ECE 174 Homework # 2 – Due Tuesday 10/23/2012

Reading

Read Sections 4.1-4.5. Particularly ponder the “Summary of Rank” chart on page 218. You can ignore examples 4.3.6, 4.4.6, 4.4.7, 4.5.2, and 4.5.3. (Later, but not now, we will read 4.6. The remaining sections of Chapter 4 will not be covered.) Remember, the Solutions Manual is provided with the text. Furthermore, the textbook, Errata and the Solutions Manual are available at the website

http://matrixanalysis.com/DownloadChapters.html

Time Management and First Computer Assignment

Homework 2 is due in two weeks, on Tuesday, October 23, 2012, in order to provide extra time to do the reading, homework, and perform the (partial) computer assignment tasks requested in problem 6 below. You should start the assignments immediately to ensure that you do not run out of time prior to the due-date.

The fully completed First Computer Assignment plus written report will be due Tuesday, November 6, 2012.

Homework

1. 4.1.1, 4.1.2, 4.1.8. Also prove that $\mathcal{X} + \mathcal{Y}$ is a vector subspace of $\mathcal{V}$ if $\mathcal{X}$ and $\mathcal{Y}$ are vector subspaces of $\mathcal{V}$.

2. 4.2.1, 4.2.2.

3. 4.3.1, 4.3.2.

4. 4.4.1, 4.4.2.

5. 4.5.1, 4.5.6.

6. Turn in Matlab code showing that you have performed Steps 1-5 of the first computer assignment.