

EE392AA (EE379C) Lecture Plan – Spring 2015

John M. Cioffi – Tues-Thus Schedule

Lecture #	Date	Topic	Reading	Homework (out/in)
Multi-Channel Modulation - Chapter 4 (&3)				
1	3/31	Introduction and Basic Multi-tone	3	-/-
2	4/2	Equalization Review	4.1	1/-
3	4/7	Parallel Channels and water-filling	4.1, 4.2	-/-
4	4/9	Loading Methods: water-filling	4.3	2/1
5	4/14	Loading Methods: Levin-Campello	4.3	-/-
6	4/16	Loading Methods: continued	4.3	3/2
7	4/21	Channel Partitioning: modal modulation/MT	4.4	-/-
8	4/23	Vector Coding	4.5	4/3
9	4/28	Discrete Multi-Tone (DMT)	4.6	-/-
10	4/30	Examples and FMT	4.6	-/4
--	5/5	Midterm Exam (open book, in class)	--	-/-
11	5/7	Channel Identification	4.7	5/-
12	5/12	Infinite-length DFE and information Theory		
13	5/14	Transmit Optimization with the DFE	5.1	-/-
14	5/19	GDFE	5.2	6/5
15	5/21	GDFE	5.3	-/-
16	5/26	GDFE: VC and DMT	5.3	7/6
17	5/27	Transmit Optimization with GDFE and the Circulant DFE	5.4	-/-
18			5.5, 5.6	-/7
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		FINAL EXAM (take-home design, 24 hours)		

Grading: midterm 30% , final 40% , homework (ok to talk with other students currently in class, but no use of previous students or their solutions) 30%. Final is probably take home, details to be determined..