Introduction to Linear Algebra (MATH 120) – Summer 2022

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Office Hours:	Monday, Wednesday, Thursday 11:00am – 12:00pm, or by appointments.
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Textbook (Recommended Texts)

- *Linear Algebra and Its Applications*, Global Edition 6th Edition by David Lay (Author), Steven Lay (Author), Judi McDonald (Author).
  - ISBN-13: 978-1292351216
  - ISBN-10: 1292351217
- *Introduction to Linear Algebra*, 5th Edition by Gilbert Strang (ISBN 978-0-9802327-7-6)

Course Description

This is a one-semester introductory linear algebra course. The course covers fundamental concepts in linear algebra including vectors, systems of linear equations, matrices, determinants, vector spaces, linear transformations, eigenvalues and eigenvectors, and their applications.

Prerequisite

Mathematics placement test or MATH 095 with a minimum grade of "S"

Learning Outcomes

After successfully completing the course, students are expected to

- perform mathematical expressions involving vectors, system of linear equations, and matrices;
- understand bases of vector spaces and subspaces;
- recognize the components of linear transformations, how they work, and how to apply them to homogeneous coordinates;
- comprehend and be able to perform diagonalization, determine eigenvalues and eigenvectors of a matrix;

Use of Calculators

While you might find the use of a calculator helpful in this class, I DO NOT REQUIRE it for this course. Also, **NO CALCULATORS ARE ALLOWED DURING EXAMS**. (Please also see the quiz and exam policy).

Grades

Your grade for this course will be assigned based on the following points:

Homework	50%
Midterm	25%
Final Exam	25%
Total score	100%

The letter grades are distributed as follows

A	93 – 100%	B	83 – 86%	C	73 – 76%
A−	90 – 92%	B−	80 – 82%	C−	70 – 72%
B+	87 – 89%	C+	77 – 79%	F	70% or less

Homework Assignments

Both online and written homework assignments are used in the course to assess your understanding of the course materials.

- Online homework: After each lecture there will be a short assignments used to help you understand the concepts covered in that lecture better.
- Written homework: There is a written assignment at the end of the first and third weeks that includes questions about the materials presented that week. The written portion will help you improve your mathematical and logical thinking skills. (*Please note that the second and the fourth weeks are for exams*)

The key to being successful in this class is practicing the material we cover in class on your own. It is therefore extremely important that you keep up with the homework posted each week.

Examinations

The course consists of one (1) midterm exam and one (1) final exam. The schedule of the exams will be announced via the course Blackboard page.

The final exam is cumulative. Calculators are NOT permitted on the exams.

THERE WILL BE NO MAKE-UP EXAMS.

Blackboard

Course materials for the course will be posted on Blackboard (Bb). Students should plan to check the site frequently for announcements and newly posted materials. You can access Bb from BSU's homepage. You will find the syllabus, homework assignments, exam and solutions, as well as other materials there. Grades will be periodically posted on the site. If you do not already have a Bb account, be sure to register for an account soon.