FIRST-DAY HANDOUT. PRINT THIS AND RETAIN THIS SHEET FOR FUTURE REFERENCE.

Fall 2012 Instructor: E. Schultz
M316 #55830 Office: RLM 13.146
MWF 10-11 a.m. Phone: 232-6188 Email: schultz@math.utexas.edu
UTC 3.112 Office Hours: MWF 1:00 –1:50 p.m.

Statistics Lab: Caris Longoria Email: caris.longoria@gmail.com

TEXTBOOK: StatsPortal: The Basic Practice of Statistics (6th edition) David S. Moore + looseleaf of the text. StatsPortal contains an e-Book and many other resources which are required for this course. You may purchase your StatsPortal access card + looseleaf at the bookstore. The ISBN is 1-4641-1125-1. During class lecture, I will address questions from textbook assignments and you will work problems dealing with the new material so be sure to bring your printed textbook to class. Once you have purchased your StatsPortal access card, you will need to activate it as follows:

StatsPortal: To sign up for your course, you should do the following

1. **Go to http://courses.bfwpub.com/bps6e.php (Mac users need to use Firefox)**
2. **Click on the link "REGISTER AN ACTIVATION CODE"**
3. **You will be prompted to follow the on-screen instructions to find your course.**
4. **You will enter the activation code that came with your StatsPortal purchase. If you purchased a hard back book with an access card, use the access card to activate StatsPortal. You will be asked to enter your email address, choose a password, and then you will be ready to go!**

We will cover Chapters 1-24; Chapters 7, 17, and 22 are reviews. You are expected to read each chapter carefully; pay close attention to examples, items in bold print, items in boxes, etc. You should read the chapter before I lecture on it (See Lecture Schedule on Blackboard). In addition to reading assignments, there will be written assignments from the textbook and assignments on StatsPortal. You will need to bring a 2 variable statistical calculator, looseleaf textbook, and clean sheets of paper to class daily. Please be advised that the material covered in roughly the second half of this course is **more difficult** than the material in the earlier chapters. A *lecture schedule* can be found on page 4 of this First Day Handout; the schedule describes the major topics covered during each of your classes.

Helpful information and websites:

1. You should read Pages xxi-xxiv "For Students" for descriptions of many learning resources available to you through StatsPortal, including Statistical videos, Stat Tutor, Leaning Curve, interactive statistical applets, interactive exercises, software manuals, online-quizzes, and data sets.
2. https://courses.utexas.edu (Blackboard) Assignments, the syllabus, lecture schedule, review materials and many other important documents can be found at this site.
3. https://quest.cns.utexas.edu Scores on midterms will be available on Quest.
3. http://courses.bfwpub.com/bps6e.php StatsPortal
4. www.whfreeman.com quick access to Applets from prior editions of the text.

CALCULATOR: You will need a basic, non-graphing, 2-variable statistical calculator (e.g. TI-30XIIS, TI-35X, or Casio fx-300 MS). *Be sure you know how to use your calculator* by practicing outside class. Always bring your calculator to class as you will need it for work we do in class. When using your calculator, avoid repeated rounding off as this will cause your final result to be incorrect; you should round only at the last step. Using the memory can be helpful and improve accuracy and efficiency. You will be allowed to use only this basic calculator during midterms and the final exam. TI-83, Ti-85, etc calculators will not be used during tests or quizzes or the final exam.

TECHNOLOGY: "Using Technology" sections are found throughout our book; each displays and comments on output from TI83Plus, Minitab, Excel and CrunchIt! You will have some assigned problems where you will use software; there are quick links to software with many of the problems in your e-book. You must be very familiar with output from these various types of software. You will **not** be permitted to use software during midterms nor during the

final exam; however, you will be expected to interpret software output presented on your midterms and final exam as well as classwork.

ATTENDANCE: There is a strong negative association between the number of days missed by a student and that student's average at the end of the course. There is no direct penalty for missing class. However, if you are absent or arrive late, you miss instruction, announcements, classwork, and quizzes which cannot be made up. The most effective way to learn the material is to do all reading assignments before class, attend every class, be actively engaged in the class, participate in class activities, fill in your class notes promptly, and do the assignment as soon as possible after the lecture. If you must miss class, you should get the notes from a classmate.

