

Math 203-002 Linear Algebra
MW 1:30 - 2:45 Robinson B104

Spring 2020

Instructor: Ellen O'Brien
Office: Exploratory Hall 4205

Office Hours: T 10:30-12:00, W 10:30-11:30
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Purpose: This course presents the main concepts and terminology of linear algebra that play an essential role in mathematics and in many technical areas of modern society, such as computer science, engineering, physics, environmental science, economics, statistics, business management and social sciences.

Prerequisites: Math 114 - Analytic Geometry and Calculus II

Text: Linear Algebra and Its Applications, by David C. Lay, 5th Edition, Pearson 2016

Grading: Your grade for the course will be calculated based on three exams, assignments (in class, take-home and Blackboard quizzes) and a final exam. The tests (100 points), quizzes (100 points total) and final exam (200 points). The average of these six grades determines your grade according to the scale: A: 90-100 B: 80-89.9 C: 70-79.9 D: 65-69.9 F: below 65
+ or - may be attached (if applicable) to the grades that occur in the lower or upper 2 points of each category.

Homework: Homework problems will be assigned at the end of each class and reviewed at the beginning of the next class meeting. Reading the sections of the text related to the problems will always be part of the homework assignment.

Course Content: The course will cover the following sections from the text:

Linear Equations in Linear Algebra 1.1 - 1.5, 1.7-1.9
Matrix Algebra 2.1 - 2.3, 2.5
Determinants 3.1 - 3.2
Vector Spaces 4.1 - 4.7
Eigenvalues and Eigenvectors 5.1 - 5.3
Orthogonality 6.1 - 6.4

Test Dates:

Test 1: Wednesday February 12

Test 2: Wednesday March 18

Test 3: Wednesday April 22

Final Exam: Wednesday May 6 1:30-4:15

Tests must be taken on these dates. *No make-up tests will be given*. Solutions will be posted online as soon as possible. If an emergency arises, contact me ASAP

Exam Policy: You may not leave the room during an exam. Once the exam starts, you must turn in your exam paper before you leave the room.

Cancellations: Check your email and Blackboard *several times* over the day in the event that the class is cancelled. I will post a video lecture and/or assignments to make up for the cancelled class.

Disability statement: If you are a student with a disability and you need academic accommodations, please see me and contact the Office of Disability Resources at 703-993-2474. All academic accommodations must be arranged through that office.

Blackboard: The Math 203 Blackboard contains the syllabus, solutions for tests, announcements and other important course information. The homework assignments will be posted after each class.

Computers: We will be using Matlab to help with matrix calculations. This software is available on the Mason academic research system. It is also available in computer Labs in Johnson Center 342 and Innovation Hall 301.

Honor Code: The University Honor Code is to be followed at all times. Sharing information of any kind about exams or graded homework assignments is not allowed. Any violations will be submitted to the University Honor Committee. See the University Honor Code at <https://oai.gmu.edu/mason-honor-code/>

Other Policies: Cell Phones are to be turned OFF before entering the classroom. Get to class on time. If you must leave the class early, please sit by the door and exit quietly. Be considerate of other students. It is your responsibility to be aware of deadlines and be prepared for exams. Make sure to check the Math 203 Blackboard regularly.

Getting Help: We will have two Learning Assistants for Math 203. They will be available for help sessions/office hours. During the L.A. help sessions there will be an opportunity to earn extra mastery points. More about the Mastery points will be discussed in class.

The Math Tutoring Center is located in the Johnson Center Room 344. Help is available on a walk-in basis. The schedule is located here <http://math.gmu.edu/tutor-center.php>

The following is a tentative schedule for the semester:

| M | W |
|----------------------------|---------------------------------------|
| | Jan 22: Section 1.1 |
| Jan 27: Section 1.2 | Jan 29: Jan 24: Section 1.3 |
| Feb 3: Section 1.4, 1.5 | Feb 5: Section 1.7 |
| Feb 10: Section 1.8 | Feb 12: Test 1 |
| Feb 17: Section 1.9 | Feb 19: Section 2.1 |
| Feb 24: Section 2.2 | Feb 26: Section 2.3 |
| Mar 2: Section 3.1, 3.2 | Mar 4: Section 4.1 |
| Mar 9: Spring Break | Mar 11: Spring Break |
| Mar 16: Section 4.2 | Mar 18: Test 2 |
| Mar 23: Section 4.3 | Mar 25: Section 4.4 |
| Mar 30: Section 4.5 | Apr 1: Section 4.6 |
| Apr 6: Section 4.7 | Apr 8: Section 5.1 |
| Apr 13: Section 5.2 | Apr 15: Section 5.3 |
| Apr 20: Section 6.1, 6.2 | Apr 22: Test 3 |
| Apr 27: Section 6.3 | Apr 29: Section 6.4 |
| May 4: Wrap up and Review | May 6: Final Exam 1:30-4:15 |

Last day to self-drop: February 24

Selective Withdrawal Period: February 25-March 30