

MATH 1502 B6
Calculus II
TR 8:05-9:25, Skiles 240. Spring, 2006

Instructor : Saugata Basu

Office: 116, Skiles

Office Phone: 894 2416

Email: saugata@math.gatech.edu

Office hours: Wednesdays 11-12 AM or by appointment.

- Textbooks:

1. Calculus (Ninth Edition), Sallas, Hille and Etgen (henceforth, shortened to SHE).
2. Linear Algebra from the Beginning by Carlen and Carvalho (henceforth, shortened to C2).

- Syllabus:

1. Taylor Polynomials and Taylor Approximation, 11.5-11.6 in SHE (3 lectures)
2. L'Hospital's Rule and Improper Integrals, 10.5-10.7 in SHE (3 lectures)
3. Infinite Series, 11.1-11.4 in SHE (3 lectures)
4. Power Series, 11.7-11.8 in SHE (3 lectures)
5. Numerical Integration and ODE's, 8.7-8.9 in SHE (3 lectures)
6. Introduction to Vectors and Matrices, 1.1-1.6 in C2 (6 lectures)
7. Systems of Linear Equations & Row Reduction, 2.1-2.6 in C2 (6 lectures)
8. Kernel, Image, Subspaces, & Least Squares, 3.1-3.4 in C2 (4 lectures)
9. Orthogonal Projections, Gramm-Schmidt, QR Factorization, 3.5-3.7 in C2 (3 lectures)
10. Determinants & Cross Product 4.1-4.3 in C2 (3 lectures)

11. Eigenvalues, Eigenvectors & Diagonalization with Applications,
5.1-5.5 in C2 (6 lectures)

- Assignments: There will be weekly assignments which will be graded.
- Exams: There will be two mid-terms and a final exam.
- Grading: The weight distribution will be as follows.
 - Homework: 20%
 - Mid-term I: 25%
 - Mid-term II: 25%
 - Final Exam: 30%