

BIO B11H3S

Tentative Syllabus for January 2013

Date	Topic	Smart Pages
Jan 8	Review of heredity	Fig 10-1, 3, 7; 14-39, 41, 44, 46, HPfig 1
Jan 10	Genome structure	Fig 10-10, 15, 17, 19, 22, 23
Jan 15	Evolution of the genome	Figs 10-26, 27, 28, 30, <u>SNP figure</u> ; 11-1, 2
Jan 17	Transcription I: overview	Fig 11-4, 6, 7, 9. 12, 13, 14
Jan 22	Transcription II: hnRNA and splicing	Figs 11-17, 18, 20, 21, 23, 24, 29
Jan 24	Transcription III: Splicing	Figs 11-30, 31, 32, 34, 35, 36, 38
Jan 29	Translation I	Figs 2-24; 11-41, 42, 44, 46, 47, 49, 50
Jan 31	Translation II	
Feb 5	Nuclear and chromatin structure	Figs 12-1, 2, 6, 7, 8, 12
Feb 7	Gene Regulation I: Promoters and control circuits	Figs 12-27, 28, 29, 32, 40, 44
Feb 12	Gene Regulation II: Transcription factors and microarray technology	Figs 12-34, 36, 37, 38, 39
Feb 14	Gene Regulation III: Epigenetics/miscellaneous regulatory mechanisms	Figs 12-17, 43, 46, 47, 49, 51, 52, 54, 56, 58
Feb 26	DNA Replication I: general enzymology	Figs 13-2, 3, 4, 7, 8, 9, 10, 11
Feb 28	DNA Replication II: regulation	Figs 13-12, 13, 14, 15, 19, 20
Mar 5	Telomere replication and DNA repair processes	Figs 12-20; 13-16, 17, 25, 26, 27
Mar 7	Cell Cycle I: Introduction/cyclins/CDKs	Figs 14-1, 2, 3, 4, 5, 6, 8, 11
Mar 12	Cell Cycle II: Chromosome condensation & movement	Fig 9-17; 14-14, 16, 17, 22, 25, 28, 30
Mar 14	Cell Cycle III: Biochemical	Figs 14-26, 33, 35, 38;

	regulation of mitosis	<u>jpg figure similar to 14-37</u>
Mar 19	Cancer I: General Aspects	Figs 16-3, 4, 6, 19, 20, 21
Mar 21	Cancer II:Oncogenes, proto-oncogenes & tumor suppressor genes	Figs 16-8, 9, 10, 11, 13, 14, 16, 17
Mar 26	Cancer III/ Signal Transduction I: General aspects	Figs 15-1, 2
Mar28	Signal Transduction II: G proteins, glucose metabolism and lipid signaling	Figs 15-3, 4, 5, 7, 8, 10, 12, 19
Apr 2	Signal Transduction III: Second messenger and receptor tyrosine kinase signaling	Figs 15-15, 17, 22, 23, 24, 26, 27, 30
Apr 4	Signal Transduction IV:Signaling pathway interactions and Apoptosis	15-20, 31 33, 36, 37