

PS-3140-01: Statistics in Psychology
Spring 2012 / TR 11:00-12:15pm, 439D Hyde Hall

Instructor: Dr. Angela Kilb
Office: 406 Hyde Hall
Office Hours: M: 2-4pm or by appointment
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Required Text (also available on reserve at Lamson Library):
Jackson, S. L. (2005). *Statistics: Plain and Simple*.

Course Description:

This course is the second of the quantitative core required of all majors. It teaches the basics of descriptive and inferential statistics as commonly used in psychology. It assumes you are familiar with descriptive statistics as taught in PS210 Measuring Behavior. You will learn how to perform, interpret, and report statistical results via homework, analyzing real-world data, and discussing theoretical concerns. This course is a Quantitative Reasoning connections course.

Class Policies:

- At some point in the semester, you may need to miss an assignment due to an illness, family emergency, etc. If this happens, you must inform me **prior** to the class meeting time via email or phone in order to avoid a penalty. Work turned in late with permission may still receive a grade penalty, depending on the reason for lateness.
- If you miss an in-class assignment (such as an exam or group presentation) without notifying me in advance, you will receive a zero for that assignment.
- Late homework without my consent will not be accepted for a grade. Other late assignments without my consent will lose 10% for each day past the deadline.
- If you plan to come to my office hours, please let me know ahead of time whenever possible.
- I will usually post the lecture notes to Moodle before class. It is in your best interest to bring these notes to class and supplement them with your own additions.

Honor code

Unless otherwise instructed, all of your efforts in this course should represent completely independent work. For further information, see http://www.plymouth.edu/registrar/policies/academic_standing.html.

Students with Documented Disabilities

Plymouth State University is committed to providing students with documented disabilities equal access to all university programs and facilities. If you think you have a disability requiring accommodations, you should immediately contact the PASS Office in Lamson Library (535-2270) to determine whether you are eligible for such accommodations. Academic accommodations will only be considered for students who have registered with the PASS Office. If you have a Letter of Accommodation for this course from the PASS Office, please provide the instructor with that information privately so that you and the instructor can review those accommodations.

If you are struggling (experiencing difficulties, missing classes, personal or family problems, etc.) there are offices at PSU available to provide academic support as well as career and personal counseling. The PSU Counseling and Human Relations Center (across from Hyde Hall; 535-2461) can direct you to the proper source of help. Confidentiality is assured.

Assignments:

Exams	200	(50 points each)
Homework	180	(20 points each)
Project Assignments	50	(10 points each)
Lying with Statistics	50	(20 points each)
Exam Review	20	
Total	500	

Exams:

Your progress toward the goals of the class will be checked through testing. The exams are designed to assess your factual, applied, and conceptual understanding of the material. Naturally, items on the tests will cover all course material, no matter what its source (e.g., lecture, texts, or group presentations). The final exam will be cumulative.

Homework:

The goal is to hone your methodological and statistical knowledge. Thus, there will be homework assignments related to statistics and research design. Because it is imperative that you fully understand the homework to prepare for the exam, grades will be given in 2 categories only: Mastery (M) and Non-Mastery (NM). In order to achieve a grade of M, you must earn a perfect score on a homework assignment. If you do not earn a perfect score, you will earn an NM. **Grades of M are worth 20 points, and grades of NM are worth 0.** You may redo the homework as many times as is necessary to earn an M as long as it is completed prior to the assigned deadline.

Data analysis project:

Over the course of the semester, you will obtain your own dataset on the internet and describe it using the tools and techniques learned in class.

Exam Reviews

Small groups of will lead the class in a review session covering material that will be on the exam. You should be creative and play games in order to earn full credit (e.g., Jeopardy!, Who Wants to be a Millionaire?, Hollywood Squares, etc.). Each small group will present their review for 40 minutes with 10 minutes for questions. At least half of the review material should focus on conceptual information.

Extra Credit

Extra credit can be obtained in 2 ways. The first is by serving as a participant in research experiments. You will earn 2.5 points (1/2 of a percentage point) for each experiment. There is no limit to the amount of points to be earned, but note that you cannot earn credit for multiple classes from a single experiment. The second way is to obtain/present a joke about statistics. You will earn 1 point for submitting a relevant written joke or comic. For those brave at heart, you can also earn 1 point for reading a joke aloud to the class *if* you can elicit any laughter.

Course Grades

Final course grades will be assigned based on the mathematical average of your assignments. Letter grades will be broken down as follows: 92.5-100% = A; 89.5-92.4999% = A-; 86.5-89.4999% = B+; 82.5-86.4999% = B; 79.5-82.4999% = B-; 76.5-79.4999% = C+; 72.5-76.4999% = C; 69.5-72.4999% = C-; 59.5-69.4999% = D, 59.49% and below = F.

Date		Topic	Readings	Assigned
T	31-Jan	Intro to course		Project #1
R	2-Feb	Measurement & Validity	Modules 1-2 (p.1-19)	
T	7-Feb	Descriptive Statistics	Modules 3-4 (p.26-38)	HW#1
R	9-Feb	Variability	Module 5 (p.44-54)	
T	14-Feb	z-scores & probability	Modules 6-7 (p.56-85)	HW#2
R	16-Feb	<i>computer day – room 439A Hyde</i>		Project #2
T	21-Feb	Exam 1 Review		
R	23-Feb	Exam 1		
T	28-Feb	Lying with Statistics - Part I	Sample sizes	
R	1-Mar	Snow day!		
T	6-Mar	Hypothesis Testing	Module 8 (p.87-94)	Lying #1
R	8-Mar	z-tests	Module 9 (p.102-114)	HW#3
T	13-Mar	t-tests	Modules 10-11 (p.117-139)	
R	15-Mar	t-tests	Module 12 (p.142-148)	HW#4
T-R	20-22, Mar	No class - spring break		
T	27-Mar	<i>computer day – room 439A Hyde</i>		Project #3
R	29-Mar	Exam 2 Review		
T	3-Apr	Exam 2		
R	5-Apr	Lying with Statistics - Part II	p-values	Lying #2
T	10-Apr	One-Way Randomized ANOVA	Modules 13-14 (p.157-176)	HW#5
R	12-Apr	One-Way Repeated Measures ANOVA	Module 15 (p.185-193)	HW#6
T	17-Apr	<i>computer day – room 439A Hyde</i>		HW#7, Project #4
R	19-Apr	No class		
T	24-Apr	Two-Way ANOVA	Modules 16-17 (p.196-207)	
R	26-Apr	Correlation	Module 18 (p.227-237)	HW#8
T	1-May	<i>computer day – room 439A Hyde</i>		Project #5
R	3-May	Exam 3 Review		
T	8-May	Exam 3		
R	10-May	Lying with Statistics - Part III	Correlation is not causation	Lying #3
T	15-May	Final Exam: 11am - 1:30pm		

*schedule is tentative and subject to change!!!