

Math 2641: Linear Algebra I — Fall 2022 (Section 002, CRN 91411)

9:30–10:45am, Mondays and Wednesdays, online via WebEx

Instructor: Yongwei Yao

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Lecture: 9:30–10:45am, Mondays and Wednesdays, online via WebEx.

Office Hours: 1:00–2:30pm, Tuesdays and Thursdays, online via Webex.

Textbooks: *Linear Algebra and Its Applications* (3rd edition or newer) by David Lay et al., Pearson Publishing. The lectures will be based on this textbook, covering materials from the following Chapters (as in 5th edition):

- Chapter 1 (§1.1–1.19);
- Chapter 2 (§2.1–2.3);
- Chapter 3 (§3.1–3.3);
- Chapter 4 (§4.1–4.7);
- Chapter 5 (§5.1–5.3, and §5.4 time permitting).

Prerequisite: Math 2212, with grades of C or higher. During the first two weeks of the semester the Department of Mathematics and Statistics checks the computer records to determine whether or not each student has met the prerequisites for this course. If you do not have the prerequisites please inform your instructor and change to another course. In case the system finds that you don't have the prerequisites, you need to drop this course; indeed, you may get dropped automatically.

Course description/content: Theory and applications of matrix algebra, vector spaces, and linear transformations. Topics include linear equations and matrices, invertible matrices, determinants, vector spaces, subspaces, bases, eigenvalues and eigenvectors.

Homework: There will be weekly homework assignments that will be graded. You can discuss the problems with your classmates, but the write-up of the solutions has to be done individually according to your own understanding. Identical solutions will not be graded.

Show your step-by-step work. No late homework is accepted.

Homework weighs 25% of your overall performance.

Exams: There will be two midterm exams and a final exam, all held online via WebEx.

Exam	Date	Time	Location	Weight
Midterm Exam I	Sept. 28 (Wednesday), 2022	9:30–10:45am	Online	25%
Midterm Exam II	Nov. 02 (Wednesday), 2022	9:30–10:45am	Online	25%
Final Exam	Dec. 07 (Wednesday), 2022	8:00–10:30am	Online	25%

All the exams are required, and the final exam is cumulative. Make-up exams will only be allowed in case of extreme emergencies that must be documented, such as medical emergencies. It is the instructor's role to determine if a specific emergency is a valid one. Anyone who fails to take the final exam will receive **F** as the letter grade.

(more on the next page)

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Grading Scheme: First the total scores are computed by using the weights as follows:

Component	Homework	Midterm Exam I	Midterm Exam II	Final Exam
Weight	25%	25%	25%	25%

Then the letter grades will be assigned as follows:

Score (%)	97–	93–96	90–92	87–89	83–86	80–82	77–79	70–76	60–69	0–59
Grade	A+	A	A–	B+	B	B–	C+	C	D	F

Attendance: You are expected to attend regularly for the entire period of the class. That is, you are expected to arrive on time and stay for the duration of the class. Attendance will be taken periodically. If you miss all the classes during the first two weeks, you could get withdrawn administratively. After five or more absences a student could get withdrawn from this class. In case of an absence, the student is responsible for knowing/studying all the materials covered. For university policies, see <http://codeofconduct.gsu.edu/>

Important withdrawal dates: Remember that a student who misses all the lectures during the first two weeks can be withdrawn by the instructor.

Last day to add/drop classes: Friday, Aug. 26, 2022, 5:00pm. See GoSolar or PAWS.

Last day to withdraw and possibly receive a **W**: Tuesday, Oct. 11, 2022.

For details, see <http://advisement.gsu.edu/self-service/policies/withdrawal-policy/>

Disruptive behavior: Any disruptive behavior will be handled according to the University's policy on disruptive behavior found at the following site <http://codeofconduct.gsu.edu/>.

This includes the possibility of withdrawing the student from the class.

Academic (dis)honesty: Academic honesty is expected. Cheating will not be tolerated and will be handled according to the University's policy on academic honesty found at <http://codeofconduct.gsu.edu/>, which includes academic as well as disciplinary penalties.

Teaching evaluations: Your constructive assessment of this course plays an indispensable role in shaping education at Georgia State. Upon completing the course, you are welcome to fill out the online course evaluation.

Disability: Students who wish to request accommodation for a disability may do so by registering with the Office of Disability Services. Students may only be accommodated upon issuance by the Office of Disability Services of a signed Accommodation Plan and are responsible for providing a copy of that plan to instructors of all classes in which accommodations are sought.

Other Important dates:

Labor Day (no classes) September 05 (Monday), 2022

Thanksgiving (no classes) November 21–26, 2022

Last Day of Classes Dec. 05 (Monday), 2022

Changes: This course syllabus provides a general plan for the course; deviations may be necessary.

Course URL: <http://yyao.gsucreate.org/2022F/math2641.html>

Relevant information (homework assignments, etc.) will be posted there as the course progresses.

Welcome aboard!