

Engineering Math III: Matrix Algebra 22M:033 Section 114

Prof. Dennis. Roseman Spring 2010

Office B1J MLH (335-0779)

**NOTE: “B1J” means my office is in the BASEMENT LEVEL
on the side of MacLean Hall nearest the Engineering building**

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- Text: Linear Algebra and Its Applications (3rd Edition) By: David C. Lay
- Class meets: 1:30 Tuesday and Thursday 109 EPB
- Office Hours:
Tuesday 12:30, Wednesday 1:30, Thursday 12:30 or appointment.
(Note: these are provisional times set before the beginning of the semester and are subject to change if there are schedule conflicts.)
- Class website: <http://www.math.uiowa.edu/~roseman/m33.html>
- **Disability** Please inform me if you have a disability which requires special arrangements.

OVERVIEW

This course is an abbreviated version of our regular 4-hour course in linear algebra. Emphasis is placed on matrices. Particular topics include operations on matrices, the use of matrix in solving systems of linear equations and evaluating determinants, eigenvalues and eigenvectors, the diagonalization of matrices and an introduction to subspaces of Euclidean space.

GRADING

- Letter grades (with plus and minus) are assigned on a system which is a combination of absolute scale and curve. In particular we have no pre-determined percent of A's, B's, etc. Final grades will be determined by a scale which is evenly tempered except for the top-most and bottom-most intervals.

In particular we have no predetermined percent of A's, B's, etc. So it is *possible* for all students to get a high grade in the course, if it is earned. In fact, my goal is to have as many students as possible achieve high grades.

A possible downside of this is that, if no students do well, there might be no high grades at all. However this has never happened.

- Homework 10%
- Test 1 25% Thursday, February 18
- Test 2 25% Thursday, April 1
- FINAL EXAM 40% 7:30 A. M. THURSDAY MAY 13

COMMENTS

- **FINAL EXAM 7:30 A. M. THURSDAY MAY 13**
- There will be additional important materials introduced in class which are not in the text. These will be considered as part of the course materials. This includes class notes.
- You are expected to regularly read your university email. From time to time I may be sending important messages to you.
- Homework assignments, syllabus, class notes and other important information is found Class Website: <http://www.math.uiowa.edu/~roseman/m33.html>
- You must take all tests including the final and hand in homework
- Homework will be collected on Thursdays at the *beginning* of class that day.
- All homeworks tests will be evaluated for the grade. That is, there are no "dropped" homeworks or tests.
- You are required to attend lecture, discussion, and regularly complete homework.

- The Mathematics Laboratory (Middle of Hall on 3rd floor MLH, 314 MLH) offers free help and is staffed with teaching assistants in mathematics. For more information, see web page at:

<http://www.uiowa.edu/mathlab>

- Some sort of computational help will be needed for your homework and to aid in understanding the calculations we do. So you will need at least a calculator. A computer which has mathematical software would be even better.

Yes, it is possible to do a lot of computation with a calculator and most of you have one of these. This will be adequate for this course but, if possible, it is far better get access to a computer with mathematical software for the simple reason that this is the direction of the future.

- **No (calculators or computers) are allowed on quizzes or other tests.** The reason is that the test is for you and not for your machine, or your skills at using your machine.
- On homeworks or on tests, you must show all necessary work clearly to get full credit. Correct answers that are not justified and clearly written generally receive no credit.
- Please put your name clearly on each homework and test and staple your homework pages.
- The Engineering Tutorial Program is an excellent source of help for this class to many students. Participation is optional
- The final will be comprehensive. There will be a naturally occurring emphasis on the final of the material in the course which is covered after the second midterm. We will make this clear going into the final.
- Complaints about Faculty:
In summary, first see me about any problems you might have with the course or my teaching. If this does not resolve the issue, contact Mathematics Chair Prof. Yi Li (phone: 335-0708).
- Student Academic Misconduct (cheating): Cheating will not be tolerated. Generally the punishment for any cheating is *at best* failure for the **entire course**.

Policies and Procedures

Administrative Home

The College of Liberal Arts and Sciences is the administrative home of this course and governs matters such as the add/drop deadlines, the second-grade-only option, and other related issues. Different colleges may have different policies. Questions may be addressed to 120 Schaeffer Hall or see the CLAS Academic Handbook. [www.clas.uiowa.edu/students/academic_handbook/index.html]

Electronic Communication

University policy specifies that students are responsible for all official correspondences sent to their standard University of Iowa e-mail address (@uiowa.edu). Students should check their account frequently. (Operations Manual, III.II.15. 2. k.11.)

Academic Fraud

Plagiarism and any other activities when students present work that is not their own are academic fraud and are considered by the College to be a very serious matter. Academic fraud is reported by the instructor to the departmental DEO who enforces the departmental consequences. The Associate Dean for Undergraduate Programs and Curriculum is also informed. The Associate Dean enforces collegiate consequences which may include suspension or expulsion. See the CLAS Academic Handbook.

Making a Suggestion or a Complaint

Students with a suggestion or complaint should first visit the instructor, then the course supervisor and the departmental DEO. Complaints must be made within six months of the incident. See the CLAS Academic Handbook.

Accommodations for Disabilities

A student seeking academic accommodations should register with Student Disability Services and meet privately with the course instructor to make particular arrangements. For more information, visit this site. [www.uiowa.edu/sds/]

Understanding Sexual Harassment

Sexual harassment subverts the mission of the University and threatens the well-being of students, faculty, and staff. All members of the UI community have a responsibility to uphold this mission and to contribute to a safe environment that enhances learning. Incidents of sexual harassment should be reported immediately. See the UI Comprehensive Guide on Sexual Harassment at www.uiowa.edu/eod/policies/sexual-harassment-guide/index.html for assistance, definitions, and the full University policy.

Reacting Safely to Severe Weather

In severe weather, the class members should seek shelter in the innermost part of the building, if possible at the lowest level, staying clear of windows and free-standing expanses. The class will continue if possible when the event is over. (Operations Manual, IV. 16.14. Scroll down to sections e and i for severe weather information.)