

**Psychology 343**  
**Statistical Methods in Behavioral Sciences, Spring 2016**

**Lecture:** T/Th 8–9:15am

**Instructor:**

Alexander P. Demos, PhD

Email: [ademos@uic.edu](mailto:ademos@uic.edu)

Office hours: T 9:30 -11:30 am and by appointment

Office: 1018A BSB

**Discussion Sections:** Fridays

9-9:50am

10-10:50am

1-1:50pm

3-3:50pm

**Teaching Assistants:**

Caitlyn Yantis

Email: [cyanti2@uic.edu](mailto:cyanti2@uic.edu), Office hours: To be announced

Mark Brow

Email: [mbrow20@uic.edu](mailto:mbrow20@uic.edu), Office hours: To be announced

**Course Objectives:** You will learn about how psychological researchers design experiments, interpret the results of those experiments, and summarize the findings. You will be required to read the assigned readings, know how to do each of the statistical procedures covered in lecture, complete your homework and be prepared for examinations and quizzes and finally participate in discussion sections. The ultimate goal of the course is to give you an understanding of psychological research.

**Required Material:** *Statistics for the Behavioral sciences* (Gravetter & Wallnau, 2010). You can use any textbook edition from 7<sup>th</sup> -10<sup>th</sup> (get the cheapest one you can). *Note the chapter numbers might be different, so use the topics names to select which chapter to read.* **A simple or scientific calculator should be brought to every class** and will be needed for homework, quizzes, and exams. Smartphones as calculators can be used during class, but not during exams.

**Exams:** We will have 2 written exams and a final exam. These exams are not multiple choice. They require you to solve problems and explain your results. These kinds of exams are common in sciences, but you might not have never seen one like this before. You cannot study for it the night before the exam. ***You must keep up with the material. Also you cannot pass the second exam or final if you do not understand what we have already covered.*** For each exam you can bring 1 sheet of paper with any notes you like. We will provide formula sheets for all exams. Missed exams will count as a 0 unless a legitimate\* excuse is provided where the missing exam is dropped and the other two exams count for the full amount. There are no make-up exams. (\*family emergency or major illness with documentation)

**Quizzes:** Short multiple-choice quizzes will be given covering the previous class material. The quizzes are designed to ensure that you keep up with the material. Quizzes are ***closed notes*** and will take no more than 10-15 minutes and if you do the reading and attend class you should feel well prepared for the quizzes. ***Some of the quizzes might be given during the discussion sections or online.*** Quiz dates are approximate and depend on how well the class is doing. Thus, I reserve to the right to change their dates. The two lowest quiz scores will be dropped. *No makeup quizzes will be given.*

**Homework:** Specific short problem sets will be assigned in class or discussion. Homework will not be graded for correctness, only for effort. Homework is a check on your understanding of concepts covered in class. ***I encourage you to work in groups, but assignments must be handed in individually.*** Homework should be given to your TA and you can turn it early. *Homework will not be accepted late. If you miss lab, you can scan/photo your homework and email the scans to your TA before or during your regularly scheduled lab time when homework is due.*

**Discussion Section:** Discussion sections are a time you have to get supervised help on specific problems or to review concepts you found confusing. You will do hands on work in your discussion sections based on the material we cover in class. This may take the form of short group projects or individualized problem sets. Discussion attendance/participation will be graded weekly and will be posted on blackboard. If you arrive too late to participate or you choose not to participate the TA may grade you as a zero for the day. You can miss three (3) discussion sections with no penalty for the semester.

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<b>Grading breakdown:</b>		<b>Letter grades:</b>	
Exams	65%	A	90-100
Quizzes (2 lowest scores dropped)	15%	B	80-89
Homework (2 assignments can be skipped)	10%	C	70-79
Discussion Sections (3 can be skipped)	10%	D	60-69
<b>Total</b>	<b>100%</b>	F	0-59

*Note: There is no curve.*

**Attendance:** Attending lecture will make the readings clearer and I will be giving examples, so attendance will ensure you doing well in the class. Not all topics we cover appear in the book. Coming to class is necessity. Missing discussion will hinder your ability to practice under an experienced eye. We reserve the right to give unannounced extra credit for in-class assignments or unannounced pop-quizzes. There are no makeups for missing these opportunities or for missing class demonstrations, projects, etc. that occur during class or discussion time.

**Excuses:** Disasters happen and normal life gets disrupted. It happens to all of us. This is why you can drop two quizzes/homework and three discussion sections. Every might be legitimate, but I am not going to play judge so no matter your reason do not ask for your excuse to override the established policy\*. \*The one exception is religious holidays on the days of exams, quizzes, and discussions. See me one week BEFORE the holiday so we can work out an alternative.

