

Mathematics 322 Section 401
Matrix Algebra & Applications
Spring 2009

Syllabus

Instructor: Eric Kahn
Office: 718 Patterson Office Tower
Email: ekahn@ms.uky.edu
Office Phone: 257-6806
Website: <http://www.ms.uky.edu/~ekahn>

Text: Linear Algebra and Its Applications, 3rd ed., by: David C. Lay
Meeting Times: TR 6:00-7:15pm, CB341
Office Hours: T 3:00-3:50pm, R 3:00-4:50pm, or by appointment

Course Content: MA 322 is designed to prepare students for higher level mathematics that is commonly found in the hard sciences and engineering. Matrix algebra was developed in the attempt to solve simultaneous linear equations in multiple variables. We will cover methods concerning common matrix manipulation, dimension, Gaussian elimination, vector spaces, basis, linear transformations, determinants, Eigenvectors and Eigenvalues, diagonalization, inner products and orthogonality.

Reading Text: Students are expected to read the sections in the text as they are covered in class. Students should critically read the material both before and after it is covered in lecture. We will cover portions of the chapters of the text in the following order: 1, 2, 3, 5, 6, & 4. Specific sections to be covered will be posted on the website calendar prior to lecture.

Attendance: The only way to learn mathematics is practice. I highly encourage you to become actively involved in your class through the group work, class participation, homework, etc.

Homework: I will assign suggested homework problems on every section that will be posted on the class website by chapter. Let me stress again, the only way to learn mathematics is to practice mathematics. Thus I expect you complete most, if not all of the suggested problems in a notebook separate from the notebook you use to take notes in class. I also suggest doing unsuggested problems if you are having difficulty with specific topics. In addition to the organizational benefits to this another reason will be made apparent if you read the next paragraph.

Quizzes: There will be weekly quizzes on Thursdays. Quizzes will be no more than two questions to determine how much of the material you are absorbing. You will be allowed to use your homework on many of the quizzes. Make up quizzes will not be administered without a university excuse.

Exams: All exams will be closed book and closed notebook. Calculators will not be

permitted on any exams. Makeup exams will only be administered in the presence of a university excused absence. If you know you are going to miss an exam for a university excused absence, you must let me know a week in advance to schedule a makeup exam. The final exam will be comprehensive and must be taken at the designated time by the university. Cheating on any exam will result in an automatic zero on the exam.

Grading: Here are the dates of the exams and the percentage of your final grade each component is worth.

- Quizzes: Thursdays-20%
- Exam 1: 12 February-20%
- Exam 2: 12 March-20%
- Exam 3: 16 April-20%
- Final Exam: Comprehensive, 6:00pm, Tuesday 5 May-20% (2 hours)

Advice: You should remember that I am here not only as your instructor but also as your tutor. If you have questions about the material, the text, a lecture, grading, etc., I am available during office hours, email, or scheduled appointments. Please address questions and concerns to me as early as possible.