

PSYCHOLOGY 301 (Research Methods in Psychology)
Spring, 2006, Section 001 - 10:30-11:20 a.m. (Monday & Wednesday)

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Office hours: Monday: 1:30-3:30, Wednesday: 9:30-10:30 a.m. and by appointment.

Texts:

Shaughnessy, John, Zechmeister, Eugene, & Zechmeister, Jeanne (2003). *Research Methods in Psychology* (7th Edition), McGraw-Hill Higher Education: Boston. (Required)

Research Methods in Psychology

Psychology is a science and uses the scientific method. Therefore, as a student of psychology, you are, in a sense, training to be a scientist. Whether or not you become a research psychologist, if you want to use psychological information or even other research information, it is important to be able to understand and evaluate that information. Thus, some knowledge of research design and methodology is very important to anyone who is interested in understanding human behavior and the world around us.

A major goal of psychologists is to understand human behavior. We are often curious about issues such as the effects of violent television programs on the emotional growth of children. Or, we might be interested in the effects of anxiety on what we remember. For most psychologists, exploring these kinds of issues using a systematic method leads to a better understanding of human behavior. To study human behavior, psychologists use the scientific method to enable us to see relations among behaviors, predict behaviors and determine causal relationships. Because human behavior is very complex, a variety of methods are needed to understand relations between circumstances and behaviors. In this course, we will examine a variety of different kinds of methods used to study behavior. All of these methods have advantages and disadvantages so we will consider various issues that are involved when choosing a particular methodology for studying human behavior.

Contrary to what many people think, the process of investigating issues in human behavior is exciting and fun! I hope that each of you may experience a course in research methods in the same way!

Course Goals

Psychology 301 is an intensive course centering on research methods used in psychology. In addition, this is a writing intensive course, so a significant component of the course involves learning the process of scientific report writing using the American Psychological Association (APA) format.

A major goal of the course is to provide students with a solid foundation in the study and current understanding of the various methods that psychologists use to study human behavior. Using a variety of content areas (e.g., cognitive processes, child development, abnormal behavior, human factors and social psychology), we will explore the way experimentation is applied to the development and refinement of our understanding of human behavior. Each chapter/lecture will present a specific type of research methodology and we will explore the strengths and weaknesses of the various methods. This process will then enable the student to critically evaluate the nature of the evidence obtained using each method. In addition, we will examine some of the basic ways in which data are compiled and analyzed for the various research methodologies. As mentioned, another major goal of the course is for the student to learn the appropriate techniques used in scientific writing. Much of the writing will be done in the lab associated with this course but some writing will be required in the lecture portion of the class. Every attempt is made to coordinate assignments and topics covered in the lecture with the lab assignments but it is not always possible to do so.

The format of the course is primarily lecture with discussion as time permits. Questions are welcome during the lecture as time permits.

COURSE REQUIREMENTS:

- It is extremely important to keep up with the reading assignments.

- There will be three exams based on the assigned readings and lectures. The questions will be composed of multiple choice, fill-in-the-blank, application questions and short essays.

- Each exam will be worth approximately 90-115 points.
- In addition to the exams, there will be a number of homework assignments, and very short in-class quizzes or activities. Some of these in-class activities will not be announced ahead of time in class. Others will be announced ahead of time. Each of these assignments will be worth between 5 and 40 points depending on the nature of the assignment.
- **The lecture portion of the course will constitute 60% of the final grade. The lab grade will constitute 40% of the final grade.**

Grading Policy

- Unless the student has a written medical reason for absence from an exam, there will be a full grade-loss penalty (e.g., "A" down to "B").
- Make-up exams may be composed of only essay questions.
- If a student misses more than one exam at the scheduled time he/she will **not** be given additional make-up exams.
- If a student is absent and misses a homework assignment he/she must make up the assignment immediately following an absence. Homework assignment will be due at the beginning of the next class. **NO EXCEPTIONS! Late homework will not be accepted. If a student must miss class, he/she must e-mail the assignment to me prior to the due date/time in order to receive credit.**
- **No make-up will be allowed for quizzes or in-class assignments. NO EXCEPTIONS!**
- In the case of borderline grades, consistency and direction of change **may** be taken into account.

