Book: *Elementary Linear Algebra with Applications*, 9e; Bernard Kolman & David R. Hill. We will cover most of Chapters 1–4, 6, and 7.

Writing Intensive: Mathematics is not only about finding the right answer; like any other discipline, mathematics is also about communicating ideas in writing that is precise, thorough, and concise. In particular, this course serves as an introduction to rigorous mathematical proof writing, including the underlying logical structure of arguments. We will spend a week at the beginning of the semester focusing on specific proof methods, but writing skills and strategies will be discussed in class throughout the semester. I am happy to provide one-on-one help with your proof-writing skills, and the QSR Center has a number of peer tutors who are familiar with mathematical proof writing.

Homework, Quizzes & Writing Assignments: Each week, I will post a syllabus sheet on BlackBoard, outlining the material we will cover and the homework and writing assignments that are due that week. *Homework* problems are (usually) computational, and these problems allow you to sharpen your content knowledge. *Writing Assignments* allow you to practice your proof writing technique. You must hand in these different types of work separately, because a student will grade the computations and I will grade the proofs. Homework and writing assignments are due in the appropriate Linear Algebra folder next to my door by 5pm. If you know in advance that you cannot hand in your homework or assignment on time, see me before it is due, and I will try to make alternate arrangements. Quizzes consist short conceptual questions that will ask you to “give an example of — or explain why no such example exists.” These 5-minute quizzes will occur in class on Fridays.

All homework and writing assignments should conform to the following standards:

1. Always work in pencil and erase mistakes; don’t scribble over them.

2. For writing assignments, use the front of the page only (so I have plenty of room for comments on the back). At some point, you will need to type your work; double space your text and leave margins of at least 1 inch.

3. Staple multiple page assignments or bind them with a paper clip. Please do not hand in pages bound by intricate origami arrangements.

4. Your homework should be legible, which refers to your handwriting, as well as readable, which refers to your grammar, clarity, and style. Get into the habit of working out your answers on scrap paper before writing your formal solutions. Both computations and proofs should be laid out neatly and clearly, with answers properly justified.

Examples of Student Work: When I pass back writing assignments, I will sometimes include samples of exemplary proofs. If you do not want your work shared with the class, please print your name, sign, and date on the line below and return to me at any point in the semester, and I will make sure not to include your solutions after that date.

Please don’t use my work:  

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Help: For any homework or proofs questions you have, please come see me during my office hours or make an appointment with me. Collaboration on the homework and writing assignments is permitted (and encouraged!) as long as you are collaborating with your peers currently enrolled in a section of Math 224W. However, if you do so, make sure to write up your final drafts separately to ensure that you have each fully understood the answer(s). Remember that you are bound by the Hamilton Honor Code to disclose any collaboration, either with classmates, tutors, or others. Please check with me before using resources other than your classmates, tutors at the QSR Center, or any professors currently teaching this course; for example, check with me before asking other professors, students not currently enrolled in Math 224W, the internet, a magic eight ball, your sonic screwdriver, the ghost of Gauss, etc.

Exams: There will be three (evening) midterm exams, scheduled for 7:00-10:00pm.

Tuesday, February 10; Thursday, March 12; Thursday, April 30.

The final exam is scheduled by the registrar (and thus is nonnegotiable) for

9am-12pm Thursday, May 15.

Final Grade Composition: Your final grade will be computed as follows:

- Quizzes: 2% (after dropping the lowest score)
- Homework: 8% (after dropping the two lowest scores)
- Writing Assignments: 18%
- Midterms: 18% each (for a total of 54%)
- Final Exam: 18%

Blackboard: You can view your homework and exam grades on Blackboard; if you notice any discrepancy, please let me know within a week of when I announce that the assignments are outside my door. Electronic copies of all course documents, including the weekly syllabus sheets, will appear on Blackboard as the semester progresses.

Disabilities: Any student with a documented disability needing academic adjustments or accommodations should speak with me during the first two weeks of class. All discussions will remain confidential. Students with disabilities should contact Allen Harrison in the Dean of Students Office (Elihu Root House; x4021).

Attendance Policy: Although I do not take attendance formally, this is a small class and I notice who is present and who is not. If you skip class, you will penalize yourself by getting lower homework and test scores than you otherwise would. If you cannot attend class, please send me an email or leave me a phone message explaining why you are absent.

The essence of mathematics is not to make simple things complicated, but to make complicated things simple. —S. Gudder