

BME 510 Syllabus for Fall 2011 (as of August 19, 2011)				
Day	Lecturer	Lect #	Subject	Book Chapter
Monday, Aug 22	Marty Pagel	1	Introduction, atoms & biomolecules	2.1, 2.2
Wednesday, Aug 24	Marty Pagel	2	equilibrium, protein structure and folding	2.3, 2.4, 3.1, 3.2
Friday, Aug 26	Marty Pagel			
Monday, Aug 29	Marty Pagel	3	enzyme function & kinetics	3.3
Wednesday, Aug 31	Marty Pagel	4	protein regulation	3.4, 3.5
Friday, Sep 2	Marty Pagel	5	biotechnology: characterizing proteins	3.6
Monday, Sep 5			<i>Labor Day Holiday</i>	
Wednesday, Sep 7	V. Gyurko	6	gene structure, transcription	4.1, 4.2
Friday Sep 9	V. Gyurko	7	translation	4.3, 4.4
Monday, Sep 12	Marty Pagel	8	DNA replication and repair, viruses	4.5 - 4.7
Wednesday, Sep 14	Marty Pagel	9	biotechnology: PCR, DNA microarrays	5.3
Friday, Sep 16	Marty Pagel	10	genetic analysis of mutations, DNA cloning	5.1, 5.2
Monday, Sep 19	Marty Pagel	11	biotechnology: transfection, reporter genes	5.3, 5.5
Wednesday, Sep 21	Marty Pagel		Exam 1	
Friday, Sep 23	Marty Pagel	12	cell anatomy	9.1, 10.1, 10.2
Monday, Sep 26	Marty Pagel	13	cell energetics (Critique #1 due Monday Sep 26)	12.1 - 12.3
Wednesday, Sep 28	Marty Pagel			
Friday, Sep 30	Marty Pagel	14	cytoskeleton: actin and myosin	17.1, 17.2, 17.4-17.6
Monday, Oct 3	Marty Pagel	15	cytoskeleton: microtubules	18.1 - 18.3, 18.4, 18.7
Wednesday, Oct 5	Marty Pagel	16	membrane transport	11.1 - 11.3
Friday, Oct 7	Marty Pagel			11.5, 11.6
Monday, Oct 10	Marty Pagel	17	signaling systems	15,16
Wednesday, Oct 12	Marty Pagel			
Friday, Oct 14	Marty Pagel			
Monday, Oct 17	Ron Lynch	18	biotech: fluorescence microscopy	9.2
Wednesday, Oct 19	Ron Lynch	19	cell signalling: calcium & pH	14.2 - 14.4
Friday, Oct 21	Ron Lynch	20	protein sorting and secretion	14.5
Monday, Oct 24	Ron Lynch	21	endocytosis and receptor recycling	9.4, 9.5
Wednesday, Oct 26	Marty Pagel	22	biological membranes	10
Friday, Oct 28	Marty Pagel	23	metabolic diseases	
Monday, Oct 31	Marty Pagel		Exam 2	
Wednesday, Nov 2	Marty Pagel	24	mitosis and meiosis	18.6, 20.8
Friday, Nov 4	Marty Pagel	25	stem cells, programmed cell death	21.1, 21.5
Monday, Nov 7	Marty Pagel	26	cell-ECM interactions (Critique 2 due Monday Nov 7)	19.1-19.4
Wednesday, Nov 9	Marty Pagel	27	tissue engineering	
Friday, Nov 11	Marty Pagel		Veterans Day - no class	
Monday, Nov 14	Marty Pagel	28	cancer	25
Wednesday, Nov 16	Marty Pagel			
Friday, Nov 18	Erika Eggers	29	structure of the nervous system	23.1
Monday, Nov 21	Erika Eggers	30	resting membrane potential	11.4
Wednesday, Nov 23	Erika Eggers	31	action potential & nerve conduction	23.2
Friday, Nov 25			<i>Thanksgiving Holiday</i>	
Monday, Nov 28	Erika Eggers	32	synaptic transmission	23.3, N2B chapter 9
Wednesday, Nov 30	Erika Eggers	33	synaptic plasticity	N2B chapter 12
Friday, Dec 2	Erika Eggers	34	muscle contraction and excitation	p. 755-756, 17.5-17.6, p. 449-452
Monday, Dec 5	Marty Pagel	35	biomedical ethics	
Wednesday, Dec 7	Marty Pagel		Exam 3	
Friday Dec 9	Marty Pagel		Critique #3 due Friday Dec 9	