DSST / MATH 329: Probability — Taylor Arnold — Fall 2023

Website: https://statsmaths.github.io/dsst329-f23

Topics: The class is split into six parts: (1) counting theorems, (2) formal construction of discrete probability spaces, (3) discrete random variables and their properties, (4) continuous random variables, (5) transformations and limits theorems, and (6) simulations.

General Format: Most class meetings will start by going through a short handout with new material followed by working together through a worksheet of probability problems. Solutions will be posted at the end of class. Students must fill out an online form at some point prior to the next class meeting describing their progress and indicating attendence in class. Failing to either hand in class form or to be present in class three or more times will result in a reduction in the final grade (1 point for three, 5 points for four, 10 points for five, and a failing grade for six or more). The final week has a different format, which will be explained once we get there.

Exams: There are five in-class exams, roughly corresponding to the first five topics listed above. Exams closely follow the problems provided on the worksheets. Tentative exam dates are given on the course website. There is no final exam.

Office Hours: There will be significant time during class to ask questions about the material. Drop-in office hours will be held the evening before each exam. Please email to ask additional questions or schedule a one-on-one meeting at any point during the semester, though keep in mind that these should supplement rather than replace attending and asking questions during class.

Final Grades: Your numeric final grade will be determined by a weighted sum of your exam grades (10%, 10%, 20%, 30%, 30%), with the higher exam scores receiving the higher weights. Adjustments are then made based on attendence and class forms as described above. A letter grade will be assigned as follows: A (93–100), A- (90–92), B+ (87–89), B (83–86), B- (80–82), C+ (77–79), C (73–76), C- (70–72), and F (0–69).

Further Class Policies: During class, please put away your cell phones and laptops. Everything you need for class can be done with a pencil, paper, and (optionally) calculator. There will be no make-up exams. If there is a valid excuse for missing and exam day, the remaining four will instead be weighted using a modified weighting (15%, 15%, 35%, 35%).