EE-3032 – Signals & Systems

Dr. Durant – 9/8/2019

Wk/Day	Tentative topics	Reading (Ulaby & Yagle)	Homework
1/1 (M)	Course intro		
1/2 (T)	Types of signals, signal transformations	1.1-1.2	
1/3 (R)	Symmetry and periodicity	1.3	TBD
1/4 (F)	*Class canceled for Diercks Hall grand opening*		
2/1	Common signals: nonperiodic waveforms	1.4	
2/2	Signal power and energy	1.5	
2/3	Review / example / homework session		
2/4	Linearity and time-invariance	2.1	
3/1	Impulse and step responses of an LTI system	2.2	
3/2	Convolution integral	2.3	
3/3	Review / example / homework session		
3/4	Graphical convolution	2.4	
4/1	Convolution properties	2.5	
4/2	Convolution examples, causality and stability	2.6	
4/3	Review / example / homework session		
4/4	LTI sinusoidal response (aka frequency response)	2.7, 5.1	
5/1	Fourier series analysis	5.2-5.3	
5/2	Computation of Fourier series coefficients	5.4.1, 5.4.3	
5/3	Review / example / homework session		
5/4	"		
6/1	Two-sided line spectra, symmetry considerations	5.4.3 – 5.4.6	
6/2	System analysis with Fourier series	5.5	
6/3	Review / example / homework session		
6/4	Parseval's theorem for periodic waveforms	5.6	
7/1	Fourier transform	5.7	
7/2	Fourier transform properties	5.8	
7/3	Review / example / homework session		
7/4	"		
8/1	Parseval's theorem for Fourier transforms	5.9	
8/2	Multiplication and convolution	5.12, 6.12	
8/3	Review / example / homework session		
8/4	"		
9/1	Types of filters	6.2	
9/2	Sampling theorem	6.13 (up to 6.13.5)	
9/3	Review / example / homework session		
9/4	Aliasing and reconstruction	6.13.6 – 6.13.11	
10/1	Instructor evaluation; Flex date (maybe zero-order hold)		
10/2	Flex date (maybe intro to comm.)		
10/3	Review / example / homework session		
10/4	Final exam review		