

August 15, 2007

Mathematics Department  
University of Tennessee  
Knoxville, TN 37996

Dear Math 115 Instructors:

After several years of fine service as your course coordinator Jack has handed over the reigns of 115 over to me (Bob Guest) for the next go round. I hope that I can serve you as well as he did. There are a few changes being made, but the course is essentially the same.

Key Changes:

- We are now using the Third edition. The main change here is that the old Chapter two “Descriptive statistics and graphical displays” has been split into two chapters. Thus, everything after that is now one chapter later than it used to be. The problem sets are slightly larger, but many of the problems are still the same.
- Sigma is very rarely known when doing confidence intervals and hypothesis tests for the mean so we want emphasize the t-distribution methods.
- All hypothesis tests should be done using the P-Value method. Understanding the meaning of the P-Value is the key to understanding the logic behind hypothesis tests.
- Regression will be kept after hypothesis tests and include the t-test for significant correlation. This helps cement the big picture of hypothesis testing.
- Chi-squared goodness of fit tests and tests for independence have been added to the end of the schedule.

This course involves topics including descriptive statistics, probability, the normal distribution, estimation, hypothesis testing, and linear regression.

As a M115 instructor, it is your responsibility to meet the following requirements:

- Attend the two semester meetings. (Second meeting will be early in October, I will send details later)
- Carefully read the syllabus and follow it closely, i.e. do not reorganize the order of presentation of the material. It is imperative that we cover the same material at approximately the same time.

- I will need a copy of your syllabus sometime this week. Also, submit to me in a timely manner all exams including your final before administering them.
- In addition to exams incorporate quizzes, homework or computer labs every week. Getting them to come to class and do practice problems is the key to a good semester!
- Be sure to incorporate the graphing calculator into your lectures (references appear throughout the text). You will not only have to provide calculator instruction on how to do simple arithmetic procedures but also instruct students on how to find statistically useful quantities and to create graphs. I suggest that you require your students to bring their calculators and user's manuals everyday. UTK's Math Department provides support for the TI-83/83+ and TI-84/84+. The TI-81/82/85/86 have been discontinued. Should some students no longer have their manuals, refer them to the following web site to download and print the chapter on statistics (you may want to do this too for the calculators you are not familiar with): [www.education.ti.com/us/global/guides.html](http://www.education.ti.com/us/global/guides.html). During lectures, when you are demonstrating functions of the calculator, have them sit in groups according to the types of calculators they have. Usually they will be able to help each other along with your guidance.
- Pages in TI-83 manual relevant to sections in Triola: 12-2 to 12-4 and 12-23 (sections 9-2 & 9-3); 12-20 to 12-21 and 12-24 to 12-25 (sections 2-4 & 2-5); 12-31 to 12-32 (section 2-3); 12-33 (section 2-7); 13-9 to 13-10 (section 7-3); 13-11 (section 7-4); 13-14 (section 7-5); 13-16 (section 6-2); 13-17 (section 6-3); 13-20 (section 6-5); 13-29 to 13-30 and 13-35 (sections 5-2, 5-3, 5-4, and 5-5); 13-33 (section 4-3). Use calculator only to remove tediousness from the subject matter. Make sure the students have a reasonable understanding of the material before introducing the calculator so that they don't become too reliant on the calculator.

Be sure to contact me whenever problems, questions, or comments arise. My e-mail address is [bguest@math.utk.edu](mailto:bguest@math.utk.edu); my office phone number is 974-4721 and my cell number is 599-4373.

Sincerely,

Bob Guest