

EECS 360 – Signal and System Analysis

Laboratory Syllabus

Spring 2013

Instructor: Dr. Victor Frost

Email: frost@eecs.ku.edu

Teaching Assistant: Ghaith Shabsigh

Office: 2029 Eaton Hall

Office hours: Monday 1:00PM – 3:00PM

Email: g492s378@ku.edu

Schedule: Tuesday 2:30PM – 4:45PM, and Thursday 2:30PM – 4:45PM; 1005A Eaton Hall.

Lab web page: http://people.eecs.ku.edu/~esp/class/S13_360/lab/

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

Session 1

01/22/2013
01/29/2013
02/05/2013
02/12/2013
02/19/2013
02/26/2013
03/05/2013
03/12/2013
03/26/2013
04/02/2013
04/09/2013
04/16/2013
04/23/2013
04/30/2013

Session 2

01/24/2013
01/31/2013
02/07/2013
02/14/2013
02/21/2013
02/28/2013
03/07/2013
03/14/2013
03/28/2013
04/04/2013
04/11/2013
04/18/2013
04/25/2013
05/02/2013

Lab 1: Introduction to MATLAB
Lab 2: MATLAB Functions
Lab 3: Loops in MATLAB
Lab 4: Discrete Convolution
Lab 5: Fourier Series
Lab 6: Audio Filtering
Lab 7: Continuous Time Fourier Series
Lab 8: Approximation of CTFT
Lab 9: DFT and FFT
Lab 10: Sampling and Signal Reconstruction
Lab 11: Sampling Frequency and Aliasing
Lab 12: Laplace Transform
Lab 13: Z-Transform
Lab 14: Simulink

Requirements 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. Expect a quiz.

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. Description: Description of your approach to solve the problem.
4. Results: Analysis of your results (include all your graphs, derivations, etc.). Answering all given questions.
5. Conclusion.

Note: Most of the plots generated by MATLAB can be copied into MS Word.

Date Submitted: 01/09/2012

EECS 360
INTRODUCTION TO MALTB
Lab Report #1

Student Name
KUID: 1234567

OBJECTIVE:

Brief problem statement. Example - In this lab, we learn how to create simple MATLAB functions to solve engineering problems.

DESCRIPTION:

Sequence of steps and the MATLAB code used to achieve the objectives.

1. Use numbering if needed.
2. Organize your report.

Code:

```
// Add comments to your code so that it becomes more readable.  
String_var = 'Give meaningful names to your variables';
```

RESULTS:

Provide your results in the form of graphs and answers to both the questions given during the lab and the questions in the lab handout. Give a detailed analysis of your results. Good place to identify and explain interesting and important phenomena.

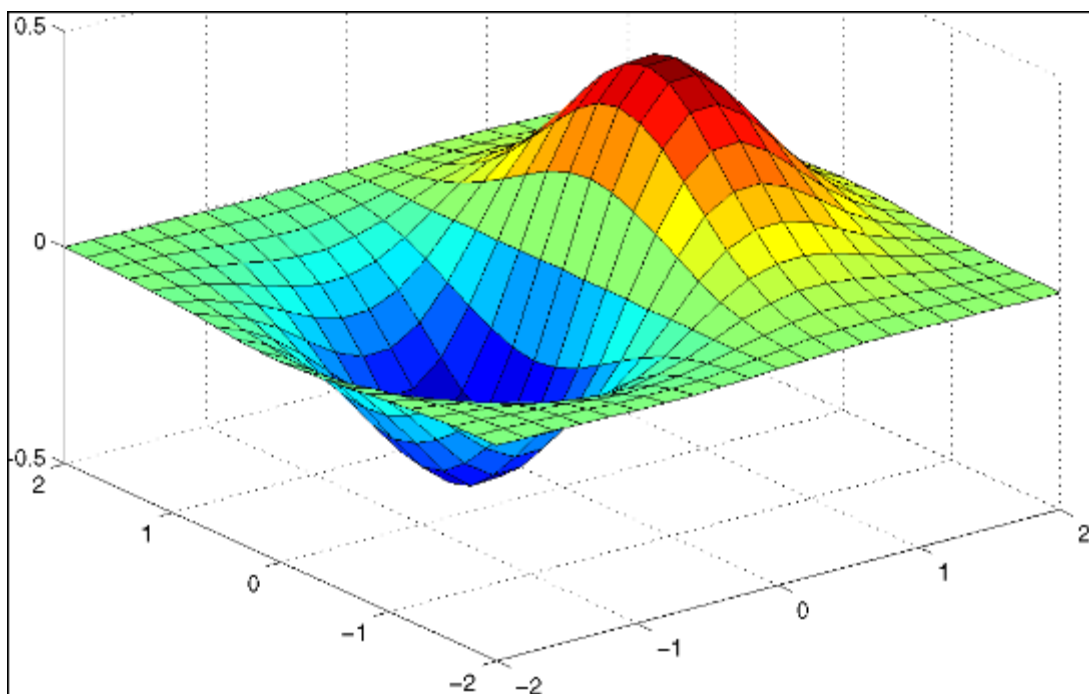


Figure1: This is a sample.

CONCLUSION:

Conclusions and lessons learned by student.