EE 354: Modern Communication Systems
Lab Policies for Spring 2009

Lab Policies –

Computers:

The computers in the classroom are for official use only!
Do not change their setting or configuration without permission.
Do not install a program on a class computer without permission.

Utilization of Napster or any "napster-like" program on a USNA computer is not allowed. You may, however, play MP3 files or other music file formats on a computer in the class if you do so in a legal manner (i.e. you must own the original media or the file is not copyrighted).

You should bring a USB flash drive to all lab periods, including all programs you've written in this class. **Backup** your work and do not assume that files stored on a computer's hard drive will not be erased or corrupted by others. **Additionally, the hard drives within the computers may be reformatted about once per month.**

Formal Lab Report Format

Lab #/Lab Name
Name(s)

I. Purpose

What was the purpose of the lab?

II. Procedure

Describe the general steps to perform the lab. The lab may include theory, simulation and hardware portions; you should briefly describe each. If you had to generate your own MATLAB code, state how you decided to approach the problem and why. If you tried several ways to do things before something finally worked (to make your code work), describe the problems encountered here.

III. Results

Include the results you obtained, such as a derivation of a Fourier transform and its plot in MATLAB. If your results include any plots, remember the things a good plot should include: title, label on the x-axis, label on the y-axis, and a legend. If you include images or plots as part of the text (such as using MS Word), they should have a caption.

IV. Conclusions

Put any conclusions you can draw about the results you obtained. For example; if a lab had you compute a Fourier spectrum, and the spectrum analyzer gave you something very close to what you expected, you can make the statement that the hardware result agrees with theory.

V. Code (if applicable)

Submit any MATLAB code you created (not code you were provided by me), including functions and programs. You should have a lot of comments in the code to describe how things worked. See the following page for an example of well-written MATLAB code.

V. Acknowledgements and Feedback

If you received help in completing the project, give credit to who helped and how they helped you. If you have some suggestions about how to improve this lab, or other ideas, put them here. Good feedback is a form of class participation.

A "Well-written" MATLAB function

When you write a MATLAB function or program, there are a few items that should be included. The following is an example of a well-written function. It contains comments right after the "function" line that tell the user how to use the function. If a user typed "help sinc322" at the command line, these comments would appear. These comments should also list the author(s). In addition, some comments are placed after certain lines of code to help explain what that line does. Use this as a guide to writing your own code.

```
function z = sinc322(x)
% function z = sinc322(x)
%   This function returns the sinc function. Based on MATLAB's sinc.m.
%   For EE322 students.
%   R.W. Ives

z = ones(size(x)); % set all output values = 1 … this will make sinc(0) = 1
n = find(x);       % find all input values not equal to 0
z(n) = sin(pi*x(n))./(pi*x(n));
            % this last will make sinc(x) = sin(pi*x)/(pi*x) for all values
            % of the input except x = 0, which is already set to 1
```