

Psychology 200: Research Methods and Statistics

Term I, 2005 - 2006

Professor: Chris Wetzel
Office: 115 Clough

Class time:
MWF 9:00 – 9:50 or 3:00-3:50

Office hrs:
MWF 8-9; 10-11 TuTH 9-11; 1:30-2:30

Course Objectives

First, I will expose you to the basic research techniques used in psychology. You will learn the fundamental principles of research design, how psychologists gain knowledge. You will also develop skills and competencies needed to begin a research project. Second, I hope to give you enough practical experience so that you will be ready for upper-level laboratory courses and so that you can make an informed decision about possibly pursuing a research career after you graduate. A final goal is to change your thinking so that you can: 1) critically analyze aspects of your personal life, 2) become an informed citizen who thinks scientifically about social issues, and 3) become an intelligent consumer of research findings presented in the media. In sum, you should finish this course with an appreciation of J.S. Mill's statement, "The logic of science is also that of business and life."

In terms of the 12 IDEA objectives used to evaluate Rhodes courses, the following course objectives are very important: Learning fundamental principles, generalizations, and theories; and learning to analyze and critically evaluate ideas, arguments, and points of view. The following are important: developing specific skills, competencies, and points of view needed by professionals in the field; gaining factual knowledge (terminology, classifications, methods, trends); and learning how to find and use resources for answering questions or solving problems. The following are not formally assessed: acquiring team member skills, developing creativity; appreciating for the arts; developing skills in self-expression; developing personal values; learning to apply course material; and asking your own questions and seeking answers.

Assessment and Course Requirements

Your text, Pelham & Blanton's *Conducting Research in Psychology*, (2nd Ed.), 2003, will be covered at a very rapid pace. There will be 3 tests on this text, plus the final, and they count 35% of your grade. They are a combination of multiple choice, short answer, and even some essays.

You will have other assignments such as presenting research findings orally in class, criticizing articles, proposing alternative research studies for flawed experiments, etc. Handouts about these assignments, plus information about the course are on WEBCT. There will be 10 writing or homework assignments, the top 9 of which will count 30% of your grade. Many of your homework assignments will mimic the research process in the area of dissonance theory.

You will perform 2 laboratory assignments where you will collect data with a "canned" computer experiment, or you will access a data base already generated by the experimenters. You then analyze data, and finally write up the findings in APA style. These two assignments are worth 25% of your grade.

You will make a research proposal where you review the experimental literature and propose an experiment (which you may conduct in psychology 211/212). This paper will follow APA style for the introduction and the method sections. You will then present hypothetical results for the results and discussion sections. This paper will count 10% of your grade.

It is an honor code violation to consult old tests, papers, or hand-outs before doing assignments. It is also a violation to turn in a paper written for another course.

SCHEDULE

#	Day	Date	Reading	Topic	Assignment due or Class activity
1	W	8/24	-	Course Overview	
2	F	8/26	D-theory	<i>The</i> versus <i>a</i> contributing cause Rival hypotheses + alt. explanations	Write D theory & suffering explanation read course info (philosophy, FAQs etc.)
3	M	8/29	1, D1	External validity: process vs. outcomes	Give rival hypotheses for D1
4	W	8/31	222-235	Rivals for D1: interactions	Read & reread read main effects & interactions
5	F	9/2	2	main, simple, & interaction effects	study interactions, practice interactions test
Labor day					
6	W	9/7		More on interactions	
7	F	9/9	3	Reliability	
8	M	9/12	3	Validity	take first interactions quiz
9	W	9/14		More validity	
10	F	9/16	review	catch up	
11	M	9/19	4	Rival Hypotheses : the top 20	Exam#1: 1-3
12	W	9/21	5	IV's, DV's, and their variants	take second interaction test
13	F	9/23	6	Quasi Experiments	Read generating research Q's
14	M	9/26	7,appendix	qualitative research: coding	article parts, Write D1 abstract
15	W	9/28	D2-intro		Write D-2 method
16	F	9/30	D2-results; 255-268	Doing a PsychInfo Search	Write D-2 discussion Load AW plugin for your PC (with instructions)
17	M	10/3	D2-discuss	Within versus between designs	Complete psychInfo search on own topic
18	W	10/5	review	catch up	Exam #2: 4 -7
19	F	10/7	8	NO CLASS: library symposium	Do Self-reference Experiment
20	M	10/10	8	Meta-Analysis	take third interaction test
21	W	10/12	10	Stats; Present Self-Ref exp results	read meta-analysis; self-reference articles;
22	F	10/14	11 (skim)	Debriefing: funnel & process types	Write Self-Ref results
Fall Break					
23	M	10/19	9	Testing theories with correlations	testing theories with correlations
24	W	10/21	12	Accounting for Variance	read % of variance;
25	F	10/23			write Self-Ref intro and method
26	M	10/26		Illogic of the null hypothesis	Read illogic handout;
27	W	10/28		Discuss research proposals	
28	M	10/31		Advantages of Factorial Experiments	write Self-Ref discussion; turn in complete paper
29	W	11/2		Dummy D pseudo experiment	Dummy D analysis
30	F	11/4		Bias in favor of the research hypothesis	Do Faces Recognition Exp
31	M	11/7		Present Faces Recog results	read Faces Recognition articles
32	W	11/9			
33	F	11/11	D3-exp#1		D3 oral presentation #1
34	M	11/14	proposal reading	D theory wars exercise	Faces Recognition Experiment write-up
35	W	11/16	review	Design Contest	Exam 3: 8 -13
36	F	11/18	D3-exp#2		D3 oral presentation #2
37	M	11/21		Still more Design contest 1	Turn in proposal method
Thanksgiving Break					
38	M	11/28		Design contest 2	turn in hypothesized results + discussion
39	W	11/30		Discuss research projects	
40	F	12/2		More Design	turn in final version of research proposal
41	M	12/5		More Design	
42	W	12/7		catch up	
Complete online final by Saturday, December 10th, 3:30					

* This syllabus schedule is only a rough guideline. There will be many changes, and they will be announced at least 24 hours before the day on which an assignment is due.