Notes on Exam 1, Math 544, Summer 2006

1. Exam 1 is Wednesday June 7 and it covers sections 1, 2, 3, 5, 6, 7, and 9 of Chapter 1.

2. Be able to define "linearly independent" and "non-singular".

3. Be able to state and use the result about the linear dependence of p vectors in m-space. (I call this the Short Fat Theorem).

4. Be able to state and use the Non-singular Matrix Theorem. This result NOW consists of FOUR equivalent statements. We proved the equivalence of three statements in section 1.7. We proved that a fourth statement is equivalent to the first three in section 1.9.

5. The material on the old exams which is covered on your exam 1:
   (a) Exam 1's:
   97: all.
   98: all.
   01: 1, 2, 3, 4, 5, 6, 7.
   02: 1, 2, 3, 4, 6, 7, 10.
   spring 03: 1, 2, 3, 5, 6, 7, 8, 9, 10.
   summer 03: 1, 2, 3, 4, 5, 6, 7, 8, 9.
   04: 1, 2, 3, 4, 5.
   summer 05: all.
   fall 05: 1, 2, 3, 4, 5, 6.
   (b) Exam 2's:
   97: 1, 2.
   98: 1, 2, 4, 5, 6, 9, 10.
   01: 2, 7, 8, 9, 10.
   02: 1, 7.
   spring 03: 1, 2, 3, 4a, 4b, 4c, 6.
   summer 03: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10.
   04: 1, 2, 3, 4, 5, 6, 7, 8.
   summer 05: 1, 2, 4, 5, 6, 7.
   fall 05: 1, 7, 8.

(c) Exam 3's:
98: 1, 6, 7.
01: 4, 5, 10.
02: 6.
summer 03: 1.

(d) Final Exams:
97: 1 (You can only list three statements so far), 9 (The matrices A and b are given before problem 6.), 14, 15, 16.
98: 1 (You can only list three statements so far), 4, 5, 6.
01: 1 (You can only list three statements so far), 4, 9b, 9e, 10e, 10f.
02: 1 (You can only list three statements so far), 3, 8 (Solve $Ax = b$ and then stop.), 15.
spring 03: 11, 16, 17, 19.
summer 03: 11, 16, 17abc.
04: 1abc, 4.
summer 05: 1ab.
fall 05: 1ab, 6, 7 (You can only list three statements so far), 16.