

# PSY2317.001—Statistics for Psychology—Fall 2017

Green Hall GR 4.301 :: TuTh 10:00 – 11:15 AM

## Instructor Contact Information

### **Dr. Nancy Juhn**

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Office Hours: Tu and Th 1:00-2:00 PM

and by appointment

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## Teaching Assistant

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**Prerequisites:** College Algebra MATH - 1300, or MATH - 1306, or MATH - 1314

### Course Description:

This course is designed to introduce students to basic statistical methods for the design and analysis of psychology experiments. Subject areas include: measurement, graphs, descriptive statistics (e.g., mean, median, mode, variance, standard deviation), elementary probability, simple correlation and regression, distributions (e.g., normal,  $t$ , Chi-square,  $F$ ), and inferential statistics (e.g., hypothesis testing, criterion, sources of error, power, effect size, and an introduction to analysis of variance and factorial designs).

### PSY 2317 General Education Core Objectives:

Students who successfully complete this course will demonstrate competency in the following core objectives:

- \* Critical Thinking Skills - to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information.
- \* Communication Skills - to include effective development, interpretation and expression of ideas through written, oral and visual communication.
- \* Empirical and Quantitative Skills - to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions.

### PSY 2317 Student Learning Objectives:

Students will learn to:

- \* Critical thinking skills: Distinguish the nature of designs that permit causal inferences from those that do not. (2.1)
- \* Communication skills: Describe how various research designs address different types of questions and hypotheses. Articulate strengths and limitations of various research designs. Distinguish between statistical significance and practical significance. (2.1)
- \* Empirical and Quantitative skills: Compute or interpret basic descriptive statistics (central tendencies, variability, standardized scores) and inferential statistical tests (chi square, t-test, simple ANOVA, correlation, regression). Compute effect size and confidence intervals. (2.2)

**Required textbook:** Neil J. Salkind (2014), Statistics for People Who (think they) Hate Statistics, 5<sup>th</sup> edition, Sage. Basic scientific **calculator** is needed for exams and homework.

**Lecture Outlines & Quiz and Homework:** They are 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.

# Assessment: Grading Policy

Exam grade will count 80%, online quiz grade will count 14%, homework grade will count 5% and attendance grade will count 1% of the course grade.

***I do not provide extra credit work.***

## Exams:

Exam grade: 80% of the course grade.

There are four exams based on lectures, reading, and homework assignments, which 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 exam must be completed by next class time (i.e., if you missed an exam on Tuesday, you must take your make-up exam before Thursday class.). If not, you will have a 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

Attendance grade: 1% of the course grade.

1. You may have 2 free absences. No excused absence will be accepted
2. Attendance grade will be given to those students who come to class on time and stay for the **entire class** period. You will not be allowed to sign-in after the first 15 minutes of the class-- No Exceptions.
3. If you sign in for other students, you will get a zero for the entire attendance grade for the semester.

## Quiz and Homework Policy

Please note that Quiz and Homework are very important learning tools for the course material. Furthermore, some quiz and homework questions will be on the exam.

**No late quizzes or homework will be accepted. I do not provide any makeup quizzes or homework. I drop the 2 lowest quiz and 2 lowest homework grades.**

A. **Online Elearning Quiz grade:** 14% of the course grade. There are 16 online quizzes. Each quiz will count for 1%.

1. Each quiz will contain about 20 multiple choice questions and it will be posted on ELearning.
2. You will have 3 attempts to complete each quiz and there will be a time limit of 40 minutes per attempt. The quiz must be completed and submitted before the due date and time, otherwise, the scores will not be recorded in the grade book.
3. The due date is posted on the course syllabus. The deadline time will be 11:50 PM for the date. After the due date and time, students are not able to submit the quiz.
4. Out of the 3 attempts, the highest score will be recorded for your quiz grade.

B. **Homework Problem Set grade:** 5% of the course grade. There are 12 problem set homework assignments. Each homework will count for 0.5%.

1. Each problem set homework must be turned in the beginning of the class (first 15 minutes of the class) for the due date that is posted on the course syllabus. Homework will not be accepted after the first 15 minutes of the class -- No Exceptions.
2. Problem set homework solutions will not be provided, however feedback and corrections will be given only when you have completed and turned in the homework.

*These descriptions and timelines are subject to change at the discretion of the Professor.*

<u>Date</u>	<u>Lecture &amp; Test</u>	<u>Online ELearning QUIZ DUE</u>	<u>Homework Problem Set DUE</u>	<u>Reading</u>
August 22	Introduction			Chapter 1
August 24	Measures of Central Tendency			Chapter 2
August 29	Variability	Quiz 1 (chapter 1)		Chapter 3
August 31	Tables, Graphs	Quiz 2 (chapter 2)  <b>*Algebra Review Due*</b>	Set 1-1	Chapter 4
September 5	Frequency distributions	Quiz 3 (chapter 3)		
September 7	Correlation Coefficients	Quiz 4 (chapter 4)	Set 1-2	Chapter 5
September 12	Correlation Coefficients Reliability and Validity	Quiz 5 (chapter 5) Quiz 6 (chapter 6)	Set 1-3	Chapter 6
<b>September 14</b>	<b>Test 1 (Ch 1,2,3,4,5 &amp; 6)</b>			
September 19	Hypothesis testing			Chapter 7
September 21	Hypothesis testing			
September 26	Normal Curve and Z score	Quiz 7 (chapter 7)	Set 2-1	Chapter 8
September 28	Normal Curve and Z score	Quiz 8 (chapter 8)		
October 3	The Concept of Significance		Set 2-2	Chapter 9
October 5	The Concept of Significance	Quiz 9 (chapter 9)	Set 2-3	
<b>October 10</b>	<b>TEST 2 (Ch 7, 8 &amp; 9)</b>			
October 12	The one sample z-test			Chapter 10

