2020-2021

Lesson Plan: Department of Zoology					
Semester	**Programme**	**Course & Name of the paper**	**Topic**	**Teacher**	**No. of Hours**
1	**HONS.**	**CC1-1-TH** Non-Chordata - I	Unit 1: Basics of Animal Classification	**PM**	**04**
			Unit 2: Protista and Metazoa	**PM, DD, SC**	**15**
			Unit 3: Porifera	**PM**	**06**
			Unit 4: Cnidaria	**SS**	**10**
			Unit 5: Ctenophora	**SS**	**02**
			Unit 6: Platyhelminthes	**DD**	**06**
			Unit 7: Nematoda	**SC**	**07**
		CC-1-1-P Non-Chordates - I	Study of whole mount of Euglena, Amoeba and Paramoecium	**PM**	**60 Hrs**
			Identification with reason & Systematic position of Amoeba, Euglena, Entamoeba, Paramecium, Plasmodium, Balantidium, Vorticella (from the prepared slides)	**PM, DD**	
			Identification with reason & Systematic position of Sycon, Poterion (Neptune's Cup), Obelia, Physalia, Aurelia, Gorgonia, Metridium, Pennatula, Madrepora, Fasciola hepatica, Taenia solium and Ascaris lumbricoides.	**SS, DD**	
			Staining/mounting of any protozoa/helminth from gut of Periplaneta sp.	**DD**	
		CC1-2-TH Molecular Biology	Unit 1: Nucleic Acids	**SK**	**03**
			Unit 2: DNA Replication	**SK**	**09**
			Unit 3: Transcription	**SK**	**09**
			Unit 4: Translation	**SK**	**09**
			Unit 5: Post Transcriptional Modifications and Processing of Eukaryotic RNA	**SK**	**08**
			Unit 6: Gene Regulation	**SK**	**07**
			Unit 7: DNA Repair Mechanism	**SC**	**02**
			Unit 8: Molecular Techniques	**SC**	**03**
		CC-1-2-P Molecular Biology	Demonstration of polytene and lampbrush chromosome from photograph	**PM**	**60 Hrs**
			Isolation and quantification of genomic DNA from goat liver.	**SK**	
			Agarose gel electrophoresis for DNA.	**SK**	
			Histological staining of DNA and RNA in prepared slides	**SK**	
	GENERAL	**CC1-1-TH** Animal Diversity	Unit 1: Kingdom Protista	**SS**	**02**
			Unit 2: Phylum Porifera	**PM**	**02**
			Unit 3: Phylum Cnidaria	**SS**	**02**

			Unit 4: Phylum Platyhelminthes	**DD**	**02**
			Unit 5: Phylum Nemathelminthes	**DD**	**02**
			Unit 6: Phylum Annelida	**DD**	**04**
			Unit 7: Phylum Arthropoda	**PM**	**04**
			Unit 8: Phylum Mollusca	**SS**	**02**
			Unit 9: Phylum Echinodermata	**DD**	**04**
			Unit 10: Protochordates	**SC**	**02**
			Unit 11: Agnatha	**SC**	**02**
			Unit 12: Pisces	**SS**	**04**
			Unit 13: Amphibia	**SC**	**04**
			Unit 14: Reptiles	**PM**	**04**
			Unit 15: Aves	**SC**	**04**
			Unit 16: Mammals	**SC**	**04**
		CC1-1-P Animal Diversity	Identification with reasons of the following specimens: *Amoeba, Euglena, Paramecium, Sycon, Obelia, Aurelia, Metridium, Taenia solium, Ascaris lumbricoides* (Male and female), *Aphrodite, Nereis, Hirudinaria, Palaemon, Cancer, Limulus, Apis, Chiton, Dentalium, Unio, Sepia, Octopus, Echinus, Cucumaria and Antedon, Balanoglossus, Branchiostoma, Petromyzon, Torpedo, Labeo rohita, Exocoetus, Salamandra, Hyla, Chelone, Hemidactylus, Chamaeleon, Draco, Vipera, Naja, Bat, Funambulus*	**PM & SC**	**60 Hrs**
			Key for Identification of poisonous and non-poisonous snakes	**PM**	
			Study of anatomy of digestive system, salivary gland, mouth parts of Periplaneta, Study of reproductive system of female cockroach	**PM & SC**	
			An "animal album" containing photographs, cut outs, with appropriate write up about the above mentioned taxa. Different taxa/ topics may be given to different sets of students for this purpose	**PM & SC**	
2	**HONS.**	**CC2-3-TH** Non-Chordates - II	Unit 1: Introduction	**PM**	**02**
			Unit 2: Annelida	**DD**	**10**
			Unit 3: Arthropoda	**PM**	**16**
			Unit 4: Onychophora	**DD**	**02**
			Unit 5: Mollusca	**SS**	**10**
			Unit 6: Echinodermata	**DD**	**08**
			Unit 7: Hemichordata	**SS**	**02**
		CC-2-3-P Non-Chordates - II	Study of following specimens: a. Annelids - Aphrodite, Nereis, Chaetopterus, Earthworm, Hirudinaria	**PM, SS**	**60**

