Information for Midterm 2

1- The test will be held on Monday, 05/16 from 8:00 -8:50 pm. Please go to the following room:

If your last name starts with letter A-R: CENTR 101

If your last name starts with letter S-Z: CENTR 109

2- You must bring a Blue Book to the exam. Blue books can be purchased at a variety of locations around campus, including the bookstore.

3- Please bring your UCSD student ID to the exam and expect it will be checked.

4- You may bring one 8.5”*11” sheet of handwritten notes (written on both sides) to the exam. This “cheat sheet” may contain anything you deem useful, with the exception of solved problems or examples. You must turn in your cheat sheet with your blue book.

5- No calculators (or other electronic devices)!!

6- You must know your discussion section ID:

Jacob Robins

- A01, Th 12:00 - 12:50 pm, WLH 2115
- A02, Th 1:00 - 1:50 pm, WLH 2115
- A05, Th 4:00 - 4:50 pm, WLH 2115
- A06, Th 5:00 - 5:50 pm, WLH 2115

Samuel Verhaegen

- A03, Th 2:00 - 2:50 pm, WLH 2115
- A04, Th 3:00 - 3:50 pm, WLH 2115

Yingjia Fu

- A07, Th 8:00 - 8:50 pm, APM 5402
- A08, Th 9:00 - 9:50 pm, APM 5402
If you attend a different section from the one in which you are enrolled, specify which is which on your blue book. For example you may write “I am enrolled in A03 but I attend A06”.

Topics

The exam covers lectures 11-23. Please remember that “you are responsible for material presented in the lecture whether or not it is discussed in the textbook. You should expect questions on the exams that will test your understanding of concepts discussed in the lectures.”

In particular, make sure you are familiar with the following topics:

1- The domain, codomain, and range of a linear transformation (Lecture 12)
2- The standard matrix for a linear transformation. (Lecture 13)
3- Determining whether a linear transformation is one-to-one and onto. (Lecture 14)
4- Matrix Multiplication and its properties. (Lectures 15 and 16)
5- The inverse of a matrix: its properties and how to calculate it. (Lectures 17 and 18)
6- The invertible matrix theorem. (Lectures 19 and 20)
7- Subspaces: know the definition. Know how to check whether a subset $H$ of a vector space $V$ is a *subspace* of $V$. (Lectures 21 and 22)
8- Spanning set, Basis (Lectures 21 and 22)
9- The null space and column space of a matrix: know what they are; and, given a matrix $A$, know how to find a basis for Nul $A$ and Col $A$. (Lectures 22 and 23)

Note that the newer material builds on the concepts we learned earlier in the quarter. You will be expected to understand the material we covered earlier in the class (e.g. row reduction) in addition to the above topics.
Every effort is made to make the exam questions clear, correct, and straightforward. However, minor errors are sometimes detected during the exam. Should this occur, the appropriate correction will be written on the board.