

Lecture schedule for Biochem 508 Spring 2011


Part I: Biosynthesis

Wed	Jan 19	1	Pentose phosphate shunt	Nelson
Fri	Jan 21	2	Photosynthetic carbon fixation	Nelson
Mon	Jan 24	3	Biosynthesis of fatty acids/eicosanoids	Nelson
Wed	Jan 26	4	Biosynthesis of triacylglycerol and phospholipids	Nelson
Fri	Jan 28	5	Biosynthesis of sterols and isoprenoids	Nelson
Mon	Jan 31	6	Cholesterol Transport	Nelson
Wed	Feb 2	7	Cytochrome P-450 and biosynthesis	Nelson
Fri	Feb 4	8	Nitrogen fixation and amino acid biosynthesis	Nelson
Mon	Feb 7	9	Compounds formed from amino acids	Nelson
Wed	Feb 9	10	Nucleotide synthesis	Nelson
Fri	Feb 11		Exam 1 covers lectures 1-10 (worth 100 points)	

Part II: Biosignaling and the Integration of Metabolism

Mon	Feb 14	11	Tissue Specialization in Metabolism	Pagliarini
Wed	Feb 16	12	Hormones in the Integration of Metabolism	Pagliarini
Fri	Feb 18	13	Insulin Receptor: A Receptor Tyrosine Kinase	Pagliarini
Mon	Feb 21	14	β -Adrenergic Receptor, cAMP, & Protein Kinase A	Pagliarini
Wed	Feb 23	15	Ion Channels and Signaling through Ca^{2+}	Pagliarini
Fri	Feb 25	16	Spatial and Temporal Aspects of Signaling	Pagliarini
Mon	Feb 28	17	Hormonal Regulation of Fuel Metabolism, Activity, and Body Weight	Pagliarini
Wed	Mar 2	18	TBA	Pagliarini
Fri	Mar 4	19	TBA	Pagliarini
Mon	Mar 7	20	TBA	Pagliarini
Wed	Mar 9		Exam 2 covers lectures 11-20 (worth 100 points)	

Part III: Information Pathways

Fri	Mar 11	21	Nucleic acid technology	Bednarek
Mon	Mar 14		Spring Break	
Wed	Mar 16		Spring Break	
Fri	Mar 18		Spring Break	
				
Mon	Mar 21	22	Nucleic acids; topology and packaging	Bednarek
Wed	Mar 23	23	DNA metabolism I	Bednarek
Fri	Mar 25	24	DNA metabolism II	Bednarek

Cont'd**Part III: Information Pathways**

Mon	Mar 28	25	DNA metabolism III	Bednarek
Wed	Mar 30	26	RNA synthesis	Bednarek
Fri	Apr 1	27	Regulation of gene expression I	Bednarek
Mon	Apr 4	28	Regulation of gene expression II	Bednarek
Wed	Apr 6	29	Vitamin D and the regulation of eukaryotic gene expression	Bednarek
Fri	Apr 8	30	RNA processing	Bednarek
Mon	Apr 11		Exam 3 covers lectures 21-30 (worth 100 points)	

Part IV: Protein Synthesis and Targeting

Wed	Apr 13	31	The genetic code	Nelson
Fri	Apr 15	32	Protein synthesis I: ribosomes/tRNA	Bednarek
Mon	Apr 18	33	Protein synthesis II: initiation and regulation of translation	Bednarek
Wed	Apr 20	34	Protein synthesis III: energetics and special aspects	Bednarek
Fri	Apr 22	35	Molecular chaperones	Bednarek
Mon	Apr 25	36	Protein targeting	Bednarek
Wed	Apr 27	37	Secretory and nuclear protein trafficking	Bednarek
Fri	Apr 29	38	Co/post-translational protein processing	Bednarek
Mon	May 2	39	Collagen	Bednarek
Wed	May 4	40	Protein degradation	Bednarek
Fri	May 6	41	Class wrap-up	

Mon May 9 **Final (worth 150 points; cannot be dropped)**
Cumulative; includes a major section on lectures 31-41
12:45 pm–2:25 pm; Room TBA