

Introduction to Linear Algebra MA 260-1A Spring 2024

The class meets on Tuesdays and Thursdays from 3:30pm to 4:45pm in Room HHB 221 (Heritage Hall)

Instructor: Dr. Gunter Stolz

Office: UH 4028, **Phone:** 934-2154 or 934-3724

E-mail: stolz@uab.edu

Office hours: Send email to stolz@uab.edu to set up an appointment on Zoom (preferred) or in person. Provide a couple of possible times.

Important dates:

First day of class Monday, January 8

Martin Luther King-Holiday, January 15, no class

Last day to add/drop January 16

Test 1: Monday, February 5

Test 2: Wednesday, February 28

Spring Break: March 10-16

Test 3: Friday, March 29

Last day of class Friday, April 19

Final exam: Monday, April 22, 8:00am to 10:30am

Textbook Howard Anton, Chris Rorres and Anton Kaul, Elementary Linear Algebra, Applications Version, 12th edition, Wiley, ISBN-13: 978-1119282365. The electronic version of the book is already uploaded to your Canvas page under "First Day Access". More information is available at

<https://www.uab.edu/elearning/academic-technologies/first-day-access>

We plan to cover

- Systems of Linear Equations and Matrices, Sections 1.1 to 1.9
- Determinants. Sections 2.1 to 2.3
- Euclidean Vector Spaces, Sections 3.1 to 3.3
- General Vector Spaces, Sections 4.1 to 4.9

- Eigenvalues and Eigenvectors, Sections 5.1 and 5.2
- Inner Product Spaces, Sections 6.1 to 6.3
- Diagonalization, Sections 7.1 and 7.2

Grading policy: Your course grade will be determined from the tests and final exam with the weights

Test 1 (20 %), Test 2 (20 %), Test 3 (20%), Final Exam (40 %).

Your letter grade will be determined by:

$A = 87.5 - 100$, $B = 75 - 87.4$, $C = 62.5 - 74.9$, $D = 50 - 62.4$

Homework:

- Weekly homework sets will be chosen from the book and posted as assignments on CANVAS. They will usually be due within one week. Answers to the homework problems, **including full solutions**, need to be turned in on the due date by 11:59pm via Canvas.
- Each graded HW set receives 0, 1 or 2 points credit. These points will accumulate until the next test and then be **added as extra credit to the test score** (each test will be graded on a range of 0 to 100).
- No late homework is accepted.
- I will occasionally award a point to a student for exceptional classroom contribution. This point will be added to the homework score and thus to the next test.

Quizzes:

Occasionally, an end-of-class quiz will be given, with a score up to 2. This will be applied as bonus credit to the next test, just as described for homework.

Tests and Final:

- **In-Class Tests.** Three 50-minute tests will be given. At least one week notice will be given for the exact test dates and for the sections of the book to be covered.
If a test is missed due to a serious verifiable circumstance or official university business, the test grade will be replaced with the properly re-scaled final exam score. You have to advise the instructor of such circumstances at the earliest possibility.

- **Final exam.**

Wednesday, December 6, 8:00am to 10:30am.

Most of the final exam (about 75%) will cover the material not yet covered in Tests 1, 2 and 3.

- **Tests and Final.** All tests and the final exam are open book and open notes. Sample tests will be provided beforehand. You may use a calculator, and most likely you will need one, so bring one with you. You may also use a phone, laptop or a tablet without internet connection (Wi-Fi switched off, airplane mode).

Attendance:

- **Regular class attendance is important and strongly encouraged (but not mandatory).** The instructor will follow the indicated sections of the book (but occasionally include different or additional examples as well as a Quiz), so if you have to miss a class, study the book and the beames/power point slides thoroughly and ask a fellow student what was covered in class.

Academic Misconduct:

UAB Faculty expects all members of its academic community to function according to the highest ethical and professional standards. Academic dishonesty and misconduct includes, but is not limited to, acts of abetting, cheating, plagiarism, fabrication, and misrepresentation. Students are expected to honor the UAB Academic Code of Conduct as detailed in the most current UAB Policies Guide. Please consult these resources for additional information regarding the specific procedures to be undertaken when a student violates the UAB Academic Code of Conduct.

- <https://www.uab.edu/students/one-stop/policies/academic-honor-code>
- <https://www.uab.edu/engineering/home/students/code-of-conduct#academic>

DSS 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 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 DSS

to discuss accommodations that may be necessary in this course. If you have a disability but have not contacted Disability Support Services, please call 934-4205 or visit <http://www.uab.edu/dss> or Hill Student Center Suite 409.

Title IX Statement:

The University of Alabama at Birmingham is committed to providing an environment that is free from sexual misconduct, which includes gender-based assault, harassment, exploitation, dating and domestic violence, stalking, as well as discrimination based on sex, sexual orientation, gender identity, and gender expression. If you have experienced any of the aforementioned conduct we encourage you to report the incident. UAB provides several avenues for reporting. For more information about Title IX, policy, reporting, protections, resources and supports, please visit <http://www.uab.edu/titleix> for UAB's Title IX Policy, UAB's Equal Opportunity, Anti-Harassment Policy and Duty to Report and Non-Retaliation Policy.