

Biochemistry

Course No.	Title of Course	Credit Hours
BIO-111	Biochemistry	3(2-1)

Learning Outcomes:

- To introduce students with basic biochemical reactions involved in human body.

Week	Lecture Topic
1	Introduction of biochemistry
2	Biomolecules
3	The Molecules and Chemical Reactions of Life
	Amino Acids and Proteins
4	Simple and Complex Carbohydrates
5	Lipids and Membranes
6	Nucleotides and Nucleic Acids
7	Vitamins and Cofactors
8	Biochemical Reactions
9	MID SEMESTER EXAMS
10	Enzymes
11	Metabolic Pathways
12	Carbohydrate Metabolism
13	Lipid Metabolism
14	Amino Acid Metabolism
15	Molecular Genetics
16	DNA and RNA
17	Translation and the Genetic Code
18	END SEMESTER EXAMINATION
Lab Number	Experiment Detail
1-2	Introduction of biochemistry lab and biosafety
3-4	Units of measurements
5-6	Buffer solution preparation
7-8	Determination of pH and pOH
9-10	Numerical problems of pH and pOH
11-12	Test on carbohydrates
13-14	Test on proteins
15	Test on lipids
	Lab Exam