

**MA 260-2F Intro. to Linear Algebra  
Fall, 2022**

**Call Number 55460  
Dr. J. S. Hutchison**

**Course Instructor:** Dr. Jeanne S. Hutchison  
**Office:** University Hall, Room 4053  
**Email:**  
**Office Hours:** Tues, Thurs: 1:30 – 2:30 PM (Other times by appointment and by dropping in.)

**Phone:** (205)-934-2154

**Meeting Times and Location:**

MA 260-2F meets Tuesdays and Thursdays, 3:30 to 4:45 PM, in Room **UH 4002** of the University Hall.

**Prerequisite:** Grade of C or better in MA 126 Calculus II

**Text:** *Elementary Linear Algebra : Applications Version, 12<sup>th</sup> Edition*  
By Howard Anton and Chris Rorres, Wiley 2019  
Sections 1.1-1.8; 2.1-2.3; 3.1-3.3; 4.1-4.5, 5.1-5.2, 7.1-7.2

**Topics:** Linear equations and matrices; real vector spaces, basis and linear independence, linear transformations; light treatment of determinants, eigenvalues and eigenvectors; diagonalization, and selected additional topics.

**MA 260 CLASS CALENDAR—Fall, 2022**

<b>Important Dates</b>	
First Day of our class	Tuesday, August 23, 2022
Labor Day Holiday	Monday, September 5, 2022
Last Day to drop without paying full tuition	Monday, August 29, 2022
Last Day to drop a course with a grade of W	Friday, October 14 2022
2 Midterm Test Dates	Near Sept. 29 & Nov. 17
Last Day of our Class	Thursday, December 1, 2022
<b>Final Exam</b>	<b>Tuesday, December 6, 2022 4:15-6:45 PM</b>

**Methods of Teaching and Learning:**

- 27-28 class meetings of 75 minutes consisting of lectures, discussions of examples, and homework problems. Time for quizzes and two in-class tests is also included.
- Students are expected to undertake at least 8 hours of private study and homework per week.

**Course Content:**

- Linear Equations: Gaussian Elimination
- Matrices: Matrix Operations and Properties; Invertible Matrices and Inverses
- Determinants: Cofactor Expansion; row Reduction; Cramer's Rule

- Euclidean Vector Spaces: Vectors, Norm, Dot Product and Distance; Orthogonality
- General Vector Space: Real Vector Spaces; Subspaces; Linear Independence; Basis; Dimension
- Eigenvalues and Eigenvectors
- Diagonalization: Symmetric Matrices; Orthogonal Diagonalization □ Selected Additional Topics

#### Course Policies:

- Please make sure that you are able to receive e-mail through your Blazer-ID account. Official course announcements may be sent to that address.
- If you wish to request a disability accommodation, please contact DSS at 934-4205 or at
- If a test is missed due to a serious verifiable circumstance or official university business, the test grade will be replaced with the properly rescaled final exam score. You have to advise the instructor of such circumstances at the earliest possibility.
- No books or notes will be allowed during any of the tests or quizzes.
- No make-up for missed quizzes.
- Attendance is required for access to the lectures.
- Late homework will not receive full credit.

#### Course Management via Canvas

- Assignments, test dates, and some class materials will be posted on Canvas. Students should log into Canvas once a day ( ).
- Some assignments and activities will be collected on Canvas.

#### Assessment Procedures:

- Regular homework. Homework will be due each Tuesday. Homework contributes 20% to the course average.
- Quizzes and any assigned project contribute 16% to the course average.
- Two mid-term in-class tests. Each test contributes 17% to the course average.
- A 150-minute comprehensive final examination. The final contributes 30% to the course average.
- Your course performance is the maximum of your course average and your final exam grade (each is a number between 0 and 100)
- Your final grade is determined according to the following table:

Course Performance	88-100	75-87	62-74	50-61	Below 50
Final Grade	A	B	C	D	F

#### TIPS:

- Help is sometimes available in the Math Learning Laboratory, HHB 202
- By working steadily and regularly, you will increase your chances to succeed in this course.
- Remember, being a full-time student is a full-time job.
- The Mathematics Department participates in the Early Alert Program. If you receive an Early Alert because your instructor is worried about your attendance and/or performance, consider taking advantage of the services suggested by your instructor, your advisor, and the Early Alert Program.

#### ACADEMIC HONOR CODE

The University of Alabama at Birmingham expects all members of its academic community to function according to the highest ethical and professional standards. Academic misconduct undermines the purpose of education. Such behavior is a serious violation of the trust that must exist among faculty and students for a university to nurture intellectual growth



and development,. 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 Honor Code as detailed in the most current UAB Student Catalog. Please consult this resource ( ) for additional information regarding the specific procedures to be undertaken when a student violates the UAB Academic Honor Code.

## Health, Safety, and Services

UAB is very concerned for your continued health and safety. Please consult the Students section of UAB United for up-to-date guidance, because the following information is subject to change as circumstances require.

We strongly urge you to be fully vaccinated. Here is information on the safety of vaccines and on how to get vaccinated at UAB. UAB is currently mask-optional.

Know the resources available to you to be successful:

- Student Assistance & Support provides individualized assistance to promote student safety and well-being, collaboration and resilience, personal accountability, and self-advocacy. The Care Team consults and collaborates with campus partners to balance the needs of individual students with those of the overall campus community. The UAB Care Team helps find solutions for students experiencing academic, social and crisis situations including mental health concerns.
- Disability Support Services assists students with in reaching accommodations for their educational experiences at UAB that ensure that they have equal access to programs, services, and activities at UAB.
- The Vulcan Materials Academic Success Center provides tutoring, supplemental instruction, and other services that encourage goal achievement and degree completion.
- UAB Student Health Services delivers comprehensive, high quality, confidential, primary healthcare to students. Student Health provides testing services and vaccination clinics.
- Student Counseling Services offers students a safe place to discuss and resolve issues that interfere with personal and academic goals. UAB has created a new app (available in the App Store and Google Play) called B Well, that is designed to easily access resources on mobile devices and build a self-care plan.
- eLearning and Professional Studies provides numerous academic technologies and learning resources for students whose learning may be affected by COVID.