

Synchronous Lecture: T/Th 9:30–10:45pm
Office hours: and Links will be posted on Zoom

Instructor:
Alexander P. Demos, PhD, ademos@uic.edu

Synchronous Discussion Sections: Fridays
8-9:50am & 10-11:50am, Zach,
1-1:50pm & 2-2:50pm, Jeff

Teaching Assistants:
Zach Melton, MA, zmelto2@uic.edu
Jeff Skalamera, jskala4@uic.edu

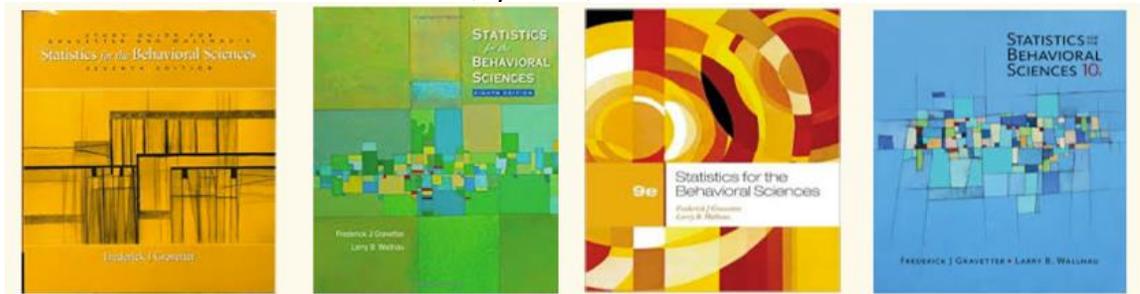
Course Objectives: You will learn about how psychological researchers design experiments, interpret the results of those experiments and summarize the findings.

You will be required to read the assigned readings, know how to do each of the statistical procedures covered in the 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:

1. *Statistics for the Behavioral Sciences* (Gravetter & Wallnau, 2010). You can use any textbook edition from 7th -10th (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 calculator will be needed for homework, quizzes, and exams.*



2. You will need some method for doing basic calculations for coursework and during exams.
3. Zoom, *Camera (see the policy at the end) & Microphone.
4. Some way make/read PDF files.
5. I will sometimes use scientific software called R in class. R is a free open source statistical computing environment. It can be downloaded for free at <https://cran.r-project.org/>. It is not in any way required for this class, and will not be used for your assignments, quizzes, or exams. However, it does perform the required calculations, and you are free to follow along with any provided code.

Exams: We will have 2 midterm exams and a cumulative final exam. You cannot study for it the night before the exam and you must keep up with the material as we go; otherwise, it is impossible to pass the course. Late exams will not be accepted. They will automatically be counted as zero.

Midterm Exams

The majority of the items on these exams will consist of free-format responses. You carry out an analysis and interpret the result. For these questions, you'll be provided with a brief description of a research project or experiment, as well as all data required to complete the analysis. You will then be required to carry out the requested analysis and interpret the result.

You may use any course materials you wish to complete the exam, including the textbook, your notes from lecture videos, the videos themselves, and any of your homework. Midterm exams



are not cumulative; however, course content is somewhat cumulative as methods taught early in the course will be a part of more advanced methods taught later.

Before each exam, your homework assignment will be a practice exam that will have a comparable format, difficulty, and length as your exam. This will serve as your study guide. I will also provide formula sheets that give a single location for the common formula you will use.

Missed midterm exams will count as a 0 and there are no make up exams. However, all students will have their lowest midterm exam dropped.

Cumulative Final Exam:

The final exam will be cumulative because the material itself is cumulative. However, if you have kept up the material, you will know all you need to for the final exam. This exam cannot be dropped, and let us know if you think there is a problem with the due date ahead of time. If you fail to turn in a final exam, you will receive an incomplete only if you are already passing the class and agree to turn in the final exam by a specific date. However, a legitimate excuse must be provided and accepted before this option is taken. Otherwise, you will receive a 0 on the final, and your final grade will be submitted. If you are already going to fail the class, you will receive a failing grade.

You are responsible for turning in the exams online and making sure it is not corrupted or blank exam. Remember, exams are not accepted late, so check carefully and do not leave this to submit 1 minute before the due date. If something bizarre happens, take screenshots of the exam and upload those files to prove you completed the exam, and the TA will work with you to resolve the problem.

Summary

- *Open note/book/video? Yes*
- *Work with others? No*
- *Will exams be accepted late? No*
- *Are there makeup exams? No*
- *Can you drop a midterm exam? Yes 1*
- *Are the dates set in stone for the midterms? No*
- *Can you skip the cumulative final? No*
- *Is the date of the final set in stone? Yes*

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, but you will work in groups during class time (but submit your own quiz on Blackboard)** 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.** 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. I will review the quiz answers right after they are submitted, thus *no makeup quizzes will be given.*

Summary

- *Open note/book? No*
- *Work with others? Yes*
- *Will quizzes be accepted late? No*
- *Can you drop quizzes? Yes 2*
- *Are the dates set in stone? No*



Homework:

1. 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.*
2. You will be asked to do a few experiments at home and online to provide the class data to work with.

