A. Course Description

Credits: 5

Prerequisites: PSYC 100 General Psychology or equivalent with instructor's consent.

Lab Hours/ Weeks: Corequisites: None

Lecture Hours/ Week:

MnTC Goals: Goal 03 - Natural Science, Goal LS - Upper Division Liberal Studies

This course introduces students to scientific research methods in psychology, emphasizing the experimental method. Topics include developing research questions, reviewing background information, deciding on appropriate methodology, and collecting and interpreting data. This course prepares students to think critically about psychological claims and is generally required preparation for graduate study. This course includes assignments in the Psychology Laboratory.

B. Course Effective Dates: 08/24/2002 - Present

C. Outline of Major Content Areas:

See Course Description for major content areas.

D. Learning Outcomes (General)

1. Apply research design by analyzing how to carry out experiments and evaluate topics such as, reliability, correlation versus causation, ANOVA, interpretation of significance, and conceptualization of experimentation.
2. Apply the knowledge of methodology skills to specific questions, issues, and problems related to the sciences.
3. Be able to develop and communicate alternative explanations for scientific findings and approaches.
4. Communicate experimental findings in both oral and written presentations and evaluate the oral and written presentations and information presented by others.
5. Formulate and test hypotheses by developing and executing a research project through the collection and statistical analysis of new data, and the interpretation and presentation of experimental results.
6. Have an understanding and comprehension of scientific methodology theory and applied skills.
7. Master the tools necessary to develop and carry out quantitative and qualitative research.

E. Learning Outcomes (MN Transfer Curriculum)

Goal 03 - Natural Science
1. Formulate and test hypotheses by performing laboratory, simulation, or field experiments in at least two of the natural science disciplines. One of these experimental components should develop, in greater depth, students' laboratory experience in the collection of data, its statistical and graphical analysis, and an appreciation of its sources of error and uncertainty.
2. Demonstrate understanding of scientific theories.
3. Communicate their experimental findings, analyses, and interpretations both orally and in writing.
4. Evaluate societal issues from a natural science perspective, ask questions about the evidence presented, and make informed judgments about science-related topics and policies.

Goal LS - Upper Division Liberal Studies
None

G. Special Information
None