Department of Educational Psychology
EDP S380C-2: Fundamental Statistics
Unique # 74610 Summer 2016 – Mo/Tu/Th 9:30-12, SZB 432

<u>**Instructor:**</u> **Dr. Sarah M. Collins**
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Office hours: SZB 538B - Tuesday and Thursday 12:00-1:00

<u>**TA:**</u> **Sherry Kroll**
Office hours: TBA

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

Canvas http://courses.utexas.edu   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 make sure to allow/initiate Canvas emails – I frequently contact the entire class this way with materials or 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 <u>Everyday</u>:** A calculator, the copy of the statistical tables from the appendix in the text, and the formula sheet (this can also be found on Canvas).

Classroom Expectations: As lecture is an active learning environment. 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:

   Quizzes: There will be two short quizzes that test material from the lecture. You must be present for credit.

   In-Class Exams: There will be three in-class exams. These will include calculations and some statistical definitions to write. 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.

Ungraded:

   Homework: There will be 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: 100 points   Quizzes (2 @ 50 points each)
                300 points   Exams (3 @ 100 points each)
                Total Possible Points: 400 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.

Outline of Topics and Exam Schedule:

Class	Lessons	Chapters	Date	Assignment/Quizzes
1	Introduction to the course, variation as a concept, notation	1	7/11	
2	Frequency distributions and measures of central tendency	2 & 3	7/12	
3	Measures of variability and z-scores	4 & 5 & 6 (164-184, 189 on)	7/14	
4	Sampling distributions and hypothesis Testing	7 & 8	7/18	Quiz 1
5	t statistic, confidence intervals, one sample hypothesis testing	9	7/19	
6	One sample hypothesis testing cont., two sample hypothesis testing, t test for related samples	10	7/21	
7	t test for related samples, cont.	11	7/25	Exam 1
8	ANOVA	12	7/26	
9	Correlation	15	7/28	
10	Regression	16	8/1	
11	One proportion z test	Handout	8/2	Exam 2
12	One proportion z test cont., two proportion z test	Handout	8/4	
13	Chi square tests	17	8/8	Quiz 2
14	Chi square tests cont. & Review	17	8/9	
15	*Last day*		8/11	Exam 3

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

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