			b. Arthropods - Limulus, Palaemon, Balanus, Eupagurus, Scolopendra, Peripatus, Silkworm – life history stages, Termite – members of a colony and Honey bee – members of the colony c. Molluscs - Dentalium, Patella, Chiton, Pila, Achatina, Pinctada, Sepia, Octopus, Nautilus d. Echinoderms - Asterias, Ophiura, Clypeaster, Echinus, Cucumaria and Antedon		
			Anatomy study: Nervours system, Reproductive system (Male & female), Mouth parts & Salivary apparatus in Periplaneta sp	**DD**	
		CC2-4-TH Cell Biology	Unit 1: Plasma Membrane	**SC**	**07**
			Unit 2: Cytoplasmic Organelles I	**SC**	**05**
			Unit 3: Cytoplasmic Organelles II	**SK**	**07**
			Unit 4: Cytoskeleton	**SK**	**05**
			Unit 5: Nucleus	**SK**	**08**
			Unit 6: Cell Cycle	**SK**	**10**
			Unit 7: Cell Signalling	**DD**	**08**
		CC-2-4-P Cell Biology	Preparation of temporary stained squash of onion/arum root tip to study various stages of mitosis	**SK**	**60 Hrs**
			Study of various stages of meiosis from grasshopper testis	**SK**	
			Preparation of permanent slide to show the presence of Barr body in human female blood cells/cheek cells.	**SK**	
			Preparation of permanent slide to demonstrate: a. DNA by Feulgen reaction b. Cell viability study by Trypan Blue staining	**SK**	
	GENERAL	**CC2-2-TH** Comparative Anatomy & Developmental Biology	Unit 1: Integumentary System	**SC**	**04**
			Unit 2: Digestive System	**SC**	**04**
			Unit 3: Respiratory System	**SC**	**06**
			Unit 4: Circulatory System	**SC**	**06**
			Unit 5: Urino-genital System	**SC**	**06**
			Unit 6: Early Embryonic Development	**PM**	**14**
			Unit 7: Late Embryonic Development	**PM**	**10**
		CC2-2-P Comparative Anatomy & Developmental Biology	Osteology: Limb bones, girdle and vertebra of Pigeon & Guineapig, Mammalian skulls: One herbivorous; Guinea pig and one carnivorous; Dog.	**PM & SC**	**60**
			Larval stages: Veliger, Nauplius, Trochophore, Mysis.	**SC**	

