

MATH 214: LINEAR ALGEBRA

Professor. Bhargav Bhatt

Office. 4835 East Hall

Office Hours. 6:00pm to 7:00pm on Tuesday, 3:00pm to 4:00pm on Wednesday (tentative).

Course time and location. 4:00pm to 6:00pm on Tuesday and Thursday in 1084 East Hall.

Course website. <http://www-personal.umich.edu/~bhattb/mat214s12/>

Background and goals. This course is an introduction to matrices and linear algebra, i.e., the study of systems of linear equations. We will cover the basics techniques of the subject that are needed to understand a wide variety of applications; our emphasis will be on concepts and problem solving.

Textbook and content. The textbook for this class is *Linear Algebra with Applications* by Bretscher (fourth edition). We will cover the first 8 chapters (skipping a handful of sections) in detail, and some parts of chapter 9 if time permits. It is *strongly recommended* that you read the relevant sections of the book before coming to class. Please remember that you are responsible for the material in all sections of the book that are covered in class, even though we will not get a chance to discuss all possible (types of) problems that can be asked. (The content has not changed much between the third and fourth editions of the textbook, but the exercises have.)

Homeworks. There will be weekly homework, due *at the start of class* every Thursday (**Edit: Tuesday, following Spring break**). The rules are:

- All homeworks will be posted at <http://www-personal.umich.edu/~bhattb/mat214s12/>
- Working in groups on homeworks is allowed and encouraged. However, the submitted homework must be written up separately by each student; all collaboration/help must be acknowledged.
- Homeworks will be graded for quality and clarity, i.e., you must write *clearly* and *precisely*.
- Only a fraction of the submitted problems will be graded for correctness.
- The lowest homework score for the semester will be dropped.
- Late homeworks will not be accepted.

Quizzes. There will be a 20 minute quiz every 3 weeks (roughly). These quizzes are cumulative, and will be announced at least a week in advance. Make up quizzes will not be provided.

Exams. There will be two exams in this course, both in 1084 East Hall:

- An in-class midterm exam on February 21 (Tuesday) covering chapters 1 through 4 (and some of chapter 5).
- A cumulative final exam on April 26 (Thursday) from 8:00am to 10:00am.

Make up exams will not be provided.

Technology. You are welcome to use computers and calculators to understand the course material. However, the emphasis of this class is *conceptual*, so technological aids will not be needed. In particular, calculators (or other technological aids) should not be used on homeworks, and will not be allowed during quizzes or exams.

Grading scheme. The following percentages determine the relevant contributions to the final letter grade.

- Class participation and quizzes: 10 %
- Homeworks: 20 %
- Midterm: 30 %
- Final exam: 40 %