

# EXPERIMENTAL PSYCHOLOGY

## Psych 300

### Fall 2008

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## Course Description

Welcome to Research Methods in Psychology! This "how-to" course covers the design, execution, analysis and communication of scientific psychological research. A major emphasis is learning by doing. Through classroom activities, first-hand experiences and a variety of writing assignments, students learn to define hypotheses, design and conduct experiments, appropriately analyze and interpret data, and present results in technical reports. The class requires working closely with other students and specialized software, so your prepared participation is expected and will enhance your learning.

## Course Goals

This course meets the following **Psychology Department Learning Outcomes**:

- ☺ Be able to identify the assumptions and characteristics of experimental and non-experimental research in psychology, and the constraints on the inferences that can be made from the results of research.
- Be able to access the professional resources in psychology and other professional journals.
- ☺ Be able to understand and critically evaluate published research in psychology and recognize its implications.
- Be able to design, conduct and statistically analyze basic research, and report research according to the format adopted by the American Psychological Association (APA).
- ☺ Be able to understand and apply the APA guidelines for the ethical treatment of research participants.
- Corresponding to the team approach taken in the work place, graduate school, and learning environments, students will collaborate in the design and execution of research projects.

## Course Materials

Stangor, C. (2007). Research methods for the behavioral sciences. Boston: Houghton Mifflin. Third edition.

Assigned articles available on D2L course site.

## Recommended Texts (but not required):

*Publication Manual of the American Psychological Association* (200). Washington, D.C.: American Psychological Association.

**Course website:** Course announcements, grades, the syllabus, homework assignments, and other information relevant to the course will be posted on D2L: <https://uwgb.courses.wisconsin.edu>  
Please look at the site regularly as ALL dates are tentative and are subject to change.

## Course Requirements

- 1. Quizzes:** Class time should not be your first exposure to the material. To help you get ahead, you must take ten online quizzes (worth 10 points each). There are 14 chapters, and there will be 14 quizzes, and you decide which 10 you would like to take. The quizzes due by class time (see schedule and website). **First read the chapter, then** take the quiz from the class D2L site.
- 2. Attendance:** Attendance is highly recommended. Information will be covered in class that is not covered in the book. You will be responsible for information that is discussed in class, regardless of whether or not it is included in the readings. **Also, you will be working on collaborative research projects and each week everyone's input will be required in the lab portion of the course.** Additionally, there may be homework assignments given out in class and/or the possibility of a few extra credit points over the course of the semester.
- 3. Participation.** Participation in this course entails two things; participating actively in class discussions and participating in the work of your group project. You will be graded on both. For class participation, every individual is expected to come to class fully prepared to contribute to discussions. The format of this course is designed to encourage you to participate and speak-up. Read the material, absorb the material, evaluate the material, and come prepared. A discussion of group participation is in the next section.
- 4. Group research study.** Students will work in groups to design and carry out an original research project. The expectation is that each group member will contribute equally to the study. To ensure that participation is satisfactory, each group member's participation will be evaluated by the other group members (and the professor).
- 5. Final paper.** The final paper, although the result of a group research study, is individually produced and graded. This also means that your Introduction, results, and discussion sections are individually graded.
- 6. Presentations.** Your group will do two presentations. The first will be a powerpoint presentation of your research study. The second is a poster that will be presented with the other section of Experimental Psychology during finals week at a time and location to be determined.
- 7. Late work:** Unless prior arrangements have been made with the professor, late assignments will not be accepted

## Assignment Points

Quizzes (10 quizzes at 10 points each)	100
Library Assignment	10
IRB Ethics Assignment	10
References	10
Research Proposal and methods	25
Introduction	20

Results Section	20
Discussion Section	20
Class Participation	10
Group Participation/Evaluation	20
Class presentation (group)	30
Poster	40
Final Research Paper	50
Additional homework	TBD

**I reserve the right to modify the course requirements and/or schedule as deemed appropriate and with reasonable notice of such revisions.**

### Grading

A	91 - 100%
A/B	88 - 90%
B	81 - 87%
B/C	78 - 80%
C	71 - 77%
C/D	68 - 70%
D	61 - 67%
F	60% and below

**For you to get the most out of this class, it is essential that you:**

- 1) *Come prepared* for class each week. There is a heavy reading load for this class, but you are expected to have read all of the readings *before* you come to class.
- 2) *Think critically* about the readings and class activities. What are their implications? What questions do they raise? Can you think of cases when things might be different? How can you test alternative interpretations?
- 3) *Actively participate* in the class. You must be an active participant in class and in the research groups.
- 4) Each week, make sure you *understand the objectives* of the class before you walk out of the door.
- 5) *Check your email regularly*. We have to cover much material in a limited amount of classtime. I will regularly email reminders and even additional assignments.

### Some Potential Problems with Computers

- ★ Computers crash : Sometimes, for unknown reasons, your computer may crash while you are typing your paper. If this situation happens to you, it may be very unpleasant. To avoid this problem, **SAVE YOUR PAPER FREQUENTLY**. I recommend saving what you have written after every paragraph. If your computer crashes, you will lose no more than one paragraph of your hard work.
- ★ Disks fail : Occasionally, a floppy disk or hard drive will go bad and you will not be able to retrieve a paper that you have saved. To avoid extra unpleasantness in this situation, each time you stop working on your paper save it in more than one place. If you are working on your own computer, save it on your hard drive **AND** a disk. If you are working in a computer lab, save your paper on **TWO** disks. It is always a good idea to *save your work on your server space* (if you do not know how, now is a good time to learn).
- ★ Printers do not always work : Occasionally, the evil demon residing in all printers exerts its power and the printer will not work. Do not wait until the last minute to print your paper. You will have at least 1 week to complete each of your papers. Plan ahead. Give yourself enough time so that if a printer fails or runs out of ink, you will have time to find another printer.

