EECS 360 – Signal and System Analysis
Laboratory Syllabus
Fall 2012

Instructor: Dr. Erik Perrins
   Email: esp@ku.edu

Teaching Assistant: Ghaith Shabsigh
   Office: 2029 Eaton Hall
   Office hours: Wednesday 2:00PM – 4:00PM
   Email: g492s378@ku.edu

Schedule: Tuesday 2:30PM – 4:45PM, and Wednesday 10:00AM – 12:15PM; 1005A Eaton Hall

Lab web page: http://people.eecs.ku.edu/~esp/class/F12_360/lab/

Labs: (Note – Lab schedule and contents might be changed with regards to the lecture).

Session 1	Session 2	
08/21/2012	08/22/2012	Lab 1: Introduction to Matlab
08/28/2012	08/29/2012	Lab 2: Matlab Functions
09/04/2012	09/05/2012	Lab 3: Loops in Matlab
09/11/2012	09/12/2012	Lab 4: Discrete Convolution
09/18/2012	09/19/2012	Lab 5: Fourier Series
09/25/2012	09/26/2012	Lab 6: Audio Filtering
10/02/2012	10/03/2012	Lab 7: Continuous Time Fourier Series
10/16/2012	10/17/2012	Lab 8: Approximation of CTFT
10/23/2012	10/24/2012	Lab 9: DFT and FFT
10/30/2012	10/31/2012	Lab 10: Sampling and Signal Reconstruction
11/06/2012	10/07/2012	Lab 11: Sampling Frequency and Aliasing
11/13/2012	11/14/2012	Lab 12: Laplace Transform
11/27/2012	11/28/2012	Lab 13: Z-Transform
12/04/2012	12/05/2012	Lab 14: Simulink

Requirement and Grading:

The grading is based on your performance during the lab session and your lab report. Each person is required to submit a **paper** report (**NO plagiarizing**). Each lab report is due the following week **before** the lab sessions. Lab reports will **not** be graded if it is turned in late. Exceptions might be considered with the notice ahead of time.

Note: You can use the lab report format attached below as a reference.
Lab Report Format:

In general, your lab report should consist of the following sections:
1. Cover page: Lab title and number, date submitted, name.
2. Objective: Brief description of what you are trying to do in this lab.
3. Procedure: How you are solving the problem; describe methodology and your approach.
4. Description: Answer **all** the questions listed in the lab handout with sufficient description (include plots, equations, derivation, etc).
5. Conclusion

Note: Most of the plots generated by Matlab can be converted and imported into MS Word.

Date Submitted: 01/09/2012

EECS 360
INTRODUCTION TO MALTAB
Lab Report #1

Student Name
KUID: 1234567

OBJECTIVE:

Brief problem statement. Example - In this lab, we learn how to use simple functions in Matlab to solve engineering problems.

PROCEDURE:

Sequence of steps and a Matlab code used to achieve the objectives.

ANALYSIS:

Elaborate on the steps and provide results in the form of graphs and answers to the questions. Good place to identify and explain interesting and important phenomena.

```
Calculate function f(x)=1+x^2 with x ranging from [-10, 10]
f(x)= 101 82 65 50 37 26 17 10 5 2 1 2
5 10 17 26 37 50 65 82 101
x=[-10:10]; f =1+x.^2;
Plot function f(x) by using command: plot(x, f)
```
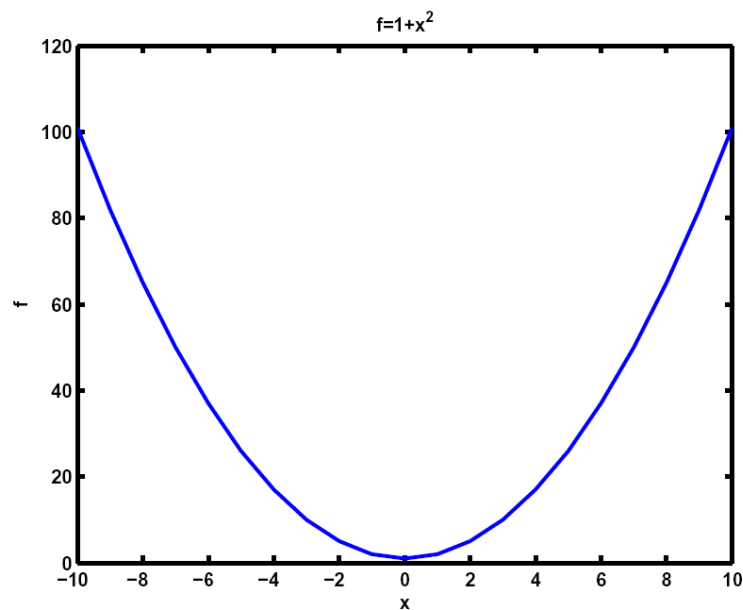

Figure 1: Sample Matlab Plot

CONCLUSION:

Conclusions and lessons learned by student.