

**KHARAGPUR COLLEGE**

**DEPARTMENT PHYSIOLOGY**

**SYLLABUS DISTRIBUTION AND TEACHING PLAN**

**EVEN SEMESTER (2nd, 4<sup>th</sup> , & 6<sup>th</sup> ) SESSION (2022 -2023)**

Semester II					
Name of the teacher	Syllabus allotted	Teaching plan			
Dr. Ashutosh Chaudhuri	DSC1BT: Cardiovascular System and Respiratory System	Paper	Term -1 (10 Lectures)	Term -2 (10 Lectures)	Term -3 (10 Lectures)
		DSC1BT:	Cardiovascular system	Cardiac cycle, Peculiarities of regional circulations	Respiratory System
	DSC1BP: Practical Human Experiment	DSC1BP:	1. Measurement of arterial blood pressure by Sphygmomanometer at rest and after exercise, Calculate the mean arterial blood pressure (MABP) 2. Measurement of heart rate and pulse rate (30 beats methods) during rest and exercise and graphical plotting.	3. Modified Harvard step test and determination of physical fitness. 4. Pneumographic recording of respiratory movements along with the effect of drinking of water, talking, laughing, coughing, exercise, hyperventilation and breathe holding.	5. Demonstration: Measurement of oxygen saturation by pulse oxymeter before and after exercise. Measurement of Peak Expiratory Flow Rate. Measurement of forced expiratory volume (FEV) in first second.
Name of the teacher	Syllabus allotted	Teaching plan			
Anupama Pattanayak	DSC1BT: Blood, body fluid and immune System	Paper	Term -1 (10 Lectures)	Term -2 (10 Lectures)	Term -3 (10 Lectures)
		DSC1BP: Practical Haematology	DSC1BT:	Blood	Body fluids
		DSC1BP:	1. Study of the compound microscope. 2. Preparation of blood film of your own blood. Staining of the blood film with Leishman's stain. Identification of different types of blood corpuscles. 3. Determination of TC of RBC and WBC by haemocytometer. 4. Differential count of WBC.	5. Determination of ESR of human blood. 6. Estimation of haemoglobin by haemoglobinometer. 7. Preparation of haemin crystals. 8. Determination of Blood groups.	9. Determination of clotting time, bleeding time, prothrombin time. 10. Determination of osmotic fragility of Red Blood Corpuscle. 11. Preparation and staining of bone marrow. Measurement of diameter of megakaryocyte. 12. Reticulocyte staining.

Semester IV					
Name of the teacher	Syllabus allotted	Teaching plan			
Dr. Ashutosh Chaudhuri	DSC1DT: Endocrine and Reproductive System	Paper	Term -1 (10 Lectures)	Term -2 (10 Lectures)	Term -3 (10 Lectures)
		DSC1BT:	Endocrinology: Hypothalamo-Hypophysial axis, Pituitary gland, Thyroid gland, Parathyroid gland, Adrenal Cortex.	Endocrinology: Parathyroid gland, Adrenal Cortex, Adrenal Medulla, Pancreas	Reproductive Physiology
	DSC1DP: Practical	DSC1BP:	3. Study of estrous cycle. 8. Determination of visual acuity by Snellen's chart / Landolt's chart.	9. Determination of colour blindness by Ishihara chart. 10. Exploration of conductive and perceptible deafness by tuning fork method.	11. Sperm count and sperm motility in rat.
	GE4T: Excretory System	GE4T:	Renal Function & Micturition: (First portion)	Renal Function & Micturition: (Middle portion)	Renal Function & Micturition: (Last portion)
	GE4P: Practical	GE4P:	1. Identification of normal constituents of urine. 2. Identification of abnormal constituents of urine.	3. Tests for Urinary deposits.	4. Estimation of albumin in urine.
Name of the teacher	Syllabus allotted	Teaching plan			
Anupama Pattanayak	DSC1DT: Sensory Physiology and Renal Physiology	Paper	Term -1 (10 Lectures)	Term -2 (10 Lectures)	Term -3 (10 Lectures)
		DSC1BT:	Sensory Physiology: Olfaction and Gustation Audition & Equilibrium	Sensory Physiology: Vision	Renal Physiology
	DSC1DP: Practical	DSC1BP:	1. Staining and identification of kidney and ureters. 2. Silver nitrate preparation of corneal cell space.	4. Identification of normal and abnormal constituents of urine. 5. Tests for Urinary deposits.	6. Estimation of albumin in urine. 7. Detection of specific gravity of urine.
	GE4T: Body Temperature Regulation	GE4T:	Skin and Body temperature regulation: (First portion)	Skin and Body temperature regulation: (Middle portion)	Skin and Body temperature regulation: (Last portion)
	GE4P: Practical	GE4P:	5. Detection of specific gravity of urine.	6. Quantitative estimation of Urea in Urine. 7. Recording of Body Temperature.	8. To study the response of the skin to blunt injury (triple response)(Demonstration).

Semester VI					
Name of the teacher	Syllabus allotted	Teaching plan			
Dr. Ashutosh Chaudhuri	DSE1B T: Developmental aspects of embryo  DSE1BP: Developmental aspects of embryo (Practical)	Paper	Term -1 (10 Lectures)	Term -2 (10 Lectures)	Term -3 (10 Lectures)
		DSE1B T:	General concepts of reproductive system. Stem cell	Gametogenesis	Cleavage
		DSE1BP:	1. Hematoxylin and Eosin staining of testicular, ovarian tissue sections.	2. Identification of spermatocytes, spermatids, Graafian follicle, Corpus Luteum.	
Name of the teacher	Syllabus allotted	Teaching plan			
Anupama Pattanayak	DSE1B T: Developmental aspects of embryo  DSE1BP: Developmental aspects of embryo (Practical)	Paper	Term -1 (10 Lectures)	Term -2 (10 Lectures)	Term -3 (10 Lectures)
		DSE1BT:	Blastula formation	Gastrulation	Organogenesis
		DSE1BP:	3. Demonstration of preserved mammalian embryo.		