

MATH 317 Introductory Linear Algebra (Fall 2007)

4 Credits, Carver 0290, MTRF 10.00-10.50 A.M.

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Office Hours: MT 11.00-12.00 noon, RF 2.00-3.00 PM

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Textbook: S. Andrilli and D. Hecker , *Elementary Linear Algebra*, Elsevier Academic Press.

Syllabus:

- **Part 1** Introduction to vectors and matrices. Solution of systems of linear equations. Chapters 1 and 2.
- **Part 2** Eigenvalues, eigenvectors, determinants and inverse of matrices. Finite Dimensional Vector Spaces. Chapters 3 and 4.
- **Part 3** Linear transformations. Orthogonality. Complex Vector Spaces. Chapters 5, 6 and 7.

HOMEWORK Homework will be assigned every 7-10 days. It consists of the proof of two theorems and some exercises. You are invited to visit periodically the web site of the course to download the assignment. You are allowed to do the homework in teams of 2 students. You are requested to type the proofs of the theorem in *Word* or *LateX* or some other Editor. Corrections to the Homework will be given in class. Some of you will be asked to illustrate the solutions at the board.

TESTS Three one hour in class tests will be given at the end of each part of the course (see above). In each test you will be asked to rewrite one of the proofs given as homework and to solve some exercises. The material only covers one part of the course.

FINAL As scheduled. It will consist of short questions concerning definitions and basic concepts of the course.

Make up Test policy If you are not able to be in class for a test for a personal or health problem you need to contact the instructor before the test and justify your absence. At the end of the course I will schedule a session for you to make up for the test(s) that you missed.

GRADE 30 % Homework, 43 % Tests, 19 % Final, 8 % in class attendance and participation. Lowest homework score will be dropped.