- ★ Email may take time to be delivered : We are accustomed to email arriving instantly. However, due to internet/network problems, email may take several hours or longer to be delivered. For assignments and information that must be emailed, what matters is when I receive it. If I receive the email after the due date, the assignment will be counted as late, regardless of when you sent the it. You can avoid this problem by not procrastinating and emailing information and assignments well before the deadline.
- ★ You have been forewarned. None of these excuses will work if you try to turn your paper in late.

### **Honor Code**

There are many opportunities to work with others in this course, however, it is my expectation, unless otherwise instructed, that you will each complete your own individual work. That means that you will, as an individual, complete all online quizzes, individual homework assignments, and the final paper. If you copy from a text, a website, a classmate, or in any way turn in an assignment that is not written in your own words, you will receive 0 points on that assignment.

### **On Plagiarism**

Using someone else's ideas or phrasing and representing those ideas or phrasing as our own, either on purpose or through carelessness, is a serious offense known as plagiarism. "Ideas or phrasing" includes written or spoken material, of course — from whole papers and paragraphs to sentences, and, indeed, phrases — but it also includes statistics, lab results, art work, etc. "Someone else" can mean a professional source, such as a published writer or critic in a book, magazine, encyclopedia, or journal; an electronic resource such as material we discover on the World Wide Web; another student at our school or anywhere else; a paper-writing "service" (online or otherwise) which offers to sell written papers for a fee.

### **ADA Statement**

Consistent with the federal law and the policies of the University of Wisconsin, it is the policy of the University of Wisconsin-Green Bay to provide appropriate and necessary accommodations to students with documented physical and learning disabilities. If you anticipate requiring any auxiliary aids or services, you should contact me or the Coordinator of Services for Students with Disabilities at 465-2849 as soon as possible to discuss your needs and arrange for the provision of services.

### **Tentative Schedule**

<b>Day</b>	<b>Date</b>	<b>Topic</b>	<b>Reading Due</b>	<b>Assignment</b>
Wed	Sept. 2	Why research is awesome!		
Fri Lab	Sept 4	Something fun to start off the course		
Mon	Sept.8	Introduction to Research	Chapter 1 [quiz]	
Wed	Sept.10	Developing the Research Hypothesis	Chapter 2 [quiz]	

Day	Date	Topic	Reading Due	Assignment
Fri Lab	Sept 12	Library instruction (meet in CL 304)		Library assignment
Mon	Sept 15	Developing a Research Hypothesis continued		<b>Library assignment due</b>
Wed	Sept 17	Ethics	Chapter 3 (quiz)	
Fri lab	Sept 19	You and the IRB		IRB assignment
Mon	Sept 22	Measures	Chapter 4 (quiz)	
Wed	Sept 24	Measures continued	Shawyer, Ratcliff, Mackinnon, Farhall, Hayes, & Copolov	<b>IRB assignment due</b>
Fri lab	Sept 26	Get into groups, work on research idea		
Mon	Sept 29	Reliability and Validity	Chapter 5 (quiz)	
Wed	Oct 1	Surveys and Sampling	Chapter 6 (quiz)	
Fri lab	Oct 3	Research idea for final project		Begin literature search
Mon	Oct 6	Surveys and Sampling continued	Gurung & Vespia	
Wed	Oct 8	Correlational Research	Chapter 9 (quiz)	
Fri lab	Oct 10	Research proposal with methods section		Research proposal & methods <b>References due</b>
Mon	Oct 13	Correlational Research continued	Crowson, DeBacker, & Thoma	
Wed	Oct 15	Experimental Research	Chapter 10 (quiz)	
Fri lab	Oct 17	IRB proposal		IRB proposal
Mon	Oct 20	Experimental Research continued	Smith, Schmoll, Konik, & Oberlander	<b>Research proposal and methods due</b>
Wed	Oct 22	Factorial Designs	Chapter 11 (quiz)	<b>IRB forms due</b>
Fri lab	Oct 24	Finalization for data collection		<b>Methodology completed</b>
Mon	Oct 27	Factorial designs continued	Alexander & Nygaard	<b>Begin data collection</b>

Day	Date	Topic	Reading Due	Assignment
Wed	Oct 29	Experimental Control and Internal Validity	Chapter 12 (quiz)	
Fri lab	Oct 31	Data collection check in		
Mon	Nov 3	Experimental Control and Internal Validity continued	Ronis & Bourduin	
Wed	Nov 5	Quasi-Experimental Designs	Chapter 14 (quiz)	<b>Introduction Due</b>
Fri lab	Nov 7	Reporting Research Results	Appendix A	
Mon	Nov 10	Quasi-Experimental Designs continued	Holub, Tisak, & Mullins	
Wed	Nov 12	External validity	Chapter 13 (quiz)	
Fri lab	Nov 14	Set up SPSS file		<b>data collection completed</b> Bring in data
Mon	Nov 17	Hypothesis Testing and Inferential Statistics	Chapter 8 (quiz)	
Wed	Nov 19	Hypothesis Testing continued		
Fri lab	Nov 21	Data analysis		
Mon	Nov 24	Data Preparation and Statistics	Appendix B	Results section
Wed	Nov 26	Work on presentations, Powerpoint		<b>Results section due</b>
Fri lab	Nov 28	Thanksgiving Break		
Mon	Dec 1	How to do a poster	Info on D2L	
Wed	Dec 3	Discussion sections,		<b>Discussion section</b>
Fri lab	Dec 5	Work on papers		
Mon	Dec 8	Class Presentations		<b>Draft of final paper due</b>
Wed	Dec 10	Class Presentations		
Finals week		Poster presentations (date to be determined)		
Dec 19		<b>Final paper due</b>		