MAHARAJA MANINDRA CHANDRA COLLEGE
DEPARTMENT OF ZOOLOGY
NAME OF THE PROGRAM: ZOOLOGY MULTIDISCIPLINARY COURSE (MDC)
LESSON PLAN OF SEMESTER III

Name of the Faculty	Paper Code/ Allotted Topic/Text	Sub-Topic/Lesson Plan	Time Period (Month/ Year)	Number of Lectures
Dr. Asima Das Chattopadhyay	**CC3 MZOO-MDC Cell and Tissue Structure**	**Unit 1: Stain, Dye and Histochemistry** Difference between stain and dye. Components and classification of dye. Principle and chemistry of PAS and Feulgen reaction.	Last week of November – 3rd week of December	8
		Unit 4: Muscle Tissue Salient features. Types based on function and striations. Ultrastructure of skeletal muscle. Features of single unit and multiunit smooth muscle, cardiac muscle. Difference between white muscle fiber and red muscle fiber. Clinical correlation: Duchene muscular dystrophy.	1st week of January – 3rd week of January	5
		Unit 5: Nervous Tissue Salient features; Structure of neurons and types based on origin, myelin sheath and processes; Neuroglia and functions; Clinical correlation: Multiple sclerosis.	1st week of February – 2nd week of February	5
		Unit 6: Tissue Repair Steps of tissue (skin as an example) repair: 1. Inflammation 2. Organization 3. Regeneration and/ or Fibrosis. Factors affecting it: 1. Type of tissue 2. Type of injury. 3. Adequacy of blood supply. 4. State of health. 5. Age.	3rd week of February – Last week of February	2
Dr. Saikat Roy	**CC3 MZOO-MDC Cell and Tissue Structure**	**Unit 2: Epithelial Tissue** Salient features; Classification with location and diagram (based on structure and functions) Glandular epithelium in details. Cell polarity and modifications; Apical domain, Basal domain & Lateral domain. Clinical correlation: Epithelial metaplasia.	Last week of November – 3rd week of December	8
		Unit 3: Connective Tissue Salient features with respect to cell types and fibers and Extracellular Matrix in context to Connective tissue; Classification. Structure and function with diagram of Adipose tissue – brown fat and white fat. Areolar tissue (diagram, location, components, and their functions); Bone tissue (cell types, extra cellular matrix and ossification	1st week of January – Last week of February	14

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		with diagram); Cartilage tissue (structure, types with location and diagram); Blood tissue (composition with function). Brief idea on epithelial membrane: cutaneous membrane, mucous membrane. Clinical correlation with respect to bone tissue: Osteoarthritis and Osteoporosis.		