

Planning and Quality Assurance Affairs

Form (A)

Course Specifications

General Information

Course name	Metabolic Biochemistry
Course number	BIOL2313
Faculty	
Department	
Course type	Major Needs
Course level	2
Credit hours (theoretical)	3
Credit hours (practical)	0
Course Prerequisites	

Course Objectives

1 - to know the energy transfer, break down and biosynthesis of different food stuffs, disease caused by metabolic disorders
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Course Contents

1 - Bioenergetics. Introduction to Metabolism.
2 - Digestion & absorption of carbohydrates. Transport of Glucose. Anaerobic carbohydrate metabolism (Glycolysis)
3 - (Glycolysis), aerobic and anaerobic glycolysis. Cori cycle, pyruvate dehydrogenase control.
4 - Aerobic carbohydrate metabolism (Krebs Cycle)
5 - Electron Transport System.
6 - Glycogen metabolism, metabolism of fructose and galactose.
7 - Lipid metabolism, digestion, mobilization, β -oxidation,
8 - Lipoproteins metabolism, cholesterol metabolism.
9 - Fatty Acid Synthesis. Medium chain acyl coA dehydrogenase deficiency.
10 - Protein metabolism, digestion, transport of amino acids.
11 - Metabolism of selected amino acids, diseases caused by amino acids metabolic disorder.
12 - Nucleic Acid and protein biosynthesis.
13 - Endocrine System

Students Assessment

Assessment Method	TIME	MARKS
Assessment		20
Attendance		10
Midterm Exam		30
Final Exam		40

