



Course Weekly Outline

Course Instructor	Elaf Abdul wahab Shihab Ahmed				
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Title	Biochemistry				
Course Number	Second				
Credits:					
Lectures Hours:	2				
Practical Hours:	3				
Course Objective	Introducing students to the basics of biochemistry according to the vocabulary of the biochemistry curriculum for second stage students				
Course Description	The curriculum items included introducing the science of biochemistry and its importance and studying (carbohydrates, fats, proteins, enzymes, and nucleic acids)				
Prequests					
Textbook References	1- Agricultural Biochemistry, written by (Dr. Ali Hussein and Dr. Saad Khalil Shihab) 2- Internet				
Course Assessment	The first month test	The second month test	Final exam.		Final grade
			Theoretical	Practical	
	20	20	40	20	100
General Notes					

Course weekly Outline

week	Data	Topics Covered	Practical Part
1	2024/1/31	introduction of biochemistry, the components of a living cell and their functions	Introduction and instructions
2	2024/2/7	carbohydrates -its definition - importance-classification (mono, oligo, poly-saccharides)	qualitative detection of carbohydrate (general detection-reducing and non-reducing sugars-reducing power-aldoses and ketoses-pentoses and hexoses)
3	2024/2/14	monosaccharides-isomerism-derivatives of monosaccharides -cyclic structure of monosaccharide	qualitative detection of disaccharides from monosaccharide reducing property test - iodine test
4	2024/2/21	oligosaccharides-reducing and non-reducing sugars	qualitative detection of polysaccharides (general detection reducing property test-iodine test)
5	2024/2/27	polysaccharides -homo and heteropolysaccharides	hydrolysis of starch -detection of starch hydrolytic products
6	2024/2/28	1st exam	the first exam and unknown
7	2024/3/6	amino acids-classification -structure-some important reaction-properties of amino acids	detection of aromatic amino acid in protein
8	2024/3/13	Proteins - their composition, structure, and divisions	detection of basic amino acid in protein
9	2024/3/20	fatty acids classification -structures-some importance of fatty acids	protein precipitation -denaturation
10	2024/3/27	simple lipids-fat and oils -waxes-fat index	2nd exam +unknown
11	2024/4/10	Compound and derived lipids - their composition - their divisions	detection of lipids (saturated and unsaturated fatty acid -copper acetate test - iodine test)
12	2024/4/17	2nd exams	saponification and emulsification test
13	2024/4/24	enzyme-definition -classification - mechanism action of enzyme-active and inactive enzyme-the effective factors on enzymes activity	2nd exams
14	2024/5/8	nucleic acids-biological roles-nucleotides-function of nucleotide-structure-classification	General (carbohydrates and proteins)
15	2024/5/15	3rd exam	General (carbohydrates and proteins)

Instructor Signature:

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