

Course Title	General Metabolism	
Course Code	BC5101	
Course type	obligatory	
Academic Year	2016/2017	
Coordinator	Prof. DrTarek M Mohamed	
Other Staff	Prof. Dr.May El Kaay	
Semester	Semester 1	
Level	Level one	
Pre-Requisite		
Course Delivery	Lecture	14 x 2h lectures
	Practical	14 x 3h practicals
	Credit	3h
Parent Department	Chemistry Department	

Contents

Lecture 1	Digestion and absorption of carbohydrate.
Lecture 2	Glycolysis T.C.A cycle
Lecture 3	Pentose phosphate pathway
Lecture 4	Glycogenolysis and glycogenesis
Lectures 5	Electron transport system and energy.
Lecture 6	Anabolism of carbohydrates, gluconeogenesis
Lecture 7	Metabolism of lactose, galactose, fructose
Lectures 8	Lipoprotein traffic pathway
Lectures 9	B- oxidation of fatty acid A ₂
Lectures 10	Biosynthesis of fatty acid A ₂ Keton bodies formation and hormonal control
Lectures 11	Protein turnover and Digestion of proteins by pancreatic enzymes
Lectures 12	Urea cycle
Lectures 13	Biosynthesis of non-essential amino acids.
Lectures 14	Biosynthesis of some essential amino acids

Part II

Practical

- 1) Estimation of glucose, fructose iodometrical.
- 2) Estimation of sugar in honey , orange juice.
- 3) Estimation of sugar in Can ,juice fruit.
- 4) Isolation of Casein in milk.
- 5) Estimation of Casein in milk.
- 6) Extraction of tissue.
- 7) Estimation of Protein in seeds.
- 8) Estimation of total lipid in seeds.
- 9) Estimation of saponification value.
- 10) Estimation of acid value, iodine number.
- 11) Estimation of ascorbic acid in fruit .
- 12) Revision