

Math 1342 Statistics Brazosport College – Fall 2015
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Office hours: MW 11-noon, 2-4; TTH 10-11, 2:30-5 and by appointment
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Course Description

The student will learn to organize data using graphs and histograms, and to analyze data on the basis of measures of central tendency and measures of dispersion. The student will learn to calculate probabilities and to use the binomial and normal probability distributions. The student will learn to make statistical inferences using hypothesis testing and estimation.

Course Outcomes

Upon completion of the course, the student will be able to:

1. Identify non-randomness in a sampling technique.
2. Describe the center of a data set using the measures of mean, median, and mode.
3. Measure the dispersion of a data set using the measures of range, variance, and standard deviation.
4. Find the probability of an event using permutations and combinations.
5. Apply the addition rule for finding probability.
6. Apply conditional probability to compound events.
7. Find the probability of an event using the binomial distribution.
8. Calculate the mean of a discrete random variable.
9. Compute the expected value in an application problem.
10. Compute probability using the standard normal distribution.
11. Estimate a population mean using confidence intervals.
12. Estimate a population standard deviation using confidence intervals.
13. Construct and test a hypothesis.

PREREQUISITES

Completion of 0407 or 0408, or of Algebra II in high school, or of College Algebra, or the consent of the instructor and department head.

TEXTBOOK

Triola, Mario, Elementary Statistics Using the TI 83/84, 4th edition, Pearson.
ISBN: 978-0-321-95293-6

You can use the 3rd edition if you like, but it's up to you to adjust for pages having been moved and numbering of homework problems being different.

Required course materials are available at the Brazosport College bookstore, on campus or online at <http://www.brazosport.edu/bookstore>. A student of this institution is not under any obligation to purchase a textbook from the college bookstore. The same textbook is/may also be available from an independent retailer, including an online retailer.

Calculator

This is a calculator-required class. The TI 83 or 84 are common and are fine, but any statistics calculator is also fine if you have another model you prefer. The examples in the book are for the TI 83/84, so unless you're already an expert on your calculator that's probably the one to get.

Grading

The grade ranges are:

A: 90 -100%
B: 80 – 89%
C: 70 – 79%
D: 60 - 69%
F: Below 60%

My grading method is:

4 tests worth 15% each
Final exam worth 20%
A number of quizzes, which together are worth 20%

Lab Requirements

None

Students with Disabilities

Brazosport College is committed to providing equal education opportunities to every student. BC offers services for individuals with special needs and capabilities including counseling, tutoring, equipment, and software to assist students with special needs. Please contact Phil Robertson, Special Populations Counselor, 979-230-3236 for further information.

Academic Honesty

Brazosport College assumes that students eligible to perform on the college level are familiar with the ordinary rules governing proper conduct including academic honesty. The principle of academic honesty is that all work presented by you is yours alone. Academic dishonesty including, but not limited to, cheating, plagiarism, and collusion shall be treated appropriately. Please refer to the Brazosport College Student Guide for more information, this is available online at <http://www.brazosport.edu>, click on the link found on the left side of the homepage.

Academic dishonesty violates both the policies of this course and the Student Code of Conduct. In this class, any occurrence of academic dishonesty will be referred to the Dean of Student Services for prompt adjudication, and may, at a minimum, result in an F in this course. Sanctions may be imposed beyond your grade in this course by the Dean of Student Services.

Attendance and Withdrawal

Attendance is taken each class day but is not part of your grade. This is not a developmental math class, I am not required to drop you if you stop coming to class, and very likely will not drop you if you do so; if you stop coming and fail to drop it is therefore very likely you will make an F. If you know you will be missing class you can let me know by either phone or e-mail, and I will be happy to keep you up to date on any assignment or date changes.

The last day to drop this semester is October 30.

Please come to class on time. Walking in late every day is rude. Also, please turn off your cell phone before class, or, if you need to be accessible, switch to vibrate or some other method which won't disturb us all when it rings, and leave the class to answer the phone.

Don't text in class, don't listen to an mp3 player in class, don't play with any sort of electronic entertainment in class.

Come to class. It's very hard to pass a class like this if you don't attend. Really.

Testing

As stated above, we will have four tests and a final exam. I anticipate allowing you to have one page of notes to refer to during each test, though I reserve the right to adjust this policy, and you should of course have your calculator; the tests are written with the assumption that they will be taken with a graphing calculator. You can try to get by without one, but I will not adjust the test to accommodate you not having a calculator, or you having forgotten it that day. I will be glad to help you with using the calculator during the class, but I cannot help you with anything during the test, including how to enter a problem into the calculator or how to interpret the result. Use of the calculator is part of what I'm testing.

We will have quizzes on some days we don't have tests. I often allow you to work with another student on a quiz, or to refer to your book or to other resources. Please don't confuse my quiz standards with my testing standards.

You may do test corrections on **one** test during the semester. The rules for test corrections are:

- The corrections are due one week after you get the test back. I will not take them late.
- Corrections may not be done on the test, they must be on separate pages stapled to the back of the test
- The standard for grading the corrections is **higher** than the standard for grading the tests. You have longer to do the corrections, and have help in the Math Lab and from other sources. To get credit the corrections must be **perfect**.
- I reserve the right to ask you to come in and explain part or all of your corrections to me after you hand them in. You may get help with the corrections, but you have to work the problem yourself, and you have to understand the answer. Your goal should be to convince me that if you took the test now you would make a 100.
- If you do the corrections perfectly I will give you half the points you missed on the test back. So, if you made an 70 on the test, you missed 30 points. If your test corrections are perfect, you would get 15 of those back. Now you would have an 85 on the test.
- If your test corrections are, for example, 70% correct, I will give you 70% of half the points you missed back.

Makeup Policy

If you miss a test and do not have a verifiable excuse, you get a zero. With a verifiable excuse, I will either write you a make up test or, in some very unusual cases, allow your final grade to count as the missing test grade. Make up tests are usually somewhat harder than the original test was, since I used up all the "obvious" questions on the original test, and the average grade on make up tests is lower than the average grade on tests taken in class. It's to your advantage to take the test with the rest of the class.

I do not allow you to make up quizzes, but I do drop your lowest quiz grade. You should expect to have about ten quiz grades by the end of the semester.

Honors

It is possible to take this class for honors credit. Briefly, that entails some extra work on your part, and gets you an “Honors” designation on your transcript, and a chance to stand out some if you’re trying to get into a competitive program or win a scholarship.

I don’t consider honors projects for the first two weeks. Get settled into your schedule and then we’ll talk about it the second or third week of class. Honors students meet with me once a week, and should expect two to three hours extra work per week outside of class. You must make at least a B in the class to get honors credit. You can drop your honors project at any time if it’s too much to keep up with, there’s no penalty for that.

Other Student Services Information

Information about the Library is available at www.brazosport.edu/~lib/Information.htm or by calling 979-230-3310.

Information about study skills and tutoring for math, reading, writing, biology, chemistry, and other subjects is available in the Learning Assistance Center (LAC), see www.brazosport.edu/~lac or call 979-230-3253.

To contact the Math Department call 230-3225.

The Student Services provides assistance in the following:

Counseling and Advising	979-230-3040
Financial Aid	979-230-3294
Student Activities	979-230-3355

To reach the Information Technology Department for computer, email, or other technical assistance call the Helpdesk at 979-230-3266.