PSY 2073 (Session 003)
Statistics for Psychology
Spring, 2020
Class hours: 4:00pm-5:15pm, Mon & Wed

Nan Wang, Ph.D.
Office: MH 4.02.26
Office Hours: 2:00pm – 3:30pm: Mon &Wed
Email: nan.wang@utsa.edu

Statistics for Psychology

Course Objectives: This course will help the student develop a basic understanding of descriptive and inferential statistical techniques as they relate to the field of psychology.

Scope: This course will cover both (a) descriptive statistical techniques including distributions, graphing, and measures of central tendency and variability, and (b) inferential statistical techniques including z-tests, t-tests, analysis of variance, chi-square, linear regression and correlation. Additional topics may be covered as time permits.

Materials

Text: Gravetter, F. J. & Wallnau, L. B. (2004,2007,2009). Statistics for the Behavioral Sciences: (7^{th} or 8^{th} or 9^{th} or 10^{th} Edition). Belmont, CA: Wadsworth/Thomson Learning.

The text is organized just the way I like to present the course. I have selected the current text given that it has a good number of great examples and practice problems. I have altered my own materials (i.e., formulas) to be generally consistent with those used in the text. In some places, however, my approach may differ slightly from the text, and you should focus primarily on my lectures and notes where there are any differences. I will either provide handouts or access to other sources to fill in these gaps. Be very careful to use the formulas I provide for solving homework and test problems. [Please note that statistics is very different than other math courses in that it is difficult to find 2 texts that use exactly the same notation and formulas. The traditional, standardized version of the formulas is rarely used as authors have sought to simply and present a more conceptual approach to statistics. This can be pose challenges to beginning students.]

Notes: I will upload lecture slides to Blackboard and you can download them before each class.

Calculators: You should have access to a simple, statistical calculator that at a minimum computes square roots. The TI-34 II and the TI-30X IIS are good calculators that I recommend. I advise not spending more than $20 for a calculator, and also advise getting a calculator with a solar battery. If you have another calculator, I'll try to help (and I've used the Casio in the past), but ultimately, the responsibility is yours. If you buy a calculator other than that I have suggested, be sure that it is capable of computing a sum of scores (ΣX) and a sum of squared scores (ΣX^2). The tests may prove very difficult to complete in a timely fashion if you do not have a statistical calculator and know how to use it. No cell phones are allowed for use as calculators, nor are any graphing calculators (e.g. TI 80).

Course prerequisites:

The current UTSA catalog lists the following prerequisites: MAT 1033 (Algebra with Calculus for Business) or MAT 1063 (College Algebra), and one psychology course. A working knowledge of basic algebra will help you follow the logic of the statistical formulas used in the course; moreover, experience with at least Introductory Psychology will help you follow the examples and develop an appreciation for how statistics are applied and used in the field. Those who do not have the prerequisites are likely to have trouble performing well in the course, and should drop Statistics to take the necessary prerequisites instead.

Homework:

There will be 8 regular homework assignments, and 10% of your grade will be based on your completion of these assignments. Homework assignments will be given along with the lecture. I have two objectives in assigning homework problems. The primary objective is to encourage you to keep up with the material. The second is to provide a mechanism so that you may receive feedback and test your understanding of the material. All homework assignments are to be turned in during class on the test day following the relevant completion date(s). Thus, homework is always due on test days!

Completed homework will be self-graded and each homework is worth 10 points. You would assign grades as follows: 100% complete and corrected = 10; 90% corrected = 9; 80% corrected = 8; 70% corrected = 7…; To receive a score of 10, all of the final answers should be calculated and corrected if found to be completed incorrectly. All work on the homework must be shown neatly and completely. The answers for each homework assignment are shown on Blackboard. I encourage you to do each assignment without looking at the answers, and then correct your homework to learn from your mistakes. After doing so, you may claim all available points for completing the assignment. I expect that homework assignments will be turned at the beginning of each test administration, but I will forgive and allow you to turn in ONE homework assignment late (but within a day of the time due) without penalty. I encourage students to complete all homework assignments, even if late, though assignments turned in later than 1 day of the test date will be penalized by approximately ½ the total value of the assignment. Late assignments should be handed to me personally during office hours. If you do not put it into my hands, then I did not receive it

COURSE EVALUATION AND GRADES:

The total number of points possible is 980 (i.e., without extra credit points or points from curves).

