

MATH 225.01

Linear Algebra and Differential Equations

Summer 2010-11

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Course web page : <http://www.fen.bilkent.edu.tr/~mugan/courses/math225/math225-Generic.htm>

Text Books : **Main Textbook:**
 C.H. Edwards & D.E.Penney,
Differential Equations and Linear Algebra, The Latest Edition
 (Prentice Hall, 2005)
Supplementary Textbooks:
 W.E. Boyce & R.C.DiPrima
Elementary Differential Equations and Boundary Value Problems, (Wiley 1992)
 B.Kolman & D.R.Hill
Elementary Linear Algebra, (Prentice Hall, 2001)

Exams : **Quizes (10 %)** **NO MAKE-UP FOR QUIZES**
MatLab Homeworks (10 %)
Midterm Exam # 1 (25 %) : **June 23, 2011, Thursday, 18:00-20:00**
Midterm Exam # 2 (25 %) : **July 11, 2011, Monday, 18:00-20:00**
Final Exam (30 %) : **To be announced**

75 % ATTENDANCE IS OBLIGATORY

Week	Subject	Exams
1. June 6	Introduction to Diff. Eq's, First order Diff. Eq's., Integrating factor, Exact type Diff. Eq's	
2. June 13	System of Linear equations, Matrices Echelon matrices, Matrix Operations	
3. June 20	Inverse of matrices, Determinants Vectors and vector spaces	Midterm Ex.1
4. June 27	Vector spaces, and subspaces, Linear combinations Linearly independence, basis, dim.	
5. July 4	Orthogonal vectors, General vector spaces,	
6. July 11	Eigenvalue and eigenvectors	Midterm Ex.2
7. July 18	Second and higher order linear differential equations	