			Study of the different types of placenta- histological sections through photomicrographs.	**PM**	
			Developmental stages of chick embryo: 24 Hrs., 48 Hrs, 72 Hrs., 96 Hrs.	**PM**	
3	**HONS**	**CC3-5-TH** Chordata	Unit 1: Introduction to Chordates	**PM**	**02**
			Unit 2: Protochordata	**SS**	**07**
			Unit 3: Agnatha	**SS**	**02**
			Unit 4: Pisces	**SS**	**07**
			Unit 5: Amphibia	**PM**	**07**
			Unit 6: Reptilia	**PM**	**08**
			Unit 7: Aves	**PM**	**08**
			Unit 8: Mammals	**SK**	**09**
		CC-3-5-P Chordata	Identification with Reasons a) **Protochordata**: *Balanoglossus, Branchiostoma* b) **Agnatha**: *Petromyzon* c) **Fishes**: *Scoliodon, Sphyrna, Pristis, Torpedo, Mystus, Heteropneustes, Labeo rohita, Exocoetus, Hippocampus, Anabas*, Flat fish d) **Amphibia**: *Necturus, Bufo (Duttaphrynus) melanostictus, Rana (Hoplobatrachus) tigerinus, Hyla, Tylototriton,* Axolotl larva e) **Reptilia**: Chelone, Trionyx, Hemidactylus, Varanus, *Calotes, Chamaeleon, Draco, Vipera, Naja, Hydrophis,* f) **Mammalia**: Bat (Insectivorous and Frugivorous), *Funambulus* (Indian Palm squirrel)	**PM, SS**	**60 Hrs**
			2. Dissection of brain and pituitary – *ex situ*, digestive and Urino-genital system of *Tilapia*	**SK**	
			3. Pecten from Fowl head	**PM**	
			4. Power point presentation on study of habit, habitat or behaviour of any one animal by student – for internal assessment only	**PM, SS, DD, SC, SK**	
		CC3-6-TH Animal Physiology	Unit 1: Tissues	**PM**	**04**
			Unit 2: Bone and Cartilage	**SS**	**04**
			Unit 3: Nervous System	**SS**	**10**
			Unit 4: Muscular System	**SK**	**10**
			Unit 5: Reproductive System	**DD**	**06**
			Unit 6: Endocrine System	**DD**	**16**
		CC3-6-P Animal Physiology	1. Recording of cardiac and simple muscle twitch with electrical stimulation	**SK**	**60 Hrs**

			2. Preparation of temporary mounts: Squamous epithelium, Striated muscle fibres and nerve cells	**SK**	
			3. Study of permanent slides of Mammalian Skin, Spinal cord, Pancreas, Testis, Ovary, Adrenal, Lung, pyloric stomach, cardiac stomach, Thyroid, small intestine and large intestine of mammal (white rat)	**DD**	
			4. Microtomy: Preparation of permanent slide of any five mammalian (Goat/white rat) tissues	**DD**	
		CC3-7-TH Fundamentals of Biochemistry	Unit 1: Carbohydrates	**SC**	**08**
			Unit 2: Lipids	**SC**	**07**
			Unit 3: Proteins	**SC**	**10**
			Unit 4: Nucleic Acids	**SK**	**10**
			Unit 5: Enzymes	**DD**	**13**
			Unit 6: Oxidative Phosphorylation	**SC**	**02**
		CC-3-7-P Fundamentals of Biochemistry	1. Qualitative tests for carbohydrates, proteins and lipids	**SC**	**60 Hrs**
			2. Qualitative estimation of Urea & Uric acid	**SC**	
			3. Paper chromatography of amino acids.	**SK**	
			4. Quantitative estimation of water soluble proteins following Lowry Method	**DD**	
		SEC(A)-3-2-TH Sericulture	Unit 1: Introduction	**SS**	**06**
			Unit 2: Biology of Silkworm	**SC**	**04**
			Unit 3: Rearing of Silkworm	**PM**	**10**
			Unit 4: Pest and Diseases	**DD**	**07**
			Unit 5: Entrepreneurship in Sericulture	**SK**	**03**
	GENERAL	**CC3-3-TH** Physiology & Biochemistry	Unit 1: Nerve and Muscle	**SC**	**08**
			Unit 2: Digestion	**SC**	**06**
			Unit 3: Respiration	**SC**	**06**
			Unit 4: Cardio-vascular system	**SC**	**06**
			Unit 5: Excretion	**SC**	**06**
			Unit 6: Reproduction and Endocrine Glands	**SC**	**10**
			Unit 7: Carbohydrate Metabolism	**SC**	**02**
			Unit 8: Lipid Metabolism	**SC**	**02**
			Unit 9: Protein Metabolism	**SC**	**04**
			Unit 10: Enzyme	**SC**	**02**
		CC3-3-P Physiology & Biochemistry	1. Study of permanent histological sections of mammalian pituitary, thyroid, pancreas, adrenal gland.	**DD**	**60 Hrs**
			2. Study of permanent histological sections of mammalian duodenum, liver, lung, kidney.	**SS**	

