

ECE 44000 – Fall 2022
Tentative Schedule

class	date	Reading Z&T 7th Ed.	Topics [Pages from S22 Class Notes]
1	8/22	Ch. 1, 2.1, 2.4, 2.6 2.7, 2.9	Intro., signals, Fourier Trans., LTI systems [1-17]
2	8/24		Sampling, DT signal proc. [24-28]
3	8/26		Ex. comm. channels
4	8/29	2.8	Hilbert Trans., complex envelope [119-126]; HW 1 due
5	8/31		Complex envelope [141-150]
6	9/2		Examples
<i>LDay</i>	9/5		<i>No Lecture</i>
7	9/7	3.1, 3.2	DSB and AM-LC mod. and demod. [29-40]
8	9/9	3.3, 3.4	SSB mod. and demod. [50-54]
9	9/12	3.7	Ex. Matlab for SSB [55-60]; HW 2 due
10	9/14		PAM mod. and demod.
11	9/16		3.8
12	9/19	4.1	FM and PM mod. [78-99]; HW 3 due
13	9/21	4.2	FM and PM demod. [100-102]
14	9/23		Exam 1 in class
15	9/26	4.3	Phase-Locked Loops (PLL) [226-274]
16	9/28		...
17	9/30		Ex. PLL; HW 4 due
18	10/3	5.1, 5.2	BB Dig. Trans. and Pow. Spec. [195-204]
19	10/5	5.3, 5.4	ISI and Nyquist [205-215]
20	10/7	5.5	Zero forcing equalization
<i>OctB</i>	10/10		<i>No Lecture</i>
21	10/12	5.7	Synchronization; HW 5 due
22	10/14	Ch. 6	Review probability and rvs
23	10/17	Ch. 7	Review random proc. [18-23, 127-135]; HW 6 due
24	10/19		Complex envelope for random proc. [135-140, 151-154]
25	10/21		Exam 2 in class
26	10/24	8.1	Passband comm. models via CBB [154-161, 170-173]
27	10/26		AM demod. in noise [175 - 177]
28	10/28		...
29	10/31	8.3	FM demod. in noise [178-194]; HW 7 due
30	11/2		...
31	11/4	8.5	PCM in noise
32	11/7	9.1, 9.2	Digital comm. [217-225, 275-300]; HW 8 due
33	11/9		...
34	11/11		...
35	11/14	9.3	Non-coherent dig. comm.; HW 9 due
36	11/16	9.4	M-PAM
37	11/18		Exam 3 in class
38	11/21	9.6	Zero-ISI syst. in noise
<i>Tgive</i>	11/23		<i>No Lecture</i>
<i>Tgive</i>	11/25		<i>No Lecture</i>
39	11/28	9.7	Multipath channels
40	11/30	9.8	Fading channels
41	12/2	9.9	Equalization; HW 10 due
42	12/5		Advanced topics and review
43	12/7		...
44	12/9		...
<i>Finals</i>	12/12-16		<i>No lecture</i>