Grading: The final grade for the course comprises:

Homework (20%), assigned weekly and due on Thursdays in class.

Two midterm exams (20% each): Tue, Feb 18 and Thurs, Mar 20. The second midterm will primarily cover material presented after the topics covered in the first midterm.

One final exam (40%) (comprehensive for the whole course).

The grading scale will be determined at the end of the course, after the final exam, but will at least be as generous as: A: 92–100, A-: 90–91, B+: 88–89, B: 82–87, B-: 80–81, C+: 78–79, C: 72–77, C-: 70–71, D+: 68–69, D: 62–67, D-: 60–61 F: 0–60.

No makeup exams will be allowed or late homework accepted, unless exceptional circumstances are arranged with the instructor as soon as possible and at least one week in advance of the midterm exam or homework: exceptions may be available for serious illness or family emergency. However, the lowest two homework scores will be dropped.

All students must take the final exam at the time scheduled by the university. If there are any issues with this policy, you must let me and the department know right away.

Students with Disabilities: The University of Texas provides, upon request, appropriate academic accommodations for qualified students with disabilities. For more information, contact Services for Students with Disabilities (SSD), at 512-471-6259 (tel), 512-410-6644 (videophone), or ssd@austin.utexas.edu.

Religious Holidays: By UT Austin policy, you must notify me of your pending absence at least fourteen days prior to the date of observance of a religious holy day. If you must miss a class, exam, or homework in order to observe a religious holy day, you will be given an opportunity to complete the missed work within a reasonable time after the absence.

Prerequisite and degree relevance: M408D or the equivalent, with a grade of at least C, or consent of instructor. (Credit may not be received for both M341 and M340L. Majors with a ‘math’ advising code must register for this rather than for M340L; majors without a ‘math’ advising code must register for M340L. Math majors must make a grade of at least C in M341.)

Primary Text: Andrilli and Hecker, Elementary Linear Algebra, fourth edition. Note: you need the fourth edition, since we assign homework from this text.

Purposes of course: This course has three purposes of equal importance. The students should learn some linear algebra—for most, this will be the only college linear algebra course they take. This is one of the first proof courses these students will take and they need to develop some proof skills. Finally, this is, for almost all students, the introductory course in
mathematical abstraction and provides a necessary prerequisite for a number of our upper division courses.

Suggestions for success in the course:

- **Ask questions:** In lecture, office hours, and by e-mail. Don’t be shy—if you have a question then probably someone else would also like to ask it and hear the answer. Class participation makes lectures more interesting and fun for both you and me.

- **Do the homework:** No one can learn mathematics without working examples themselves. The most important driver of success in virtually every math course is doing practice exercises carefully and completely. This is even more important for your exam success than for the homework score itself.

- **Read the text:** To get the most benefit from the lectures, you should read relevant sections of the text as they are covered in class.

- **Come to office hours (for me and the TA):** Office hours offer valuable opportunities to reinforce concepts, clarify confusing issues, work more examples, and get individualized feedback.

- **Study together:** You are encouraged to study together with your peers enrolled in the class. Get to know your classmates, and make arrangements to share notes in case you miss class due to illness.

- **Learn to work problems without a calculator:** You may use a calculator on homework problems but not during quizzes or exams. In any case, a calculator will not be useful for the vast majority of problems encountered during the semester.

- **Be honest:** Any academic dishonesty will be severely penalized.

Tentative plan for course (undergoing revision):

Chapter 1: three and a half weeks, stressing Section 1.3.
Chapter 2: one and a half weeks. Section 2.4 will be assigned reading and on the homework, but we will discuss only briefly in class just before the midterm.

Midterm exam 1, Feb. 18: Chapters one and two.
Chapter 3: one week.
Chapters 4 and sections 5.1–5.2. This is the meat of the course.

Midterm exam 2, Mar. 20: Chapter three and some of chapters four and five.
Finish chapters 4 and 5, study Chapter 3 in more detail. Begin Chapter 6.
Additional topics: Linear independence of eigenvectors with distinct eigenvalues. Complex vector spaces. Inner product on \( \mathbb{C}^n \) (dot product with complex conjugation). Fourier transform.

Final exam: all of the course material.