

6.097 - Signals and Systems Review

Instructors: Shirin Farrahi, Vincent Tan, Jessica Wu

Course Description

6.097 is a summary of the key points of 6.003 – “Signals and Systems” in preparation for 6.003, 6.011, or the course 6 TQE. The key concepts include LTI systems, convolution, CT and DT Fourier Series and Transforms, Filtering, Sampling, Modulation, Laplace & Z- Transforms, and Feedback.

Course Structure

Lectures: MWF from Jan. 12 to Jan. 30 (except Mon. Jan. 19 MLK National holiday)

Time: 5-6:30 PM

Homework: 3 graded problem sets, each taking an estimated 2-3 hours to complete.

Grading:

50% Class Attendance

50% Homework

Class structure: 1-2 hour lectures with review, theory and practice*

Exam: There will be an ungraded practice exam for half of the final lecture. We will review the solution in the second half of the final lecture.

Teaching Staff

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* There will be additional office hours by appointment.

Syllabus

Session	Topics	Key Dates	Main Lecturer	Pset
L01	System Properties / LTI / Convolution	1/12/08 (M)	SF	PS 1 Out
L02	CT Fourier Series / Transform	1/14/08 (W)	SF	
L03	CT Laplace Transform	1/16/08 (F)	SF	PS 1 Due PS 2 Out
L04	DT Fourier Series / Transform	1/21/08 (W)	JW	
L05	DT z-transform	1/23/08 (F)	JW	PS 2 Due PS3 Out
L06	Frequency response, Bode Plots and Feedback	1/26/08 (M)	VT	
L07	Sampling/Modulation	1/28/08 (W)	VT	PS3 Due
L08	Practice Exam	2/30/08 (F)	SF/JW	