
Prerequisites. A grade of C- or above in Math 20a or 22b.

Exams. There will be two midterm exams and a final exam.

- Exam 1: October 10, 3:30-4:50, split between Gzang 121 and Gzang 124.
- Exam 2: November 2, 3:30-4:50, split between Gzang 121 and Gzang 124.
- Final Exam: To be set by the registrar, determined by our block.

Grades. Your grade in the course will be based on the following:

1. **Homework (10% of your grade)**
   - Homework assignments will be collected once or twice a week.
   - **No late homework will be accepted**, but your three lowest homework grades will be dropped.
   - We encourage you to discuss homework problems with your classmates, but you must write up your own solutions. **You may not use any solution manuals.**

2. **Quizzes (10% of your grade)**
   - Short quizzes will be given regularly.
   - **No make-up quizzes will be given.** Missed quizzes count as zeroes. However, the lowest 25% of your quiz grades will be dropped.

3. **Two midterm exams (each 25% of your grade)**
4. **Final exam (30% of your grade)**

Calculators. You should have access to a scientific calculator (an online one is OK). Calculators are **not** allowed during exams or quizzes. You do not need a graphing calculator.

LATTE. All course materials for Math 36a will be available online on LATTE. Log in at [http://latte.brandeis.edu](http://latte.brandeis.edu) using your Unet username and password.
Office hours. You are encouraged to use my office hours whenever you have questions about the course material. If you can't attend office hours, don't hesitate to ask for an appointment at another time.

Four-Credit Course (with three hours of class time each week). Success in this 4 credit hour course is based on the expectation that students will spend a minimum of 9 hours of study time per week in preparation for class (readings, papers, discussion sections, preparation for exams, etc).

Students with disabilities. If you are a student who needs academic accommodations because of a documented disability you should contact me and present your letter of accommodation as soon as possible. If you have questions about documenting a disability or requesting academic accommodations you should contact Beth Rodgers-Kay in the Office of Academic Services at 63470 or at brodgers@brandeis.edu. Letters of accommodations should be presented at the start of the semester to ensure provision of accommodations. Accommodations cannot be granted retroactively.

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 (see http://www.brandeis.edu/studentaffairs/srs/rr/index.html). 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.

Learning Goals for Math 36a. Students in Math 36a will:

- Understand the probability axioms and what constitutes a probability space.
- Learn how to compute simple probabilities, and classify experiments in terms of known probability distributions (either continuous or discrete).
- Understand the concept of a random variable.
- Understand conditional dependence, and its relation to Bayes’ Theorem.
- Learn how to compute conditional probabilities and expectations.
- Understand the significance of indepent random variables.
- Understand the statements of the Weak Law of Large Numbers, Strong Law of Large Numbers, and the Central Limit Theorem.
Topics covered in Math 36a

Order may change

Chapter 1  Combinatorial Analysis
Chapter 2  Axioms of Probability
Chapter 3  Conditional Probability and Independence
Chapter 4  Random Variables
Chapter 5  Continuous Random Variables
Chapter 6  Jointly Distributed Random Variables
Chapter 7  Properties of Expectation
Chapter 8  Limit Theorems