

Cell Physiology (EFB 325) Syllabus

Date	Topic	Reading
M Aug. 31	Intro/syllabus – What is life?	Ch. 1
W Sept. 2	Intro to organelles & cytoskeleton	Ch. 1
F Sept. 4	Organelles (cont.)	Ch. 1, 2
M Sept. 7	No class - Labor Day	
W Sept. 9	Cytoskeleton (cont.); Chemistry of a cell	2
F Sept. 11	Lipids	2
M Sept. 14	Membrane structure	2
W Sept. 16	Polymers: polysaccharides & nucleic acids	2
F Sept. 18	Polymers: Nucleic acids (cont.) & filaments	2
M Sept. 21	No class - Eid Ul-Fitr	
W Sept. 23	Amino acids, peptide bond and polypeptides	4
F Sept. 25	Protein structure	4
M Sept. 28	No class - Yom Kippur	
W Sept. 30	Protein structure (cont.)	4
F Oct. 2	Exam 1	
Section 2: Flow of Energy		
M Oct 5	Reactions and enzymes; Energy and equilibrium	3
W Oct. 7	Membrane transport & transporters	12
F Oct. 9	Membrane transport proteins & ion channels	12
M Oct. 12	Class cancelled	
W Oct. 14	Catabolism: glycolysis & fermentation	3, 13
F Oct. 16	Citric acid cycle: energy conversion	13
M Oct. 19	Electron transport & ATP synthesis	14
W Oct. 21	ATP synthesis (cont.); Photosynthetic electron transport	14
F Oct. 23	Photosynthetic electron transport & carbon fixation (cont.)	14
M Oct. 26	Exam 2	
Section 3: Flow of Information		
W Oct. 28	The Central Dogma, chromosomes & DNA structure	5
F Oct. 30	DNA replication	5, 6
M Nov. 2	DNA repair (cont.)	6, 7
W Nov. 4	Transcription	7, 8
F Nov. 6	Promoters, and post-transcriptional processing (cont.)	7, 8
M Nov. 9	The genetic code; Ribosomes, tRNAs, & translation	7
W Nov. 11	Protein sorting	15
F Nov. 13	Regulation of gene expression	8
M Nov. 16	Disrupted regulation: cancer	20
W Nov. 18	Exam 3	
Section 4: Building Multi-cellular Tissues and Organs		
F Nov. 20	Cytoskeleton & muscle function	17
M Nov. 23	Extracellular matrix	20
W Nov. 25-F Nov. 27	No class - Thanksgiving Recess	
M Nov. 30	Cell-cell junctions	20
W Dec. 2	Cell cycle regulation	18
F Dec. 4	Mitosis	18
M Dec. 7	Mitosis & meiosis (cont.)	
W Dec. 9	Hormones & receptors	16
F Dec. 11	Receptors & second messengers (cont.)	16
M Dec. 14	Cellular complexity and function	
M Dec. 21	Final Exam (8:00-10:00am)	