

PSYCH 200: “Experimental Methods” Syllabus Fall-2009

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Rather than establishing office hours, I maintain an open door policy. Please come by frequently to talk about the course, your academic and career options, and so we can get to know one another well.

Note: I maintain a website dedicated to this course: <http://webs.wofford.edu/reidak/>. This site contains links to pages describing the lecture and laboratory schedule, homework assignments, the exam schedule, the syllabus, and your grades. I update these pages often. In addition, the textbook publisher maintains a very helpful website for our textbook. For each chapter, it contains a variety of study guides, test questions and a program to test your knowledge, crossword puzzles, and other ways to help you learn the material and test your knowledge of each chapter. You can find the web site by going to <http://www.wadsworth.com> and looking for the text *Experimental Psychology*. There is a link for the “companion site” on that page that will take you to the site for our text. Or, just click on this long URL: http://www.wadsworth.com/cgi-wadsworth/course_products_wp.pl?fid=M20b&product_isbn_issn=0534634419&discipline_number=24

Catalog Description: A survey of the research methods used to obtain scientific knowledge in psychology, with an emphasis on experimental design and understanding research results.

Brief Outline of Course Content: PSY 200 is designed to teach the scientific techniques used in psychology to carry out research and to make valid conclusions from this research. The course covers correlational, quasi-experimental, and experimental designs, with an emphasis on ways to control extraneous variables that could inadvertently influence our results. The second half of the course emphasizes the ways in which we can use statistical methods to form reliable conclusions from obtained data. **Note: Math 140 (Statistics) is a prerequisite (or co-requisite) for this course.** In the last weeks of the course, you will learn the ways in which scientists communicate their findings by carrying out your own detailed experiment, writing it up for publication in APA style, and submitting it to the same type of peer-review process used by most scientific journals.

Therefore, the basic goal of PSYCH 200 is to learn the research methods used in all areas of scientific psychology. Students will learn how to use Microsoft Excel and SPSS for data organization, data analysis, and for the creation of publication-quality graphs. Students will learn how to design experiments and select the appropriate statistical test for data analysis. One experiment will require students to write a formal, typed report in APA style to learn to communicate the fine details of the procedure and results to others. Students will also learn about the scientific publication process by submitting their manuscript for formal peer review and by writing formal reviews of research carried out by other students.

Required Materials:

1. Myers, A., & Hansen, C. (2006). *Experimental Psychology*, 6th Ed. Pacific Grove, CA: Wadsworth.
2. Kranzler, J. H. (2007). *Statistics for the Terrified* (4th Ed.). Upper Saddle River, NJ: Prentice-Hall.

Suggested Materials: This workbook will be very helpful, but is not required.

1. Hansen, C. H. (2006). *Study Guide and Workbook for Myers & Hansen’s Experimental Psychology*, 6th Ed. Wadsworth.

You will also find this following guide very useful for this course, as well as other psychology courses, such as your thesis.

2. *Concise Rules of APA Style*. American Psychological Association

Labs: The lab meets on Tuesday (2:30-5:30). Throughout course, the many laboratory assignments will involve data analysis and statistical techniques using a computer. We will use the software packages

Microsoft Excel and SPSS to organize our raw data, create summary statistics, and carry out various types of inferential statistics on sample data in order to learn to use the computer for data analysis. Toward the end of the course, you will design and carry out short research projects, collect quantitative data, and use this computer software for data analysis, statistical analysis, and for the creation of your final quantitative graphs of your results. Because the lab is an integral part of this course, no separate lab grade will be given.

Course Requirements: Class attendance is mandatory, and absences will lower your grade. Excused absences include those due to documented medical need or an *official* college event. **Written** excuses are required for all excused absences. Students must complete weekly lab assignments. Later in the semester, students will design and conduct their own experiments and submit a detailed, typed, paper in APA style for evaluation. Students will also act as peer reviewers of other students' research, submitting typed critical evaluations of the research. Naturally, students are responsible for all reading assignments, all lab work, and all lecture material. Students will be required to learn the fundamental operations of data analysis and scientific graphics using Microsoft Excel and SPSS.

Methods of evaluation: The three major exams will typically contain short answer and essay questions, as well as questions requiring you to carry out procedures related to experimental design. Each will contribute the same amount to your overall grade (3 x 20%). Three short quizzes will be given, and their average will count as fourth exam grade (20%). Later in the semester, students will work in pairs to design and conduct their own experiment and submit a detailed paper in APA style for evaluation. Students will also act as peer reviewers of other students' research, submitting typed critical evaluations of the research. Each part of this process will be graded: the original research report, the quality of the peer reviews and the editors' action letter, and the final revised report. A weighted average of the grades for this independent research will count as the fifth exam (20%). Because the lab is an integral part of this course, no separate lab grade will be given.

The website for this course provides a tentative schedule for exams, quizzes, and projects. I reserve the right to make some changes in the methods of evaluation as the course progresses. This flexibility will allow me to adapt to unforeseen circumstances such as projects taking more or less time than anticipated.

All students are required to abide by the guidelines of the Wofford College Honor Code. The Honor Council will resolve all instances of inappropriate conduct (such as dishonesty, plagiarism, and cheating). **Note: For this course, accessing any test, exam, GRE or other multiple-choice questions, or project from previous semesters or other students will be considered an explicit violation of the honor code. This explicitly prohibits the use of tests and exams maintained by social groups on campus, off campus, on the internet, or those passed down from students previously enrolled in this course. Students may not share their answers to GRE study questions.**