Department of Educational Psychology EDP 380C-2: Fundamental Statistics Unique #10625 Spring 2016 – Tu/Th 11-12:30, SZB 435

Instructor: Dr. Sarah M. Collins smcollins@utexas.edu Office hours: SZB 538 Thursdays 12:30-1:45

TA: TBD (I will update you soon with a TA) **Office hours:** TBD

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

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. Please check periodically for updates and make sure you receive Canvas notifications. Please do not reply specifically to assignments on Canvas through their system, but rather send emails to <u>smcollins@utexas.edu</u> to ensure that I see them.

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 <u>Everyday</u>: A calculator, the packet of statistical tables on Canvas, and the formula sheet (this can also be found on Canvas).

Classroom Expectations: As lecture is an active learning environment, please refrain from using your cell phones or laptops – this is distracting to both the instructor and your peers. Learning statistics includes a great deal of quantitative analysis and hand manipulations of data. Studies indicate that this kind of material is retained better if people take notes by hand.

Description of Assignments:

Graded:

<u>Quizzes:</u> There will be five quizzes that test material from the lecture. You must be present for credit.

<u>In-Class Exams</u>: There will be three in-class exams. These will include calculations and word problems. If you are late you will not receive additional time. You will be able to use your (non-graphing) calculator, a formula sheet that will be available all semester on Canvas (I'll provide clean copies for the exam), and any relevant statistical tables.

Undgraded:

Homeworks: There are homework problems assigned from the book that correspond to the topics we will cover in class. Although these are not graded, they are highly recommended, and I will be more than happy to discuss these problems with you during office hours.

Although they will not be graded, I may assign small projects for you to complete and bring to class (for example, I may ask you to think about how a particular statistical concept applies to your field of study and find a relevant article, etc.) I favor a very active learning environment and encourage questions throughout the lecture.

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 is due so that we can discuss your options.

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 :	200 points	Quizzes (5 @ 50 points each, but only 4 will be counted – lowest dropped)
	300 points	Exams (3 @ 100 points each)
	Total Possible	Points: 500 points

Grade cutoffs:

A (93%) A- (90%) B+ (86%) B (83%) B- (80%) C+ (76%) C (73%) C- (70%) D+ (66%) D (63%) D- (60%) Note: Grade cutoffs are firm.

EDP Course Outline Spring 2016 Please note this schedule is subject to flexibility.						
Class	Lessons	Chapters	Date	Assignment/Quizzes		
	Introduction to the Course, Variation	1	1/19			
1	as a Concept, Notation		1/1/			
2	Frequency Distributions	2	1/21			
3	Measures of Central Tendency and Variability	3 and 4	1/26			
4	Z-Scores	5 & 6 (164-184, 189 on)	1/28			
5	Z-Scores	011)	2/2	Quiz #1		
6	Correlation	15	2/2	X M M		
7	Correlation	15	2/9			
8	Regression	16	2/11			
9	Regression	16	2/11	Quiz #2		
10	Multiple Regression	10	2/10	Quiz //2		
10	Exam 1		2/18			
11	Sampling Distributions and	7 & 8				
12	Hypothesis Testing	, α σ	2/25			
13	t Statistic, One Sample Hypothesis Testing, Confidence Intervals for Means	9	3/1			
14	One Sample Hypothesis Testing Cont., Two Sample Hypothesis Testing	10	3/3	Quiz #3		
15	Two Sample Hypothesis Testing, Cont.	10	3/8			
16	t Test for Related Samples	11	3/10			
	SPRING BREAK M	larch 14 th -18 th – NO C	CLASS			
17	t Test for Related Samples		3/22			
18	ANOVA	12	3/24			
19	ANOVA	12	3/29			
20	ANOVA	12	3/31			
21	Exam 2		4/5			
22	Categorical Data & Sampling Distribution		4/7			
23	Confidence Intervals (CI) for Proportions & Hypothesis Testing (HT) for Proportions		4/12			
24	2 Proportion CI & HT		4/14	Quiz #4		
25	2 Proportion CI & HT		4/19			
26	Chi-Square	17	4/21			
27	Chi-Square	17	4/26	Quiz #5		
28	Chi-Square	17	4/28			
29	Experimental Design		5/3			
30	Exam 3		5/5			

Chapter 1	10, 12, 20, 22
Chapter 2	6, 10
Chapter 3	4, 10, 22, 24
Chapter 4	2, 7, 8, 22
Chapter 5	1, 6, 22
Chapter 6	6, 10, 18, 19
Chapter 7	4, 8, 10, 16, 20, 22
Chapter 8	4, 6, 15, 20, 21
Chapter 9	2, 5, 6, 12c, 13bc, 18, 21c, 22, 23
Chapter 10	3, 6, 10, 14a, 21, 22a
Chapter 11	1, 10a,20, 22, 23
Chapter 12	10, 12, 19, 21a, 21b
Chapter 15	5, 9, 10, 12, 14
Chapter 16	3, 4, 6, 8, 10a
Chapter 17	2, 4, 11, 14, 20, 25

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