

**MATH 322-001: Advanced Linear Algebra**  
**Syllabus, Fall 2021**

**Course objectives.** Develop a theoretic foundation for Linear Algebra (Math 203) and ability to understand and create proofs in this field.

**Prerequisite.** Grade C or higher for MATH 203 and MATH 290, or equivalent.

**Textbook required.** Friedberg, Insel, Spence, Linear Algebra, 5th edition, Prentice Hall, 2019.

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

**Lectures.** TR, 10:30 am–11:45 am, Planetary Hall, Room 124.

**Instructor.** Dr. Valeriu Soltan. Office: Exploratory Hall 4202. Email: [vsoltan@gmu.edu](mailto:vsoltan@gmu.edu)

**Office hours.** TR, 1:30 pm-2:30 pm. Please email me to make an appointment.

**Homework.** Problems for the homework are given in the course outline (see next page). Although these will not be collected, success in tests and final exam strongly depends on their completing and understanding.

**Tests and exam.** There will be four tests and the final exam. All tests and exam are closed-book and open-notes.

**Grading.** Each test and the final exam make up to 20% of the score. There is no curving, dropping, extra crediting, etc. Equivalence between scores and letters, recommended by GMU, is given in the table below.

A+	A	A-	B+	B	B-	C	F
100-95+	95-92+	92-90+	90-86+	86-76+	76-70+	70-60+	60-0

**Attendance and make-ups.** Each student is expected to come to class regularly. No make-ups for tests are allowed unless you provide a serious written excuse. Excused tests should be taken within a timely fashion before the next test.

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

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 all four tests. 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. See for other policies at <http://universitypolicy.gmu.edu/>. Students are responsible for knowing and following established policies.

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

**Religious holydays.** If you observe upcoming religious holidays (see <https://ulife.gmu.edu/religious-holiday-calendar/>), please inform me one week in advance about a possible overlap with a day of quiz, midterm, or final exam.

## COURSE OUTLINE

Class Date	Event	Sections	HW Problems
08/24		1.1	1, 2, 3, 6, 7.
08/26		1.2	1, 8, 11, 12, 13, 18.
08/31		1.3	1, 3, 5, 6, 8, 12, 18, 23.
09/02		1.4	1, 6, 7, 8, 9, 12.
09/07		Practice	
<b>09/09</b>	<b>Test 1</b>		Sections 1.1, 1.2, 1.3, 1.4.
09/14		1.5	1, 3, 4, 5, 8, 9, 13, 18.
09/16		1.6	1, 2, 3, 4, 5, 11, 12, 16.
09/21		2.1	1, 3, 5, 10, 14, 22.
09/23		2.2	1, 2, 3, 5.
09/28		Practice	
<b>09/30</b>	<b>Test 2</b>		Sections 1.5, 1.6, 2.1, 2.2.
10/05		2.3	1, 4, 8, 12.
10/07		2.4	1, 2, 3, 4, 15, 17.
<b>10/12</b>	<b>Fall Break</b>		
10/14		2.5	1, 2, 3, 4, 5.
10/19		3.1, 3.2	1, 2, 3, 5, 10, 12; 1, 2, 3, 4, 5, 6, 8.
10/21		Practice	
<b>10/26</b>	<b>Test 3</b>		Sections 2.3, 2.4, 2.5, 3.1.
10/28		3.3	1, 2, 3, 6, 8.
11/02		4.1	1, 4, 5, 6, 7, 8, 9.
11/04		4.2	1, 2, 3, 4, 5, 7, 11, 23, 25, 27.
11/09		Practice	
<b>11/11</b>	<b>Test 4</b>		Sections 3.2, 3.3, 4.1, 4.2.
11/16		5.1	1, 2, 4, 6, 9, 10.
11/18		5.2	1, 2, 3, 4.
11/23		6.1	1, 8, 9, 10, 11, 17.
<b>11/25</b>	<b>Thanksgiving</b>		
11/30		6.2	1, 2, 7.
12/02		Practice	
<b>12/14</b>	<b>Final exam</b>		<b>10:30 am-1:15 pm</b>