<u>Date</u>	<u>Lecture &amp; Test</u>	<u>Online ELearning QUIZ DUE</u>	<u>Problem Sets Homework DUE</u>	<u>Reading</u>
October 17	t-Test for Independent Samples			Chapter 11
October 19	t-test for Dependent Samples	Quiz 10 (chapter 10)	Set 3-1	
October 24	t-Test for Dependent Samples	Quiz 11 (chapter 11)		Chapter 12
October 26	One Sample Chi-Square Test	Quiz 12 (chapter 12)	Set 3-2	Chapter 17*
October 31	One Sample Chi-Square Test	Quiz 17* (chapter 17)	Set 3-3	
<b>November 2</b>	<b>TEST 3 (Ch 10,11,12 &amp; 17)</b>			
November 7	Analysis of Variances			Chapter 13
November 9	Analysis of Variances			
November 14	Factorial Analysis of Variances	Quiz 13 (chapter 13)	Set 4-1	Chapter 14
November 16	Factorial Analysis of Variances			
November 21	<b>Thanksgiving Holiday</b>			
November 23				
November 28	Prediction	Quiz 14 (chapter 14)	Set 4-2	Chapter 16**
November 30	Prediction	Quiz 16(chapter 16)**	Set 4-3	
<b>December 5</b>	<b>TEST 4 (Ch 13, 14 &amp; 16) Last Test for the Semester NO Final Exam</b>			

**Note:**

\* We will study chapter 17 immediately after chapter 12 and online quiz number corresponds to the chapter number.

\*\* We do not cover the following chapters: 15, 18, 19 and 20.

Students considering sharing personal information in email, in person, or within assignments or exams should be aware that faculty members and teaching/research assistants are required by UT Dallas policy to report information about sexual misconduct to the UT Dallas Title IX Coordinator. Per university policy, faculty have been informed that they must identify the student to the UT Dallas Title IX Coordinator. Students who wish to have confidential discussions of incidents related to sexual harassment or sexual misconduct should contact the Student Counseling Center (972-883-2527 or after hours 972-UTD-TALK or 972-883-8255), the Women's Center (972-883-8255), a health care provider in the Student Health Center (972-883-2747), the clergyperson (or other legally recognized religious advisor) of their choice, or an off-campus resource (i.e., rape crisis center, doctor, psychologist). Students who are sexually assaulted, harassed, or victims of sexual misconduct, domestic violence, or stalking, are encouraged to directly report these incidents to the UT Dallas Police Department at 972-883-2222 or to the Title IX Coordinator at 972-883-2218. Additional information and resources may be found at <http://www.utdallas.edu/oiec/title-ix/resources>.

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## Technical Support

If you experience any issues with your UT Dallas account, contact the UT Dallas Office of Information Technology Help Desk: [assist@utdallas.edu](mailto:assist@utdallas.edu) or call 972-883-2911.

UT Dallas provides eLearning technical support 24 hours a day/7 days a week. The services include a toll free telephone number for immediate assistance (1-866-588-3192), email request service, and an online chat service. Please use this link to access the UTD eLearning Helpdesk: <http://www.utdallas.edu/elearning/eLearningHelpdesk.html>.

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## Student Conduct and Discipline

The University of Texas System (Regents' Rule 50101) 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 UT Dallas online catalogs (<http://catalog.utdallas.edu>).

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 Student Code of Conduct, UTDSP5003 (<http://policy.utdallas.edu/utdsp5003>). Copies of these rules and regulations are available to students in the Office of Community Standards and Conduct, where staff members are available to assist students in interpreting the rules and regulations (SSB 4.400, 972-883-6391) and online at <https://www.utdallas.edu/conduct/>.

A student at the University neither loses their 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 its standards of conduct whether such conduct takes place on or off campus, or whether civil or criminal penalties are also imposed for such conduct.

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## Academic Integrity

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 demonstrates a high standard of individual honor in his or her scholastic work.

**Academic Dishonesty:** Academic dishonesty can occur in relation to any type of work submitted for academic credit or as a requirement for a class. It can include individual work or a group project. Academic dishonesty includes plagiarism, cheating, fabrication, and collaboration/collusion. In order to avoid academic dishonesty, it is important for students to fully understand the expectations of their professors. This is best accomplished through asking

clarifying questions if an individual does not completely understand the requirements of an assignment.

