



Course Statistics for Psychology, PSYC 2317.501
Professor Britain A. Mills, Ph.D.
Term Fall 2016
Meetings CR 1.202, Tuesdays and Thursdays from 7:00pm-8:15pm

Instructor Contact Information

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GENERAL COURSE INFORMATION

Prerequisites:

College Algebra MATH - 1300, or MATH - 1306, or MATH – 1314

Course description

This course is designed to introduce students to common statistical concepts and methods used in psychological studies. Subject areas include: measurement, graphs, descriptive statistics (e.g., mean, median, mode, variance, standard deviation), probability, correlation and regression, distributions (e.g., normal, t, Chi-square, F), estimation, and inferential statistics (e.g., hypothesis testing, criterion, sources of error, power, effect size, and an introduction to analysis of variance and factorial designs).

General education core objectives

Students who successfully complete this course will demonstrate

- Critical thinking: Competency in the critical evaluation, interpretation, and synthesis of quantitative information
- Effective communication: A general ability to communicate ideas through written, oral and visual means.
- Technical skill: The ability to manipulate and analyze numeric data to resolve empirical questions.

Student learning objectives

Students will learn the following:

- Critical thinking: Recognize testable quantitative implications of hypothetical assertions, the types of quantitative information that can empirically inform assertions, and recognize common threats to inference at different stages of research.
- Effective communication: Articulate the strengths and weakness of different analytic approaches to empirical questions.
- Technical skill: Compute and interpret descriptive statistics concerning central tendency and variability; apply statistical procedures (chi square, t-test, simple ANOVA, correlation, regression) to data in order to draw inferences about samples and populations; compute effect sizes and confidence intervals.

Required texts

Glenberg, A., & Andrzejewski. (2008). *Learning from Data (3rd Edition)*. Laurence Erlbaum Associates, ISBN: 978-0-8058-4921-9.

Lecture Notes & homework: Available on the UTD Elearning.

Supplemental Instruction (SI): Academic support and help for this course is available. Visit the following website for the detail information: <http://www.utdallas.edu/studentsuccess/leaders/si.html>

GRADE ASSIGNMENT POLICY

Research Exposure Credit Requirement (REC):

One requirement of all students enrolled in this class is completion of two research exposure credits. This requirement provides students practical and direct experiences with research and is an important means to understanding behavioral research. Details about this requirement appear on the separate Research Exposure Credit Requirement handout distributed on the first day of class. A link to "Research Exposure Credit (REC) Requirement" is also posted on the BBS Information Center in eLearning (link on the left side).

Failure to complete the research exposure requirement will result in lowering your total grade in this class. For each Research Exposure Credit you fail to complete, your course grade will be reduced by 1/3 letter grade. For example, if you only complete one of the two required credits and your grade for all other course requirements is an A+, then your grade would be lowered from an A+ to an A. If you do not complete both credits, your grade would be lowered from an A+ to A-. The deadline for completion of these credits is found on the REC instruction sheet.

Grading Policy

Exams will count 80%, quizzes will count 19% and attendance will count 1% of the course grade.

No extra credit work will be provided.

Exams:

There are four exams based on lectures and readings. They will include multiple choice, true/false, short answer, and problem solving questions. Each exam will count for 20%.

Make-up exam Policy

1. Make-up exams will be given only if you notify the instructor and your graduate TA in advance of the scheduled time of the exam for the following circumstances:
 - a. You were seriously ill and have a verifiable documentation from a physician or
 - b. You have an urgent family affair (e.g., funeral).
2. You are NOT allowed to use notes for make-up exams.
3. Make-up exams must be completed by the next class. (e.g., if you missed an exam on Tuesday, you must take your make-up exam before Thursday class.). If not, you will have 10 point deduction for each day including weekends.
4. IMPORTANT: Make up exams will not be given if you have accumulated more than 1 absence since the previous exam.

Attendance Policy

1. You may have 2 free absences.
2. Attendance is counted only when on time and present for the entire class period.
3. If you sign in for other students, you will get zero for the entire attendance grade for the semester.

