

Educational Psychology
EDP 371: Introduction to Statistics
Unique #10148 Spring 2018 – TuTh 11-12:30, UTC 4.134

Instructor: Dr. Sarah M. Collins
smcollins@utexas.edu

Office hours: Thursday 2:00-3:00, SZB 538N

TA:

Textbook: *Statistics for the Behavioral Sciences* by Gravetter and Wallnau (ninth edition). The textbook will be available at the Co-op.

Canvas: Announcements, course handouts, some lecture notes, exam materials, and grades will be posted on the course Canvas site. If you have a question about the course, please check Canvas and the syllabus before emailing the instructor or the TA. **Please check Canvas periodically for updates.**

Course Description: This course is designed to help you learn the introductory descriptive and inferential statistical procedures that are commonly used in research. You will learn the assumptions underlying common statistical procedures, the types of hypotheses that can be tested by these procedures, and the inferences that can be drawn from their results. After completing this course, you will have developed a sufficient foundation from which you can begin to conduct your own analyses and critically evaluate the statistical analyses of others.

- **What to Bring to Class Everyday:** A calculator, Appendix B from the textbook (a photocopy is fine), and the formula sheet (this can be found on Canvas). ***Please note that you may not use graphing calculators for exams or quizzes.***

This course may be used to fulfill the mathematics component of the university core curriculum and addresses the following three core objectives established by the Texas Higher Education Coordinating Board: communication skills, critical thinking skills, and empirical and quantitative skills. This course carries the Quantitative Reasoning flag. Quantitative Reasoning courses are designed to equip you with skills that are necessary for understanding the types of quantitative arguments you will regularly encounter in your adult and professional life. You should therefore expect a substantial portion of your grade to come from your use of quantitative skills to analyze real-world problems.

Classroom Expectations: This course emphasizes an understanding of statistics that goes beyond memorization. This is accomplished by engaging you in guided learning activities in the classroom, purposeful group activities and regular interactions with real data. Talking, writing and thinking about statistics will help you learn it, and most students find that being in class is very valuable. We will also use class time to clarify the project questions and share pointers on working with the datasets. Your active participation and attendance are essential. In order to best help yourselves, it is highly recommended that you read the chapters associated with lecture PRIOR to the start of that lecture. Your preparation will help your understanding of lecture material. **As lecture is an active learning environment, refrain from using your cell phones or laptops – this is distracting to both the instructor and your peers.**

Graded Assignments: There are two instructional goals for you in this class. First, that you learn to ask good questions when you look at data. Second, that you become familiar with the statistical mechanics of “crunching” numbers.

Description of Assignments:

Homework: There will be five short homework assignments that ensure you are comfortable with the methods presented in class.

Quizzes: There will be three short quizzes that test material from the lecture. You must be present for credit. These quizzes have both an individual component, and a portion to be completed within a group for additional credit. All of the work will be completed during the class period. Your lowest quiz score will be dropped.

In-Class Exams: There will be three in-class exams. These will include calculations and long form questions. If you are late you will not receive additional time.

Final Exam: The final exam is mandatory. It will be multiple-choice and will cover material from the entire semester. If you wish, you may count your final exam twice by allowing your final exam percentage points to substitute for a grade on a previous in-class exam.

EDP Research Participation Requirement

All students registered for this course must complete a research participation requirement through the Educational Psychology Department subject pool. To do so, you must either complete 5 credits worth of EDP subject pool studies or write the 5-page alternate assignment (a research paper about a roughly 20-page article). Please note the deadlines below:

- To participate in studies, you must first activate your SONA account online at <https://utexas-edp.sona-systems.com>. To do this, activation instructions will be emailed to your official email address during the **second or third week** of classes.
- Studies will be available beginning on **Tuesday, February 13th**. The sooner you view the studies, the larger selection you will have.
- The alternate written assignment will be posted on **Tuesday, March 6th**. This is for students who either prefer to not participate in studies or who do not meet the 5 credit requirement by the study completion deadline (below).
- To fulfill this requirement through study participation, you must complete 5 credits of subject pool studies by midnight on **Friday, April 20th**. Otherwise, you must write the alternate assignment.
- Alternate assignments are due by midnight on the last class day, **Friday, May 4th**.

If you have questions about your participation in the EDP subject pool or about the alternate assignment, please visit the following website:

http://www.edb.utexas.edu/education/departments/edp/subject_pool/students/

If you still have questions, please email the Subject Pool Coordinator, Hien Nguyen, at edpSubjectPool@austin.utexas.edu.

Attendance: Attendance will not be taken during each class, but it is highly recommended that you attend. There may be concepts that are tested which were discussed to a different degree than can be found in the textbook.

- If you miss a quiz or in-class exam, you will not be able to retake it.
- If you have exceptional circumstances or a serious illness, you must notify me ***before*** a quiz or exam so that we can discuss your options. My decision is based heavily on the responsibility you demonstrate in addressing issues like these.

