



EXPERIMENTAL METHODS & STATISTICS (PSY 200)

Course Syllabus — Fall 2008

Course information:

When: Fall Semester, 2008

Lecture: Mondays, Wednesdays, and Fridays, 10:30-11:30am

Labs: Mondays, 12:30-2:00pm (Amy Neeren)
Fridays, 12:30-2:00pm (TC Mack)

**please attend only the lab you are assigned to*

Where: **Lecture:** Sharpless 410
Labs: INSC H204 (computer lab)

Instructor: Benjamin Le, Ph.D.

Office: Sharpless 411B

Office hours: MWF 11:30am-noon, T 3:15-4:15pm, or by
appointment

e-mail: ble@haverford.edu

Lab Instructors: Amy Neeren; aneeren@haverford.edu
TC Mack; tmac5783@gmail.com

Tutor/TA: Leonor Keller '10; lkeller@haverford.edu

Required Texts: Gravetter, F. J., & Wallnau, L. B. (2008). *Essentials of statistics for the behavioral sciences (6th ed.)*. Belmont, CA: Wadsworth.

Pelham, B. W., & Blanton, H. (2007). *Conducting research in psychology: Measuring the weight of smoke (3rd ed.)*. Belmont, CA: Wadsworth.

Course Web Page: <http://www.haverford.edu/psych/ble/teaching/psy200/home.html>

Course description and objectives:

This course serves as an introduction to the experimental method and its use in the study of behavior, coupled with an in-depth treatment of statistics as applied to psychological research. Statistical topics include principles of probability, central tendency, variability, hypothesis testing, and statistical inference. Lab exercises focus on designing experiments, collecting data, applying statistical methods (using SPSS), and presenting data through written assignments.

By the end of the semester you should be able to design both experimental and questionnaire studies, think critically about psychological methodologies, understand and use (with SPSS) the basic statistical tests frequently employed by psychologists, and write a research report in APA style.

Grading & Assignment Information:

Grades will be determined from the following factors:

	<u>% of Total Grade</u>		
1. Exam 1	25.0%		
2. Exam 2	30.0%		
3. Final Paper	22.5%		
4. Homework*	22.5%		
<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: right; width: 80%;">TOTAL</td> <td style="text-align: center;">100%</td> </tr> </table>		TOTAL	100%
TOTAL	100%		

*Homework includes:

- 5 Problem Sets
- 6 SPSS Activities

Grading Scale: Grades will be assigned strictly adhering to the following scale:

94.00% and above	=	A / 4.0		73.00% - 76.99%	=	C / 2.0
90.00% - 93.99%	=	A- / 3.7		70.00% - 72.99%	=	C- / 1.7
87.00% - 89.99%	=	B+ / 3.3		67.00% - 69.99%	=	D+ / 1.3
83.00% - 86.99%	=	B / 3.0		60.00% - 66.99%	=	D / 1.0
80.00% - 82.99%	=	B- / 2.7		59.99% and below	=	F / 0.0
77.00% - 79.99%	=	C+ / 2.3				

Extra Credit: Extra credit will not be offered.

Other Points of Importance:

Attendance and Absence Policy: Class attendance and participation is expected. Students are responsible for all announcements made in class, whether they are present or not. If you must miss a class, please let me know (via e-mail: *ble@haverford.edu*). Course grades for students missing an unacceptable number of class meetings or labs may be adjusted at my discretion.

You are expected to complete assignments (e.g., homework, final paper) in a timely manner, and to meet the deadlines outlined in the course schedule or announced in class. If you cannot complete assignments on time because of an unforeseen occurrence (e.g., illness, family emergency etc.), or because of a school-related conflict (e.g., conflict with other course assignments or activities), please contact me immediately. Acceptance of late work will be at my discretion, and will be considered on a case-by-case basis. Typically, I am flexible in working with students who discuss absences/ conflicts with me ***in advance***, however I understand this isn't always possible (e.g., illness, family emergency etc.).

