

SYLLABUS - MATH 1070, Section 1, Fall 2017
Introduction to Statistical Inference

Instructor: Hanlei Zhu
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Class Hours: MWF 8:35 – 9:25 AM, JTB 310

Office Hours: MW 10:45 – 11:35 PM 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	

Quizzes: There will be a quiz every Friday. There will be **NO** make-up or rescheduling of quizzes. Two of the lowest quiz scores will be dropped at the end of the semester.

Homework: There will be a homework approximately every week. Late work will **NOT** be accepted. Two of the lowest HW scores will be dropped at the end of the semester.

Exams: There will be two midterm exams and a final exam. Only the final will be comprehensive. The first midterm will be held on **Friday, October 6th**, and the second midterm

will be held on **Friday, November 17th**. The final exam will be held on **Monday, December 11th, from 8:00 am to 10:00 am (same room as class)**. All exams, midterms and the final will only be given at the scheduled time. Students are expected to arrange personal work around the announced dates. Please come by and talk to the instructor, **ONLY** in the event of the most extenuating of circumstances.

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>

Schedule:

HW1	8/30	Ch. 1: 22, 27, 30, 31; Ch. 2: 19, 22, 25
Quiz 1	9/1	
HW2	9/6	Ch. 2: 28, 44, 52; Ch. 3: 16, 28, 29, 30, 32, 35, 36
Quiz 2	9/8	
HW 3	9/13	Ch. 3: 45, 47; Ch. 4: 16, 17, 18, 19, 20, 21, 26, 34
Quiz 3	9/15	
HW 4	9/20	Ch. 5: 19, 20, 21, 32, 33, 37
Quiz 4	9/22	
HW 5	9/27	Ch. 8: 17, 18, 20, 21, 24, 38; Ch. 9: 20, 21, 22, 25, 29, 36
Quiz 5	9/29	
EXAM 1	10/6	
HW 6	10/18	Ch. 10: 21, 24, 26, 38, 41, 43; Ch. 11: 14-20 (even), 26, 28, 36
Quiz 6	10/20	
HW 7	10/25	Ch. 14: 11, 12, 15, 16, 17, 18, 24, 26
Quiz 7	10/27	
HW 8	11/1	Ch. 15: 20, 21, 23, 24, 25, 30, 32, 41
Quiz 8	11/3	
HW 9	11/8	Ch. 18: 16, 19, 29, 30, 33
Quiz 9	11/10	
EXAM 2	11/17	
HW 10	11/22	Ch. 19: 16, 17, 25, 26, 32, 33; Ch. 20: 32, 34, 38
Quiz 10	11/27 (Monday)	
HW 11	11/29	Ch. 23: 30, 32(b), 38, 42
Quiz 11	12/1	
HW 12	12/6	Ch. 25: 15, 16, 28, 30, 37, 39
Final Project	12/6	
Final Exam	12/11 (8:00-10:00 am)	