**Blackboard:** I will post relevant information about the assignments and other course information on our website. It is your responsibly to check it before coming to class. Please be sure to update Blackboard with your UIC e-mail address. If you fail to check your e-mail, or if e-mail sent to you is returned as undeliverable, you are still responsible for the content of that e-mail. *Note: This is not an online class so announcements made in class are not always going to be duplicated on blackboard.*

**Academic Integrity & Class Conduct:** Don't be a twit and tweet during class. Distract me or your fellow class members with your social media nonsense (facebook, twitter, texting) may result in public embarrassment. You have been warned. There will be no tolerance for plagiarism or cheating. Cheating during exams is a serious matter and will not be tolerated. In this course, plagiarism/cheating will result in loss of credit for the exam or assignment and/or suspension from the university (see *Student Disciplinary Policy* for what qualities are academic integrity:  
<http://dos.uic.edu/docs/Student%20Disciplinary%20Policy.pdf>)

**Students with Disabilities:** Students who think that they may need accommodations because of a disability are encouraged to meet with me privately early in the semester. Information about reasonable accommodations is found at <https://drc.uic.edu/guide-to-accommodations/>

**Getting Help:** As the semester progresses I expect you will need help. *Do not delay in seeking help. The longer you stay confused the harder it will be to catch up.* The TAs and I am here to help you as much as we can, and if there is a problem, it is always easier to address it *before* the fact rather than after it.

**The Academic Center for Excellence** can help if you feel you need more individualized instruction in reading and/or writing; study skills, time management, etc. phone (312) 413-0031.

**Counseling Services** are available for all UIC students. You may seek free and confidential services from the Counseling Center <[www.counseling.uic.edu](http://www.counseling.uic.edu)>. The Counseling Center is located in the Student Services Building; you may contact them at (312) 996-3490. In addition to offering counseling services, the Counseling Center also operates the InTouch Crisis Hotline from 6:00 p.m.-10:30 p.m. They offer support and referrals to callers, as well as telephone crisis interventions; please call (312) 996-5535.

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**Tentative Schedule (Chapter numbers may differ based on your version of the book –Chapters based on 9<sup>th</sup> Edition)**

<b>Week</b>	<b>Date</b>	<b>Topic</b>	<b>Reading</b>	<b>Quiz</b>
1	1/12	Introduction to research and statistics	Ch 1	
	1/14	Frequencies + Central Tendency	Ch 2 + 3	
	1/15	<i>No discussion</i>		
2	1/19	Variability	Ch 4	
	1/21	z-Scores	Ch 5	Ch 1 - 4
	1/22	<i>Worksheet</i>		
3	1/26	Probability	Ch 6	
	1/28	Probability & Samples	Ch 7	
	1/29	<i>Take quiz/review probability</i>		Ch 5 & 6
4	2/2	Hypothesis Testing	Ch 8	
	2/4	Hypothesis Testing, cont.		
	2/5	<i>Worksheet</i>		
5	2/9	Review		Ch 7 & 8
	2/11	<b>Exam 1</b>		
	2/12	<i>No discussion</i>		
6	2/16	Introduction to t-statistic	Ch 9	
	2/18	Introduction to t-statistic, cont.		
	2/19	<i>Worksheet</i>		
7	2/23	t-test for Independent Samples	Ch 10	Ch 9
	2/25	t-test for Independent Samples, cont.		
	2/26	<i>Worksheet</i>		
8	3/1	t-test for Related Samples	Ch 11	
	3/3	Correlation	Ch 15	
	3/4	<i>Take quiz/Worksheet</i>		Ch 10 & 11
9	3/8	Intro to ANOVA	Ch 12	Ch 15
	3/10	Intro to ANOVA, cont.		
	3/11	<i>Exam review</i>		
10	3/15	Review		Ch 12
	3/17	<b>Exam 2</b>		
	3/18	<i>No discussion</i>		
11	3/22	Spring Break		
	3/24	Spring Break		
	3/25	Spring Break		
11	3/29	Two-Way ANOVA	Ch 14	
	3/31	Two-Way ANOVA, cont		
	4/1	<i>Review interactions</i>		
12	4/5	Two-Way ANOVA, cont		
	4/7	RM ANOVA	Ch 13	
	4/8	<i>Practice writing up ANOVAs</i>		
13	4/12	RM ANOVA, Cont.		
	4/15	ANOVA Review		Ch 13 & 14
	4/16	<i>Practice writing up ANOVAs</i>		
14	4/19	Chi-Square	Ch 17	
	4/21	Chi-Square, cont		
	4/22	<i>Practice chi-square</i>		
15	4/26	Catch-up		
	4/28	Review		
	4/29	<i>Exam review</i>		
<b>Final Exam</b>				