Class Participation: This is a large class and I will do my best to make it run smoothly. I will solicit your help in many ways such as passing out activities, collecting papers, erasing the chalkboard at the end of class, etc. You can also help in the following ways: Always come to class prepared and on time. If you are late unavoidably, please come in as quietly as possible and sit down quickly. The configuration of our classroom makes late arrivals extremely disruptive to other students. If you have a question that is pertinent to the majority of the class, please, please ask (e.g. Would you please speak more loudly? Did you intend that to be sigma or s? I got a different answer., etc) You are encouraged to help each other during class but please be sure such conversations are about statistics and keep it fairly soft so other people are not disrupted. Personal questions should be addressed during my office hours; no appointment is needed. ALL CELL PHONES AND OTHER ELECTRONIC DEVICES MUST BE TURNED COMPLETELY OFF DURING CLASS AND EXAMS.

TESTS: (300 points) There will be 3 midterms, each worth 100 points, during your regular class time. There will not be any makeup or rescheduled tests for any reason. Tentative test dates are
Sept 28 (Chapters 1-5, 8-9) Oct 19 (Chapters 10-12, 14, 15) Nov 19(Chapters 13,16, 18-21, 24)

The best preparation for your midterms is practice with the problems in your textbook. The problems on your tests closely resemble those in your book. *This math course, unlike most, requires more reading and interpreting* so study the examples in your text and those done during class. Each midterm may have a multiple choice section and a problem section. Prior to each midterm, during class I will give information concerning the format of the midterm. If you must miss a test for illness or family emergency, let me know prior to the test. Some verification of the illness or emergency will be required. If you miss a test due to a valid reason (as determined by me), the points missed on the test will be made up on the final exam. You can do this for no more than one test. Tests will be returned in class, usually the next class. Any questions concerning the grading must be addressed within a week after papers are returned in class. *** I will arrange outside class time, to go over the test. Everyone is invited to come; if you scored below 70% you should make the appropriate arrangements to come. I keep grades in Excel format; as a courtesy to my students, I also will make test scores available online.*

DAILY WORK (75 points). Daily work includes textbook assignments, class activities, class quizzes, and assignments on StatsPortal**.** Textbook assignments are due at the beginning of class on the due date and cannot be accepted late for any reason. Papers should be ready for turn in when you come to class (stapled, name on front, properly folded, etc). Work must be shown in a clear, organized manner and must support your answer. Circle answers, when appropriate; use a ruler when making graphs. Due to time constraints, only selected problems on a textbook assignment will be scored and there will be some assignments that are not collected at all. Each graded textbook assignment is worth 10 points. Similarly, each class quiz, class activity and StatsPortal assignment will be worth 10 points. Learning Curve and video assignments will be scored as a 10 or a 0. Please be attentive to due dates for online assignments; they will be listed on StatsPortal. Textbook assignments may be turned in early by putting then under my office door. The date I receive such papers will be written at the top of that assignment. Class work and quizzes cannot be made up so you must plan to attend all classes.

At the end of the semester, scores on daily work will be averaged and weighted 75 points towards the semester grade. It is your responsibility to pick up scored daily work from my office during office hours. You would be wise to keep all daily work in a binder for test preparation and also because some of the problems will be referenced again in future chapters.

FINAL EXAM (150 points) December 15, 9-noon
The final exam will be comprehensive. Location to be announced.

Course Grade: [Daily weighted+ Midterm#1+Midterm#2+Midterm#3+Final Exam]/525

A 90-100%; B 80-89.9%; C 70-79.9%; D 60-60.9%; F < 60%
**Any curve will be determined after the final exam. Use of plus/minuses will be at my discretion.

Further information and notes:

A. This course carries the Quantitative Reasoning flag. QR 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 your grade to come from your use of quantitative skills to analyze real-world problems.

B. My major goals for your class are to teach you the basic ideas of descriptive and inferential statistics, point out the many areas in which an understanding of statistics is relevant, help you to think for yourself, stimulate you intellectually, and allow you to express your ideas freely.

C. The University of Texas provides 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. If you qualify under the University's Learning Disability Policy, your letter from the Dean will take effect after it is presented to your instructor

D**.** Please do not bring any food or drink into our classroom.

E. I want you to be an active participant in your class. In most cases when I ask a question, I really am trying to get you to think more deeply and come up with a response. I do not want anyone to be reluctant to respond for fear of giving a wrong answer. A great deal of learning can occur even from a wrong answer. I reserve the right to award bonus daily points to students who present problems to the class.

F. You should read each chapter carefully before we start discussing it in class (See Lecture Schedule). Be sure you understand the problems within each chapter section as well as those at the end of each chapter. You may need to do more problems than just those assigned to thoroughly understand the material, particularly the language, of this course. I strongly encourage you to watch for newspaper or other reports involving statistics and read them with a critical eye.