Grade Changes / Regrade Procedure: All grade disputes are to be made in writing (***please type***). We will not discuss or argue regrades in person. All requests for regrades must be made within two weeks after the exam or assignment is returned to the class (or within 2 weeks of the start of the following term for the final paper).

When disputing a grade, you should state the dispute and the number of points you feel you should have received for the assignment or exam, and the reason you feel your work or answer is correct (including support from the readings or lecture notes). Please note that when you ask for an exam or assignment to be regraded it may be regraded in its entirety, and there is a possibility of losing points. All requests for regrades should be submitted to me along with the original assignment.

Understanding appropriate sources for citations: For all assignments and exams, the following are considered appropriate and valid sources for citations and references:

- Published journal articles, both in on-line and paper formats.
- Professional handbook chapters and reviews (i.e., edited volumes with chapters written by psychological researchers).
- Academic books (i.e., books written by psychological researchers).

The following are **not to be used** as citations in your work:

- Information found on the internet, unless it is the on-line version of a scientific journal (e.g., accessing an electronic version of a journal on-line is fine). **This includes Wikipedia and/or any other webpages.**
- Any undergraduate-level text book.

In short, you should always be working with the primary literature written by psychological researchers. If you have questions about a particular source, please ask.

A few of other important points:

- *Buy a stapler...*Unstapled papers will not be accepted (or will have their grades adjusted). This includes paper clips, folded corners, etc. In short, make sure your papers are permanently secured with a staple or other such binding. And if your stapler won't handle the number of pages you're trying to staple, use a bigger stapler.
- *Silence your cell phones*, and put them away during class. Please do not text-message or otherwise fiddle with your wireless communication devices in class.
- *I will not be posting my lectures on-line* for a couple of reasons. First, I would like you to come to class. Second, active learning enhances retention. The act of writing down lecture material in your own words will help you remember it better.
- *Please do not submit papers or assignments electronically* (i.e., don't e-mail me with your papers attached). Spam filters and other such technological goof-ups make e-mailing papers problematic.

Accommodating student needs/disabilities: Students who think they may need accommodations in this course because of the impact of a disability are encouraged to meet with me privately early in the semester. Students should also contact Rick Webb, Coordinator, Office of Disabilities Services (rwebb@haverford.edu, 610-896-1290) to verify their eligibility for reasonable accommodations as soon as possible. Early contact will help to avoid unnecessary inconvenience and delays.

A few words about plagiarism and academic dishonesty: I tend to have a relaxed and laid back teaching style, but do not mistake this for a lack of rigor. I take plagiarism and academic integrity very seriously. Plagiarism involves your use of another person's work, words, or ideas without properly crediting them. This includes copying the work from another student's paper or exam, as well as using direct quotes from a source, such as your textbook or a journal article, without citing the author. Simply rewording a sentence or passage from another source without giving credit is also inappropriate. Furthermore, using another person's ideas without a proper citation is considered plagiarism as well. The best way to assure that your work does not plagiarize from another source is to liberally use citations within your work (e.g., be very thorough with your references—we will discuss APA style of references in class if necessary) and to ask me if you are ever in doubt.

I feel very strongly about academic dishonesty—it **will not** be tolerated. Do your own work, and know and follow the Haverford College Honor Code.

Tentative Course Schedule

- Lectures meet in Sharpless 410
- Labs meet in INSC H204 (Computer lab on the second floor, down the hall from the Zubrow Commons)

