

Faculty of Oral & Dental Medicine

Biochemistry

Information :

Course Code : SGS 262

Level : Undergraduate

Course Hours : 3.00- Hours

Department : Faculty of Oral & Dental Medicine

Area Of Study :

The Course Explains the Chemistry and metabolism of Biological Molecules. It makes the student to understand the and Chemical nature and metabolic changes of different molecules inside the body. It also enables the student to understand the chemical function of Biomolecules and highlights the importance of individual molecules inside the cell.

Description :

Digestion, metabolism of carbohydrates & lipids , Metabolic errors of proteins , Molecular biology (PCR)

Course outcomes :

a.Knowledge and Understanding: :

1 -	Describe structure of carbohydrates, proteins and lipids
2 -	Describe the metabolic pathways
3 -	Demonstrate the principles of metabolic pathways.
4 -	Point out the importance of vitamins
5 -	Describe the basic principles of some metabolic errors
6 -	Demonstrate principles of molecular biology.

b.Intellectual Skills: :

1 -	Differentiate between structures of carbohydrates, lipids and proteins.
2 -	Explain basis of metabolic reactions
3 -	Explain basis of errors in metabolism
4 -	Appreciate importance of some molecular biology techniques (e.g. PCR)
5 -	Explain the role of vitamin deficiency in development of some diseases.

c.Professional and Practical Skills: :

1 -	Identify unknown carbohydrate solution
2 -	Identify unknown protein solution
3 -	Detect abnormal constituents of urine
4 -	Write a urine report
5 -	Solve case problem

d.General and Transferable Skills: :

1 -	Work effectively in groups and exercise leadership when appropriate.
2 -	Act responsibly in personal and professional relationships.
3 -	Take responsibility for their own learning and continuing personal and professional development.
4 -	Act ethically and consistently with high moral standards in personal and public forums.

Course Topic And Contents :

Topic	No. of hours	Lecture	Tutorial / Practical
Digestion and absorption of Carbohydrates	3	Digestion and absorption of Carbohydrates	Digestion and absorption of Carbohydrates
Metabolism of Carbohydrates	3	Metabolism of Carbohydrates	Metabolism of Carbohydrates
Metabolism of Carbohydrates	3	Metabolism of Carbohydrates	Metabolism of Carbohydrates
Metabolism of Carbohydrates	3	Metabolism of Carbohydrates	Metabolism of Carbohydrates
Digestion and absorption of lipids	3	Digestion and absorption of lipids	Digestion and absorption of lipids
Metabolism of lipids	3	Metabolism of lipids	Metabolism of lipids
revision	3	revision	revision
Metabolism of lipids	3	Metabolism of lipids	Metabolism of lipids
Metabolism of lipids	3	Metabolism of lipids	Metabolism of lipids
Digestion and absorption of proteins	3	Digestion and absorption of proteins	Digestion and absorption of proteins
Metabolism of proteins	3	Metabolism of proteins	Metabolism of proteins
Vitamins	3	Vitamins	Vitamins
Vitamins	3	Vitamins	Vitamins

Teaching And Learning Methodologies :

Lectures

Practical training

Small group discussion

Assignments

Course Assessment :

Methods of assessment	Relative weight %	Week No	Assess What
Mid Term Examination	30.00		Assess knowledge and understanding
Final Written Examination	25.00		
Oral Examination	10.00		assess intellectual skills
Practical Examination	15.00		
Practical mid-term	20.00		assess practical skills & General and transferable skills

Recommended books :

Harper's Biochemistry

Periodicals :

Web Sites