Information for Midterm 1

1- The test will be held during the class time on Monday, 04/21. Please go to the following room at our usual lecture time on Monday:

If your last name starts with letter A-O: SOLIS 107

If your last name starts with letter P-Z: WLH 2005 (Warren Lecture Hall)

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.

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

6- You must know your discussion section ID:

Sebastian Ahmed-Garay

- A01, Tu 2:00p - 2:50p, CENTR 217A
- A02, Tu 3:00p - 3:50p, CENTR 217A

Samuel Lind

- A03, Tu 7:00p - 7:50p, APM 2301
- A04, Tu 8:00p - 8:50p, APM 2301

Daniel Smith

- A05, Tu 6:00p - 6:50p, WLH 2208
- A06, Tu 7:00p - 7:50p, WLH 2208
- A07, Tu 12:00p - 12:50p, WLH 2206
- A08, Tu 1:00p - 1:50p, WLH 2206
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 A07”.

**Topics**

The exam covers sections 1.1-1.5, 1.7-1.9.

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

1- Elementary row operations, Echelon form, Reduced echelon form, Row reduction algorithm.

2- Identifying pivot positions and pivot columns.

3- Identifying basic variables and free variables.

4- Determining whether a system is consistent or inconsistent.

5- Determining whether a linear system has one, zero, or infinitely many solutions.

6- Determining the general solution of a linear system and writing the solution in parametric vector form.

7- The concepts of linear combination, span, linear dependence and linear independence.

8- Geometric description of a set spanned by only one vector (or only two vectors) in $\mathbb{R}^3$.

9- Determining whether a given set of vectors is linearly independent or linearly dependent.

10- The domain, codomain and range of a linear transformation.

11- Determining whether a linear transformation is one-to-one and onto.

12- The standard matrix for a linear transformation.
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.