



Student Academic Information Registration System
Bilkent University

EEE 321 Signals and Systems Section : 1 2013-2014 Spring

Name of Lecturer : Asst. Prof. Süleyman Serdar Kozat

E-mail address : kozat@ee.bilkent.edu.tr

Office : EEE 309

Web Address
for Detailed Syllabus : <http://www.ee.bilkent.edu.tr/~kozat>

Office Hours & Location : Monday 13.00pm-14.30pm

Assessment Methods

Assessment Method	(%) Contribution to Final Grade	Date	Week
Quiz	15		0
Lab work	10		0
Homework	5		0
Midterm:Essay/written	30		0
Midterm:Essay/written	30		0
Final:Essay/written	10		0

Minimum Requirements to Qualify for the Final Exam

Anyone who has an average score (by attending or missing with/without any excuse) less than 1) 25 from the midterms; OR 2) 50 from the homeworks or quizzes or lab works, will get an FZ.

Readings

Required Textbook

- Year/Edition: 2
Title: Signals and Systems
Author(s): Alan V. Oppenheim, Alan S. Willsky, with S. H. Nawab
Publisher: Prentice Hall

Type of Course

Laboratory Work ---- Lecture ---- Tutorial ----

Teaching Methods

Exercises ---- Lecture

Course Contents

Week : 1

Review of Mathematical Background, Lecture notes; Introduction to Signals, Sec. 1.0, 1.1, 1.2, 1.3.

Week : 2

Introduction to Systems, Sec. 1.5, 1.6; Impulse and Impulse Response, Sec. 1.4, 2.5.

Week : 3

DT LTI Systems and Convolution Sum, Sec. 2.1; CT LTI Systems and Convolution Integral, Sec. 2.2.

Week : 4

Evaluation of the Convolution Integral, Sec. 2.3, 2.4; CT Complex Exponentials and CT Fourier Series, Sec. 3.1, 3.2.

Week : 5

CTFS: Convergence and Properties, Sec. 3.3, 3.4, 3.5; CT Fourier Series and LTI Systems, Sec. 3.8, 3.9, 3.10.

Week : 6

CT Fourier Transform, Sec. 4.1; Properties of the CT Fourier Transform, Sec. 4.3, 4.4, 4.5.

Week : 7

More on CT Fourier Transform, Sec. 4.2, 4.6, 4.7; CT Filtering, Sec. 6.1-6.5.

Week : 8

DT Complex Exponentials and DT Fourier Series, Sec. 1.3, 3.6; Properties of DTFS, Sec. 3.7.

Week : 9

DT Fourier Series and LTI Systems, Sec. 3.8, 3.9, 3.11; DT Fourier Transform, Sec. 5.1, 5.2.

Week : 10

Properties of the DT Fourier Transform, Sec. 5.3-5.8 (all); DT Filtering, Sec. 6.6, 6.7.

Week : 11

Sampling of CT Signals, Sec. 7.1; Aliasing, Sec. 7.3.

Week : 12

Reconstruction: Bandlimited Interpolation, Sec. 7.2; DT Processing of CT Signals, Sec. 7.4.

Week : 13

Laplace transform and ROC, Sec. 9.1, 9.2; Properties of the Laplace transform, Sec. 9.5, 9.6.

Week : 14

Inverse Laplace transform, Sec. 9.3; Analysis of LTI Systems using LT, Sec. 9.7, 9.9.

Week : 15

Final Exams : 21.05.2014 - 29.05.2014