ECE 174 Homework # 3 — Due Tuesday 5/5/09

Readings From Chapter 5

§5.1. §5.3. §5.4 (ignore Example 5.4.3). §5.9. §5.11 (through page 406 inclusive). §5.13.

Remember, the Solutions Manual is provided with the text. Furthermore, Errata and the Solutions Manual for the textbook are available at the website located at,


First Computer Assignment Due Date

The first computer assignment (with written report) is due Thursday 5/7/09.

Homework

1. Prof. Vasconcelos asked his students the following question in ECE175: Consider the matrix

\[
\begin{bmatrix}
1 & 1 & 0 \\
0 & 2 & 0
\end{bmatrix}.
\]

i) What is the column space of the matrix? ii) What is its row space? iii) What is its nullspace? iv) What is its rank? v) What is the dimension of its column space? You are to also answer these questions. (This is a nice question to place on an exam because you should be able to answer this question immediately from visual inspection of the matrix.)

2. 5.1.8, 5.1.9, 5.1.10.

3. 5.3.2.

4. 5.4.14.

5. 5.9.5.

6. 5.11.5.

7. 5.13.3.