

DATTA MEGHE INSTITUTE OF MEDICAL SCIENCES
(Deemed to be University)
SHARAD PAWAR DENTAL COLLEGE & HOSPITAL
I BDS

Name of Subject: Biochemistry

Course Outcome (CO) and Program Outcome (PO) Theory

Course outcomes	Topics	Competency number	Programme Outcome (PO)						
			PO 1 Clinician	PO 2 Leader & member	PO 3 communicator	PO 4 Lifelong learner	PO 5 Professional	PO 6 Critical thinker	PO 7 Researcher
CO-1 Describe the structure and function of cell, bone and muscle ,biological oxidation and concept of enzyme	1. Cell and transport	D-BIO 1.1.1	2	1	1	2	1	1	2
		D-BIO1.1.2	2	1	1	2	1	1	2
	2. Enzymes	D-BIO 1. 2.1	3	1	1	2	1	1	2
		D-BIO 1.2.2	2	1	1	2	1	1	3
		D-BIO 1. 2.3	3	1	1	2	1	2	3
		D-BIO 1.2.4	3	1	1	2	1	2	3
	3. Bone chemistry,	D-BIO 5.1.1	3	1	1	2	1	1	2
	4. Connective Tissue	D-BIO 5.2.1	3	1	1	2	1	1	2
		D-BIO 5.2.2	3	1	1	2	1	1	2
	5. Biological Oxidation	D-BIO 1.3.1	3	1	1	2	1	1	2
		D-BIO 1.3.2	3	1	1	2	1	1	2
	6. Hormones	D-BIO 5.3.1	3	1	1	2	1	1	2
		D-BIO 5.3.2	3	1	1	2	1	1	2
	CO-2 Describe chemistry and metabolism of various biomolecules along with the disorder	1. Carbohydrate chemistry and metabolism	D-BIO2. 1.1	3	1	1	2	1	2
D-BIO 2.1.2			3	2	1	2	1	1	2
D-BIO2. 1.3			3	1	1	2	1	3	2
D-BIO 2. 1.4			3	1	1	2	1	1	3
D-BIO 2. 1.5			3	1	1	2	1	2	2
D-BIO 2.1.6			3	1	1	2	1	1	2

associated with them.	2. Lipid chemistry and metabolism	D-BIO 2.2.1	3	1	1	2	1	1	2	
		D-BIO 2.2.2	3	1	1	2	1	2	3	
		D-BIO 2.2.3	3	1	1	2	1	1	2	
		D-BIO 2.2.4	3	1	1	2	1	1	2	
		D-BIO 2.2.5	3	2	2	2	1	3	3	
	3. Amino acids and protein chemistry and metabolism	D-BIO 2.3.1	3	2	1	2	1	2	2	
		D-BIO 2.3.2	3	1	2	2	1	2	2	
		D-BIO 2.3.3	3	1	2	2	1	2	3	
		D-BIO 2.3.4	3	2	1	2	1	2	2	
		D-BIO2. 3.5	3	1	1	2	1	1	2	
		D-BIO 2.3.6	3	2	1	2	1	1	2	
		D-BIO 2.3.7	3	1	1	2	1	1	2	
	4. Nucleotides and nucleic acid - chemistry and metabolism	D-BIO 2.4.1	3	1	1	2	1	1	2	
		D-BIO2. 4.2	3	1	1	2	1	1	2	
		D-BIO 2.4.3	3	2	1	2	1	1	3	
		D-BIO 2.4.4	3	1	1	2	1	1	3	
		D-BIO 2.4.5	3	2	1	2	1	1	3	
	5. Haemoglobin chemistry and metabolism	D-BIO 2.5.1	3	2	1	2	1	2	2	
		D-BIO 2.5.2	3	1	1	2	1	2	2	
		D-BIO2. 5.3	3	1	1	2	1	2	3	
	6. Integration of metabolism	D-BIO 2.6.1	3	2	1	2	1	2	2	
	CO-3 Describe the importance of nutrition in health and disease , organ function tests ,role of xenobiotics in disease and	1. Vitamins	D-BIO 3.1.1	3	1	1	2	1	1	2
			D-BIO 3.1.2	3	1	1	2	1	1	2
2. Minerals		D-BIO 3.2.1	3	2	1	2	1	2	3	
		D-BIO 3.2.2	3	2	1	2	1	2	3	
3. Nutrition		D-BIO 3.3.1	3	1	1	2	1	2	2	
		D-BIO 3.3.2	3	1	1	2	1	2	2	

etiology of cancer, biochemical tumor markers, and anti-cancer drugs	4. Organ Function Tests	D-BIO 4.3.1	3	1	1	2	1	3	3
		D-BIO 4.3.2	3	1	1	2	1	3	3
		D-BIO 4.3.3	3	1	1	2	1	1	2
	5. Xenobiotics	D-BIO 5.4.1	3	1	1	2	1	1	2
	6. Cancer	D-BIO 5.5.1	3	1	1	2	1	1	3
		D-BIO 5.5.2	3	1	1	2	1	1	3
CO-4 Describe the processes involved in maintenance of normal pH, water & electrolyte balance of body fluids and the derangements associated with these.	1. Water & Electrolyte balance	D-BIO 4.1.1	3	1	1	2	1	1	2
	2. Acid base Balance	D-BIO 4.2.1	3	1	1	2	1	3	3
		D-BIO 4.2.2	3	1	1	2	1	3	3
CO-5 Describe biochemical basis and rationale of clinical laboratory tests, and demonstrate ability to interpret these in the clinical context.	1. Qualitative Experiments	DBIO 6.1.1 DBIO 6.1.2 DBIO 6.1.3 DBIO 6.1.4 DBIO 6.1.5 DBIO 6.1.6 DBIO 6.1.7 DBIO 6.1.8 DBIO 6.1.9	3						

	2.Quantitative Experiments,	DBIO 7.1.1 DBIO 7.1.2 DBIO 7.1.3 DBIO 7.1.4 DBIO 7.1.5	3	1	2	1	3	3	3
	3. Demonstration	DBIO 8.1.1 DBIO 8.1.2 DBIO 8.1.3 DBIO 8.1.4 DBIO 8.1.5 DBIO 8.1.6	3	1	2	1	3	3	3