GRADES

At this point, a **minimum grade of C- is required to receive credit for this course**. In addition, the university has a grading system that allows for +s and -s. For example, a student with an 88% average in the course may receive a grade of B+ rather than a B in the course. Similarly, a student with an average of 90% may receive a grade of A- rather than a grade of A.

Specifically, your grade in the lecture portion of the class will be based on the total number of points earned on the exams, quizzes, and homework assignments. For example, if there are 400 possible points on the exams, quizzes and homework assignments and you earn 360 points (90%) during the semester you would be likely to receive a grade of A- for the lecture portion of the class. If you earn 300 points (75%) you would receive a grade of C for the lecture portion of the class (60% of the total grade). The lecture grade will be averaged (using a weighted average) with the lab grade, which counts as 40% of the total grade.

Labs

The specific breakdown of lab assignments and their relative values will be discussed in the labs.

A lab syllabus will be distributed during the first lab period. Your lab instructor is responsible for the labs and lab grades. You must be enrolled in one of the lab sections associated with this course. You must attend the section in which you are enrolled unless other arrangements are made with the instructors. Lab instructors may not overload the labs since we only have a set number of computers available in the labs. Attendance for the lab is extremely important to master the material presented.

Psychology 301 does not require that you have taken statistics. However, it is strongly recommended that you take Psychology 300 concurrently with Psychology 301 if you have not already completed a statistics course. We will be discussing specific experimental designs and their relationship to some of the statistical tests used in psychology research and you will be expected to master this material. However, you will not be asked to calculate any complex statistics.

In addition to the texts above, it is strongly advised that you have access to the Publication Manual of the American Psychological Association (5th Edition). It is strongly recommended that you purchase a copy of this manual, especially if you plan on attending graduate school. All lab reports must be written in APA style and format.

Feb 1	Hypotheses, Validity and Reliability	Chapter 2
Feb 6-8	Descriptive Methods (Observation) (Use of descriptive statistics)	Chapter 4
Feb 13-15	Correlational Research (Survey Research)	Chapter 5
Feb 20	Correlational Research continued Survey Design Survey Assignment	Chapter 12 (pp. 407-435)
Feb 22	Catch-up and Review	
Feb. 27	Exam 1	
Mar 1	Begin Experimental Methods: Simple Experiments, Independent Group Designs Survey Assignment Due	Chapter 7
Mar. 6-8	Hypothesis testing in Independent Groups Analysis of Experiments (Use of inferential statistics)	Chapter 7 Chapter 13 (pp. 440-466)
Mar 13-15	Spring Break - No Class	
Mar 20-22	Finish Independent Group Designs Begin Complex Designs	Chapter 9
Mar 27-29	Complex Designs continued Analysis of Complex Experiments	Chapter 9 Chapter 13 (pp. 471-482)
Apr 3	Exam 2	
Apr 5-10	Repeated Measures Designs	Chapter 8
Apr. 12-17	Single Case Study	Chapter 10
Apr.19-26	Quasi-Experimental Design	Chapter 11
May 1-3	Ethics in Research	Chapter 2
May 10	Exam 3 (10:30 a.m.)	

**** Any schedule changes (or changes in assignments) will be announced in class in advance. After an absence, students are responsible for contacting the instructor to obtain accurate information.**

*****Chapter 14 in the text will be extremely valuable to help you in writing the papers in the lab or in other courses. This chapter focuses on the APA format and you would be wise to rely on the information in this chapter to facilitate the writing of your papers in this course. It will not be assigned in the lecture but please note its usefulness for scientific report writing in APA format.**