Mathematics 4305
Fall Semester 2000
A. D. Andrew

21 August 2000

1. General Information. This information sheet, as well as assignments and other course information, is posted at www.math.gatech.edu/~andrew.

This course meets at 1:05 on Mondays, Wednesdays, and Fridays.
My office is 164 Skiles and my office phone is 404-894-2719. My e-mail address is andrew@ math.gatech.edu. Office hours are Monday and Wednesday 2:30-3:30 and Friday 10:0011:00, or by appointment. If you have questions, by all means come and ask. If your questions concern a computer project, please bring a disk with your work.
2. Text and Material. The text for this course is Linear Algebra and its Applications, third edition, by Gilbert Strang. We will cover pretty much the entire text, and additional material on the Perron-Frobenius theory of matrices with positive entries.
3. Homework and Tests. Homework will be assigned, and will be due each Wednesday. A subset of each assignment will be graded. I strongly urge you to do all of the assigned problems. You may use computers and calculators on homework, but be sure to explain your work. There will be three hour tests and a final exam. Tentative dates for hour tests are

| Hour Test 1 | 25 September |
| :--- | :--- |
| Hour Test 2 | 30 October |
| Hour Test 3 | 27 November |

I try to discourage make-up exams, but please let me know beforehand if you must miss a test for a valid reason. Please let me know of any conflicts immediately.
4. Computer Project. There will also be a computer project for this course. The project will be due Friday 17 November, but there is no reason not to start right away. You should do the project in teams of three to four students, using appropriate software (such as Mathematica, Maple, or Matlab.) Using tools of linear algebra developed in this course, you are to address and solve a problem of interest and importance to your major. You should turn in a neat, clearly written report. Pay particular attention to making it understandable. You must notify me of the members of your team and have your topic approved no later than Friday 20 October.
5. Grading. The hour tests, computer assignment, and final examination will be counted with the following weights.

| Hour Tests | $45 \%$ |
| :--- | :--- |
| Homework | $10 \%$ |
| Computer Assignment | $10 \%$ |
| Final Examination | $35 \%$ |

Letter grades will be based on the overall average at the end of the quarter, according to the scheme

| $90 \leq \mathrm{x}$ | A |
| ---: | :--- |
| $80 \leq \mathrm{x}$ | at least B |
| $70 \leq \mathrm{x}$ | at least C |
| $60 \leq \mathrm{x}$ | at least D |
| $\mathrm{x}<50$ | F |

That is, I may "curve up" from the $90,80,70,60$ cut-offs, but scores below 50 will not be curved up to pass.

