

<b>University of Jordan, Faculty of Medicine Department of Biochemistry &amp; Physiology Introduction to Biochemistry 0501112</b>	
Prof. Naif Karadsheh	
1	Acids and Bases
2	Water: Polarity, physical and chemical properties, dissociation Non-covalent bonds in biomolecules
3	pH, pKa, titration curves
4-5	Buffers: buffer action, calculation in buffers, preparation of buffers, biological buffers
Dr. Nafith Abu Tarboush	
6-8	Carbohydrates: Monosaccharide structures, monosaccharide reactions, oligosaccharides, polysaccharides, glycoproteins
9-11	Lipids: Lipid structures, fatty acids, phospholipids, sphingolipids, steroids, biological membranes and membrane transport, prostaglandins and leukotrienes
12	Structures of nucleotides, DNA structure, RNA structure
13-14	Amino Acid Structure, Acid/Base properties, peptide bonds, small peptides of biological interest
15-16	Protein structure linked to function, primary structure, secondary structure, tertiary structure, quaternary structure, thermodynamics and protein folding
17-18	Protein purification, isolation of proteins from cells, column chromatography, electrophoresis, primary structure determination
Prof. Naif Karadsheh	
19	Fibrous proteins
20	Globular proteins
21	Enzymes: general structure and classification
22	Enzyme kinetics: Michaelis-Menten approach
23	Mechanism of enzyme action
24	Factors affecting reaction velocity
25	Inhibition of enzyme activity
26	Regulation of enzyme activity: allosteric enzymes, models of allosteric enzymes, regulation by phosphorylation
27	Zymogens and catalytic antibodies
28	Cofactors and coenzymes
29	Isoenzymes and enzymes in clinical diagnosis

Recommended Textbooks:

1. Biochemistry by Campbell & Farrell
2. Concepts in Biochemistry by Rodney Boyer