

MASC 350L

Nanostructured Materials: Design, Synthesis, and Processing

Detailed Course Outline: (subject to change)

Date	Lecture #	Topic (Tentative)	Items Due*	Lab Schedule
1/13	1	intro/physics background		
1/15	2	Au/Ag nanoparticles		
1/20	3	Au/Ag nanoparticles		
1/22	4	Writing Lab Reports		Lab 1 (W/Th)
1/27	5	Quantum Dots		
1/29	6	Quantum Dots	Lab 1	
2/3	7	Si Nanocrystals and Nanowires		
2/5	8	Nanowires		Lab 2 (W/Th)
2/10	9	CNT		
2/12	10	Polymer intro/diblock co-polymers	Lab 2	
2/17	11	Nanocomposites		
2/19		lab tour		Lab 3 (W/Th)
2/24		TBD		
2/26	12	Fabrication	Lab 3	
3/3	13	Fabrication_pt2 and self-assembly		
3/5	14	background on biology		
3/10	15	Homework review	HW1	
3/12		Midterm	Midterm	
3/24	16	Midterm Solutions/Biofunctionalization		
3/26	17	Microfluidics		Lab 4 (W/Th) pt1
3/31	18	Self-assembly/Sensors		
4/2	19	Sensors		Lab 4 (W/Th) pt2
4/7	20	Sensors/Imaging		
4/9	21	Energy	Lab 4	
4/14	22	Energy		
4/16	23	Therapeutics		Lab 5 (W/Th)
4/21	24	optical traps/other topics		
4/23	25	TBD	Lab 5	
4/28	26	HW2/course evals	HW 2	
4/30		cancel		

*All Labs are due at 6am on Friday.