You can miss two (2) homeworks with no penalty for the semester.

Summary

- *Open note/book? Yes*
- *Work with others? Yes*
- *Will HW be accepted late? No*
- *Can you drop HW? Yes 2*

Discussion Sections:

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 two (2) discussion sections with no penalty for the semester.

Summary

- *Should I talk and ask questions? YES!*
- *Work with others? Yes*
- *Can you miss some discussions? Yes 2*

Grading breakdown:

| | |
|-----------------------------------------|-------------|
| Midterms (drop lowest of 2) | 25% |
| Final | 35% |
| Quizzes (2 lowest scores dropped) | 20% |
| Homework (2 assignments can be skipped) | 10% |
| Discussion Sections (2 can be skipped) | 10% |
| Total | 100% |

Letter grades:

| | |
|---|--------|
| A | 90-100 |
| B | 80-89 |
| C | 70-79 |
| D | 60-69 |
| F | 0-59 |

Note: There is no curve.



Attendance: Attending lectures will make the readings clearer and give examples, so attendance will ensure you are doing well in the class. Not all topics we cover appear in the book. Coming to class is a 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, especially in these crazy times. It happens to all of us. This is why you can drop two quizzes/homework, two discussion sections, and one of the midterms.

Every excuse 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 policies*.

**The one exception is religious holidays on the 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 responsibility to check it before coming to class. Please be sure to update Blackboard with your UIC email address. If you fail to check your email, or if email sent to you is returned as undeliverable, you are still responsible for the content of that email.

Academic Integrity 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 in need of accommodations should reach out to the disability resource center (DRC). The DRC provides resources and support to allow equal access for all students and can provide a letter of accommodation (LOA). LOAs describe the accommodations required going forward, do not expire, and do not disclose private information. If you think you might benefit from support related to a disability, you can contact the DRC by phone at (312) 413-2183, visit drc.uic.edu, email drc@uic.edu, or stop by the office in SSB 1070.

You will never be required to disclose private information related to your LOA to instructors or teaching assistants. However, LOAs are strictly proactive, and only cover course materials and assignments going forward from the receipt of an LOA. Please reach out to the DRC as soon as possible.

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>. 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.

**Zoom
Policies:**

Privacy Notification & Policy for Video Recording of Synchronous Sessions

We will be recording the class sessions, or portions of the class, for students who are unable to attend synchronously. The recording feature for others is disabled so that no one else will be able to record this session through Zoom, Blackboard Collaborate, Webex, or Echo360. Recording by other means is not permitted. The recorded class sessions will be posted on our Blackboard class website unless otherwise notified.

If you have privacy concerns and do not wish to appear in the recording, turn OFF your video and notify me in writing (via email) prior to the next class session. If you prefer to use a pseudonym instead of your name, please let me know what name you will be using, so that I can identify you during the class session. If you would like to ask a question, you may do so privately through the chat feature by addressing your question to me, or another private method, which we will agree upon in advance of class. If you have questions or concerns about this video recording policy, please contact me before the end of the first week of class.

Zoom Etiquette

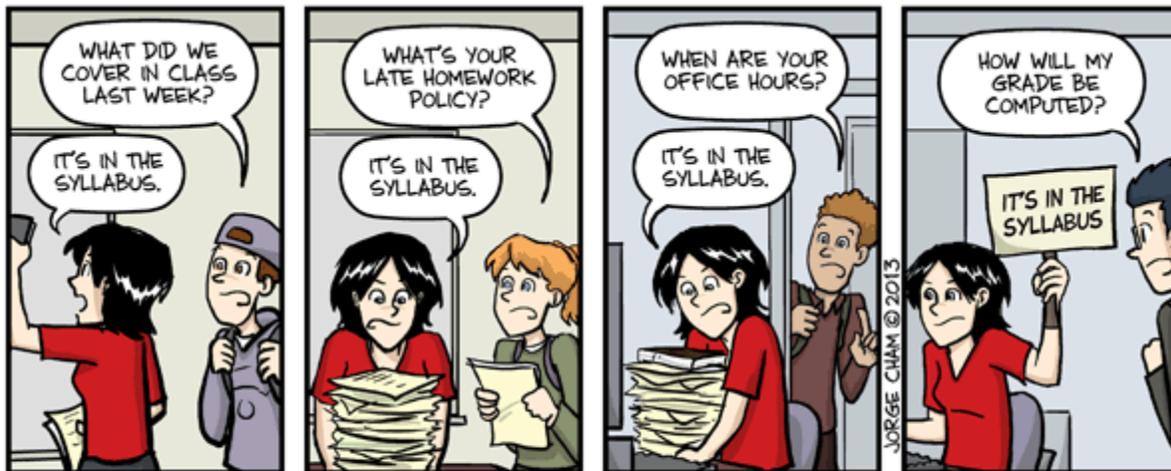
1. Mute your microphone when you are not speaking and try to keep background sound to a minimum.
2. Avoid multi-tasking. No one can multi-task. I can show you study after study.
3. Prepare materials in advance. Our time is limited. Download the materials for class before we start.
4. You can use backgrounds, just don't pick ones that will offend others. Funny ones are encouraged.
5. Put on pants. You never know when you might need to stand up!

