

Instructor: Joshua Dobias, Ph.D.

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Class Time: MTWTh 10:55 am-1:35 pm in HILL 116

Office Hours: Monday-Friday 9:30-10:30 am or by appointment

Course Description

Design, statistical analysis, and decision making in psychological research. Probability, hypothesis-testing, and confidence intervals. Conceptualization, computation, interpretation, and typical applications for exploratory data analysis (including measures of central tendency, variability), t-tests, correlations, bivariate regression, one-way analysis of variance, and chi-square. Introduction to computer methods of computation.

Course Information

When you tell someone you are taking a psychology course or that you are a psychology major, the typical response is “are you analyzing me?” or “can you read my mind?” but that is only an outsider’s view of what psychology is as a field. As you have probably found in other psychology classes, psychology is a broad field with several sub-areas that all serve to make psychology a behavioral science. This course will introduce you to the statistical methods used to analyze and understand data gathered within the behavioral sciences.

Text

Required:

Gravetter, F. & Wallnau, L. (2008). *Statistics for the Behavioral Sciences*. 8th ed., Belmont, CA. Wadsworth Publishing.

- Available at [Rutgers Bookstore](#) for approximately \$160.00.
- Available from [Amazon](#) for **a lot less money**.

Requirements

- Four exams (lowest will be dropped).....80% of final grade
- Homework assignments20% of final grade

Grades

A	90% or greater	C	70%-76%
B+	87%-89%	D	60%-69%
B	80%-86%	F	59% or lower
C+	77%-79%		

Grades (continued)

Grades will be calculated by taking the average from each component and multiplying it by the percentage of the final grade for that component (see below). For example, the exam average will be multiplied by .80

$$FinalGrade = (exavg \times .8) + (hwavg \times .2)$$

Homework

There will be homework assignments due throughout the course. Questions for the homework assignments come from the end of each chapter in the textbook and blank answer sheets will be posted on Sakai to print and fill out. DO NOT GET FRUSTRATED by the number of assignments. They will only serve to improve your performance on the exams. Assignments will be due as marked in the schedule below.

Late assignments or Missed Exams

If you must turn in an assignment late or miss an exam, please let me know prior to the day. If you miss an exam due to an emergency, and are not able to tell me before the exam, please let me know as soon as possible so we can work out a time to take a make-up exam. **Oversleeping is not an emergency!!**

Cancellation Policy

If the university is closed, the assignment due on that day will be due on the day of the next class meeting. Similarly, if the university is closed on the day of an exam, the exam will be on the next day that the class meets.

Sakai

The course website can be found at: <https://sakai.rutgers.edu/portal/site/d5c8da0b-cbf7-470f-9f84-0569e88b3c47>

Calculators

You will need a calculator with statistical functions for homework and for exams.

Office of Disability Services

The 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 must register with Office of Disability Services (ODS). Contact ODS at (732) 932-2848 or dsoffice@rci.rutgers.edu. If you have received Accommodation Letters for this course from ODS, please provide me with that information privately so that we can review those accommodations.

Plagiarism and Cheating (from university guidelines)

Various ways in which academic integrity can be violated are described below. The comments and examples within each section provide explanations and illustrative material, but do not exhaust the scope of possible violations. For context and specific details, the University Code of Student Conduct (<http://polcomp.rutgers.edu/judaff/ucsc.shtml>) as well as the Office of Student Conduct (<http://judicialaffairs.rutgers.edu>) websites should be consulted.

A. Cheating

Cheating is the use of impermissible and/or unacknowledged materials, information, or study aids in any academic activity. Using books, notes, calculators, conversations with others, etc., when their use is restricted or forbidden, constitutes cheating. Similarly, students may not request others (including commercial term paper companies) to conduct research or prepare any work for them. Students may not submit identical work, or portions thereof, for credit or honors more than once without prior approval of the instructor to whom the work is being submitted for the second or subsequent time.

B. Fabrication

Fabrication is the falsification or invention of any information or citation in an academic work. "Invented" information may not be used in any laboratory report or other academic work without authorization from the instructor. It is improper, for example, to analyze one sample in an experiment and "invent" data based on that single experiment for several more required analyses. Students must also acknowledge the actual source from which cited information was obtained. A student should not, for example, reproduce a quotation from a book review and claim that the quotation was obtained from the book itself.

C. Plagiarism

Plagiarism is the representation of the words or ideas of another as one's own in any academic work. To avoid plagiarism, every direct quotation must be identified by quotation marks, or by appropriate indentation, and must be cited properly according to the accepted format for the particular discipline. Acknowledgment is also required when material from any source is paraphrased or summarized in whole or in part in one's own words. To acknowledge a paraphrase properly, one might state: "to paraphrase Plato's comment..." and conclude with a footnote or appropriate citation to identify the exact reference. A footnote acknowledging only a directly quoted statement does not suffice to notify the reader of any preceding or succeeding paraphrased material. Information that is common knowledge, such as names of leaders of prominent nations, basic scientific laws, etc., need not be cited; however, the sources of all facts or information obtained in reading or research that are not common knowledge among students in the course must be acknowledged. In addition to materials specifically cited in the text, other materials that contribute to one's general understanding of the subject may be acknowledged in the bibliography.

Sometimes, plagiarism can be a subtle issue. Students should be encouraged to discuss any questions about what constitutes plagiarism with the faculty member teaching the course.

D. Denying others access to information or material

It is a violation of academic integrity to deny others access to scholarly resources or to deliberately impede the progress of another student or scholar. Examples of violations of this type include giving other students false or misleading information; making library material unavailable to others by stealing or defacing books or journals; deliberately misplacing or destroying reserve materials; and altering someone else's computer files.

E. Facilitating violations of academic integrity

It is a violation of academic integrity for a student to aid others in violating academic integrity. A student who knowingly or negligently facilitates a violation of academic integrity is as culpable as the student who receives the impermissible aid, even if the former student does not benefit from the violation.

Date	Topic	What to turn in / do
May 29	Discuss Syllabus / Chapter 1 Introduction to Statistics	
May 30	Chapter 2 Frequency Distributions	HW1
May 31	Chapter 3 Central Tendency	HW2
June 4	Chapter 4 Variability	HW3
June 5	Exam # 1	HW4 Ch. 1, 2, 3, 4
June 6	Chapter 5 z-Scores Standard Distributions	
June 7	Chapter 6	HW5
June 11	Probability	
June 12	Chapter 7 Distribution of Sample Means	HW6
June 13	Exam # 2	HW7 Ch. 5, 6, 7
June 14	Chapter 8 Intro to Hypothesis Testing	
June 18	Chapter 9 Intro to the t Statistic	HW8
June 19	Chapter 10 t Test for Two Independent Samples	HW9
June 20	Chapter 11 t Test for Two Related Samples	HW10
June 21	Exam # 3	HW11 Ch. 8, 9, 10, 11
June 25	Chapter 13	
June 26	Intro to Analysis of Variance (ANOVA)	
June 27	Chapter 16 Correlation	HW13
June 28	Chapter 17 Regression	HW16
July 2	Chapter 18 Chi Square	HW17
July 3	Exam # 4	Hw18 Ch. 13, 16, 17, 18