MATH 1070 – Spring 2018 **Introduction to Statistical Inference**

Instructor: Nick Stephenson
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Website: This course will make use of Canvas.

Class Time: MWF 10:45 – 11:35 AM, JTB 140
Office Hours: TBD

Textbook: *The Basic Practice of Statistics*, by David S. Moore et al., 7th edition
- Although the 7th edition is recommended, the 6th edition of this text can also be used.

Calculator: TI-83 or similar graphing calculator is recommended. Calculators that connect to the Internet are not permitted on quizzes or exams.

Prerequisite: Earned a C or better in MATH 1010 (or 1030/1040/1050/1080/1090), or B or better in MATH 980, or Accuplacer CLM score ≥ 50, or ACT Math score ≥ 22, or SAT Math score ≥ 550.

Expected Learning Outcomes: Upon successful completion of this course, a student should 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 a 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, and ANOVA.
- Perform simple statistical analysis of large data sets using spreadsheets.

Grading: The grades will be weighted and calculated as follows:

Homework: 20%	A 93%	C 73%
Quizzes: 15%	A– 90%	C– 70%
Mid-Term Exam 1: 15%	B+ 87%	D+ 67%
Mid-Term Exam 2: 15%	B 83%	D 63%
Project: 5%	B– 80%	D– 60%
Final Exam: 30%	C+ 77%	E Below 60%

Homework: We will have weekly assignments due at the beginning of class (usually on Monday). Late homework will generally not be accepted, but I will drop the lowest 2 homework scores. For special circumstances, I will allow online submissions when you are not able to attend class. However, you will only be able to make <u>two</u> online submissions throughout the semester. I will try to post solutions as soon as I can after assignments are submitted.

Quizzes: Also weekly (usually Friday) and will take place at the end of class. Again, I will drop the lowest 2 scores. There will be no make-up or rescheduling of quizzes, unless for the most extenuating of circumstances. Solutions will be posted once all grades are entered.

Exams: There will be two mid-term exams and a comprehensive final exam. See the schedule for dates. I plan on having review sessions prior to each exam. I will announce these in class and on Canvas. All exams will only be given at the scheduled time. Come see me only in the most extenuating of circumstances.

Project: Near the end of the semester, students will complete a project using spreadsheet software. For this project, you may use your own computer or you may use the lab in the T. Benny Rushing Mathematics Center, Room 155C, located underground between JWB and LCB. You may also work with a partner. More details will be available when the project is assigned.

Graders: A grader assigned to me will be grading your homework. I will grade everything else.

Attendance: You are all adults paying tuition for this course, so it is up to you whether or not you attend. It is not required to attend and I will not keep track. However, know that you must be here to take a quiz.

Additional help: You are welcome to attend my office hours listed above. There is also free tutoring available at the Tutoring Center found within the T. Benny Rushing Mathematics Center. Visit the website for more details: https://www.math.utah.edu/ugrad/tutoring.html

More about homework: If you happen to have the 6th edition of the textbook, I will still allow you to do the homework from that edition as well. Problems and chapters are slightly different from the 7th edition, and those differences will be posted on Canvas. When you submit an assignment, please write which edition you used at the top of your paper! I will post solutions for both editions on Canvas.

Random numbers: Due to the size of the class and to ensure anonymity, students will each be assigned a random number. Please write your assigned number on your paper instead of your name. Papers will be passed back using folders corresponding to random numbers. The assigned numbers also facilitate grading with this many students in the class.

ADA Statement: 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.

Student Responsibilities: All students are expected to maintain professional behavior in the classroom setting, according to the Student Code, spelled out in the Student Handbook. You have specific rights in the classroom as detailed in Article III of the Code. The Code also specifies proscribed conduct (Article XI) that involves cheating on tests, collusion, fraud, theft, etc. Students should read the Code carefully and know you are responsible for the content. According to Faculty Rules and Regulations, it is the faculty responsibility to enforce responsible classroom behaviors, beginning with verbal warnings and progressing to dismissal from class and a failing grade. Students have the right to appeal such action to the Student Behavior Committee: http://regulations.utah.edu/academics/6-400.php

*The syllabus and schedule are subject to change at any time. Changes will be announced and updated documents will be posted on Canvas with changes in red text.