

Stat 100A – Introduction to Probability

Instructor: Namjoon Suh

Office: Boelter 9401

Office Hour: 10:00 am - 11:00 am Friday

Email: namjsuh@ucla.edu

Lecture Time and Location:

Session 1: Mon & Wed 3:30 pm – 4:45 pm, Haines Hall 220

Session 2: Mon & Wed 5:00 pm – 6:15 pm, Geology Building 3656

TA for Session 1: Alex Chen, (office hour: 2pm-3pm, Wed. Location: MS 8349)

E-mail: aclheexn1346@g.ucla.edu

Discussion 1A: Friday 1pm - 1:50pm, MS 5128

Discussion 1B: Friday 2pm - 2:50pm, MS 5128

Grader for Session 1: Michelle Wang, Email: mwang01@g.ucla.edu

TA for Session 2: Hwangbo Nathan, (office hour: 2pm-3pm, Fri. Location: MS 8329)

E-mail: nhwangbo@g.ucla.edu

Discussion 2A: Friday 3pm - 3:50pm, MS 5128

Discussion 2B: Friday 4pm - 4:50pm, MS 5128

Grader for Session 2: Yan Yunan, Email: yunanyan@g.ucla.edu

Required Textbook: DeGroot and Schervish, Probability and Statistics, 4th Edition (available online)

Homework

- Homework assignments will be given on Wednesdays after class and are due before 6 pm the following Wednesday.
- Please check the BruinLearn platform for the specific homework assignments (Hwk).
- Missed assignments will receive a grade of zero.
- Late homework will be accepted with provided documentation, but points will be deducted.
- To receive credit for homework, you must: show all work neatly, clearly label each problem, and work on your entire assignment together in the correct order.
- Scan your homework and upload the PDF file on BruinLearn.
- Homework will generally be graded on a scale of 20 points.
- On most assignments, not all problems will be graded, but a subset of assigned problems will be selected for grading.
- However, I will not disclose which problems will be graded in advance, so it is in your best interest to solve all assigned problems.

- You are allowed, and even encouraged to work with other students on homework problems. However, copying homework is forbidden and violates the Honor Code.

Exam: There will be one in-class midterm and one in-class final. **No handwritten notes will be allowed in the exam**, and I will announce if a calculator is needed before each exam.

Final Grade: Homework (drop the lowest one score): 30%; Midterm: 30%; Final: 40%. The grade will be curved.

Syllabus: Essential concepts of **Chapters 1-6 in the textbook will be covered**. The following schedule is subject to change.

01/08 (M): Introduction, Definition of Probability, Events, Set Operation, Properties of Probability,

01/10 (W): Sample Spaces, Sampling with / wo replacement

01/15 (M): Martin Luther King, Jr. holiday

01/17 (W): Multinomial Coefficients, Properties of Unions of Events

01/22 (M): Example of Union of events, Conditional Probability

01/24 (W): Independence of Events, Bayes Theorem

01/29 (M): Bayes' Formula and Examples

----- **Midterm**

02/05 (W): Definition of Random Variables, Continuous and Discrete Random Variables

02/07 (M): Midterm Exam

02/12 (W): Probability Density Function, Cumulative Distribution Function, Marginal Distribution, Independence of Random Variables

02/14 (M): Conditional Distributions, Multiplication Rule, Multivariate Distributions

02/19 (W): Presidents' Day holiday

02/21 (M): Functions of Random Variables

02/26 (W): Linear Transformation of Random Vectors

02/28 (M): Expectation of Random Variable, Properties of Expectations

03/04 (W): Law of Large Numbers

03/11 (M): Normal Distribution and Poisson Distribution

03/13 (W): Covariance and Correlation of Random Variables

03/18 (M): Final Exam

----- **Cumulative: 01/08 ~ 03/13**