

SYLLABUS - MATH 1070, Section 1, Spring 2020

Introduction to Statistical Inference

Instructor: Aurora Jensen

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

Office Hours: Tuesdays 9:30-11:30 am or by appointment

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

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: 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	

Homework: Homework will be due at the beginning of class at the dates shown on the schedule below. Late homework **will not** be accepted, but two of the lowest assignment scores will be dropped at the end of the semester.

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.

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.

Electronic Devices: In an effort to create a vibrant learning community, extraneous use of cell phones and other electronic devices is **not allowed**. Turn them off and put them away. Use of electronic devices distracts you, those around you, and me. If you are using a computer to take notes, it must lie flat on the desk. (No computers with open screens). If you need to use your phone during class, please leave the classroom. You will be asked to leave if your phone is visible.

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>

Campus safety: The University of Utah values the safety of all campus community members. To report suspicious activity or to request a courtesy escort, call campus police at 801-585-COPS (801-585-2677). You will receive important emergency alerts and safety messages regarding campus safety via text message. For more information regarding safety and to view available training resources, including helpful videos, visit safeu.utah.edu at <https://safeu.utah.edu/>.

Changes to the syllabus: I reserve the right to change the syllabus as circumstances necessitate, but no new policy will be enforceable until after you have been notified in class.

Due Dates: These are also posted on Canvas with grades as you complete them. The due dates may change so they follow the material in the class.

Friday, January 10	Quiz 0
Monday, January 13	HW 1 due: Ch. 1:22,27,30,31;Ch. 2: 19,22,25,28,30,44,52
Friday, January 17	Quiz 1; Last day to add or drop classes
Monday, January 20	Martin Luther King Day
Wednesday, January 22	HW 2 due: Ch. 3: 16,28,29,30,32,35,36
Friday, January 24	Quiz 2
Monday, January 27	HW 3 due: Ch. 3: 45,47;Ch. 4: 16,17,18,19,20,21,26,34
Friday, January 31	Quiz 3
Monday, February 3	HW 4 due: Ch. 5: 19,20,21,32,33,37
Friday, February 7	Quiz 4
Monday, February 10	HW 5 due: Ch. 8: 17, 18, 20, 21, 24, 38; Ch. 9: 20, 21, 22, 25, 29, 36
Friday, February 14	Quiz 5
Wednesday, February 19	HW 6 due: Ch. 10: 21, 24, 26, 38, 41, 43; Ch. 11: 14-20 (even), 26, 28, 36
Friday, February 21	EXAM 1 10:45-11:35AM, JTB 140
Friday, February 28	Quiz 6
Monday, March 2	HW 7 due: Ch. 14: 11, 12, 15, 16, 17, 18, 24, 26
Friday, March 6	Quiz 7 Project assigned
March 8-15	Spring Break
Friday, March 20	Quiz 8
Monday, March 23	HW 9 due: Ch. 18: 16, 19, 29, 30, 33
Friday, March 27	Quiz 9
Monday, March 30	HW 10 due: Ch. 19: 16, 17, 25, 26, 32, 33; Ch. 20: 32, 34, 38
Friday, April 3	EXAM 2 10:45-11:35 AM, JTB 140
Monday, April 6	Project Due
Friday, April 10	Quiz 10
Monday, April 13	HW 11 due: Ch. 23: 30, 32(b), 38, 42
Monday, April 20	HW 12 due: Ch. 25: 15, 16, 28, 30, 37, 39, Quiz 11
Tuesday, April 21	Last day of class
Wednesday, April 28	FINAL EXAM 10:30 AM– 12:30 AM, JTB 140