	Grade		Weight		Points	Percentage
Midterm 1:	100	*	2.00	=	200	(or 20%)
Midterm 2:	100	*	2.00	=	200	(or 20%)
Midterm 3:	100	*	2.00	=	200	(or 20%)
Final Exam:	100	*	2.50	=	250	(or 26%)
Homework:	80	*	1	=	80	(or 9 %)
Quiz Grade:	100	*	0.50	=	50	(or 5 %)
Weighted Total Sums =					980	(or 100%)

Grade Tracker: Track your grades here.

Midterm 1:	_____	* 2.00	=	_____ (1)	| HW 1&2: _____
Midterm 2:	_____	* 2.00	=	_____ (2)	| HW 3&4: _____
Midterm 3:	_____	* 2.00	=	_____ (3)	| HW 5&6: _____
Final Exam:	_____	* 2.60	=	_____ (5)	| HW 7&8: _____
HW Total:	_____	* 1.00	=	_____ (6)	| HW Tot: _____
Quiz 1:	_____	* 0.25	=	_____ (7)	|
Quiz 2:	_____	* 0.25	=	_____ (8)	

Total Points = _____

Final Grades:
To receive an A, you need 90% of 980 pts = 882-980.
To receive a B, you need 80% of 980 pts = 784-881.
To receive a C, you need 70% of 980 pts = 686-783.
To receive a D, you need 60% of 980 pts = 588-685.
To receive an F, you need anything less than 550 points.

TESTS AND ABSENCES:
There will be 3 non-cumulative tests during the semester plus a quasi-comprehensive examination during finals. The comprehensive final will be worth 250 points. The final will be based heavily on the information presented toward the end of the course covering correlation, regression, and the chi-square test. However, questions covering the full range of material will be included in some form. *For each exam, you will need to bring an 882-E or 882-ES Scantron*. You will also be required to present you student ID when you turn in your exam so that I can make sure that you are really you and not some person you hired to take the class for you. Also, cell phones and anything else that can take a photograph should be placed in your book bag during exams. Any student suspected of cheating will have their test confiscated, will be given a zero for that exam, and will be reported to the University.

Absences: You may be excused for religious holidays and participation in official university events/business, but you should look over your calendar and the course syllabus during the next week and notify me both in person and in writing of any scheduling conflict. You should present such notification no later than 1 week into class. I may, based on my discretion, also excuse an absence for missing a test based on (a) your illness, verified in writing by a physician's note, or (b) a very serious family problem (such as death in the family) which can be verified. A statistically higher number of car accidents, food poisonings, and grandparent deaths tend to occur on test days, so be prepared to fully document any reason for missing a test if you wish to make it up. Illnesses or medical conditions will NOT be excused if they cause extended absences (i.e., more than 5 missed classes, continuous or intermittent). If other complications arise, you should be careful to notify me BEFORE missing a test

(email if possible, and/or call to leave message).

Regular Attendance. **Regular attendance is expected and required to make satisfactory grades in this course.** I take this VERY seriously and reserve the right to give out pop quizzes, which I will do on any day that I notice more than 10% of the class is missing. In order to manage our class time effectively (spending time teaching the material) students MUST attend class regularly so that time is not wasted on organizational issues, passing out lecture notes on multiple occasions, and returning materials to students in piecemeal fashion. To minimize class disruptions due to absenteeism, I will hold to the following policies and procedures:

1. Make-up Exams: If a student misses a test, but is eligible to make-up that test, that make-up exam should be completed as soon as possible. If a student misses a test without a "valid" excuse per paragraph 1, the instructor, taking into account other extenuating factors presented by the student, *may* decide to allow the student to take a special make-up, although a penalty will likely be assessed. I understand that things come up, car accidents happen, and grandparents die, but for some reason these things tend to happen on test days. Be fully prepared to document WHY you missed a test if you plan to retake it.