Email

In the header of the email, please put "COURSE 343" in the subject line. If it is an emergency, such as my computer exploded with my exam inside and I don't know what to do, write "COURSE 343 HELP NOW". Often, however, TAs will be faster to respond to such things. I will normally try to respond within 48 hours (on weekdays), but email is the bane of existence. It is not that I am avoiding you, but so many emails come in they get lost in the shuffle. If it's something important and I have not responded, just email me again.

If you have questions about the material, I will not answer them in email - COME TO OFFICE HOURS! If my hours don't work, let me know (but my schedule is often booked from 8-6 more days). The TAs took graduate courses in statistics. They will be able to answer all your questions about the materials or I will make them take my graduate classes again!

If you email with a question and its in the syllabus, I will probably just send you the comic back below.



IT'S IN THE SYLLABUS

This message brought to you by every instructor that ever lived.

WWW.PHDCOMICS.COM



Tentative Schedule. Chapter numbers may differ based on your version of the book –Chapters based on 9th Edition)
(Quiz dates are NOT set in stone. If they change, they will be announced 1 class in advance)

| Week | Date | Topic | Reading | Quiz | Discussion |
|-----------------------------------------------------|------|--------------------------------------------|-------------|------------|------------------|
| 1 | 1/12 | Introduction to research and statistics | WG Ch 1 | | |
| | 1/14 | Frequencies + Central Tendency | WG Ch 2 + 3 | | Worksheet |
| 2 | 1/19 | Variability | WG Ch 4 | | |
| | 1/21 | z-Scores | WG Ch 5 | Ch 1 - 4 | Worksheet |
| 3 | 1/26 | Probability | WG Ch 6 | | |
| | 1/28 | Probability & Samples | WG Ch 7 | Ch 5 & 6 | Quiz + Worksheet |
| 4 | 2/2 | Hypothesis Testing | WG Ch 8 | | |
| | 2/4 | Hypothesis Testing, cont. | | | Practice Exam |
| 5 | 2/9 | Review (Exam Posted after class) | | Ch 7 & 8 | |
| | 2/11 | Exam 1 due (in class we go over it) | | | No Meeting |
| 6 | 2/16 | Introduction to t-statistic | WG Ch 9 | | |
| | 2/18 | Introduction to t-statistic, cont. | | | Worksheet |
| 7 | 2/23 | t-test for Independent Samples | WG Ch 10 | Ch 9 | |
| | 2/25 | t-test for Independent Samples, cont. | | | Worksheet |
| 8 | 3/2 | t-test for Related Samples | WG Ch 11 | | |
| | 3/4 | Correlation | WG Ch 15 | Ch 10 & 11 | Worksheet |
| 9 | 3/9 | Intro to ANOVA | WG Ch 12 | Ch 15 | |
| | 3/11 | Intro to ANOVA, cont. | | | Practice Exam |
| 10 | 3/16 | Review (Exam Posted after class) | | Ch 12 | |
| | 3/18 | Exam 2 due (in class we go over it) | | | |
| No discussion on 3-19 and SPRING BREAK (3-22 to 26) | | | | | |
| 11 | 3/30 | Two-Way ANOVA | WG Ch 14 | | |
| | 4/1 | Two-Way ANOVA, cont | | | Worksheet |
| 12 | 4/6 | Two-Way ANOVA, cont | | | |
| | 4/8 | RM ANOVA | WG Ch 13 | | Worksheet |
| 13 | 4/13 | ANOVA Review | | Ch 13 & 14 | |
| | 4/15 | Thanksgiving | | | Worksheet |
| 14 | 4/20 | Chi-Square | WG Ch 17 | | |
| | 4/22 | Chi-Square, cont. | | | Worksheet |
| 15 | 4/27 | Review | | Ch. 17 | |
| | 4/29 | Review | | | |
| | 4/30 | Exam Posted | | | Review |
| Final | | | | | |