

MAT 234-001
Fall 2009
Linear Algebra (3 credits)

INSTRUCTOR: Chris Christensen

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OFFICE HOURS: M 10:00 – 10:50, T 9:00 – 9:50, W 10:00 – 10:50, R 9:00 – 9:50, F 1:00 – 1:50,
by appointment, and by capture.

CLASS TIME: MW 4:50 – 6:05, ST 247.

PREREQUISITE: A grade of C or better in MAT 229 or MAT 228.

TEXT: *Linear Algebra and its Applications, Third Edition (Or Third Updated Edition)*
by Lay.

CALCULATOR: **A Texas Instruments TI-92 or TI-89 or an equivalent calculator is required
for this course.**

TOPICS: We will cover most of the material in chapters 1, 2, 3, 4, 5, 6, and 7.

GRADING:	Two tests worth 150 points each	300
	M, September 28	
	M, October 26	
	Comprehensive final exam	200
	M, December 14, 4:30 – 6:30	
	Homework percentage	<u>100</u>
		600

Work missed during excused absences may be made up without penalty.

Beginning with Fall 2009, NKU will implement +/- grades. A tentative grading scale is: 92 - 100 is an A, 90 - 91 is an A-, 88 - 89 is a B+, 82 - 87 is a B, 80 - 81 is a B-, 78 - 79 is a C+, 72 - 77 is a C, 70 - 71 is a C-, 68 - 69 is a D+, 60 - 67 is a D, and below 60 is an F.

ATTENDANCE: You are responsible for all material assigned or covered in class. Attendance will not be taken.

WITHDRAWAL: The deadline for withdrawing from this course with a grade of W is Monday, November 2. Withdrawal after that date is not likely to be permitted.

Mid-Term grades for freshmen will be entered October 12 - 26.

The instructor reserves the right to alter the syllabus if circumstances dictate.

The work you will do in this course is subject to the Student Honor Code. The Honor Code is a commitment to the highest degree of ethical integrity in academic conduct, a commitment that, individually and collectively, the students of Northern Kentucky University will not lie, cheat, or plagiarize to gain an academic advantage over fellow students or avoid academic requirements.

Course learning objectives:

Prerequisite

The student will know the mathematics needed to have a reasonable expectation of success in courses for which linear algebra is a prerequisite.

Breadth

The student will develop understanding of Gaussian elimination, the concepts of linear independence and dependence, vector spaces and bases for vector spaces, subspaces, linear transformations and their inverses, determinants, and eigenvalues and eigenvectors,

Communication

The student will learn the language of linear algebra and be able to write clear explanations of the techniques of linear algebra including the proper use of standard mathematical notation.

Connections/applicability

The student will learn ideas and techniques that are applicable to other courses in mathematics, statistics, science, and engineering.

Mathematical thinking

The student will be able to recognize when the ideas and techniques of linear algebra are applicable in other courses and disciplines.

Technology

The student will be able to use a CAS to do calculations to assist in solving linear algebra problems.

Attainment of course learning objectives will be measured by three tests, a comprehensive final exam, and homework.

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