requirements) [Use as much space as necessary]

This is a required course for Psychology majors. In this course, students will develop the collaborative, research, and writing skills needed to conduct and present an original, ethical psychological experiment. Through this course, students will be able to:

- 1. Articulate the basic tenets of the empirical method in psychology.
2. Explain why psychology is a science.
3. Read, understand, and critically evaluate research reports published in psychological journals on the basis of its construct validity, internal validity, external validity, statistical validity, and conformity to APA's ethical principles.
4. Develop testable hypotheses derived from a theory.
5. Identify and apply various research designs in new situations.
6. Create and critique questionnaires/survey instruments.
7. Identify which statistical analyses are appropriate for various research designs.
8. Use statistical software (SPSS) to analyze data.
9. Interpret and draw conclusions from descriptive and inferential statistical analyses.
10. Apply the experimental method to answer questions about behavior through participation in laboratory exercises and experiments.
11. Develop necessary skills for an efficient review of the psychological literature using a computerized index (PsycInfo).
12. Prepare written reports according to the stylistic conventions of the American Psychological Association.

4. Is this a General Education Course YES NO

If Yes, indicate GE category:

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| A (English Language, Communication, Critical Thinking) | |
| B (Mathematics & Sciences) | |
| C (Fine Arts, Literature, Languages & Cultures) | |
| D (Social Perspectives) | |
| E (Human Psychological and Physiological Perspectives) | |

5. **Course Content in Outline Form.** [Be as brief as possible, but use as much space as necessary]

Need for quantitative methods in science in general and psychology in specific
Scientific and statistical methods as ways to reason inductively and deductively about human behavior
The research process
Selecting a problem and reviewing the research
Sampling and generalizability
Measurement, reliability, and validity
Methods of measuring behavior
Data collection and descriptive statistics
Descriptive, historical and correlational methods of research and appropriate data analysis strategies
Qualitative methods and appropriate data analysis strategies
Experimental research methods and appropriate data analysis strategies
Quasi-experimental research methods and appropriate data analysis strategies
Writing a research proposal
Writing a research manuscript

6. **References.** [Provide 3 - 5 references on which this course is based and/or support it.]

American Psychological Association. (2002). *Publication manual of the American Psychological Association* (5th ed.). Washington, DC: Author.

George, D., & Mallery, P. (2002). *SPSS for Windows step by step: A simple guide and reference* (4th ed.). New York: Allyn & Bacon.

McBurney, D. H. (2002). *How to think like a Psychologist: Critical thinking in Psychology*. New Jersey: Prentice-Hall.

Myers, A., & Hansen, C. (1997). *Experimental psychology* (4th ed.). Pacific Grove, CA: Brooks/Cole Publishing

Salkind, N. J. (2002). *Exploring research* (5th ed). New Jersey: Prentice-Hall.

7. **List Faculty Qualified to Teach This Course.**

Psychology faculty

8. **Frequency.**

a. Projected semesters to be offered: Fall Spring Summer _____

9. **New Resources Required.**

- a. Computer (data processing), audio visual, broadcasting needs, other equipment
- b. Library needs
- c. Facility/space needs

10. **Consultation.**

Attach consultation sheet from all program areas, Library, and others (if necessary)

11. If this new course will alter any degree, credential, certificate, or minor in your program, attach a program modification.

Harley Baker 05 January 2003
Proposer of Course Date