

## MATH 317 (Theory of Linear Algebra) Syllabus Fall 2005; Section A

**Location and Time :** CARVER 002, MTRF 10

**Instructor:** Domenico D'Alessandro

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<http://www.public.iastate.edu/~daless/> (Web page where to find communications for the course and/or course material)

Office Hours: MT 1.30-2.30 PM, RF 11-12 (noon) AM (in Carver 440).

**Textbook:** Stephen Andrilli and David Hecker, *Elementary Linear Algebra*, Elsevier Academic Press, Third Edition.

### Course Content:

- PART I: Vectors, Matrices and Systems of Linear Equations, Chapter 1 and Sections 2.1, 2.2.
- PART II: Matrix inverse, determinants and eigenvalues, Sections 2.3, 2.4 and Chapter 3.
- PART III: Finite Dimensional Vector Spaces, Chapter 4.
- PART IV: Linear Transformations, Orthogonality and Inner Product Spaces, Chapters 5 and 6 and Section 7.5.

**Hour Exams** There will be four one hour exams, in class, during regular hours. Each exam will cover one of the of the four parts of the course except the fourth exam which will be on *most* but not all of PART IV.

**Homework:** Assigned roughly every week. A typical homework assignment consists of 1) A suggested reading highlighting the parts of the book that have been covered in class (and the parts that can be skipped) 2) Some suggested problems for which the answers can be found in the book. 3) Problems for which the solution is not in the book. These problems will have to be handed in on the due date and will be graded. The solutions will be discussed in class.

**Final Exam:** As scheduled. Final Exam will not be cumulative but will consists of selected topics (roughly half of the course) which will be announced about two weeks before the end of the course. These will include the last part of the course.

**Grade:** 30/100 HWK, 50/100 Hour exams, 20/100 Final, (Lowest Hour Exam score and Lowest Two Homework scores will be dropped), Calculators are allowed during tests and Final exam. Late Homework will not be accepted. No Make up exams. Special arrangements can be considered only for the final exam. Please contact the instructor in due time.