

BC 351 SCHEDULE: SPRING 2018

All assignments are due at 8:00 am Mountain Time on the due date.

Week (Dates)	Module #: Module Concepts	Lectures	Assignments Due	Due Dates
1 (Jan. 16 – Jan. 19)	1: Course Overview, Key Concepts, Big Ideas, How to Succeed in BC 351; Cancer Overview; Anticancer Drug Development	L1 – L3	Module 1 Quiz	Mon., Jan. 22
2 (Jan. 22 – Jan. 26)	2: Chemistry of Macromolecules; Bioenergetics; Water; Weak Acids/Bases, Proton Hopping	L4 – L7	Free Energy Pre-Homework Module 2 Quiz Free Energy Post-Homework	Thurs., Jan. 25 Mon., Jan. 29 Mon., Jan. 29
3 (Jan. 29 – Feb. 2)	3: Amino Acids; Amino Acid Polymers, Peptides; Peptide Bonds, Protein Primary Structure	L8 – L11	Module 3 Quiz Protein Project (Extra Credit)	Mon., Feb. 5
4 (Feb. 5 – Feb. 9)	4: Protein Secondary Structure; Protein Tertiary and Quaternary Structure	L12 – L14	Exam 1: Lectures 1-11	Tues., Feb. 6
5 (Feb. 12 – Feb. 16)	5: Protein Tertiary and Quaternary Structure; Protein Folding; Intermolecular Interactions (Mb and Hb)	L15 – L18	Protein Folding Pre-Homework Module 4&5 Quiz Protein Folding Post-Homework	Thurs., Feb. 15 Mon., Feb. 19 Mon., Feb. 19
6 (Feb. 19 – Feb. 23)	6: Intermolecular Interactions (Mb and Hb); Enzyme Catalysis	L19 – L22	Module 6 Quiz	Mon., Feb. 26
7 (Feb. 26 – Mar. 2)	7: Enzyme Catalysis; Enzyme Kinetics; Transmembrane Transport in Cancer	L23 – L26	Module 7 Quiz	Mon., Mar. 5
8 (Mar. 5 – Mar. 9)	8: Membrane Lipids, Structure and Dynamics; Membrane Protein Structure	L27 – L29	Exam 2: Lectures 12-26	Tues., Mar. 6

Week (Dates)	Module #: Module Concepts	Lectures	Assignments Due	Due Dates
Mar. 10-18	Spring Recess	None	None	None
9 (Mar. 19 – Mar. 23)	9: Transmembrane Transport; Cancer Metabolism; Back to Basics	L30 – L33	Transport Pre-Homework Module 8&9 Quiz Transport Post-Homework	Tues., Mar. 20 Mon., Mar. 26 Mon., Mar. 26
10 (Mar. 26 – Mar. 30)	10: Back to Basics; ATP, Oxidation-Reduction	L34 – L37	Module 10 Quiz	Mon., Apr. 2
11 (Apr. 2 – Apr. 6)	11: Glycolysis – Glucose to Pyruvate; Anaerobic Glycolysis; Pyruvate to Glucose	L38 – L41	Module 11 Quiz	Mon., Apr. 9
12 (Apr. 9 – Apr. 13)	12: Pyruvate to Glucose; Allosteric Enzymes; ATP/ADP Ratios	L42 – L44	Exam 3: Lectures 27-41	Tues., Apr. 10
13 (Apr. 16 – Apr. 20)	13: Metabolic Regulation – Overview, Glycolysis vs. Gluconeogenesis; The Citric Acid Cycle; Citric Acid Cycle Regulation	L45 – L48	Met. Regulation Pre-Homework Module 12&13 Quiz Met. Regulation Post-Homework	Tues., Apr. 17 Mon., Apr. 23 Mon., Apr. 23
14 (Apr. 23 – Apr. 27)	14: Fatty Acid Catabolism; The Electron Transport Chain	L49 – L52	Module 14 Quiz	Mon., Apr. 30
15 (Apr. 30 – May 4)	15: Electron Transport Chain; ATP Synthase	L53 – L56	Module 15 Quiz	Mon., May 7
Finals (May 7 – 11)	Exam 4: Thursday, May 10 from 6:20 PM – 8:20 PM		Exam 4: Lectures 42-56 CSU Course Survey	Thurs., May 10