

Math 314: Matrix Theory

Fall 2007 Section 001 — University of Nebraska–Lincoln — Course Policies

INSTRUCTOR: Stephen Hartke

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COURSE WEBPAGE: www.math.unl.edu/~shartke2/math314

OFFICE HOURS: Mon, Wed 1pm-2pm, or by appointment.

MEETING TIMES: Mon, Wed, Fri 11:30am-12:20pm in Avery Hall Room 110

FINAL EXAM: Thurs, Dec 20 10:00am-12:00pm in Avery Hall Room 110

TEXT: *Linear Algebra: A Modern Introduction* by David Poole, Thomson Brooks/Cole, 2nd ed, 2006.

COURSE OVERVIEW:

This course introduces the fundamental concepts of linear algebra from the point of view of matrix manipulation with emphasis on concepts that are most important in applications. Topics include solving systems of linear equations, vector spaces, inner products, determinants, and eigenvalues. The course is designed to develop not only the students' computational ability, but also their ability to understand and manipulate abstract concepts through the use of proof.

COURSE REQUIREMENTS:

There will be three tests given during the normal class period; they are tentatively scheduled for Fri Oct 5, Fri Nov 2, and Fri Dec 7. Students are encouraged to do the suggested exercises after each lecture; these will not be collected or graded. There will be short quizzes given weekly on Friday (except when a test is given). The final exam will be cumulative over the entire semester. No makeup quizzes will be given; makeup tests will only be given in the case of extreme illness or other hardship. The decision to give makeups is at the discretion of the instructor.

There will be a project requiring the students to apply their knowledge and understanding to some application. The project will require the use of a technology aid for computing with matrices (use of Maple, Matlab, Octave, or similar program) and a written report.

The different components contribute to the final grade as follows: quizzes (lowest two scores dropped): 20%; three tests: 45%; final exam: 20%; project: 15%

RESOURCES:

Announcements will be made in class and posted on the course webpage. Some announcements may also be sent to the student email address listed on WAM. The course webpage will also have handouts and a log of the topics covered each day.

You will be provided with a computer account in the Mathlab (Avery Hall 18) that has computers with Maple and Matlab installed. To log on, you will need a UNL Active Directory account. More information about Mathlab will be distributed in class.

STUDENTS WITH DISABILITIES:

Students with disabilities are encouraged to contact the instructor for a confidential discussion of their individual needs for academic accommodation. It is the policy of the University of Nebraska–Lincoln to provide flexible and individualized accommodation to students with documented disabilities that may affect their ability to fully participate in course activities or to meet course requirements. To receive accommodation services, students must be registered with the Services for Students with Disabilities (SSD) office, 132 Canfield Administration, 472-3787 voice or TTY.