

Washington University - St. Louis
Fall 2022
Math 309 - Matrix Algebra
Lecture: Cupples II, Room 200 Time: MWF 1:00pm – 1:50pm

Instructor: Brett D. Wick Office: Cupples I Room 212
Office Phone: 314-935-6765 Office Hours: WF 9:00am – 9:50am
Email: wick@math.wustl.edu M 11:00am – 11:50am
or by appointment
Webpage: http://www.math.wustl.edu/~wick/teaching/math309_F2022.html

Text: Linear Algebra & Its Applications by Lay, Lay and McDonald, 5th Edition.

Prerequisite and Description: An introductory course in linear algebra that focuses on Euclidean n -space, matrices and related computations. Topics include: systems of linear equations, row reduction, matrix operations, determinants, linear independence, dimension, rank, change of basis, diagonalization, eigenvalues, eigenvectors, orthogonality, symmetric matrices, least square approximation, quadratic forms. Introduction to abstract vector spaces.

This section is for students who have not taken a multivariable calculus course (such as Math 233), and is part of a yearlong sequence with a special section of Math 233 in the spring. Enrollment is by permission of department, contact Blake Thornton: bthornton@wustl.edu.

Attendance: Attendance is required for all lectures. The student who misses a class meeting is responsible for any assignments and/or announcements made. Office hours will not be utilized to re-teach material presented in class. However, questions to better understand the course are always welcome.

There will be no opportunities for make-up tests after the fact. **In the event of an absence due to travel representing Washington University - St. Louis, such as an intercollegiate sports competition, you must notify the professor at least two weeks in advance to arrange an early test or other alternative.** Otherwise, such absences will be treated as personal. In the event of a missed exam, contact Blake Thornton: bthornton@wustl.edu.

Homework: This course will have weekly homework assignments which will be graded. Both written and WebWork assignments will be given.

Exams: This course will have three mid-term exams and a comprehensive final exam. The exam dates for the course will take place on:

Exam Dates:

| | |
|------------|---|
| Exam 1 | Wednesday, September 28 (tentative) |
| Exam 2 | Wednesday, November 2 (tentative) |
| Exam 3 | Wednesday, December 7 (tentative) |
| Final Exam | Wednesday, December 21, 1:00pm – 3:00pm |

Exam Re-Grading Policy: If you disagree with the grading of your exam you are to notify me of the issue at the time of return. If you take the exam when it is returned to you without registering a complaint regarding the grading, then your score is set and no additional regrades will be considered for that exam. If you request a regrading of your exam, you may additionally arrange a meeting to discuss the regrading issue with me directly.

Piazza: This term we will be using Piazza for class discussion. The system is highly catered to getting you help fast and efficiently from classmates and myself. Rather than emailing mathematical/course questions to me, I encourage you to post your questions on Piazza.

Learning Disabilities: It is the right of any student with a certified learning disability to request necessary accommodation. Such requests must be made well in advance of the time that the accommodation is required and a letter of documentation from the [Disability Resources](#) office must be presented at the time of any request.

Academic Honesty: It is expected that all students are aware of their individual responsibilities under the [WUSTL Academic Integrity Policy](#), which will be strictly adhered to in this class. **Any violations must be reported directly to the Dean of Students.**

Grades: Grades will be based upon attendance, homework's, mid-term exams, and the final exam. Course grades will be assigned from the *maximum* of the following formulas:

| | Method 1 | Method 2 |
|---------------|----------|----------|
| Homework | 20% | 20% |
| Midterm Exams | 45% | 35% |
| Final Exam | 35% | 45% |

The usual ten-point scale will be used (A: 90-100, B: 80-89, C: 70-79, D: 60-69, F: 0-59), however, if necessary, adjustments will be made to arrive at a standard grade distribution for the course. On an individual basis, significant improvement over the semester will be taken into account. A to be announced number of homework will be dropped when computing your grade. This is the only mechanism for coping with personal events such as illness and family emergencies. For students taking the course with the Pass/Fail option, the threshold for a passing grade will be a "C".

Policy Regarding Online Course: In the event we need to transition to an online course, we will utilize Zoom and Canvas for course coordination and information.

COVID Safety Procedures: We will adhere to the University COVID-19 safety procedures during this semester. These can be found here: <https://covid19.wustl.edu/health-safety/>.

If you are sick: If you are sick, quarantined, or do not pass WUSTL self-screening, do not come to class in person. Notify your instructor of your absence.

If your instructor is sick: If your instructor is sick, quarantined, or does not pass self-screening, your class meeting may need to move online for the day. Please check Canvas (or your email) immediately before you leave for class in case your meeting needs to move online

at the last minute.

Important Dates for Fall 2022:

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|----------------|-------------------------------|
| August 29 | First day of classes |
| October 8-11 | Fall Break - No Class |
| November 23-27 | Thanksgiving Break - No Class |
| December 21 | Last day of classes |