Math 15a: Applied Linear Algebra

Prof. John Wilmes
wilmes@brandeis.edu
Fall 2018, Section 2

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.

Learning Goals
Students will learn to
- solve systems of linear equations,
- reason about vectors and linear maps,
- perform matrix arithmetic,
- geometrically interpret $\mathbb{R}^n$,
- understand eigenvalues and eigenvectors,
- compute and make use of determinants,
- and read mathematics.

Course Site
All materials for this course will be accessible from the LATTE webpage, which can be reached from http://latte.brandeis.edu. Contact me immediately if you cannot access the page.

Text
Linear Algebra by Jim Hefferon. This textbook is available, for free, at http://joshua.smcvt.edu/linearalgebra/. Optionally, printed copies may be purchased.

We will be using a common, online copy of the textbook to which you can post comments and questions visible to your classmates, using the Nota Bene website. You are required to make an account to use this resource; a link is available on LATTE. Your comments and questions on Nota Bene will contribute to your reading and participation grade.

Office hours
My office is located on the first floor of Goldsmith, room 112.
For the first week only, office hours will be held from 1-4pm on Friday, Aug. 31. For subsequent weeks, the office hour schedule will be determined based on your stated availability. Please fill out the short survey available on LATTE so that I can try to fit my office hours into your schedule.
You are strongly encouraged to come to my office hours with any questions you have about the course. If you cannot attend my office hours, you may schedule an appointment with me via email.
Exams

There will be two midterm exams and a final exam.
- First midterm: September 26th, 2–2:50pm, Gerstenzang 121
- Second midterm: October 31st, 2–2:50pm, Gerstenzang 121
- Final exam: TBA, as determined by the registrar

Grade policy

There are four components to your grade.

1. **Reading and participation** (15% of final grade). To get full credit for this component,
   - post at least one question or comment, or respond to a classmate via *Nota Bene* for at least 12 different reading assignments this semester,
   - complete at least 12 of the reading surveys,
   - and complete the mid-semester reading reflection.
   This component will be graded on a *credit/no credit* basis, with good faith efforts receiving *credit*.

2. **Homework** (15% of final grade). Homework will be collected once per week. No late homework will be accepted, but your three lowest homework grades will be dropped. You are encouraged to discuss homework problems with your classmates. However, you must write up your solutions independently.

3. **Midterm exams** (20% of final grade, each)

4. **Final exam** (30% of final grade)

Calculators and computers

You are encouraged to use a scientific calculator or computer algebra software to check your work on homework. Calculators and computers are not permitted during exams.

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.