STANDARD COURSE OUTLINE

Annex 3

Hashemite University		**Course name and number:** 2401041222
Faculty of Science		**Pre-requisite:** BIO 101 &102
Department of Biology and Biotechnology	**Course Syllabus**	

Course Information	
Lecture's Time	10.30-11.30 (Sunday) 10.30-11.30 (Tuesday)
Lecture Room	Physics building room (122)
Instructor	Dr. Ahmad Harahsheh
Office Location	104 (Biology department)
Office Hours	(Sunday, Tuesday)-(1-3p.m),
Email:	ahmad_harahsheh@hu.edu.jo

Text Book :

-Harper's illustrated Biochemistry by Murray RK, Bender DA, Botham KM, Kennelly PJ, Rodwell VW, P. Anthony Weil PA (2023), 32th Edition, McGraw Hill

-Harvey RA: Lippincott's Illustrated Reviews: Biochemistry, 8th edition, Lippincott Williams & Wilkins, 2021

References(s)	-Dr Ahmad Harahsheh -Lecture handouts -Harpers for Biochemistry (text book) -Lippincott for Biochemistry (text book) -Electronic materials: 1-RCSB PDB: Homepage 2-National Center for Biotechnology Information

Grading Policy:

Theory		**Practical**
1st Exam	25 %	Quizzes 5%

2nd Exam	25 %	Midterm 0 %	
Other	10%	Reports 5%	
Final Exam	40%		

Course Objectives
1) Relate the fundamental aspects of biochemistry to the function living system. 2) Describe the structure and function of living matter in molecular terms. 3) Investigate the physiological importance of biological macromolecules in biological systems. 4) Interpret the relationship between metabolism of the different biological macromolecules and some diseases. 5) Investigate the role of various electron carriers and proton gradients in ATP synthesis.
Teaching and Learning Methods
-Face to face - Advanced Lecture (Presentations) -Discussion

Course Contents

Week	Topic
1	Introduction to the Biochemistry
2	Enzymes
3	Amino Acids and Peptides
4	**Structure & Functions of Proteins**
5	1st Exam
6	Chemistry of Lipids
7	Chemistry of Carbohydrates
8	Glycolysis
9	**Citric Acid Cycle**
10	Gluconeogenesis
11	2nd Exam

12	Glycogen production and degradation
13	Electron Transport and Oxidative Phosphorylation
14	Integration of Metabolism
15	Revision
16	Final Examination