Quizzes

1. There will be 6 online quizzes. The 2 lowest quiz grades will be dropped.
2. Each quiz will contain about 20 multiple choice questions and will be posted on ELearning.
3. You will have 3 attempts to complete each quiz and each will have a 40 minute time limit per attempt.
4. Due dates will be posted on ELearning and on the quiz itself. After the due date and time, the quiz will not be available on ELearning.
5. Of the 3 attempts, the highest score will be recorded for your quiz grade.

Course Schedule

Note: This schedule is tentative and subject to change.

Date	Topic	Readings
8/23	Introduction	
8/25	Variability and Frequency distributions	Chapters 1, 2
8/30	Central tendency	Chapter 3
9/1	Z-scores and standardization	Chapter 4
9/6	Introduction to statistical inference	Chapter 5
9/8	Probability	Chapter 6
9/13	TEST 1	
9/15	Sampling distributions	Chapter 7
9/20	Hypothesis testing	Chapter 8
9/22	Power	Chapter 9
9/27	Parameter estimation	Chapter 10
9/29	Inferences about population proportions	Chapter 11
10/4	Inferences about population means	Chapter 12
10/6	TEST 2	
10/11	Comparing populations sampled independently	Chapters 13
10/13	Comparing populations with dependent sampling	Chapters 14-15
10/18	Correlation	Chapter 21
10/20	Regression, part I	Chapter 20
10/25	Regression, part 2	
10/27	TEST 3	
11/1	Comparing population variances	Chapter 16
11/3	Comparing multiple population means: One-way ANOVA, part 1	Chapter 17
11/8	One-way ANOVA, part 2	
11/10	Factorial design and ANOVA, part 1	Chapters 18-19
11/15	Factorial design and ANOVA, part 2	
11/17	Factorial design and ANOVA, part 3	
11/22	Fall break	
11/24	Fall break	
11/29	Inferences using categorical data: the χ^2 statistic	Chapter 22
12/1	Review	
12/6	TEST 4	

Student Conduct and Discipline

The University of Texas System and The University of Texas at Dallas have rules and regulations for the orderly and efficient conduct of their business. It is the responsibility of each student and each student organization to be knowledgeable about the rules and regulations which govern student conduct and activities. General information on student conduct and discipline is contained in the UTD printed publication, *A to Z Guide*, which is provided to all registered students each academic year.

The University of Texas at Dallas administers student discipline within the procedures of recognized and established due process. Procedures are defined and described in the *Rules and Regulations, Series 50000, Board of Regents, The University of Texas System*, and in Title V, Rules on Student Services and Activities of the university's *Handbook of Operating Procedures*. Copies of these rules and regulations are available to students in the Office of the Dean of Students, where staff members are available to assist students in interpreting the rules and regulations (SU 1.602, 972/883-6391) and online at <http://www.utdallas.edu/judicialaffairs/UTDJudicialAffairs-HOPV.html>

A student at the university neither loses the rights nor escapes the responsibilities of citizenship. He or she is expected to obey federal, state, and local laws as well as the Regents' Rules, university regulations, and administrative rules. Students are subject to discipline for violating the standards of conduct whether such conduct takes place on or off campus, or whether civil or criminal penalties are also imposed for such conduct.

