SES #	TOPICS	READINGS
L1	Road map of course, what is and what is not cell biology, properties and behaviors of cells	pp. 86-97, 184-193, and 235-239
L2	Structure of biological membranes, lipids and lipid modification, membrane proteins	pp. 43-46, 147-152, 157-165, 182-184, 245-257, and 260-270
L3	Pumps, channels, transporters	pp. 271-276
L4	Receptors, basics of signal transduction (Note: Reprise and extension in lecture 14)	pp. 82-86, 533-556, 561-567, and 571-598
L5	Protein secretion, biogenesis of membrane proteins	pp. 657-672 and 678-680
E1	Exam I (lectures 1-5)	
L6	Regulation of the cell division cycle	pp. 853-863 and 881-886
L7	Regulation of DNA replication	pp. 874-881
L8	The microtubule cytoskeleton	pp. 817-827 and 838-848
L9	Regulation of mitosis	pp. 864-874
L10	Meiosis	pp. 890-894
L11	Cell cycle checkpoints	pp. 886-890
E2	Exam II (lectures 6-11)	
L12	Protein modifications and intracellular transport, glycosylation, vesicular transport, receptor mediated	pp. 165-173, 438-443, 509-513, 673-696, and 701-732

SES #	TOPICS	READINGS
	endocytosis, lysosomes, organelle biogenesis	
L13	Protein modifications and intracellular transport II	pp. 165-173, 438-443, 509-513, 673-696, and 701-732
L14	Signal transduction: Detailed molecular mechanisms	pp. 482-484 and 639-644
L15	Nerve cells, ion channels, synapse, Ca^{++} regulated events	pp. 276-287
L16	Nerve cells II	pp. 287-296 and 735-739
L17	Immunity and host pathogen interactions I	Chapter 26, 6th ed. Provided as handout
L18	Immunity and host pathogen interactions II	Chapter 26, 6th ed. Provided as handout
E3	Exam III (lectures 12-18)	
L19	The actin-myosin cytoskeleton	pp. 779-782, 784-786, 789-794, and 796-800
L20	The extracellular matrix	pp. 197-209, 223-227, 229-231, and 236-237
L21	Cancer I	pp. 935-950
L22	Cancer II	pp. 951-961, 965-970, and 884-885
L23	Stem cells and cloning	pp. 899-909
E4	Exam IV (lectures 19-23)	