MATH 203-001: Linear Algebra

Syllabus, Spring 2018

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.

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

Material to be covered. Chapters 1-7 (with some sections omitted).

Classes. MW, 1:30 pm–2:45 pm, Robinson Hall, Room B104.

Instructor. Dr. Valeriu Soltan. Office: Exploratory Hall, Room 4202. Email: vsoltan@gmu.edu

Office hours. MW, 11 am to 1 pm, or by appointment.

Lecture materials and syllabus. They are available at http://math.gmu.edu/faculty_staff/soltan.htm

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

Free tutoring. Free tutoring is available at Math Tutoring Center (Johnson Center, Room 344); for hours of operation, visit http://math.gmu.edu/tutor-center.php.

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.

Tests and exam. There will be <u>three tests</u> and the <u>final exam</u>. All tests and the final exam are closed-book and closed-notes. Calculators are allowed.

Important days. Tests (tentatively, February 14, March 31, and April 18), Spring Break (March 12-18), last day of classes (May 5), final exam (May 9, 1:30 pm–4:15 pm).

Grading. Tests are 20% each, and final exam is 40% of the total score. Your grade for the course is the sum of scores for tests and final exam. There are no grade curving, 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
100-97	96-94	93-90	89-87	86-84	83-80	79-77	76-74	73-70	69-60	59-0

Attendance and make-ups. Each student is expected to come to class regularly. <u>No make-ups for tests are allowed unless you provide a serious written excuse</u>. 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 during the last week of classes. If you need to change the date of your final exam for unusual circumstances or because you have three or more finals scheduled in one day, obtain professor's signature on the Change of Final Exam Request form and submit it to Office of Student Success and Academic Services. This must be completed 2 weeks prior to the date of the final exam. Retaking final exams is not permitted.

Absence from the final exam will not be excused except for sickness on the day of the exam <u>confirmed by physician's note</u> or for other causes <u>approved by the student's academic dean or director</u>. If a student missed the final exam due to illness or a family emergency, an <u>incomplete grade</u> (IN) may be assigned provided the student took all three tests with a total score 36 or higher. 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

Sections	Homework Problems
1.1	1, 3, 5, 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, 13, 15, 17, 19, 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, 7, 9, 11, 13, 15, 17, 19
1.9	1, 3, 5, 9, 15, 17, 19, 21, 25, 27
2.1	1, 3, 5, 7, 9, 11, 27
2.2	1, 3, 5, 7a, 29, 31, 33
2.3	1, 3, 5, 7, 33
2.8	1, 3, 5, 7, 9, 11, 15, 17, 19, 23, 25
2.9	1, 3, 5, 9, 11, 13, 15
3.1	1, 3, 5, 7, 9, 11, 13, 19, 21, 23
3.2	1, 3, 5, 7, 9, 11, 13, 15, 19, 19, 21, 23, 25
3.3	1, 3, 5, 11, 13, 15, 19, 21, 23, 27
4.4	1, 3, 5, 7, 9, 11
4.7	1, 3, 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, 3, 5, 7, 9, 11, 13, 15, 17
6.1	1, 3, 5, 7, 9, 11, 13, 15, 17, 23
6.2	1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21
6.3	1, 3, 5, 7, 9, 11, 13, 15, 17
6.4	1, 3, 5, 7, 9, 11
6.5	1, 3, 5, 7, 9, 11, 13
7.1	1, 3, 5, 7, 9, 11, 13, 15, 17, 19
7.2	1, 3, 5, 7, 9, 11, 13