

BLOCK: D+, TTh 10:30-11:45 A.M.
INSTRUCTOR: Chuck Hague
EMAIL: chuck.hague@tufts.edu
OFFICE: Bromfield-Pearson 109
OFFICE HOURS: (Fall 2008) MWTh 2:00 - 3:00 P.M.
PHONE: 7-2355

BLOCK: E+MW, MW 10:30-11:45 A.M.
INSTRUCTOR: Fulton B. Gonzalez
EMAIL: fulton.gonzalez@tufts.edu
OFFICE: Bromfield-Pearson 203
OFFICE HOURS: (Fall 2008) On leave - by appointment
PHONE: 7-2368
PREREQUISITES: Math 12 or 17, or consent.

TEXT: David Lay, *Linear Algebra and Its Applications*, 3rd edition, Addison-Wesley, 2003

COURSE DESCRIPTION:

The starting point of Math 46 is the study of systems of linear equations. This study quickly leads to more abstract mathematical concepts — vector spaces, dimension (you will learn about four-, five-, and even infinite-dimensional spaces in Math 46), linear transformations, eigenvalues and eigenvectors, similarity and change of basis, and so on. These concepts prove central in gaining a clear understanding of systems of linear equations, and also lead to interesting generalizations.

Strong emphasis will be placed on learning how to read and write rigorous mathematical arguments and proofs. Mathematics majors and minors are required to take Math 46, and are urged to take it as early as possible, as it is a prerequisite for most upper-level mathematics courses. However, the course is also intended and useful for majors of the natural and social science and engineering departments.