

MATH 203-A01: Linear Algebra
Syllabus, Summer 2021

Course goals. To understand and be able to make use of linear equations, the concepts of matrix, determinant, vector space, eigenvalue and eigenvector, matrix diagonalization, length, orthogonality, and approximation.

Prerequisite. Grade C or better in MATH 114.

Instructor. Dr. Valeriu Soltan, Email: vsoltan@gmu.edu

Textbook required. Lay, Lay, McDonald, *Linear Algebra and its Applications*, 5th edition, Addison-Wesley, 2016.

Material to be covered. Chapters 1-6 (with some sections omitted).

Online classes. MTWR, 10:30 am–12:35 pm.

Online office hours. MTWR, 1:00 pm–2:00 pm, or by appointment.

Lecture materials and syllabus will be posted on the GMU Black Board.

Homework. Problems for the homework are assigned regularly (see page 3 below). Although these will not be collected, success in tests and final exam strongly depends on their completing and understanding.

Free online tutoring. Free online tutoring is available for the enrolled students. For details see <https://science.gmu.edu/academics/departments-units/mathematical-sciences/math-tutoring/tutoring-center-hours-and>.

ODS. If you are a student with a disability and you need academic accommodations, please contact the Office of Disability Services. All academic accommodations must be arranged through this office.

Exams and Quizzes. There will be an online midterm and an online final exam. Also, there will be seven online quizzes at the end of classes (see page 2 below). All quizzes, midterm, and final exam are open-source.

Grading. Quizzes are 35%, midterm is 25%, and final exam is 40% of the total grade. There is no grade curving or dropping, etc. Equivalence between scores and letters, recommended by GMU, is given in the table below.

A+	A	A-	B+	B	B-	C+	C	C-	D	F
100-96+	96-92+	92-89+	89-85+	85-80+	80-77+	77-73+	73-69+	69-66+	66-60+	60-0

Attendance and make-ups. Each student is expected to attend the online classes regularly. No make-ups for quizzes, midterm, and final exam are allowed unless you provide a serious written excuse. Excused tests should be taken within a timely fashion before the last day of classes.

GMU policies on final exams. The final exam may not be given before June 17. If you need to change the date of your final exam for unusual circumstances, you have to obtain professor's approval at least a week prior to the last day of classes. Retaking final exams is not permitted.

The absence from the final exam will not be excused except for sickness on the day of the exam confirmed by physician's note or for other causes approved by the student's academic dean or director. If a student missed the final exam due to illness or a family emergency, an incomplete grade (IN) may be assigned provided the student took at least 3 quizzes and the midterm and has a score of at least 40 points. If absence from the final exam is unexcused, the grade for the course is F.

Academic integrity and university policies. Mason is an Honor Code university; please see the University Catalog for a full description of the code and the honor committee process. Other policies are available at <http://universitypolicy.gmu.edu/>. Students are responsible for knowing and following established policies.

COURSE OUTLINE

Day	Tests	Sections Covered in Class
05/17		1.1, 1.2
05/18		1.2, 1.3
05/19	Quiz 1 (Section 1.2)	1.4, 1.5
05/20		1.7, 1.8
05/24	Quiz 2 (Section 1.3)	1.9, 2.1
05/25		2.1, 2.2
05/26	Quiz 3 (Section 1.8)	2.3, 2.8
05/27		Practice
05/31	Memorial Day	No classes
06/01	Midterm	
06/02		2.9, 3.1
06/03	Quiz 4 (Section 2.2)	3.2, 3.3
06/07		4.4, 4.7
06/08	Quiz 5 (Section 2.8)	5.1, 5.2
06/09		5.3
06/10	Quiz 6 (Section 3.2)	6.1, 6.2
06/14		6.3, 6.4
06/15	Quiz 7 (Section 4.4)	6.5
06/16		Practice
06/17	Final exam	10:30 am-1:15 pm

HOMEWORK ASSIGNMENT

Sections	Homework Problems
1.1	1, 3, 7, 9, 11, 13, 15, 17
1.2	1, 3, 7, 9, 11, 13
1.3	1, 3, 5, 9, 11, 13
1.4	1, 3, 5, 7, 9, 11, 15, 21
1.5	1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21
1.7	1, 3, 5, 7, 15, 17, 19
1.8	1, 3, 5, 9, 11, 13, 15, 17, 19
1.9	1, 3, 5, 9, 11, 15, 17, 19, 21, 25, 27
2.1	1, 3, 5, 7, 11, 27
2.2	1, 3, 5, 7a, 29, 31, 33
2.3	1, 3, 5, 7, 33
2.8	1, 3, 5, 9, 11, 15, 17, 19, 23, 25
2.9	1, 3, 5, 9, 11, 13
3.1	1, 3, 5, 7, 9, 11, 13, 15, 17
3.2	1, 3, 5, 7, 9, 11, 13, 15, 17, 21, 23, 25
3.3	1, 3, 5, 19, 21, 23, 27
4.4	1, 3, 5, 7, 9
4.7	1, 5, 7, 9
5.1	1, 3, 5, 7, 9, 11, 13, 15, 17
5.2	1, 3, 5, 7, 9, 11, 13, 15, 17
5.3	1, 5, 7, 9, 11, 13, 15, 17
6.1	1, 3, 5, 7, 9, 11, 13, 15, 17
6.2	1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21
6.3	1, 3, 5, 7, 9, 11, 13, 15
6.4	1, 3, 5, 7, 9, 11
6.5	1, 3, 5, 9, 11