EDP 371 – Introduction to Statistics		
SP 2013 -Unique Number: **10330**	**TTh: 8AM – 9:30**	**SZB 104**
SP 2013 -Unique Number: 10340	**TTh: 3:30 – 5:00**	**SZB 104**

Instructor

Name: **Dr. Martin Tombari**
Office: SZB 538K
Office Hours: By appointment.
Email: martin.tombari@austin.utexas.edu

Teaching Assistants

Name: **Ling Chen**   **Danny Swan**
Office: SZB   SZB
Office Hours: TBA   TBA
Email: **lchen0329@utexas.edu**   **mshnbhrnd@yahoo.com**

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.

Pre-requisites

    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

    Required: The class text is: *Basic Statistics for Business and Economics* (Eighth Edition). This textbook is available at the Co-op. 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 semester 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 **final test** 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 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 on a random basis.

Homework

The "Schedule of Topics Table "below lists exercises for each chapter. We encourage you to solve these exercises because this will reinforce the knowledge and skill learning that occurred in class. However, these exercises are strictly optional. You are not required to do them. If you complete them and give them to us, we will give you feedback on how well you did. We will also randomly select several of these exercises to be included in the five class tests. You will have one week to turn in these assignments, but they are not graded. They simply are an opportunity for you to check how well you have learned these important skills that will be evaluated on the class tests.

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%	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 occasional 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.

Tentative Schedule of Topics

Date	Topic	Readings
Tuesday 1/15	Types of variables, levels of measurement	Chapter 1: pgs. 1-20
Thursday 1/17	Frequency tables, frequency distributions, graphic presentations	Chapter 2: pgs. 21-42
Tuesday 1/22	Measures of Central Tendency	Chapter 3: pgs. 59-73
Thursday 1/24	Measures of Dispersion	Chapter 3: pgs. 74-96
Tuesday 1/29	Measures of position, scatter diagrams, contingency tables	Chapter 4: pgs. 101-125
Thursday 1/31	**Test # 1** (First half of class); Probability: The Monte Hall Problem	Chapter 5: pgs. 126-144
Tuesday 2/5	Basic probability rules	Chapter 5 (cont'd)
Thursday 2/7	Continuous Probability Distributions	Chapter 7: pgs. 196-222
Tuesday 2/12	Standard Normal Probability Distribution	Chapter 7 (cont'd)
Thursday 2/14	Sampling Methods and the Central Limit Theorem	Chapter 8: pgs. 223-255
Tuesday 2/19	Sampling Distributions; the standard error of the mean; using the sampling distribution of the sample mean	Chapter 8 (cont'd)
Thursday 2/21	**Test # 2** (First half of class); Estimating population parameters	Chapter 9: pgs. 256 - 277
Tuesday 2/26	Confidence intervals	Chapter 9 (cont'd)

Thursday 2/28	Confidence intervals (cont'd)	Chapter 9 (cont'd)
Tuesday 3/5	One-Sample Tests of Hypotheses	Chapter 10: pgs 289 - 324
Thursday 3/7	One-Sample Hypothesis Tests (cont'd); Type I and Type I errors; One- and two-tailed tests	Chapter 10 (cont'd)
Tuesday 3/19	Review of One –Sample Hypothesis Tests	
Thursday 3/21	**Test # 3** (first half of class); Two-Sample Hypothesis Tests; Independent samples	Chapter 11: pgs. 325 - 359
Tuesday 3/26	Tests of Population Proportions	Chapter 11: pgs. 325 - 359
Thursday 3/28	't-tests of independent means; dependent samples t-tests	Chapter 11: pgs. 325 - 359
Tuesday 4/2	Analysis of Variance	Chapter 12: pgs. 360-376
Thursday 4/4	Correlation and Linear Regression	Chapter 13: pgs. 391-442
Tuesday 4/9	Correlation and Linear Regression (cont'd)	Chapter 13: pgs. 391-442
Thursday 4/11	**Test # 4** (first half of class); Correlation and Regression	Chapter 13: pgs. 391-442
Tuesday 4/16	Non-parametric methods; goodness –of-fit tests	Chapter 15: 498-529
Thursday 4/18	Contingency Table Analysis	Chapter 15: 498-529
Tuesday 4/23	The Rank Order Correlation	Material posted on Blackboard
Thursday 4/25	The Consumer Index; The Unemployment Rate	Material posted on Blackboard
Tuesday 4/30	**Test 5 #**	
Thursday 5/2	Review for those taking a final exam	