

Introduction to Statistics

PY 716-2C

Fall 2017

Instructor: Olivio J. Clay, PhD
Meeting Times: Tu & Thurs -- 11:00 am - 12:15 pm
Office Hours: Thursday 2pm – 5pm or by appointment
Office Location: Campbell Hall 321
Mailbox Location: Campbell Hall 415
Phone: 934-2728
Email: oclay@uab.edu
Required Textbook: Howell, D.C. (2013). *Statistical Methods for Psychology, 8th Edition.*
Additional Requirement: **A regular hand-held calculator at each class and exams.**
Canvas: www.uab.edu/elearning/canvas

Course Objective:

This course is an introduction to statistical analysis and the first in a three-course sequence. The goals of the course are for the student to: (1) learn how to use statistics to answer research questions, (2) be able to determine which analysis is most appropriate and (3) be able to explain the results of inferential tests. This course will focus on developing general analysis skills that can be applied within any area of psychology.

Course Requirements:

(1) Exams. There will be three in-class exams that will determine your course grade. The highest 2 scores will count 35% of your grade each and the lowest score will count 30%. Exams will include a combination of word problems that will require calculation, short answer, true-false, and multiple choice questions. The exams will be based on homework assignments, the slides and readings from class and class discussions. **If one of your classmates finishes his/her exam and turns the exam in before you arrive to class, you will not be allowed to take the exam.**

Course grade:

Your final grade will be calculated on the following scale and the grades will be assigned according to the percentages below:

Grading Breakdown

Highest 2 Exams	35% each
Lowest Exam	30%

Grading Scale

A=90-100; B=80-89; C=70-79; D=60-69; F=59 and below.

There is no presumption of any particular distribution of grades in this course.

Policies and Other Important Items:

1. **ALL CELL PHONES MUST BE PLACED ON SILENT WHILE IN CLASS.**
2. The Department of Psychology adheres strictly to UAB's Academic Honor Code which may be viewed at: <https://www.uab.edu/students/one-stop/policies/academic-honor-code>. All UAB students are expected to read and agree to the UAB Academic Honor Code. The code represents a commitment to integrity in the academic community and a respect for an individual's educational endeavors. Ignorance regarding the range of behaviors that constitute academic dishonesty will not excuse you if you get caught. Penalties range from denial of credit for the work in question to a failing grade (F) in the course, and, for repeat offenders, termination of student status.
3. **Make-up exams will only be given in cases of emergency and must be completed no later than 1 week after the regularly-scheduled exam.** Cases of emergency require appropriate documentation. For example, personal significant illness must be accompanied by a doctor's note. Emergencies do not include vacations or oversleeping. Missing exams for other reasons such as military service or travel for university related reasons should be discussed with the instructor at the beginning of the semester so special provisions can be made. **If the instructor allows you to take a make-up exam, it should be scheduled with Jasmine Clark (jc041712@uab.edu). She is located in the main Psychology office (CH 415) and can also be reached by phone at 934-3850.**
4. Unless you are seriously ill or injured, please do not have anyone other than you call me with an excuse for your absence. Feel free to contact me directly to schedule an appointment to discuss any issues.
5. Calculators are needed for exams and 2 (two) #2 pencils. A calculator that is capable of calculating square roots is required. Students found utilizing functions on calculators that automatically calculate means, variances, standard deviations, etc... will be found guilty of cheating. No cell phones, laptops, PDA's, iPod's, or other electronic devices can be used while taking exams. If full work is not shown on the exam, credit will not be given.
6. **Attendance is highly recommended. You are responsible for obtaining any notes, answers to homework questions, etc... that you miss from your classmates.** There will be some class information available on Canvas.
7. **If you have a disability and require special accommodations, please speak with me within the first week of class to discuss the matter. No accommodations will be made after the first exam unless the disability was diagnosed after the exam.**
8. Office hours are on Thursday's from 2pm – 5 pm or by appointment. Meetings can be arranged immediately following class or by email (oclay@uab.edu). **Even if you plan to come by my office during regular office hours please verify with me in advance so I can be prepared for your particular questions.** My preference is to schedule time where more than one student can benefit. Meetings will be held in my office at Campbell Hall, Room 321.
9. If there is a possibility of classes being cancelled due to inclement weather etc, please listen to WBHM (90.3 FM, UAB's only official source for such information) or check the UAB webpage for up-to-date information. If class is cancelled due to instructor's unavailability (illness etc), there will be a notice on the classroom door with relevant instructions.

Canvas:

This course will make extensive use of Canvas (www.uab.edu/elearning/canvas). If you are registered for the course, you will be automatically registered for the course's canvas resources. The syllabus, slides, and handouts will all be available via Canvas. On this site, you will find any class announcements and important material so please check this site regularly.

NOTICE

Email policy

Please be aware that I will not discuss official business (e.g., coursework, course grades, academic advising, etc.) via email unless you use your UAB email address. This is mostly for the protection of your privacy. If, for instance, I get an email signed Mary Smith requesting sensitive information about her progress in my class, but it comes from thickgirl@gmail.com, I have no way of knowing whether it is really from Mary Smith or someone else.

Study Tips:

You must keep up with the homework assignments and reading to understand what is being discussed in class and to enable you to be successful in the course.

- **Pace yourself:** DO NOT GET BEHIND! This cannot be stressed strongly enough!
- **Ask questions:** You must have a good grasp of each concept before we move on to more difficult topics, so keep asking questions until you understand the material.

If you experience difficulty in this class, see me as soon as possible to get help.

Class Schedule

<u>Dates</u>	<u>Topics</u>	<u>Readings</u>
August 29	Course Syllabus, Introduction	Chapter 1
Aug 31, Sept. 5	Descriptive Statistics	Chapter 2
September 7	Research Methods and Secondary Data Analysis Seminar Series lecture by Dr. Clay – 11:45 – 1:15 (Medical Towers Room 634 – lunch served)	
September 12, 14	Probability; Binomial Distribution	Chapter 5
September 19, 21	Associations between Categorical Variables Introduction to Hypothesis Testing	Chapter 6
September 26	Normal Distribution	Chapter 3
September 28	Sampling Distributions; Hypothesis Testing Applied to Means	Chapter 4 & 7.1-7.2
October 3	EXAM #1	
October 5	Inferential Statistics for two Matched Samples	7.4
October 10, 12	Inferential Procedures for Two Independent Samples	7.5-7.7
October 17, 19	Power Analysis	Chapter 8
October 24, 26	One-way Analysis of Variance and Post-Hoc Comparisons	Chapter 11, 12.6
Oct. 31, Nov. 2	Factorial ANOVA	Chapter 13
November 7	EXAM #2	
November 9, 14	Correlation	Chapter 9
November 16	Bivariate Regression Analysis	Chapter 9
November 20 – November 24 → Fall / Thanksgiving Break		
November 28	Bivariate Regression Analysis (continued)	Chapter 9
November 30	Introduction to Multiple Regression Analysis	Chapter 15
December 5	Multiple Regression Analysis (continued)	Chapter 15
December 7	Resampling and Nonparametric Approaches to Data	Chapter 18
Tuesday, December 12	FINAL EXAM - 10:45 AM - 1:15 PM	