

**Math 203-002 Linear Algebra**  
**TTh 9:00 - 10:15 Planetary Hall 129**

**Spring 2019**

**Instructor:** Ellen O'Brien  
**Office:** Exploratory Hall 4205

**Office Hours:** TW 1:30-2:30; and by appt.  
**Email:** eobrien@gmu.edu

**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 assignments) and a final exam. The tests (100 points), assignments (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 - will 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:** Thursday February 14

**Test 2:** Thursday March 21

**Test 3:** Thursday April 25

**Final Exam:** Thursday, May 9 7:30-10:15

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

**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.

**Tutoring Center:** 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:

<b>T</b>	<b>R</b>
Jan 22: Section 1.1	Jan 24: Section 1.2
Jan 29: Section 1.3	Jan 31: Section 1.4, 1.5
Feb 5: Section 1.7	Feb 7: Section 1.8
Feb 12: Section 1.9	Feb 14: <b>Test 1</b>
Feb 19: Section 2.1	Feb 21: Section 2.2
Feb 26: Section 2.3	Feb 28: Section 3.1, 3.2
Mar 5: Section 4.1	Mar 7: Section 4.2
Mar 12: <b>Spring Break</b>	Mar 14: <b>Spring Break</b>
Mar 19: Section 4.3	Mar 21: <b>Test 2</b>
Mar 26: Section 4.4	Mar 28: Section 4.5
Apr 2: Section 4.6	Apr 4: Section 4.7
Apr 9: Section 5.1	Apr 11: Section 5.2
Apr 16: Section 5.3	Apr 18: Section 6.1, 6.2
Apr 23: Section 6.3	Apr 25: <b>Test 3</b>
Apr 30: Section 6.4	May 2: Wrap up and Review
	May 9: <b>Final Exam</b> 7:30-10:15

Last day to self-drop: February 25

Selective Withdrawal Period: February 26-March 25