COURSE INFORMATION
Math 325  Linear Algebra  Spring 2004

Instructors: Joseph Gubeladze
Lecture: MWF 9:10-10:00, Room: TH 326  Phone: (415) 338 77 22
Office: Thornton Hall 941  e-mail: soso@math.sfsu.edu

Office Hours: MW: 12:30-2:45 pm, occasionally there may be no office hours on Mondays.
Prerequisite: Math 227, letter grade C or better.
Grading: (i) Homework (assigned each week on Friday) – 30%, (ii) Two midterms: – 20% each, (iii) Final – 30%.
Attendance and punctuality: This will give you extra 3% which may be helpful for the final letter grade.

In Calculus II you already saw linear equations with several variables and systems of such equations. In practice you only encountered the case of two or three variables and systems with the same number of equations. What happens when the number of variables and equations becomes very large? How can one handle huge systems of linear equations? Nowadays such problems are of vital importance in engineering, business, informatics, let alone natural sciences. In the course Linear Algebra you will learn basics of the theory behind various methods of solving systems of linear equations. This is a theory of higher dimensional analogues of lines and planes in the space and linear transformations between them. This course also serves as a natural background for further studies (upper level courses, offered by our mathematics department) in essentially all disciplines of pure mathematics.

Course Description: Until the first exam the first two chapters of the textbook will be covered: Linear Equations and Linear Transformations. Then for the second exam we will go through Chapters Three and Five: Subspaces of \( \mathbb{R}^n \) and their dimension and Orthogonality and least squares (omitting Chapter Four: Linear Spaces). Before the final exam we will concentrate on Chapter Seven (Eigenvalues and Eigenvectors), only going briefly over Chapter Six (Determinants) to the extent needed for Chapter Seven.

Homework: You will be assigned homework problems every week on Fridays which will be due at the start of the lecture on the following Friday. At the end of the semester the homework with the lowest grade will be dropped and will not be considered for your letter grade.

Policy:
- Your must be punctual, not disturbing the class by late coming, and cell phones must be switched off during the classes,
• All homework writeups must be done individually, though you may discuss the homework problems with your classmates and with me,
• No late homeworks will be accepted and there will be no exception to this rule,
• If a schedule conflict does not allow you to come to my office hours you should send me e-mail and make an appointment,
• All up-to-date information (including the homework assignment) will be posted on the course web page:
  http://math.sfsu.edu/gubeladze/spring2004/linear.html