Text, *Linear Algebra*, Jim Hefferon.  
Can be found for free online at [http://joshua.smcvt.edu/linearalgebra/book.pdf](http://joshua.smcvt.edu/linearalgebra/book.pdf). It is also possible to purchase a printed copy.

This book is *not* required, it is just for you to look up if you are seeking additional resources.

Prerequisites. MATH 5a and permission of the instructor, placement by examination, or any mathematics course numbered 10 or above. Students may take MATH 15a or 22a for credit, but not both. If you HAVE NOT taken Math 10a and 10b, please come meet with me at the beginning of the semester.

Learning Goals.

- How to solve systems of linear equations?
- What are vectors and matrices and how to work with them?
- How to geometrically interpret vectors in \( \mathbb{R}^n \)?
- What does it mean for a set of vectors to be linearly independent?
- How to find a basis and compute dimension?
- What are eigenvalues and eigenvectors, and how to find them?
- How to compute determinants and why are they useful?

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

- Exam 1: Time and location TBA.
- Exam 2: Time and location TBA.
- Final Exam: Determined by registrar block schedule.

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

1. Homework (20% of your grade)
   - Homework assignments will be collected once a week.
   - No late homework will be accepted, but your two lowest homework grades will be dropped.

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, your two lowest quiz grades will be dropped.

3. Two midterm exams (each 20% of your grade)
4. Final exam (30% of your grade)

Calculators. Calculators are not allowed allowed during exams or quizzes.

LATTE. All course materials for Math 15a will be available online on LATTE. Log in at [http://latte.brandeis.edu](http://latte.brandeis.edu) using your Unet username and password.

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/srcs/rr/index.html](http://www.brandeis.edu/studentaffairs/srcs/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.