2. Obtaining information missed because of absences: If a student is not present in class to obtain class notes, assignments, or feedback regarding tests and homework, that student should present themselves during my office hours, and should give me advance notification of their intent to receive such information. Any information missed from lecture can be attained from your classmates if you ask nicely or pay enough. Please refrain from asking for notes, assignments, and previously distributed test scores during normal class operations—do so either before class starts, or after class ends. Time before and after class should be reserved for students with questions regarding the material being covered, not administrative tasks that were already taken care of for the majority of the class. See me during office hours for any pertinent needs.

3. Notification of Schedule Changes: Students are responsible for being in class to receive any information regarding changes in the course schedule. That is, the due dates may be changed at the discretion of the instructor, and noting those changes to the syllabus is the responsibility of the student.

Withdrawals/Incompletes: Consult the spring UTSA Course Catalog for information pertaining to withdrawals/incompletes.

ATTENDANCE AND INSTRUCTOR INTIATED DROPS

This course uses instructor-initiated drops for students who exceed the absence/missed assignment limit. Therefore, up to the last day for students to withdraw from an individual course, Monday, March 30 *for Spring 2020*, you will be dropped for exceeding the following absence and/or missed assignment limits: 3 of the first 6 classes; > 50% of classes, thereafter (i.e., 4 of 7 classes, 5 of 8 classes, etc.). Attendance in the course will be taken and recorded by attendance sheets. *It is the student's responsibility to document their attendance* in this course by being present when the attendance sheet is read. **Being late to a quiz is considered an absence.** Students will receive at least one courtesy warning when approaching the absence/missed assignment limit. Notification will be sent via ASAP to the student's preferred email address. A subsequent absence or missed assignment will result in being dropped from the course. Notification of being dropped will also be sent via ASAP to the student's preferred email address. *This drop does not affect enrollment in other courses.*

After consultation with the instructor, you may appeal the drop to the Associate Dean, College of Liberal and Fine Arts, MH 4.01.23 using the Course Reinstatement Petition available at the College office, Department offices, and on the Registrar's website utsa.edu/registrar/forms.html. You must appeal the drop **within 3 business days** from the date the notification was sent. *An appeal will be upheld and the student reinstated into the course only when the student provides compelling evidence that the instructor's attendance or missed assignment record is in error.* Once an appeal is filed the student will be allowed to attend the course until the appeal is adjudicated. The Associate Dean must inform the student of his or her decision within three business days of receiving the appeal. Students will be sent email notice to their preferred email address informing them of the decision.

Miscellaneous Issues:

Extra Credit:

No extra credit is available for this course on an individual basis. However, at my discretion, class-wide extra credit may be given to supplement course material. It would not be wise to count on many of these assignments being available, nor on them counting for a significant number of points.

Blackboard / WebCT Page:

Copies of homework assignments, practice test problems, answer sheets, and access to other information sites that may be used for homework assignments or your general edification are located on WebCT/Blackboard.

Student Initiated Drops:

While students will eventually be dropped from this class if they stop attending, but they will not be automatically dropped for poor performance. I typically try to have two exams prior to the drop date so that students may gauge their performance. IF YOU ARE *NOT* PERFORMING SATISFACTORILY ON ONE OR BOTH OF THE FIRST TWO EXAMS, PLEASE CONSIDER YOUR OPTION OF DROPPING THE COURSE WITH AN AUTO-W BEFORE IT IS TOO LATE. IT IS YOUR RESPONSIBILITY TO IDENTIFY, KNOW, AND ACT BEFORE ANY DROP DATES

APPLICABLE TO YOURSELF. Deadlines can be found on the UTSA website under academic calendars.

Replacement of Grades:
In the *past*, Students who received a D or an F could retake courses and have the grades replaced for purposes of computing their grade point average. That is, the D or F would remain on the transcript, but would not be counted in one's GPA if the student made a better grade in a subsequent semester. HOWEVER, THIS POLICY SEEMS TO CONSTANTLY CHANGE, HENCE, MAKE SURE YOU KNOW WHETHER THIS IS AN OPTION FOR YOU BY CHECKING YOUR CATALOGUE AND BY TALKING WITH YOUR COUNSELOR. If you are not eligible, PLEASE PAY ATTENTION TO THE AUTO-W DATE.

