

Week	Day	Topics	Reading (Chaparro)	Homework
1	1	Course intro, assessment HW-0 assigned	Chapter 0	
	2	Common signal functions	1.1-2, 1.4-5	
	3	Combining signals; shifting and scaling	1.3.1, 1.6	HW-0 due Thursday
	4	Review of assessment homework		
2	1	Classification of signals: even/odd, periodic	1.3.2-1.3.3	
	2	Energy and power signals	1.3.4	
	3	Review / catch-up		HW-1 due Thursday
	4	System classifications: linearity, time-invariance, stability	2.1-2.3.2, 2.5	
3	1	Impulse response of an LTI system	2.3.3.1, 3.2.1	
	2	Convolution integral	2.3.3-2.4	
	3	Review / catch-up		HW-2 due Thursday
	4	Convolution examples		
4	1	Orthogonality and signal approximation	4.3 (up to p.274)	
	2	TBD / Convolution		
	3	Review / catch-up		
	4	Continuous-time Fourier series (CTFS); magnitude and phase spectra	4.3 (p. 274-282)	(no homework this week)
5	1	CTFS calculation examples	4.3 (p. 283-296)	
	2	More CTFS examples		
	3	Review / catch-up		HW-3 due Thursday
	4	Review / catch-up		
6	1	Parseval's theorem for periodic signals; power and RMS	4.3.1.1	
	2	Fourier series system analysis	4.4	
	3	Review / catch-up		HW-4 due Thursday
	4	TBD / Fourier series		
7	1	Continuous-time Fourier transform (CTFT), transition from CTFS	5.1-3	
	2	Fourier transform pairs and properties	5.5-9	
	3	Fourier transforms of periodic signals	5.6.2	HW-5 due Thursday
	4	Magnitude and phase spectra from CTFT	5.6.4	
8	1	Parseval's theorem for energy signals	5.6.3	
	2	Multiplication and convolution	5.7, 5.6.1	
	3	Review / catch-up		
	4	Signal sampling: continuous- to discrete-time	8.1-8.2.2	(no homework this week)
9	1	Aliasing and reconstruction	8.2.3-8.2.5	
	2	Continue sampling; zero-order sample-and-hold	8.3.1	
	3	Review / catch-up		HW-6 due Thursday
	4	Review / catch-up		
10	1	Introduction to communication systems: AM and FM	7.1-7.2	
	2	TBD / Fourier transforms		
	3	Review / catch-up		HW-7 due Thursday
	4	Review, instructor evaluation		