Los Angeles Valley College
Math 270

The human mind has never invented a labor-saving machine equal to algebra.
~Author Unknown

1. Class Information

Semester: Fall 2010
Section #: 1438
Class Time: MW 8:00-9:25
Classroom: MS 105
Website: lavcmath.com/shin
Instructor: Prof. Luz V. Shin
Office: MS 104F
Phone #: 818-947-2393
Student Drop-in Hours: MTWTh 12:30-2 pm
Email: shinlv@lavc.edu
Textbook: Elementary Linear Algebra, 9th Edition, Bernard Kolman and David Hill

2. Course Information

Title: Linear Algebra

Description: Matrix and determinant theory and applications to linear systems; vector and inner product spaces; linear transformations; eigenvalue-eigenvector theory; and diagonalization.

Prerequisites: A grade of C or better in Math 266.

Course Objectives: Upon completion of this course, the students will:

- Prove theorems on matrix algebra and perform algebraic operations on matrices, including row reduction, transpose and inverse.
- Solve linear systems and matrix equations.
- Prove theorems on determinant theory and compute determinants.
- Prove vector space theorems.
- Prove theorems on and compute inner products, cross products, magnitude and angle measure.
- Prove theorems on and apply them to orthogonalization of a basis using the Gram-Schmidt process
- Prove theorems on linear transformations and use a matrix to represent a linear transformation.

Course Student Learning Outcomes: Upon completion of this course, the student will:

- Prove mathematical statements based on linear algebra concepts.
- Apply linear algebra techniques on various vector spaces.

3. **Course Requirements**

School Supplies: The student is expected to have the following for the semester:

- Textbook
- Notebook (3-ring binder or file folder) for notes and homework
- Pens, pencils and erasers
- Four Testing booklets (greenbooks/bluebooks) for exams

Homework and Group Work: Refer to the assignment sheet provided for the semester. Homework is assigned every class meeting and questions discussed the next meeting. Assignment for each section consists of odd and even numbered exercises involving computations, problem solving and proofs. Homework is due the next Monday class meeting after it was assigned. No late homework will be accepted at any circumstance. Group work will be given from time to time. Homework and Group Work will combine for a total of 100 points. Mathematics is not a spectator sport, so you have to do the work!

Long Exams: There will be three Long Exams; each will be out of 100 points. Each exam is free response and covers one to three chapters. Students are not allowed to use notes during exams, but calculators are permitted. The tentative testing schedule is given in the timeline.

Final Exam: Finals is a two-hour comprehensive exam and is given a maximum of 200 points.

4. **Class Policy**

Attendance: REGULAR ATTENDANCE is very much encouraged! School policy on attendance is enforced. The instructor may exclude students who have excessive absences. There will be sign-in sheets that will be passed around each meeting. It is the student's responsibility to make sure that he/she signs in for his/her attendance.

Withdrawals: If you stop attending the class (or wish to drop a class), **you must drop the class yourself – officially** – by phone, Internet or through the Office of Admissions and Records. Failure to do so may result in a grade of "F" in the class. Please take note of important dates noted in the timeline.

DSPS Students: To make arrangements for special accommodations that have been recommended by DSPS for students with disabilities, please contact the instructor.

Cell Phones and Text Messaging: Please turn off or silent (not vibrate) all phones before coming to class. No text messaging, no MP3's, no ipods, no ipads, no computers, and no hand-held video games while class is in session. Class time is for learning mathematics, not for personal communication or entertainment.

Cheating: Any form of academic dishonesty will not be tolerated. If caught, you may be given a zero for that particular exam.

Student Conduct: Students are expected to adhere to all district policies as described in the LAVC Fall 2010 Schedule of Classes including attendance (p. 139) and withdrawal from classes (p.145), and Standards of Student Conduct (p. 143-145).

5. **Grading System**

Evaluation: The total points earned will be computed out of a grand total of 600 points. No make-up exam will be given at any circumstance! If you miss an exam, a grade will be assigned from your final exam performance on the missed exam's coverage.

- HW/GW 100 points
- Long Exams 300 points
- Final Exam 200 points

Grading Curve:

A	90 – 100	540 – 600 points
B	80 – 89	480 – 539 points
C	70 – 79	420 – 479 points
D	55 – 69	330 – 419 points
F	below 55	below 330 points

6. **Tips for Success in this class**
   - Choose to attend all class periods on time and don't leave early.
   - Pay attention in class, participate in class discussions, and ask questions. The instructor regularly gives away tips for exams, so make sure you take note of them.
   - Do or attempt all homework not for the sake of just doing it, but trying to understand the concepts, learning them in the process. "Practice makes perfect" applies not only to music and sports, but also in mathematics. Be sure to schedule sufficient time to complete your assigned tasks before the next class period.
   - Know how to get help if you need it.
     - Attend scheduled review sessions.
     - Consult instructor during posted student drop-in hours.
     - Drop by the Math Lab (MS 106) for tutoring services.
   - Organize your class materials, including homework assignments, graded tests, notes and worked out review problems. These items will make valuable references when studying for upcoming tests and the final exam.

"Mathematics is not a deductive science – that's a cliché. When you try to prove a theorem, you don't just list the hypotheses, and then start to reason. What you do is trial and error, experimentation, guesswork." -- Paul Halmos