EDP 371 – Introduction to Statistics
Summer I : TWTH 9-11:30 UTC 1.146

Instructor:
Name: **Dr. Martin Tombari**
Office: SZB 244K
Office Hours: TWTH: 11:30 – 1:00
Email: mtombari@austin.utexas.edu

Teaching Assistant:

Name: **Ling Chen**
Office: SZB 538N
Office Hours: Monday: 9-11
Email: **lchen0329@utexas.edu**

Course Description:
This course is designed to help students learn the introductory descriptive and inferential statistical procedures that are used in behavioral and social science research studies. Students will learn the assumptions underlying, the hypotheses being tested by, and the inferences that can be made with the use of the procedures. These skills will provide the student with a basis to conduct their own such analyses and to evaluate critically others' uses of statistics.

Quantitative Reasoning:
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 tests to assess your use of quantitative skills to analyze real-world problems.

Prerequisites
Mathematical skills: While this course is not completely mathematical, it is founded upon the use of mathematical tools. Thus some fundamental mathematical skills are essential for successful mastery of the material. Students are expected to have basic algebra skills including the ability to solve single variable equations. Students should have a basic understanding of exponents and square roots, as well as the order of operations, proportions, fractions, decimals, percentage, and negative numbers.
Calculator: Students are required to bring to class a scientific calculator that can be used to sum, multiply, take the square root and square of numbers. Calculators are recommended for use with class assignments and tests as well as during class time.

Course Materials and Resources
Optional: The class text is: *Basic Statistics for Business and Economics* (Eighth Edition). This textbook is available at the Co-op. However, it is optional and not required for this class. It is an excellent text with many interesting problems to solve for your deeper learning. It also presents the material in a slightly different way than the instructor presents the material during class time.
Optional: Class notes discussed in class will be available on Blackboard

Exams
Description: There will be **5 tests** during the Summer Session and an **optional final exam**. The tests will focus on the material covered during the most recent class segment. More detail will be provided about the material assessed by each test closer in time to the test dates. It should be noted that most of the statistical skills acquired during this class are constantly building upon earlier learning. This means that even though each test will focus on the preceding section of the course, students might need to recall skills learned in earlier sections. Each test will count 50 points. The **optional final exam** will be a comprehensive one. The grade you earn on this test can replace the grade of the lowest of the 5 previous tests. This test is optional and you only need to take it to improve your class grade. It will be weighted the same as a regular class test and count 50 points.
Format: Exams will be multiple-choice or true-false. Students will be given **one-half a class period to complete the exam.**
Materials: Students will be given a formula sheet and necessary tables for each exam. Students should bring a calculator.

Attendance Policy
Attendance at all classes is required. Attendance will be taken twice during each class and **15 points** will be subtracted from your final point total (250) for every class that you miss. You must be present for both attendance checks. If you are present for one of the checks but absent from the second, you will be considered absent for the entire class and lose 15 points. This penalty will not apply if you miss class due to illness or some other unforeseen circumstance. We require a doctor's note for the former circumstance and an explanation for the latter.

Grading System
Grades are assigned based on the percentage of accumulated points out of a total of 250 points:

Overall Course Percent	Grade
90% - 100% of total points.	A
85% - 89%	B+
80% - 84%	B
75% - 79%	C+
70% - 74%	C
65% - 69%	D+
60% - 64%	D
Below 60%	F

Scholastic Dishonesty Policy
The University defines academic dishonesty as cheating, plagiarism, unauthorized collaboration, falsifying academic records, and any act designed to avoid participating honestly in the learning process. Scholastic dishonesty also includes, but is not limited to, providing false or misleading information to receive a postponement or an extension on a test or other class assignments, and submission of essentially the same written assignment for two courses without the prior permission of faculty members.
By accepting this syllabus and participating in this course, you have agreed to these guidelines and *must* adhere to them. This means (specifically for this class) that any work that you hand in for a grade *MUST* be your own work. This also means that you may *NOT* use or review the exams of students of this class from previous semesters.
Violation of this agreement and of any of the University rules on scholastic dishonesty will result in the student being awarded an *F for the final course grade*, being referred to the

appropriate university officials, and may result in suspension or expulsion from the University. For more information on scholastic dishonesty, students may review the Student Judicial Services web site: http://www.utexas.edu/depts/dos/sjs/.

