Math 8a: Introduction to Probability and Statistics

Summer I 2024

Instructor:	Rachmiel Klein	**Time:**	MTWR 13:50–14:00
Email:	rocklykleining@brandeis.edu	**Place:**	Goldsmith 209

A statistical analysis, properly conducted, is a delicate dissection of uncertainties, a surgery of suppositions. – M.J. Moroney.

Course description:
Discrete probability spaces, random variables, expectation, variance, approximation by the normal curve, sample mean and variance, and confidence intervals. Does not require calculus; only high school algebra and graphing of functions. Usually offered every semester.

Office Hours:
MTR 11:00–12:00

Main References:

- *Understandable Statistics*, 12th Edition, by Brase & Brase. The textbook is available through the Brandeis Library, the Brandeis Bookstore, or other online retailers.

Software and Calculators:
We will use Microsoft Excel for this class. Please download Microsoft Excel by going to this website and following the instructions using your Brandeis email. You will also be allowed to use a basic four-function calculator as needed on homework, quizzes, and tests. You may not use your phone as a calculator.

LATTE & Gradescope:
All course materials (i.e. class recordings, notes, homework assignments, etc.) for Math 8a will be available online on LATTE. Log in at http://latte.brandeis.edu using your Unet username and password. We will also use Gradescope for assignments.

Grading Policy:

- Attendance (5%), Homework (25%), Quizzes (20%)
- The midterm, if it will boost your grade, is worth 20%
- Lastly, there is a final.

Important Dates:

Quiz #1	Tuesday, June 11
Midterm	Monday, June 24
Quiz #2	Tuesday, June 25
Quiz #3	Tuesday, July 2
Final Exam	Wed Jul 3 or Fri Jul 5

Attendance:

Attendance for this class is **mandatory**. This is a fast-paced class, and even one missed day could result in falling behind. Attendance will be taken at the start of each class, and excessive tardiness or absences could negatively impact your grade.

Four-Credit Course:

Success in this 4 credit hour course is based on the expectation that students will spend a **minimum of 25 hours of study time per week** in preparation for class (readings, homework, preparation for exams, etc.)

Class Policy:

Brandeis seeks to welcome and include all students. If you are a student who needs accommodations as outlined in an accommodations letter, please talk with me and present your letter of accommodation as soon as you can. I want to support you. In order to provide test or quiz accommodations, I need the letter more than 48 hours in advance. I want to provide your accommodations, but cannot do so retroactively. If you have questions about documenting a disability or requesting accommodations, please contact Student Accessibility Support (SAS) at access@brandeis.edu.

Academic Integrity:

You are expected to follow the University's policy on academic integrity, which is distributed annually as section 4 of the Rights and Responsibilities Handbook. Instances of alleged dishonesty will be forwarded to the Department of Student Development and Conduct for possible referral to the Student Judicial System. Potential sanctions include failure in the course and suspension from the University. If you have any questions about how these policies apply to your conduct in this course, please ask.

Available Resources:

Many resources are available to help with the academic and non-academic factors that contribute to student success (finances, health, food supply, housing, mental health counseling, academic advising, physical and social activities, etc.). Please explore the links on the Support at Brandeis page **linked here** to find out more about the resources that the University provides to help you and your classmates achieve success.

About Me: Rachmiel Klein

I am from Los Angeles originally and went to a music high school. Then I went to UCLA and studied math with minors in philosophy and coding. I am enthusiastic about seemingly everything, with math, music, travel, and spirituality just being a few. When I got to Brandeis I was in the a cappella group "Starving Artists" (Get Hungry!) for two years. I am also a Galaxy mentor and have been a DRP mentor. I am a PhD student at Brandeis working with Carolyn Abbott in an area called geometric group theory. Basically, I study the theoretical mathematics of symmetry. Come to my office hours, I'd love to talk about symmetry, music, travel, the moon, phonetics, or really anything else!