EE 3054: Signals and Systems
Fall 2005

Class Location: LC102

Class Times:
   Monday 3:00PM - 4:50PM
   Wednesday 9:00AM - 10:50AM
   Friday 3:00PM - 4:50PM (lab)

Course Website: http://crrl.poly.edu/EE3054

Instructors:
   Lecture: Prashanth Krishnamurthy, LC029, pk@crrl.poly.edu
   Lab:
      Anand Nair, LC224, anair01@utopia.poly.edu
      Pragya Lakhotia, LC224, plakho01@utopia.poly.edu

Course Outline:

1. Discrete-time signals and systems
2. Linear time-invariant systems
3. Discrete-time convolution
4. The Z transform
5. The Discrete-Time Fourier transform
6. Continuous-time signals and systems
7. Continuous-time convolution
8. The Laplace transform
9. Fourier analysis for continuous-time signals
10. The Sampling theorem

Texts:

2. A course packet is also available from the Poly bookstore. It contains exercises, the labs, additional notes, and examples.
3. Secondary suggested text: *Signals and Systems* by Oppenheim and Willsky. Publisher: Prentice Hall
Prerequisites:
EE 2004: Electric Circuits
MA 2132: Differential Equations

Homework:
HWs must be turned in at the beginning of class on the due date. Solutions will be provided — therefore late HWs can not be accepted.

Lab:
Lab will meet every week. The lab will consist of computer-based exercises using MATLAB. You must bring your laptop to the lab, with MATLAB installed on your computer. Lab reports must be turned in the following week at the beginning of the lab hour. Students may work together on the labs, however, each student must write up their lab report on their own. Part of the grade for the lab component will be based on your progress during the lab session. In addition, two lab quizzes will be given. The first lab quiz will cover elementary MATLAB commands. The second lab quiz will cover concepts from lectures and labs together with MATLAB usage.

Software:
MATLAB is a required software package for this course. Students registered for this course can have MATLAB installed on their laptop computer by the laptop office staff. Otherwise, the student version of MATLAB is available online at www.mathworks.com or at the bookstore (about $110). You will also need the Signal Processing Toolbox (an extra $30).

MATLAB manuals are available in PDF format at www.mathworks.com. For example, the guide Getting started with MATLAB is available at the following URL.

Other documentation for MATLAB is available at the following URL.

Grading:

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<tr>
<th>Component</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Homework</td>
<td>5%</td>
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<tr>
<td>2 quizzes</td>
<td>5% each</td>
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<td>Test 1</td>
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<td>Test 2</td>
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<td>Final</td>
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<td>2 Lab quizzes</td>
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<td>Lab reports</td>
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<td>Lab proficiency</td>
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In the event academic dishonesty occurs during a quiz or exam, a score of zero may be given.

Etc:
Please refrain from using your laptop during lecture. It is distracting for the other students in the class.