Academic Integrity	<p>The faculty expects from its students a high level of responsibility and academic honesty. Because the value of an academic degree depends upon the absolute integrity of the work done by the student for that degree, it is imperative that a student demonstrate a high standard of individual honor in his or her scholastic work.</p> <p>Scholastic Dishonesty, any student who commits an act of scholastic dishonesty is subject to discipline. Scholastic dishonesty includes but is not limited to cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in whole or in part to another person, taking an examination for another person, any act designed to give unfair advantage to a student or the attempt to commit such acts.</p> <p>Plagiarism, especially from the web, from portions of papers for other classes, and from any other source is unacceptable and will be dealt with under the university's policy on plagiarism (see general catalog for details). This course will use the resources of turnitin.com, which searches the web for possible plagiarism and is over 90% effective.</p>
Email Use	<p>The University of Texas at Dallas recognizes the value and efficiency of communication between faculty/staff and students through electronic mail. At the same time, email raises some issues concerning security and the identity of each individual in an email exchange. The university encourages all official student email correspondence be sent only to a student's U.T. Dallas email address and that faculty and staff consider email from students official only if it originates from a UTD student account. This allows the university to maintain a high degree of confidence in the identity of all individual corresponding and the security of the transmitted information. UTD furnishes each student with a free email account that is to be used in all communication with university personnel. The Department of Information Resources at U.T. Dallas provides a method for students to have their U.T. Dallas mail forwarded to other accounts.</p>
Withdrawal from Class	<p>The administration of this institution has set deadlines for withdrawal of any college-level courses. These dates and times are published in that semester's course catalog. Administration procedures must be followed. It is the student's responsibility to handle withdrawal requirements from any class. In other words, I cannot drop or withdraw any student. You must do the proper paperwork to ensure that you will not receive a final grade of "F" in a course if you choose not to attend the class once you are enrolled.</p>
Student Grievance Procedures	<p>Procedures for student grievances are found in Title V, Rules on Student Services and Activities, of the university's <i>Handbook of Operating Procedures</i>.</p> <p>In attempting to resolve any student grievance regarding grades, evaluations, or other fulfillments of academic responsibility, it is the obligation of the student first to make a serious effort to resolve the matter with the instructor, supervisor, administrator, or committee with whom the grievance originates (hereafter called "the respondent"). Individual faculty members retain primary responsibility for assigning grades and evaluations. If the matter cannot be resolved at that level, the grievance must be submitted in writing to the respondent with a copy of the respondent's School Dean. If the matter is not resolved by the written response provided by the respondent, the student may submit a written appeal to the School Dean. If the grievance is not resolved by the School Dean's decision, the student may make a written appeal to the Dean of Graduate or Undergraduate Education, and the dean will appoint and convene an Academic Appeals Panel. The decision of the Academic Appeals Panel is final. The results of the academic appeals process will be distributed to all involved parties.</p> <p>Copies of these rules and regulations are available to students in the Office of the Dean of Students, where staff members are available to assist students in interpreting the rules and regulations.</p>
Incomplete Grades	<p>As per university policy, incomplete grades will be granted only for work unavoidably missed at the semester's end and only if 70% of the course work has been completed. An incomplete grade must be resolved within eight (8) weeks from the first day of the subsequent long semester. If the required work to complete the course and to remove the incomplete grade is not submitted by the specified deadline, the incomplete grade is changed automatically to a grade of F.</p>
Disability Services	<p>The goal of the Office of Student AccessAbility Services is to provide students with disabilities equal educational opportunities. The Office of Student AccessAbility Services provides students with a documented letter to present to the faculty members to verify that the student has a disability and needs accommodations. This letter should be presented to the instructor in each course at the beginning of the semester and accommodations needed should be discussed at that time. It is the student's responsibility to notify his or her professors of the need for accommodation. If accommodations are granted for testing accommodations, the student should remind the instructor five days before the exam of any testing accommodations that will be needed. The Office of Student AccessAbility Services is located in Room 3.200 in the Student Services Building. Office hours are Monday – Thursday, 8:00 a.m. to 6:00 p.m., and Friday 8:00 a.m. to 5:00 p.m. You may reach the Office of Student AccessAbility Services at (972) 883-2098. Guidelines for documentation are located on the Office of Student AccessAbility Services website at: http://www.utdallas.edu/studentaccess/guidelines/</p>
Religious Holy Days	<p>The University of Texas at Dallas will excuse a student from class or other required activities for the travel to and observance of a religious holy day for a religion whose places of worship are exempt from property tax under Section 11.20, Tax Code, Texas Code Annotated. The student is encouraged to notify the instructor or activity sponsor as soon as possible regarding the absence, preferably in advance of the assignment. The student, so excused, will be allowed to take the exam or complete the assignment within a reasonable time after the absence: a period equal to the length of the absence, up to a maximum of one week. A student who notifies the instructor and completes any missed exam or assignment may not be penalized for the absence. A student who fails to complete the exam or assignment within the prescribed period may receive a failing grade for that exam or assignment.</p> <p>If a student or an instructor disagrees about the nature of the absence [i.e., for the purpose of observing a religious holy day] or if there is similar disagreement about whether the student has been given a reasonable time to complete any missed assignments or examinations, either the student or the instructor may request a ruling from the chief executive officer of the institution, or his or her designee. The chief executive officer or designee must take into account the legislative intent of TEC 51.911(b), and the student and instructor will abide by the decision of the chief executive officer or designee.</p>