

MA 260-OU Introduction to Linear Algebra UAB Department of Mathematics - Summer 2024

Instructor: Neethu Suma Raveendran

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Class Time: TR 8:00-10:00am, Location: UH 4002

Email is the preferred method of contact if you have questions. Include the course number on the subject line of your email for a faster response. I am available to meet with you in person or virtually via Zoom by appointment. Office hours will be in person at HHB 202 from 10:30-11:30am. Virtual office hours will be hosted through Zoom.

Office Hours: TR 10:30-11:30am at HHB 202 or by appointment

Office: UH 4011

Textbook: Howard Anton , “Elementary Linear Algebra: Applications Version” 12th edition.
Publisher : Wiley Cons ISBN 13 : 9781119406723

Learning Outcomes: Knowledge of the following topics:

- Linear Equations, Gaussian Elimination;
- Matrices: Matrix Operations and Properties, Invertible Matrices and In- verses;
- Linear Transformations;
- Determinants: Cofactor Expansion, Row Reduction, Cramers Rule;
- Euclidean Vector Spaces: Vectors, Norm, Dot Product and Distance, Orthogonality;
- General Vector Space: Real Vector Spaces, Subspaces, Linear Independence, Basis, Di-
mension, Row, Column and Null Spaces;
- Eigenvalues and Eigenvectors;
- Diagonalization: Symmetric Matrices, Orthogonal Diagonalization;

Grades

Grade Components:

Homework	20%
Class Discussion	10%
Test 1	20%
Test 2	20%
Final	30%

Final Grades:

The final grade for this course will be assigned using the following scale:

Total	$\geq 85\%$	75-85%	65-75%	50-65%	0-50%
Letter Grade	A	B	C	D	F

Class Policies & Student Expectations

Attendance & Class Preparation:

Regular class attendance is important and strongly encouraged. Unannounced extra-credit quizzes will be offered. Extra-credit points will be occasionally given for active class participation. I expect you to show respect to the instructor and classmates by putting away distracting items such as cell phones, laptops, and coursework not related to our class. During group

work, I expect everyone to contribute to the discussion (if you don't know how to answer the question, then *ask* a question). You may collaborate on solving homework problems and I hope you will learn from one another and benefit from working together. Make sure to write the names of your collaborators when you turn in the homework. However, it is imperative that you *understand* any work you submit and are able to solve problems on your own. A good guideline is that if you submit a homework problem for a grade, you should feel confident that you are able to explain your solution to the class.

Make-up Policy:

There are no make-ups for assignments and no late submissions are accepted (all deadlines are in Central Time). It is recommended that students work far in advance of deadlines to be able to complete the work by the deadline and to make sure they don't run out of time or have technical issues.

Actively participating in class dialogue, rather than simply observing, is essential for understanding. Most importantly, ask questions – inside the classroom, in office hours, or over email. The earlier on you ask questions, the better, since concepts in mathematics build upon each other. Although [you are responsible for your own learning](#), I encourage you to communicate with me so I know best how to help you succeed. I offer the following pieces of advice for your consideration:

Academic Misconduct:

The University of Alabama at Birmingham expects all members of its academic community to function according to the highest ethical and professional standards. It will be important that you review and become familiar with the University's Academic Integrity Code found [here](#).

Disability Support Services Accessibility Statement:

UAB is committed to providing an accessible learning experience for all students. If you are a student with a disability that qualifies under the Americans with Disabilities Act (ADA) and Section 504 of the Rehabilitation Act, and you require accommodations, please contact Disability Support Services for information on accommodations, registration, and procedures. Requests for reasonable accommodations involve an interactive process and consist of a collaborative effort among the student, DSS, faculty, and staff.

If you are registered with Disability Support Services, please contact them to discuss accommodations that may be necessary in this course. If you have a disability but have not contacted Disability Support Services, please call (205) 934-4205, visit their website, or visit their office located in Hill Student Center Suite 409.

Note: Any change in syllabus will be announced in class and will be informed via email.