G. **Prerequisite and degree relevance:** A minimal score of 30% on the ALEKS placement exam or C- or better in any precalculus or calculus course. This course may not be counted toward the major requirement for the Bachelor of Arts with a major in mathematics or toward the Bachelor Science in Mathematics. Only one of the following may be counted: Mathematics 316, 306K (Topic 1: Applications of Probability Theory), 362K, Statistics and Scientific Computation 303, 304, 305, 306.

H. If you find a topic is confusing, please seek help immediately. If you have any other concerns or frustrations, please discuss these with me or Chris.

I. Please always print your name and EID on any papers submitted. If you must email, always tell me your entire name and your EID. Before emailing, check to see if the information which you need is contained in the First Day Handout or in class notes.

J. There are many computer resources available to you. There is an undergraduate computer lab in RLM 7.122 and is open to all students enrolled in math courses. You may sign up for an individual account in the lab using your UT EID.

K. I do not have office hours on test days due to other responsibilities.

Important dates:

Sept 4 Tuesday Last day of the official add/drop period; after this date, changes in registration require the approval of the department chair and usually the student's dean. (See *General Information*, chapter 4, for details.)
Last day undergraduate students may register and pay tuition without the approval of the registrar.

Sept 14 Friday Twelfth class day; this is the date the official enrollment count is taken. Last day an undergraduate student may add a class except for rare and extenuating circumstances. Last day to drop a class for a possible refund.

Nov 6 Tuesday Last day an undergraduate student may, with the dean's approval, withdraw from the University or drop a class except for urgent and substantiated, nonacademic reasons.
Last day an undergraduate student may change registration in a class to or from a pass/fail basis.

M316 Fall 2012 Tentative Lecture Schedule (Textbook: The Basic Practice of Statistics, 6th edition, David S. Moore)

DATE	CHAPTER	TOPIC
Aug 29	Chap 1	Picturing distributions with graphs
Aug 31	Chap 1 and 2	Describing distributions with numbers
Sept 3	**Labor Day**	
Sept 5	Chap 2	Graphs and descriptions of graphs
Sept 7	Chap 3	Density curves, normal density curve
Sept 10	Chap 3	Density curves, normal density curve
Sept 12	Chap 4	Scatterplots and Correlation
Sept 14	Chap 5	Linear scatterplots/ regression
Sept 17	Chap 5	Linear scatterplots, regression
Sept 19	Chap 8	Producing data: Sampling
Sept 21	Chap 8, Ch 9	Producing data: Sampling; producing data: experiments
Sept 24	Chap 9	Producing data: Experiments
Sept 26	REVIEW	Bring all assignments to class and list of questions
Sept 28	Test #1 Chapters 1-5, 8-9	
Oct 1	Chap 10(read),Chap 11	Basic probability; Sampling distributions including Central Limit Theorem
Oct 3	Chap 11	Sampling distributions including Central Limit Theorem
Oct 5	Chap 12	General probability rules including conditional probability
Oct 8	Chap 14	Confidence Intervals: The basics (z- procedure)
Oct 10	Chap 14	Confidence Intervals: The basics (z-procedure)
Oct 12	Chap 15	Tests of Significance: The basics (z-procedure)
Oct 15	Chap 15	Tests of Significance: The basics (z-procedure)
Oct 17	Review	Bring all assignments to class and a list of questions
Oct 19	Test #2 Chapters 10-12, 14, 15	
Oct 22	Chap 16	Thinking about inference; power, Type I and II error
Oct 24	Chap 16	Thinking about inference; power, Type I and II error
Oct 26	Chap 13	Binomial Random variables; distributions
Oct 29	Chap 18	Inference about a population mean, t-procedure
Oct 31	Chap 19	Two-Sample problems
Nov 2	Chap 19	Inference about 2 population means
Nov 5	Chap 20	Inference about 1 population proportion
Nov 7	Chap 20	Inference about 1 population proportion
Nov 9	Chap 21	Inference about 2 population proportions
Nov 12	Chap 21, Chap 24	Inference about 2 population proportions; regression model
Nov 14	Chap 24	Inference for Regression/regression model
Nov 16	REVIEW	Bring all assignments to class and a list of questions
Nov 19	TEST #3 Chapters 13,16, 18-21, 24	
Nov 21	Chap 24	Inference for Regression/ software
Nov 23	**Thanksgiving**	
Nov 26	Chap 6	Two-Way tables; Simpson's Paradox
Nov 28	Chap 6	Two-Way tables; Simpson's Paradox
Nov 30	Chap 22	Chi Square Test for independence
Dec 3	Chap 22	Chi Square Test for independence
Dec 5	Class work/review	
Dec 7	Class work/Review	