MATH 240: Introduction to Linear Algebra (1/23)

Instructor: Dr. Wiseley Wong

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Office: MTH 4107

Lecture: Section 03xx: MWF 1-1:50 PM, ESJ 0202

Textbook: *Linear Algebra and its Applications, 6th Edition*, by D. Lay & S. Lay, J. McDonald

Prerequisites : MATH 141

Website: ELMS

Office Hours:

Friday, 3:00-4:30 PM (**in person, MTH 4107**)

Tuesday, 3:00-4:30 PM (**Zoom,** `https://umd.zoom.us/j/2885369947` (**Passcode: J3KCd62QL**))

Or by appointment.

Discussion Sections:

TA	Section	Time	Location
Shenghao Li	311, 321	TTh 1 PM, 2 PM	MTH 0401, MTH B0427
Qihang Li	312, 322	TTh 1 PM, 2 PM	MTH B0423, MTH 0306
Dohoon Kim	313, 331	TTh 1 PM, 3 PM	MTH 0201, MTH 0103
Yuan-Chih Hsieh	323, 332	TTh 2 PM, 3 PM	PLS 1117, PLS 1119

You must attend your ASSIGNED discussion section.

Course Description/Learning Outcomes

By the end of the course, a student is expected to be familiar with basic concepts of linear algebra: matrix algebra, vector spaces, applications to line and plane geometry, linear equations and matrices, similar matrices, linear transformations, eigenvalues, determinants, inner products, and least-squares problems.

MATLAB/Homework

MATLAB assignments will be given throughout the semester that will be graded. Suggested homework problems will also be given, but are not required for submission. **Matlabs will be submitted online through Gradescope.** Instructions on what to submit will be explained in the assignments.

It is your own responsibility to read over the sections covered in lecture to assure you fully comprehend the material. **(Suggested) Homework problems will be assigned for each section of the textbook that we cover, but it will not be collected or graded.** The homework problems will be posted on ELMS.

Gradescope

Matlabs will be submitted through Gradescope. There is a tab on ELMS that will take you to the website. You can use a scanner or phone app such as Camscanner. It is important to **mark your pages for each problem before submitting.** This allows a smoother process for grading. Moreover, everything must be uploaded by the the time of the due date. **If late assessments are submitted/emailed to me within an hour AFTER the deadline, at least 5 points will be deducted from your score. If it is beyond an hour, the assessment will NOT be accepted. If you do NOT mark your problem numbers by page on Gradescope, the assessment WILL NOT BE GRADED and you will receive a 0.**

Quizzes

There will be about 10 quizzes given in discussion throughout the semester. The **tentative dates** are the following : 2/1, 2/8, 2/15, 2/22, 3/7, 3/14, 3/28, 4/2 (TUESDAY), 4/18, 4/25. Your lowest two quiz scores will be dropped. This includes any absences (excused or not) from illness, interviews, athletics, etc.

Exams

There will be 3 in-class exams and a final exam. The following are **TENTATIVE DATES**:

<div align="center">

Exam 1: February 26, 2024 (MONDAY)

Exam 2: April 8, 2024 (MONDAY)

Exam 3: May 1, 2024 (WEDNESDAY)

Final exam: TBA

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The final exam will be comprehensive. **The tentative date of the final exam is Saturday May 11, from 1:30-3:30 PM.**

Calculators and electronic devices are prohibited on exams. You must show your work or you will NOT receive full credit.

Any regrade requests must be given BEFORE leaving the classroom the day you are handed back the exam. You must return the exam to your TA with the explanation. The entire exam will be reviewed, which may result in point deductions in other problems.

If there are any conflicts on exam dates, you must notify me at least a week in advance. Formal documentation must be provided for excused absences due to illness or emergencies.

Excused Absences

In the case of a missed assessment due to an excused absence at the time of the assessment, accommodation will be provided for the student, which will be agreed upon up to the discretion of the instructor and student.

Regrading Policy

ANY CLERICAL ERRORS/MISSING SCORES ON ELMS MUST BE REPORTED WITHIN A WEEK WHEN THE SCORES ARE POSTED ON ELMS.

Grade Distribution

Final Exam - 30%

Exam 1-3 - 45% (15% each)

Quizzes - 15%

MATLAB - 10%

Grades will be assigned as follows:

$$A+ : [97-100] \qquad C+ : [76-80)$$
$$A : [93-97] \qquad C : [73-76)$$
$$A- : [90-93) \qquad C- : [70-73)$$
$$B+ : [87-90) \qquad D : [62-70)$$
$$B : [83-87) \qquad F : [0,62)$$
$$B- : [80-83)$$

Academic Integrity and Accommodations:

A description of academic dishonesty can be found here: `https://studentconduct.umd.edu/home/current-students/academic-dishonesty`

The University has a national recognized Honor Code, administered by the Student Honor Council. The Student Honor Council proposed and the University Senate approved an Honor Pledge. It reads:

I pledge on my honor that I have not given or received any unauthorized assistance on this assignment/examination.

Unless you are specifically advised to the contrary, the Pledge statement should be handwritten and signed on the front cover of all papers, projects, and other academic assignments submitted for

evaluation in this course. Students who fail to write and sign the Pledge will be asked to confer with the instructor.

This pledge does not carry the connotation that students cannot be trusted. Rather, the Pledge reflects your public statement of support for academic excellence at UMD, including the highest standards for academic integrity.

Any forms of academic dishonesty, cheating, or illegal activities will be reported and necessary punishments will be administered, which include, but are not limited to suspension or expulsion from the university.

Students with Disabilities

Students with disabilities must register with the Accessibility and Disability Service (ADS) office. Appropriate documentation should be provided to me. The documentation includes an approved ADS form that describes the nature of the requested accommodations, and an individual approval form before every exam. Accommodations recommended by the ADS office for a given student should be discussed with the student.

Sections covered in *Linear Algebra and its Applications, 6th Edition*, by D. Lay, et al.

Chapter 1: 1.1 - 1.5, 1.7 - 1.9

Chapter 2: 2.1 - 2.3, 2.8

Chapter 3: 3.1 - 3.3

Chapter 4: 4.1 - 4.6

Chapter 5: 5.1 - 5.5

Chapter 6: 6.1 - 6.7

Chapter 7: 7.1, 7.4

Sections covered in *Linear Algebra and its Applications, FIFTH Edition*, by D. Lay, et al.

Chapter 1: 1.1 - 1.5, 1.7 - 1.9

Chapter 2: 2.1 - 2.3

Chapter 3: 3.1 - 3.3

Chapter 4: 4.1 - 4.7

Chapter 5: 5.1 - 5.5

Chapter 6: 6.1 - 6.7

Chapter 7: 7.1, 7.4