Spring 2016, MSE 5460/ECE 5570, Compound Semiconductors Materials Science

Class #	Dates	Day	Lecture Topics	Reading	Video	Assgn	Posted	Due
1	28-Jan	Thu	Introduction: What compound semiconductors are, what they do	MSS1, QSS1	SDP 1			
2	2-Feb	Tue	DJ@Wox, No Class					
3	4-Feb	Thu	Absorption spectrum of semiconductors, bandgaps vs lattice constants, heterostructures	MSS2, QSS2	SDP 1			
4	9-Feb	Tue	Atoms to bonds to bands: Tight-Binding models of Bandstructure	MSS2, QSS2	SDP 1	1	6-Feb	
5	11-Feb	Thu	Bandstructure, Density of states, Compound Semiconductor Bandgap Engineering	MSS5, QSS2	SDP 1			
	16-Feb	Tue	Cornell Feb Break					
6	18-Feb	Thu	DOS in low dimensions, Dielectric constant, Doping, Carrier statistics, Heterostructure Quantum States	MSS2, QSS2	SDP 1			18-Feb
7	23-Feb	Tue	Quantum Design of Heterostructure HEMTs, LEDs, Lasers, Ternary & Quaternary Compound Semiconductors	MSS7, QSS3	SDP 2			
8	25-Feb	Thu	OK					
2M	26-Feb	Fri	Makeup Class, 6:00-7:30 pm, Thurston 203					
9	1-Mar	Tue	OK					
10	3-Mar	Thu	DJ@UCSB MURI Review, No Class					
10M	4-Mar	Fri	Makeup Class, 6:00-7:30 pm, Bard 140					
11	8-Mar	Tue	OK					
12	10-Mar	Thu	OK					
13	15-Mar	Tue	OK/APS MM					
14	17-Mar	Thu	OK/APS MM					
15	22-Mar	Tue	OK					
16	24-Mar	Thu	OK					
	29-Mar	Tue	Cornell Spring Break					
	31-Mar	Thu	Cornell Spring Break					
17	5-Apr	Tue	OK					
18	7-Apr	Thu	OK					
19	12-Apr	Tue	OK					
20	14-Apr	Thu	OK					
23M	15-Apr	Fri	Makeup Class, 6:00-7:30 pm, Bard 140					
21	19-Apr	Tue	OK					
22	21-Apr	Thu	OK					
23	26-Apr	Tue	DJ@DC, No Class					
24	28-Apr	Thu	OK					
25	3-May	Tue	OK					
26	5-May	Mon	OK					
27	10-May	Tue	OK					
28	12-May	Thu	OK					