Additional information related to academic dishonesty and tips on how to avoid dishonesty may be found here: <https://www.utdallas.edu/conduct/dishonesty/>.

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### **Copyright Notice**

It is the policy of the University of Texas at Dallas to adhere to the requirements of the United States Copyright Law of 1976, as amended, (*Title 17, United States Code*), including ensuring that the restrictions that apply to the reproduction of software are adhered to and that the bounds of copying permissible under the fair use doctrine are not exceeded. Copying, displaying, reproducing, or distributing copyrighted material may infringe upon the copyright owner's rights. Unauthorized distribution of copyrighted material, including unauthorized peer-to-peer file sharing, may subject students to appropriate disciplinary action as well as civil and criminal penalties. Usage of such material is only appropriate when that usage constitutes "fair use" under the Copyright Act. For more information about the fair use exemption, see <http://copyright.lib.utexas.edu/copypol2.html>. As a UT Dallas student, you are required to follow UT Dallas' copyright policy (UTDPP1043 at <http://policy.utdallas.edu/utdpp1043>) and the UT System's policy, UTS107 at <http://www.utsystem.edu/board-of-regents/policy-library/policies/uts107-use-copyrighted-materials>.

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### **Email Use**

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. All official student email correspondence will be sent only to a student's UT Dallas email address and UT Dallas will only consider email requests originating from an official UT Dallas student email account. This allows the University to maintain a high degree of confidence in the identity of each individual's corresponding via email and the security of the transmitted information. The University of Texas at Dallas furnishes each student with a free email account that is to be used in all communication with university personnel. The Office of Information Technology provides a method for students to have their UT Dallas mail forwarded to other email accounts. To activate a student UT Dallas computer account and forward email to another account, go to <http://netid.utdallas.edu>.

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### **Class Attendance**

Regular and punctual class attendance is expected. Students who fail to attend class regularly are inviting scholastic difficulty. Absences may lower a student's grade where class attendance and class participation are deemed essential by the instructor. In some courses, instructors may have special attendance requirements; these should be made known to students during the first week of classes.

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### **Withdrawal from Class**

The administration at UT Dallas has established deadlines for withdrawal from any course. These dates and times are published in the Comet Calendar (<http://www.utdallas.edu/calendar>) and in the Academic Calendar (<http://www.utdallas.edu/academiccalendar>). It is the student's responsibility to handle withdrawal requirements from any class. In other words, a professor or other instructor cannot drop or withdraw any student unless there is an administrative drop such as the following:

- Have not met the prerequisites for a specific course
- Have not satisfied the academic probationary requirements resulting in suspension
- Office of Community Standards and Conduct request
- Have not made appropriate tuition and fee payments
- Enrollment is in violation of academic policy
- Was not admitted for the term in which they registered

It is the student's responsibility to complete and submit the appropriate forms to the Registrar's Office and ensure that he or she will not receive a final grade of "F" in a course if he or she chooses not to attend the class after being enrolled.

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### **Student Grievance Procedures**

Procedures for student grievances are found in university policy UTDSP5005 (<http://policy.utdallas.edu/utdsp5005>). In attempting to resolve any student grievance regarding disputes over grades, application of degree plan, graduation/degree program requirements, and thesis/and dissertation committee, adviser actions and/or decisions, evaluations, and/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 originated.

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### **Incomplete Grade Policy**

As per university policy, incomplete grades may be given, at the discretion of the instructor of record for a course, when a student has completed at least 70% of the required course material but cannot complete all requirements by the end of the semester. An incomplete course grade (grade of 'I') must be completed within the time period specified by the instructor, not to exceed eight (8) weeks from the first day of the subsequent long semester. Upon completion of the required work, the symbol 'I' may be converted into a letter grade (A through F). If the grade of Incomplete is not removed by the end of the specified period, it will automatically be changed to F.

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### **AccessAbility Services**

It is the policy and practice of The University of Texas at Dallas to make reasonable accommodations for students with properly documented disabilities. However, written notification from the Office of Student AccessAbility (OSA) is required. If you are eligible to receive an accommodation and would like to request it for this course, please discuss it with your professor and allow one week advance notice. Students who have questions about receiving accommodations, or those who have, or think they may have, a disability (mobility, sensory, health, psychological, learning, etc.) are invited to contact OSA for a confidential discussion. OSA is located in the Student Services Building, SSB 3.200. They can be reached by phone at 972-883-2098, or by email at [studentaccess@utdallas.edu](mailto:studentaccess@utdallas.edu).

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### **Religious Holy Days**

The University of Texas at Dallas will excuse a student from class or other required activities, including examinations and travel time for the observance of a religious holy day for a religion whose places of worship are exempt from property tax under Section 11.20, of the *Texas Tax Code*.

Students are encouraged to notify the instructor or activity sponsor as soon as possible regarding the absence, preferably in advance of the assignment.

Excused students will be allowed to take missed exams or complete assignments 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.

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 President of UT Dallas or from the President's designee. The chief executive officer or designee must take into account the legislative intent of *Texas Education Code* 51.911(b), and the student and instructor will abide by the decision of the chief executive officer or designee.