The main objective of this course is to familiarize students with the fundamental methods and techniques of descriptive and inferential statistics. Descriptive statistics consists in organizing, analyzing, and summarizing numerical data. The graphs, measures of central tendency, variability, probability, and correlation and regression are the main topics in descriptive statistics. On the other hand, inferential statistics --having hypothesis testing at its heart--involves drawing conclusions about unmeasurable populations based on the data gathered from samples of those populations. Taken together, these two interrelated areas of statistics walk hand in hand with most social and behavioral sciences including psychology. To understand and apply science, each and every student must attain a good command of descriptive and inferential statistics.

Course Text


Course Format

Monday: Lectures and Student Engagement

Wednesday: Lectures and Student Engagement

Course Assignments

John Dewey, a great American educational reformer, points to an unforgettable educational concept: Learning by Doing. He is right. Indeed, practice reliably ensures learning anything including statistics. Without practice, it is very hard to learn statistics just by passive listening and reading. Therefore, homework--in the form of computational problems and multiple-choice items--occupies a considerable part of the students’ time in this course. In this course, five graded homework will be posted on Blackboard throughout the semester (see the timetable below). The assigned homework will be due the following Monday. Obviously, without solid reasons, late submissions will not be accepted.
**Quizzes and Exams**

You will take four random unannounced quizzes and two cumulative exams (midterm and final) throughout the semester (see Course Assessment below). Like homework, both quizzes and exams consist of computational problems, short answers, and multiple-choice items. Quizzes will take about 15 minutes --from 1:30pm to 1:45pm. You will need to have available copies of the main statistical tables (appearing at the end of your book from Page 385 through Page 404) when you sit for a quiz or an exam. This also means that you are not allowed to use your book during quizzes and exams. So make sure to get the copies and always carry them with you in the classroom. Also and more importantly, you are expected to learn/memorize all the relevant formulas and utilize them whenever required. Finally, during quizzes and exams, you can use a calculator--but not your computer or cell phone.

**Class Attendance and Participation**

Class attendance is expected because you can learn better when you are physically present. Also, there will be four random unannounced quizzes throughout the semester (both on Mondays and Wednesdays). Missing a quiz means losing an influential portion of the final grade.

**Course Assessment**

1. Five homework segments, each 4%  
2. Four quizzes, each 5%  
3. Two Exams, each 30%

**Grading Scale:**

90% - 100% = A  
80% - 89.9% = B  
70% - 79.9% = C  
60% - 69.9% = D  
00% - 59.9% = F

**Classroom Behavior**

Please turn off your cell phone on arrival. Don’t talk when others are talking. If you want to ask a question or make a comment, raise your hand and try not to interrupt others as they speak. Don’t use your computer for irrelevant in-class activities such as emailing, visiting a social network profile, playing games, watching videos, listening to music and so on. These activities prevent you from focusing on lectures and other class engagements and may distract other students.
Disability

If you have a disability and need classroom accommodations, please contact The Center for Accommodations and Support Services (CASS) at 747-5148, or by email to cass@utep.edu, or visit their office located in UTEP Union East, Room 106. For additional information, please visit the CASS website at www.sa.utep.edu/cass.

Academic Conduct, Discipline, and Integrity

It is assumed that students are implicitly aware of the principles of academic conduct, discipline, and integrity. But having an explicit knowledge of the principles will be highly beneficial for anybody working within the realm of academia. The following link provides wide-range information about academic conduct and discipline at UTEP. Please read the file carefully and enthusiastically:

http://admin.utep.edu/LinkClick.aspx?link=HOOP-Section+II.pdf&tabid=30181&mid=63285

Course Timetable

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Week 1  

January 20: No classes  

January 22: Chapter 1 (Introduction) and Chapter 2 (Frequency Distributions and Graphs)  

Week 2  

January 27: Chapter 3 (Exploring Data: Central Tendency)  

January 29: Chapter 4 (Exploring Data: Variability)  

Week 3  

February 3: Chapter 4 (Exploring Data: Variability)  Homework Posted on Blackboard  

February 5: Chapter 5 (Other Descriptive Statistics)  

Week 4  

February 10: Chapter 5 (Other Descriptive Statistics)  Homework Due  

February 12: Chapter 6 (Correlation and Regression)  

Week 5  

February 17: Chapter 6 (Correlation and Regression)  

February 19: Chapter 7 (Theoretical Distributions including the Normal Distribution)
Week 6
February 24: Chapter 7 continued  Homework Posted on Blackboard
February 26: Chapter 8 (Samples, Sampling Distributions, and Confidence Intervals)

Week 7
March 3: Chapter 8 continued  Homework Due
March 5: Chapter 9 (Hypothesis Testing and Effect Sizes: One Sample Designs)

Week 8
March 10: No Classes
March 12: No Classes

Week 9
March 17: Chapter 9 continued  Homework Posted on Blackboard
March 19: Midterm Exam

Week 10
March 24: Chapter 10 (Hypothesis Testing, Effect Sizes, and Confidence Intervals) Homework Due
March 26: Chapter 10 continued

Week 11
March 31: No Classes
April 2: Chapter 11 (Analysis of Variance: One-way Classification)

Week 12
April 7: Chapter 11 continued  Homework Posted on Blackboard
April 9: Chapter 12 (Analysis of Variance: One-Factor Repeated Measures)

Week 13
April 14: Chapter 12 continued  Homework Due
April 16: Chapter 13 (Analysis of Variance: Factorial Design)

Week 14
April 21: Chapter 13 continued
April 23: Chapter 14 (Chi Square Tests)

Week 15

April 28: Chapter 14 continued  Homework Posted on Blackboard

April 30: Chapter 15 (More Nonparametric Tests)

Week 16

May 5: Chapter 15 continued Homework Due

May 7: Chapter 16 (Choosing Tests and Writing Interpretations)

May 12-16: Final Exams

Note. This syllabus is tentative and subject to change depending upon the class progress.