

MATH 8A: INTRODUCTION TO PROBABILITY AND STATISTICS

Summer II 2026

Instructor: Rocky Klein	Time: MTWR 13:50–14:00
Email: klein@brandeis.edu	Place: TBA

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:

TBA based on students' schedules.

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 (10%), Homework (25%), Quizzes (15%)
- The midterm, if it will boost your grade, is worth 20%
- Lastly, there is a final.
- Depending on the spread of grades and difficulty of assignments, I may choose to curve grades upward (this would only benefit you).
- You can calculate your grades [here](#).

Important Dates:

Homeworks 1, 2, 3, 4	Sundays at 11:59pm
Quiz #1	Thursday, July 9
Quiz #2	Thursday, July 16
Midterm	Thursday, July 23
Quiz #3	Thursday, July 30
Final Exam	Friday, Aug 7, 9am

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 each class, for a total of 19 possible attendance points. You are allowed to miss two classes without penalty.

Mathematically, if A is the number of attendance points you get, then that will contribute $\frac{\min(A,17)}{17} \cdot 10\%$ to your grade.

Homework:

There will be four homework sets, each worth 10 points except for the **third** one which is worth 5 points, for a total of 35 possible homework points, contributing to 25% of your grade. Homeworks are due on Sundays at 11:59pm on Gradescope. You must show your work to receive credit. If you need an extension, be sure to let me know as soon as possible. Except for extenuating circumstances, there will be no retroactive extensions.

Late homework policy:

When you turn in homework	What your homework score is multiplied by
Monday	0.75
Tuesday	0.5
Wednesday	0.25
Thursday+	0

Mathematically, if H is the number of homework points you get, then that will contribute $\frac{H}{35} \cdot 25\%$ to your grade.

Quizzes:

There will be three quizzes, each worth 20 points for a total of 60 possible quiz points. A perfect quiz score will be getting 50 of them correct. Thus, there is opportunity for extra credit in this section.

Mathematically, if Q is the number of quiz points you get correct, then that will contribute $\frac{Q}{50} \cdot 15\%$ to 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: Rocky 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” for two years. Now I sing with the Berklee-based a capella group [BerKalit](#) and am a service leader/musical accompanist at various synagogues in the Boston area. 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!