Date	Topic	Readings	Assignments
Week 1			
M: 9/1	No class; Labor Day	-	-
W: 9/3	Course introduction	-	-
F: 9/5	Overview of research methods in psychology	P&B 1; P&B 2 pp. 26-50	-
M lab:	No Monday lab (Labor Day)		
F lab:	<i>Intro to lab; The process of research</i>		
Week 2			
M: 9/8	Threats to valid inference making	P&B 3	-
W: 9/10	Threats to valid inference making	P&B 5	-
F: 9/12	Basics of research designs	P&B 6-8	-
M lab:	<i>Intro to lab; The process of research</i>		
F lab:	<i>Brainstorming the questionnaire study</i>		
Week 3			
M: 9/15	Research ethics	P&B 2, pp. 50-57	-
W: 9/17	Measurement	P&B 4	-
F: 9/19	Descriptive statistics	G&W 1-2	-
M lab:	<i>Brainstorming the questionnaire study</i>		
F lab:	<i>Work on questionnaire study</i>		
Week 4			
M: 9/22	Central tendency	G&W 3	-
W: 9/24	Variability	P&B 10, G&W 4	-
F: 9/26	Z-scores	G&W 5	Problem Set #1 due
M lab:	<i>Work on questionnaire study</i>		
F lab:	<i>Intro to SPSS; frequencies and descriptives (Activity #1)</i>		
Week 5			
M: 9/29	Probability and sampling	G&W 6-7	-
W: 10/1	Hypothesis testing	G&W 8	-
F: 10/3	One-sample t-test	G&W 9	Problem Set #2 due
M lab:	<i>Intro to SPSS; frequencies and descriptives (Activity #1)</i>		
F lab:	<i>Manipulating data in SPSS (Activity #2)</i>		
Week 6			
M: 10/6	TBA	-	-
W: 10/8	Review for exam	-	-
F: 10/10	EXAM 1	-	-
M lab:	<i>Manipulating data in SPSS (Activity #2)</i>		
F lab:	<i>Histograms, one-sample t-test in SPSS (Activity #3)</i>		
Week 7 Fall Break			
Week 8			
M: 10/20	Correlation and regression	G&W 15	-
W: 10/22	Correlation and regression	-	-
F: 10/24	Correlation and regression	-	-
M lab:	<i>Histograms, one-sample t-test in SPSS (Activity #3)</i>		
F lab:	<i>Brainstorm experiment</i>		

Date	Topic	Readings	Assignments
Week 9			
M: 10/27	Comparing two means	G&W 10	Problem Set #3 due
W: 10/29	Comparing two means	G&W 11	-
F: 10/31	Comparing two means	-	-
	<i>M lab: Brainstorm experiment</i>		
	<i>F lab: Correlation in SPSS (Activity #4); Work on experiment</i>		
Week 10			
M: 11/3	Analysis of variance (ANOVA)	G&W 13	-
W: 11/5	ANOVA	-	-
F: 11/7	ANOVA	-	Problem Set #4 due
	<i>M lab: Correlation in SPSS (Activity #4); Work on experiment</i>		
	<i>F lab: Independent samples and paired samples t-test in SPSS (Activity #5)</i>		
Week 11			
M: 11/10	Factorial ANOVA	G&W 14	-
W: 11/12	Factorial ANOVA	-	-
F: 11/14	Factorial ANOVA	-	-
	<i>M lab: Independent samples and paired samples t-test in SPSS (Activity #5)</i>		
	<i>F lab: One-way ANOVA in SPSS (Activity #6)</i>		
Week 12			
M: 11/17	Repeated measures in ANOVA	P&B 9	-
W: 11/19	Repeated measures in ANOVA	-	-
F: 11/21	Mixed ANOVA designs	-	-
	<i>M lab: One-way ANOVA in SPSS (Activity #6)</i>		
	<i>F lab: Factorial ANOVA in SPSS (Activity #7)</i>		
Week 13			
M: 11/24	TBA	-	Problem Set #5 due
W: 11/26	TBA	-	-
F: 11/28	No class; Thanksgiving Break	-	-
	<i>M lab: Factorial ANOVA in SPSS (Activity #7)</i>		
	No Friday lab (Thanksgiving)		
Week 14			
M: 12/1	Non-parametric tests	G&W 16	-
W: 12/3	Non-parametric tests	-	-
F: 12/5	Meta-analysis	-	-
	<i>MF Labs: Analyze experiment data in SPSS</i>		
Week 15			
M: 12/8	How to write a good lab report	P&B 11, Appendix 3	-
W: 12/10	Review for Exam	P&B 12	-
F: 12/12	Exam 2	-	-
	<i>MF Labs: Analyze experiment data in SPSS</i>		
Week 16 Finals week		Final Paper due at the end of Finals week: Friday, December 19 th , 5pm	