

SYLLABUS - MATH 1070, Section 1, Spring 2019
Introduction to Statistical Inference

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Class Hours: MWF 10:45 – 11:35 PM, JTB 140

Office Hours: 9:30 AM – 10:30 AM Monday, 10:30 AM – 11:30 AM Thursday or by appointment.

Text: The Basic Practice of Statistics, by David S. Moore et al., 6th ed

Canvas Page: <https://utah.instructure.com/courses/542090>

Prerequisite: Completion, with a grade of C or better, of Math 1010 or Accuplacer CLM score of 50 or better.

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 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.
- Perform simple statistical analysis of large data sets using spreadsheets (throughout the whole course).

Grading: Please check Canvas for assignment scores. The grades will be calculated as follows:

Homework	20%	A: 93 - 100	C-: 70 - 72
Quizzes	15 %	A-: 90 - 92	D+: 67 - 69
Exam 1	15 %	B+: 87 - 89	D: 63 - 66
Exam 2	15 %	B: 83 - 86	D-: 60 - 62
Project	5 %	B-: 80 - 82	E: 0 - 59
Final Exam	30 %	C+: 77 - 79	
		C : 73 - 76	

Quizzes: Weekly quizzes will be given in class on Fridays. Makeup quizzes **will not** be given, but two of the lowest quiz scores will be dropped at the end of the semester. Quizzes will usually cover the previous week's material.

Homework: Homework will be due at the beginning of class at the dates shown on the schedule below, typically the same day as the quiz which covers the same material. Late homework **will not** be accepted, but two of the lowest assignment scores will be dropped at the end of the semester.

Exams: Two in-class midterm exams and a final exam will be given (see schedule for dates). Rescheduling must be done one week in advance, no exceptions.

Projects: Near the end of the semester, students will complete a project using spreadsheet software. For this you may use your own computer, or you may use the lab in the T. Benny Rushing Mathematics Center, Rm 155C, located underground between JWB and LCB.

Calculators: Calculators that do not connect to the internet may be used during quizzes and exams. Cell phones **may not** be used for this purpose (or any other purpose) during quizzes and exams.

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>

Due Dates: Due dates are also given on Canvas. Scores will be posted when assignments are graded.

Friday, January 11	Quiz 0
Friday, January 18	HW 1 due: Ch. 1:22,27,30,31;Ch. 2: 19,22,25,28,30,44,52
Friday, January 18	Quiz 1; Last day to add or drop classes
Friday, January 25	HW 2 due: Ch. 3: 16,28,29,30,32,35,36
Friday, January 25	Quiz 2
Friday, February 1	HW 3 due: Ch. 3: 45,47;Ch. 4: 16,17,18,19,20,21,26,34
Friday, February 1	Quiz 3
Friday, February 8	HW 4 due: Ch. 5: 19,20,21,32,33,37
Friday, February 8	Quiz 4
Friday, February 15	EXAM 1 10:45 – 11:35 AM, JTB 140
Friday, February 22	HW 5 due: Ch. 8: 17, 18, 20, 21, 24, 38; Ch. 9: 20, 21, 22, 25, 29, 36
Friday, February 22	Quiz 5
Friday, March 1	HW 6 due: Ch. 10: 21, 24, 26, 38, 41, 43; Ch. 11: 14-20 (even), 26, 28, 36
Friday, March 1	Quiz 6
Friday, March 8	HW 7 due: Ch. 14: 11, 12, 15, 16, 17, 18, 24, 26
Friday, March 8	Quiz 7; Last day to withdraw from classes
March 10-17	Spring break
Friday, March 22	HW 8 due: Ch. 15: 20, 21, 22, 23, 24, 30, 32, 41
Friday, March 22	Quiz 8
Friday, March 29	HW 9 due: Ch. 18: 16, 19, 29, 30, 33
Friday, March 29	Quiz 9
Friday, April 5	EXAM 2 10:45 – 11:35 AM, JTB 140
Friday, April 12	HW 10 due: Ch. 19: 16, 17, 25, 26, 32, 33; Ch. 20: 32, 34, 38
Friday, April 12	Quiz 10
Friday, April 19	HW 11 due: Ch. 23: 30, 32(b), 38, 42
Friday, April 19	Quiz 11
Monday, April 22	HW 12 due: Ch. 25: 15, 16, 28, 30, 37, 39; Project due; Last day of class
Monday, April 29	FINAL EXAM 10:30AM – 12:30 PM, JTB 140

Course Content Calendar: Notes are provided under the Canvas 'files' tab in the 'notes' folder. Please bring them to class to get the most out of the lectures.

January 7, 9, 11	Chapters 1 and 2
January 14, 16, 18	Chapter 3
January 21, 23, 25	MLK Day Holiday (Jan. 21) Chapter 3 continued and Chapter 4
January 28, 30, February 1	Chapter 5
February 4, 6, 8	Chapters 8 and 9
February 11, 13, 15	Review and Exam 1
February 18, 20, 22	President's Day Holiday (Feb. 18);Chapter 10 and 11
February 25, 27, March 1	Chapter 14
March 4, 6, 8	Chapter 15
March 10-17	Spring Break
March 18, 20, 22	Chapter 18
March 25, 27, 29	Chapters 19 and 20
April 1, 3, 5	Review and Exam 2
April 8, 10, 12	Chapter 23
April 15, 17, 19	Chapter 25
April 22	Last Day of Class, Projects Due and Final Exam Review
Monday, April 29	FINAL EXAM 10:30AM – 12:30 PM, JTB 140