

# **Math 2522 Section B Applied Linear Algebra**

**Fall 2023**

## **Course Overview**

**MATH 2522 Applied Linear Algebra 3 Credits**

**Vectors, matrices, linear independence, vector spaces (with focus on real n-space), determinants, linear transformations, eigenvalues and eigenvectors. Applications from engineering and the sciences incorporated through required computer assignments. Credit not given for both MATH 2522 and MATH 2544. Prerequisite: MATH 121B or MATH 121C. Co-requisite: MA, QR**

## **Learning Outcomes**

**After successfully completing this course, the student will be able to**

- 1. Solve systems of linear equations with applications using Gauss-Jordan elimination and matrix inverse**
- 2. Perform basic operations on vectors, inverses, and determinants**



**cover any absences for university events, illness, family emergencies, funerals, and workload issues. No make-up quizzes. Be prepared for quizzes typically on Wednesdays. No notes, books, calculators or electronic devices may be used on the quizzes. I will announce quizzes ahead of time on Brightspace.**



**Tutoring Center:**

The Tutoring Center is free to all undergraduate students. To schedule an appointment, go to their website: [https://www.umed.edu/academicuccess/tutoring\\_center](https://www.umed.edu/academicuccess/tutoring_center)

**Technical support for students**

Students should contact the Helpline (802-656-2609) for support with technical issues.

<b>Math 2522</b>			
	<b>Course Schedule Detail</b>	<b>Fall 2023</b>	<b>Note: Subject to Change</b>
<b>Week#</b>	<b>Monday</b>	<b>Wednesday</b>	<b>Friday</b>
<b>1</b>	<b>Matrices and Systems of Linear Equations</b>	<b>Row Echelon Form and Gauss-Jordan Elimination</b>	<b>Row Echelon Form and Gauss- Jordan Elimination</b>
<b>2</b>	<b>No School</b>	<b>Start Vector Space <math>\mathbb{R}^n</math> Start Linear</b>	<b>Finish The Vector Space <math>\mathbb{R}^n</math></b>
<b>3</b>	<b>Subspaces of <math>\mathbb{R}^n</math></b>		





faculty in an accommodation letter. All students are strongly recommended to discuss with their faculty the accommodations they plan to use in each course. Faculty who receive Letters of Accommodation with [Disability Related Flexible accommodations](#) will need to fill out the Disability Related Flexibility Agreement. Any questions from faculty or students on the agreement should be directed to the SAS specialist who is indicated on the letter.

**Contact SAS:**  
A170 Living/Learning Center;  
802 656 7533  
[access@um.edu](mailto:access@um.edu)  
[www.um.edu/access](http://www.um.edu/access)

### **Academic Integrity:**

The policy addresses plagiarism, fabrication, collusion, and cheating.

<https://www.um.edu/policies/student/acadIntegrity.pdf>

The Center for Student Conduct has created several modules to help students learn about UVM's Academic Integrity Policy, definitions, and process. The modules include brief readings, videos, quizzes to check knowledge, links to resources, survey on students' beliefs about cheating, discussion board topics and an honor pledge. We encourage you to check out these resources and incorporate some of them into your courses. To preview the modules, self-enroll in the Blackboard Organization (CSC 001: Academic Integrity Faculty Resources). [Click here for directions for self-enrolling](#) or reach out to Deana Garrett-Ostermiller ([dgarett@um.edu](mailto:dgarett@um.edu)) to request a zip file and instructions for importing into [Blackboard](#).



### **Religious Holidays**

Students have the right to practice the religion of their choice. If you need to miss class to observe a religious holiday, please submit the dates of your absence to me in writing by the end of the second full week of classes. You will be permitted to make up work within a mutually agreed upon time. The complete policy is [here](#).

### **Promoting Health & Safety:**

The University of Vermont's number one priority is to support a healthy and safe community.

**[Center for Health and Wellbeing](#)**

**[Counseling & Psychiatry Services \(CAPS\)](#) Direct Phone Line (802) 656-3340**

**C.A.R.E.** If you are concerned about a UVM community member or are concerned about a specific event, we encourage you to contact the Dean of Students Office (802-656-3380). If you would like to remain anonymous, you can report your concerns online by [visiting the C.A.R.E. Team website](#).

**Food Insecurity:** The UVM Center for Health & Wellbeing provides several on and off-campus resources for students struggling with food insecurity: [https://www.uvm.edu/health/food\\_insecurity\\_uvm](https://www.uvm.edu/health/food_insecurity_uvm)

### **General statement regarding potential changes during the semester:**

<http://catalog.uvm.edu/>

The University of Vermont reserves the right to make changes in the course offerings, mode of delivery, degree requirements, charges, regulations, and procedures contained herein as educational, financial, and health, safety, and welfare considerations require, or as necessary to be compliant with governmental, accreditation, or public health directives.

### **Statement on Alcohol and Cannabis in the Academic Environment:**

As a faculty member, I want you to get the most you can out of this course. You play a crucial role in your education and in your readiness to learn and fully engage with the course material. It is important to note that alcohol and cannabis have no place in an academic environment. They can seriously impair your ability to learn and retain information not only in the moment, you may