Cell Phones & Tape Recorders:
Please ensure that your cell phones and pagers (if you for some reason still have one) have been turned off before class begins. This policy is not because I hate when people get calls during class, but rather, because lectures in this course will be both dense and fast paced and one person's texting or phone ringing or Facebook notifications popping up tends to distract not only the students around you, but also the instructor. To be fair, I will remind everyone at the beginning of class to turn them off and if I don't do so, then that first person whose phone rings may be off the hook. If, for some reason, you have to have your phone on during class (family emergency or something) please see me BEFORE class and let me know. I am the primary caregiver for three small children, and I turn my phone off during lecture, so I expect the same from you. Seriously, don't be the person I have to throw out because of cell phones. Tape recorders or other recording devices are not allowed unless I give my consent…and I won't…because that is creepy. If for some reason I do give such consent, it may be revoked at any time during lectures if I ask. Please contact me if you feel that special circumstances apply such that you might need me to consider making an exception.

Disabilities:
Instructional support services, including registration assistance and equipment, are available to students with documented disabilities through the Office of Disabled Student Services (DSS), MS 2.03.18. Students should contact DSS at 458-4157 to arrange to access these services if they are needed.

Campus Carry: Pursuant to HOP 9.48, Carrying of Concealed Handguns on Campus, my office and lab spaces is a designated exclusion zone. As set out in Section 30.06, Penal Code (trespass by license holder with a concealed handgun), a person licensed to carry a Concealed Handgun under Subchapter H, Chapter 411 Government Code (handgun licensing law), may not enter this property/office with a concealed handgun.

University Policies: University policy does not permit visitors in a class. In addition, university policy does not permit faculty or office staff to report grades by telephone, fax, or email. If you want to know your grade, you must talk to the instructor in person. In addition to the above information, students are responsible for understanding more general information common to all syllabi at UTSA, which can be found at: http://provost.utsa.edu/syllabus.asp

General UTSA Information—including information on scholastic honesty and more.

Students are expected to abide by the University code of conduct in all matters regarding scholastic honesty. These policies can be found at: http://utsa.edu/syllabus

Strategy for the Course.

Summary Keys for Success in Statistics for Psychology Class:

(1) Come to class everyday with notes and calculator, and work problems w/ class.
(2) Do all homework and turn them in. They often count more than you think.
(3) Do the practice test problems without extra notes, and check your answers.
(4) Read the text, and review your notes.
(5) Do extra practice problems from your text (Answers to odd numbered questions are in the back of the text.
(6) Get a study partner or group and review with others.
(7) Don't slack off as the semester wears on. We cover a lot of information at the end, and the final exam is worth 25% of your grade.

It is important to keep up with the course on a weekly basis. As soon as you can, identify several classmates from whom you can get notes should you miss class, and with whom you can study. I predict that you will have a difficult time studying on your own without coming to class, so make every effort to attend all lectures. If possible, it is a good strategy to review your notes from the previous lecture before coming to class. In this way, you will discover any parts of your notes that don't make sense, and you can ask for clarification in class. If you have a question, you are almost definitely not alone, so ask questions, come to class, review your notes, do your homework on time, and involve yourself in study groups. If you do these things, you may find that the course is less painful and more rewarding that what you anticipated.

Suggested problems from text (7th edition; mostly odd numbered questions answered in back of book:

Chapter 1: 1-5, 7, 9, 11, 13, 17, 19, 21, 23, 25.
Chapter 2: 1, 3, 5, 7, 9, 11, 15, 17, **19, 21, 23**, **25**.
Chapter 3: 3, 5, 7, **9**, 11, 13, 15, 21, **23**.
Chapter 4: 1, 3, **5**, 7, 9, 11, 13, 15, **17**, 21, 23, 25, 27
Chapter 5: 1, 3, **5**, 7, 9, 11 **13**, **15**, 27.
Chapter 6: 1, 3, 5, 7, 9, **11**, 13, **15**, **17**, 21, **23**, **24**, **25**.
Chapter 7: 1, 3, **5**, **7**, 9, **13**, **15**, 17, **19, 21**, **23,** 27.
Chapter 8: 1, **3**, **5**, 7, 9, 11, **13**, **15**, 17, **19**, **21**, 23, 27, 29.
Chapter 9: 13, 15, 17, 19, 21, 23
Chapter 10: 15, 17, 19, 21, 23, 25
Chapter 11: 1, 13, 15, 17, 19, 21, 25
Chapter 13: **1**, 2, **3**, 4, **5**, 9, 19, **21, 23, 25, 27**
Chapter 15: **1**, **5**, **7**, **9** (but assume the means are population means), **15**, **17**, **19**, **20**, **21**
Chapter 16: 5, 11, 13, 15, 19, 21, 23
Chapter 17: 1, 3, 7, 13
Chapter 18: 15, 21, 23

