Common Course Outline
Psy 255
Experimental Psychology
4 Semester Hours

The Community College of Baltimore County

Description

Experimental Psychology
Introduces research methods used to study animal and human behavior and mental processes; examines how to perform experiments in learning, memory and problem solving; apply statistical methods for data analysis, writing of scientific reports, and critically evaluate classical and current research.
Prerequisite: PSYC 101 and MATH 153

Overall Course Objectives
Upon completion of this course the student will be able to:

1. Explain the scientific attitude toward developing an understanding of animal and human behavior
2. Critically evaluate research methods found in scientific articles and other data formats
3. Compare and contrast various experimental designs
4. Use inferential statistics to answer experimental questions
4. Apply knowledge of scientific method to practical everyday situations and social issues
5. Evaluate the issues related to the inclusion of nonhuman animals in the research process
6. Summarize and apply the APA ethical guidelines as relates to human and non-human research participants.
7. Design and conduct an individual research project
8. Use knowledge of descriptive and inferential statistics to analyze data and form scientifically based conclusions
9. Use acceptable procedures for communication of research finding
10. Produce a write up of research conforming to APA writing style

Major Topics

1. Overview of experimentation. Problem solving; probability; working principles...
2. Hypothesis construction and testing
3. Experimental variable control (independent, dependent, extraneous)
4. Planning and conducting an experiment; including ethical considerations according to APA ethical guidelines
5. Experimental designs: Two randomized groups
6. Experimental designs: More than two randomized groups
7. Factorial research designs (ANOVA)
8. Experimental designs: Two matched groups
9. Correlational research -meaning, reliability, validity
10. Experimental design: single subject research
11. Generalization, explanation, and prediction in psychology research
12. Sampling techniques
13. Descriptive and inferential statistics

14. Animal research issues
15. APA writing style
16. Statistical computer applications

Course Requirements (

Grading/exams: Grading procedures will be determined by the individual faculty member but will include in-class examinations containing some essay and problems solving questions on each exam.

Writing: An APA correct research paper reporting the results of their independent research projects

Other requirements

Weekly laboratory assignments as determined by the individual faculty member, including some application of statistical methods

Other Course Information

This course is an elective course for psychology students, and is recommended as part of the transfer program
This course include a weekly laboratory session, in a computerized environment
This course requires the design, conduction, and analyzing of an independent research project.
This course requires the completion of a research paper written in correct APA style and a possible verbal presentation of the research.

Revised 06/14/00