

## Math 1070 Fall 2018 Syllabus

INSTRUCTOR - Tom Brennan

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TEXTBOOK - *The Basic Practice of Statistics*, 6th or 7th ed by David Moore.

TECHNOLOGY - We will be using spreadsheets to aid us with the computations that we have to make. I will be demonstrating with Google Sheets. No fancy calculators are needed for class, however you will want one that has a square root button. NO cell phone calculators are allowed on quizzes or exams.

CELL PHONES - The latest research indicates that students that focus on their phones in class instead of listening and working tend to have lower grades in class than those that do. Surprising? Put them away. Pay attention (after all you paid an enormous sum to be here). Talk to the people around you when we take a break.

HELP RESOURCES-

1. Teacher
2. Math Help Center - located in TBR Math Center (this is on President's Circle between JWB and LCB.
3. The Tutoring Center - located in SSB
4. Internet (e.g. Khan Academy)
5. Each other

ADA - The University of Utah seeks to provide equal access to its programs, services and activities for people with disabilities. If you will need accommodations in the class, reasonable prior notice needs to be given to the Center for Disability Services (CDS), 162 Olpin Union Building, 581-5020 (V/TDD). CDS will work with you and me to make arrangements for accommodations. All information in this course can be made available in alternative format with prior notification to CDS.

OFFICE HOURS - I will arrive in the classroom about 15 minutes prior to the beginning of class. You are welcome to come early and ask questions, stay late and ask question, or make an appointment with me to meet at another time.

HOMEWORK - Homework should be done on a daily basis. Each Monday you need to turn in an assignment consisting of 10 homework problems from the textbook. The list of suggested exercises is under files and doing as many as possible will help you be prepared for quizzes and exams. You can choose any combination of 10 problems from the book but you need to make sure that

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- a. the problems are neatly done showing supporting work.
- b. if you choose to do multiple choice problems then you still need to show the work that leads to your conclusion.
- c. you put your name date and assignment at the top of your paper.

Homework will account for 10% of your grade for the semester.

QUIZZES - We will have a quiz in the middle or at the end of classes. Some will be collaborative and others will not. You are allowed to use a 3 inch by 5 inch card for each quiz. A few of these in the official quiz category will be take-home because the data sets will be large enough that you will want to use software as a computational aid. You get to drop your lowest two quiz scores. NO make-up quizzes allowed. These quizzes will make up 15% of your grade.

EXAMS - There are two midterm exams and a comprehensive final exam. You are allowed to use one page of notes for the first midterm and two pages of notes for the final. The second midterm is a take-home exam. The dates are set so make sure that you are there. If an emergency arises, we can schedule an alternate exam. Altogether the exams will make up 75% of your grade. The first exam is worth 20%, the second 25% and the final is worth 30% of your semester grade.

GRADES - Your grades will be determined by a combination of exams and quizzes. The final exam is required.

93 - 100	A
90 - 92.99	A-
88 - 89.99	B+
83 - 87.99	B
80 - 81.99	B-
65 - 79.99	C's
55 - 64.99	D's

LEARNING OUTCOMES -

- Be able to summarize the data using charts, graphs, histograms, and to calculate basic descriptive statistics like the mean, standard deviation, median and quartiles.
- Work with the normal distribution and use table to find probabilities.
- Understand the difference between correlation and causation.
- Perform regression analysis and compute correlation.
- Understand the Central Limit Theorem and the normality assumption.
- Understand the basics of tests of significance and confidence intervals including z-tests, t-tests, proportion tests, Chi-square tests, ANOVA and non-parametric tests.

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- Be able to perform simple statistical analysis of large data sets using spreadsheets (throughout the whole course).