Students with Disabilities: The University of Texas provides upon request appropriate academic accommodations for qualified students with disabilities. For more information, contact the Office of the Dean of Students at 471-6259, 471-6441 TTY.

Grading:	50 points	Homework (5 @ 10 points)
	50 points	Quiz (2 @ 25 points each – 3 total - lowest score will be dropped)
	300 points	Exams (3 @ 100 points each)
	100 points	Final Exam
	Total Possible Points: 500 points	

Points needed to earn an:	Cut Off
A (93%)	465
A- (90%)	450
B+ (87%)	435
B (83%)	415
B- (80%)	400
C+ (77%)	385
C (73%)	365
C- (70%)	350
D+ (67%)	335
D (63%)	315
D- (60%)	300

Note: Grade cutoffs are firm. The upgrades are your chance to create a cushion for your final grade.

Regrade Policy: We will grade your quizzes, projects, and exams very carefully. If you think there may be an error in grading you should bring it our attention. Regrades will only be considered if you submit your quiz, project, or exam within ONE WEEK of its return to you. For all assignments, please bring questions about regrades directly to the instructor. Be prepared to discuss what problems you see with the grading.

Recommended Homework Problems *(some may be added as the semester progresses):*

Chapter 1	10, 12, 20, 22
Chapter 2	4, 6, 10, 22
Chapter 3	4, 6, 10, 22, 24
Chapter 4	2, 4, 7, 8, 14, 15, 18, 19, 22
Chapter 5	1, 6, 22, 24, 25
Chapter 6	6, 10, 18, 19 , 20
Chapter 7	1, 4, 8, 10, 13, 16, 20, 22
Chapter 8	4, 6, 8, 15, 16, 20, 21
Chapter 9	1, 2, 5, 6, 8, 12abc, 13bc, 15, 18, 21c, 22, 23
Chapter 10	3, 4, 6, 10, 14ac, 18a, 21, 22a
Chapter 11	1, 2, 3, 10a, 20a, 22, 23, 24ac
Chapter 12	5, 10, 12, 19, 21abd, 23 with same comparisons Scheffe
Chapter 15	1, 2, 5, 8, 9, 10, 12, 14
Chapter 16	2, 3, 4, 6, 8, 10, 14 (calc SEE for 10 and 14)
Chapter 17	2, 4, 8, 11, 12, 14, 20, 25

EDP 371 Course Outline Spring 2018

Please note this schedule is subject to flexibility.

As long as you come to class you will always know where we are in the progression.

Class	Lessons	Chapters to read before class	Date	Quizzes
1	Intro to course/ Graphing quantitative data		1/16	
2	Vocabulary, scales of measurement, statistical notation	1	1/18	
3	Frequency distributions	2	1/23	
4	Central tendency	3	1/25	
<i>Friday, 1/26 – Homework #1 Due @ 5pm</i>				
5	Variability	4	1/30	
6	Z-scores & Normal distribution	5, 6 (163-184, 189 on)	2/1	Quiz #1
7	Z-Scores & Normal distribution	5, 6 (p.163-184, 189 on)	2/6	
8	Sampling distributions of the mean	7	2/8	
9	Hypothesis testing: One sample t test	8, 9	2/13	
10	One sample t test, cont.	9	2/15	
<i>Monday, 2/19 – Homework #2 Due @ 5pm</i>				
11	Independent t test	10	2/20	
12	Related samples t tests	11	2/22	
13	Exam 1		2/27	
14	ANOVA	12 (p.385-415)	3/1	
<i>Friday 3/2 – Homework #3 Due</i>				
15	ANOVA	12 (p.385-415)	3/6	
16	ANOVA – multiple comparisons	12 (p.415 on)	3/8	Quiz #2
SPRING BREAK March 12th – 16th – No class on March 13th & 15th				
17	ANOVA – multiple comparisons	12 (p.415 on)	3/20	
18	Correlation	15 (p.509-530)	3/22	
19	Correlation	15 (p.509-530)	3/27	
20	Regression	16 (p.557-569)	3/29	Quiz #3
21	Regression	16 (p.557-569)	4/3	
22	Regression	16 (p.557-569)	4/5	
<i>Friday 4/6 – Homework #4 Due</i>				
23	Exam 2		4/10	
24	Sampling distributions for proportions		4/12	
25	One proportion z test and CI		4/17	
26	Two proportion z test and CI		4/19	
<i>Monday 4/23 - Homework #5 Due</i>				
27	Chi square tests	17 (p.591-613, 615-616, 620 on)	4/24	
28	Chi square tests	17 (p.591-613, 615-616, 620 on)	4/26	
29	Exam 3		5/1	
30	Review for the final		5/3	
MANDATORY FINAL EXAM: Wednesday, May 9th, 9:00 am -12:00 pm Location to be determined				