Information for Midterm 1

1- The test will be held on Monday, 04/18 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
- A03, Th 2:00 - 2:50 pm, WLH 2115
- A04, Th 3:00 - 3:50 pm, WLH 2115

Samuel Verhaegen
- A05, Th 4:00 - 4:50 pm, WLH 2115
- A06, Th 5:00 - 5:50 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 1-10. 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- What is linear algebra about? (Lecture 1)

2- Linear equations, Linear systems, Consistent linear systems, The three fundamental questions (Lecture 1)

3- Equivalent linear systems, Legitimate operations, Augmented matrix (Lecture 2)

4- Elementary row operations, Echelon form, Reduced echelon form (Lecture 3)

5- Identifying pivot positions and pivot columns, Identifying basic variables and free variables, Row reduction algorithm (Lecture 4)

6- How to answer the three fundamental questions (Lecture 5)

7- Vectors in R^n, The concepts of linear combination and span, Geometric description of a set spanned by only one vector (or only two vectors) in R^3 (Lectures 5 and 6)

8- Vector equation, Product of a matrix and a vector, Matrix equation, The question of existence in 3 languages (Lecture 7)

9- How to determine whether the span of a given set of vectors in R^m is equal to R^m, Geometric description of vector addition (Lecture 8)
10- Homogeneous systems, Nonhomogeneous systems, Writing the solution in parametric vector form (Lectures 9 and 10)

11- The concepts of linear dependence and linear independence (Lecture 10)

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.