MATH 220-03 – LINEAR ALGEBRA

Semester: Fall 2013

Instructor: Alex Degtyarev   **e-mail:** degt@fen.bilkent.edu.tr

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Exams & Grading: 2 Midterms
- **1ˢᵗ Midterm** (%30)   Oct 26, 2013
- **2ⁿᵈ Midterm** (%30)   Dec 14, 2013

Final exam (%30)
- **Final Exam**   Finals week

Homework (%10) 5 Homeworks %2 each

Failure to collect 15 points out of 68 possible from the
two midterms and four homeworks results in FZ

Course Schedule: Monday   15:40–16:30 pm   Room FC-Z23C

     Thursday   13:40–15:30 pm   Room FC-Z23C

Office Hours: Monday   14:40–15:30 pm

     Wednesday 10:30–11:20 am

Textbook: Bernard Kolman, David R. Hill *Elementary Linear Algebra*, 9th Edition, (Prentice-Hall, New Jersey, 2008)

<u>Tentative</u> course schedule

Week	Subject	MT
#1	Systems of linear equations. Matrices (1.1–1.5)	
#2	Echelon form of a matrix. Nonsingular matrices (2.1–2.3)	
#3	Elementary matrices. LU-factorization (2.3–2.5)	
#4	Determinants (3.1–3.5)	
#5	Iyi bayramlar	
#6	Vector spaces. Subspaces **Midterm I** (4.1–4.4)	#1
#7	Linear independence. Basis and dimension (4.5–4.6)	
#8	Coordinates. Homogeneous systems (4.7–4.8)	
#9	Rank of a matrix (4.9)	
#10	Standard inner product (5.1–5.2)	
#11	Inner Product spaces. (5.3)	
#12	Gram-Schmidt process (5.4)	
#13	Orthogonal complements (5.5). Linear transformations (6.1) **Midterm II**	#2
#14	Kernel and range; matrix (6.2–6.3). Similarity (6.5)	
#15	Diagonalization. Eigenvalues and eigenvectors (7.1–7.2)	
#16	Diagonalization (continued; 7.3).	