Suggested Problems, 8th Edition:

Ch 1: 1 - 7 - 9 - 15 - 17
Ch 2: 1 - 5 - 9 - 15 - 17 - 19
Ch 3: 19 - 25 - 27
Ch 4: 3 - 9 - 19 - 23 - 27 - 29
Ch.5: 5 - 15 - 19 - 23
Ch. 6: 17 - 19 - 21
Ch 7: 9 - 11 - 15 - 21 - 23
Ch 8: 7 - 11 - 13 - 17 - 25
Ch 9: 3 - 5 -6 - 13 - 15 - 19 - 25
Ch 10: 3 - 5- 9 - 11 - 13 - 15 - 21 - 23
Ch 11: 1 - 3 - 7 - 11 - 15 - 19
Ch 12: 5 - 7 - 11 - 15 - 17 - 25
Ch 13: 7 - 9 - 17 - 19 - 21
Ch 14: 7 - 15 - 17 - 19 - 21 - 23 - 25
Ch 15: 7 - 13 - 17 - 21 – 25
Ch 16: 7 – 9 – 11 - 13 – 15
Ch 17: 1 - 7

Suggested Problems 9th Edition:

Ch 1: All odd numbered problems
Ch 2: 1, 3, 5, 11, 15, 1**9, 21, 23, 25**
Ch 3: 1, **3, 5,** 11, 15, 21, **25**
Ch 4: 1, 3, 9, 11, **19**, 21, 23
Ch.5: 1, 3, 5, 11, 13, 21, 23, 25
Ch. 6: 3, 7, 11, **13, 15**, 17, **23**, 25
Ch 7: 1, 3, 5, 7, **11, 13**, 15, **17**, 21
Ch 8: 1, 3, 5, 7, 9, 11, 13, **15, 17**, 21
Ch 9: 1, 3, 5, 7, 9, 11, 13, **15, 17, 19, 21**, 23
Ch 10: 1, 3, 5, 7, 13, 15, **17, 19, 21, 23**
Ch 11: 1, 3, 5, 7, 9, 15, **19, 21, 23**
Ch 12: 1, 3, 5, 11, **15, 17, 19, 21, 23**
Ch 13: Skip 13
Ch 14: All odd numbered problems are important
Ch 15: 1, 3, 5, 7, **11, 13**
Ch 16: 1, 7, 11, 13
Ch 17: 1, 3, 11, 13, 15, 17, 19, 21, 23, 25

Tentative Schedule

Week	Topics	Readings	Work	Due
1 1/22	Overview; Experimental Design; Summation Notation;	Chapter 1		
2 1/27, 1/29	Frequency distributions and Graphs;	Chapter 2		
3 2/3, 2/5	Percentile and Percentile ranks; Central tendency	Chapter 3	Hw1	Hw1
4 2/10, 2/12	Variability	Chapter 4	Hw2	2/12: Midterm 1 Hw1 & Hw2 due
5 2/17, 2/19	z-score;	Chapter 5		
6 2/24, 2/26	Probability	Chapter 6	Hw3	
7 3/2, 3/4	Sampling distribution of Sample Means;	Chapter 7		Hw3 due
8 3/9 – 3/20	Spring Break			
10 3/23, 3/26	Hypothesis testing	Chapter 8		3/25: Midterm 2
11 3/30, 4/1	t-test introduction	Chapter 9		
12 4/6, 4/8	Two sample t-test	Chapter 10,11	Hw4	
13 4/13, 4/15	Analysis of Variance One-way ANOVA	Chapter 12		
14 4/20, 4/22	Two-way ANOVA	Chapter 13,14		4/20: Midterm 3 Hw4 due
15 4/27, 4/29	Correlation	Chapter 15	Hw5	
16 5/4, 5/6	Intro to Regression	Chapter 16		Hw5 due
17 5/11 – 5/13	Final exam (comprehensive)			