Disability Accommodation

Students with disabilities who require special accommodations need to get a letter that documents the disability from the Services for Students with Disabilities area of the Office of the Dean of Students (471-6259 voice or 471-4641 TTY for users who are deaf or hard of hearing). This letter should be presented to the instructor in each course at the beginning of the semester and accommodations needed should be discussed at that time. Five business days before an exam, the student should remind the instructor of any testing accommodations that will be needed. See the following website for more information: http://deanofstudents.utexas.edu/ssd/providing.php

Communication

In this course ***e-mail*** will be used as a means of communication with students. You will be responsible for checking your e-mail regularly for class work, deadlines, changes and announcements. We respond to necessary e-mail in a timely manner. However we do not respond to e-mails inquiring about information already posted on Blackboard. So if you don't hear back from us regarding a question, it is because your question has been answered already.

You will also be responsible for checking the Blackboard course site regularly for class work, announcements, and copies of the lecture notes. As with all computer systems, there are occasionally scheduled downtimes as well as unanticipated disruptions. Notification of these disruptions will be posted on the Blackboard login page. Blackboard is available at http://courses.utexas.edu. Support is provided by the ITS Help Desk at 475-9400 Monday through Friday 8 am to 6 pm, so plan accordingly.

Hints for success

Practice: Practice will facilitate successful mastery of the skills to be learned from this class. During class periods, guided practice will be offered in the form of sample problems. The homework exercise assignments will also provide opportunities for practice. It is hoped that studying for and completion of exams will provide additional such opportunities.

Textbook: You are responsible for whatever topics are covered in class. We do not necessarily cover all the material in the textbook. The terminology in the textbook sometimes differs from what we use in class. Use the terminology I use in class.

Study groups: It is highly recommended that you form study groups to master the material in this class. If you understand a concept, teaching it to your fellow students will help you solidify that learning. If you do not understand a concept, it might help to have it presented to you by someone who has more recently mastered it than the TA or instructor. It can help to have a concept presented by several people in different ways.

Office hours: Use them – our job is to help you learn! If you cannot make our office hours, ask us after class or via email to schedule another time to meet with the TA or me.

Email I: Check your email messages from the TA and me.

Email II: Use email to schedule appointments ***NOT*** to ask conceptual or computational questions. We will not answer those questions online because hand-feeding you the answer(s) does not help your learning as much as our prompting **you** (face-to-face) to come up with the answer.

Email III: (and most important) If you email one of us (professor or TA), please copy **_both_** of us on the email. That ensures a speedier response.

Class notes: If a student misses class, it is his/her responsibility to obtain any missed information from a classmate – **_not_** from the instructor, **_nor_** from the TA.

Keep up: The skills to be mastered for statistical analyses keep building upon themselves. If you fall behind, it will not only affect the topic in which you are behind but will affect your learning of a later topic.

<u>**Tentative**</u> **Schedule of Topics**

Date	Topic	Readings
Thursday 6/6	Types of variables; levels of measurement; frequency tables	Chapter 1: pgs. 1-20; Ch. 2: pgs. 21- 36; 42- 46
Tuesday 6/11	Measures of Central Tendency; Measures of Dispersion; Interpretation and uses of the Standard Deviation	Chapter 3: pgs. 74-87
Wednesday 6/12	Measures of Dispersion (cont'd); measures of relative position	Chapter 4: pgs. 101-108
Thursday 6/13	**Test # 1 (First half of class);** Probability: The Monte Hall Problem	Chapter 5: pgs. 126-144
Tuesday 6/18	Basic probability rules; Continuous Probability Distributions; Standard Normal Probability Distribution;	Chapter 7: pgs. 196-222
Wednesday 6/19	Sampling Methods and the Central Limit Theorem	Chapter 8: pgs. 223-255
Thursday 6/20	**Test # 2 (First half of class);** Estimation and Confidence Intervals	Chapter 9: pgs. 256-277
Tuesday 6/25	Estimation and Confidence Intervals (cont'd); One-Sample Tests of Hypotheses	Chapter 10: pgs. 289 - 324
Wednesday 6/26	One-Sample Tests of Hypotheses (cont'd)	Chapter 10
Thursday 6/27	**Test #3 (First half of class)** : Two-Sample Tests of Hypotheses.	Chapter 11: pgs. 323-359
Tuesday 7/2	Two-Sample Tests of Hypotheses (cont'd)	Chapter 11
Wednesday 7/3	Correlation and Linear Regression	Chapter 13: pgs. 391-401; 405- 412
Thursday 7/4	**_Holiday – NO CLASS_**	
Tuesday 7/9	**Test # 4 (First half of class);** Linear Regression	Chapter 13
Wednesday 7/10	Correlation: Spearman's Rank Order; Nonparametric Methods: Goodness-of-Fit Tests	Chapter 15: pgs. 498-508; 516-529
Thursday 7/11	Nonparametric Methods (cont'd)	Chapter 15
Friday 7/12	**Test # 5; Make-up test**	