			3. Qualitative test for carbohydrate samples.	**SS**	
		SEC-A-3-1-TH Apiculture	Unit 1: Biology of Bees	**SC**	**02**
			Unit 2: Rearing of Bees	**SS**	**14**
			Unit 3: Diseases and Enemies		**06**
			Unit 4: Bee Economy	**SC**	**02**
			Unit 5: Entrepreneurship in Apiculture	**SK**	**06**
4	**HONS**	**CC4-8-TH** Comparative Anatomy of Vertebrates	Unit 1: Integumentary System	**PM**	**10**
			Unit 2: Digestive System	**PM**	**06**
			Unit 3: Respiratory System	**SS**	**06**
			Unit 4: Circulatory System	**DD**	**07**
			Unit 5: Urinogenital System	**DD**	**05**
			Unit 6: Nervous system and sense organs	**SS**	**08**
			Unit 7: Skeletal System	**PM&SS**	**08**
		CC4-8-P Comparative Anatomy of Vertebrates	1. Study of placoid, cycloid and ctenoid scales through permanent slides/photographs	**SC**	**60 Hrs**
			2. Study of disarticulated skeleton of toad, Pigeon, Guineapig (limb bones, vertebrae, limb and girdle)	**PM**	
			3. Comparative study of heart and brain, with the help of model/picture	**SS**	
			4. Identification of skulls: Pigeon, one herbivore (Guineapig) and one carnivore (Dog) animal	**PM**	
		CC4-9-TH Animal Physiology	Unit 1: Physiology of Digestion	**SC**	**10**
			Unit 2: Physiology of Respiration	**SC**	**10**
			Unit 3: Physiology of Circulation	**SC**	**08**
			Unit 4: Physiology of Heart	**SC**	**08**
			Unit 5: Thermoregulation and Osmoregulation	**PM**	**06**
			Unit 6: Renal Physiology	**PM**	**08**
		CC4-9-P Animal Physiology	1. Determination of ABO Blood group	**DD**	**60 Hrs**
			2. Estimation of haemoglobin using Sahli's haemoglobin meter	**SC**	
			3. Identification of blood cells from human blood	**PM**	
			4. Preparation of haemin crystals and haemochromogen crystals	**SK**	
			5. Identification of blood cells from cockroach haemolymph		
			6. Demonstration of blood pressure by digital meter	**SC**	
		CC4-10-TH Immunology	Unit 1: Overview of Immune System	**DD**	**03**
			Unit 2: Innate and Adaptive Immunity	**DD**	**09**
			Unit 3: Antigen	**DD**	**06**
			Unit 4: Immunoglobulins	**DD**	**10**
			Unit 5: Major Histocompatibility Complex	**DD**	**06**
			Unit 6: Cytokines	**DD**	**03**

			Unit 7: Complement System	**DD**	**05**
			Unit 8: Hypersensitivity	**DD**	**04**
			Unit 9: Vaccines	**DD**	**04**
		CC4-10-P Immunology	1. Demonstration of lymphoid organs (by picture).	**DD**	**60 Hrs**
			2. Histological study of Bursa fabricius, spleen, thymus and lymph nodes through slides/ Photographs	**DD**	
			3. Demonstration of ELISA	**DD**	
		SEC(B)-4-1-TH Aquarium Fishery	Unit 1: Introduction to Aquarium Fish Keeping	**SS**	**02**
			Unit 2: Biology of Aquarium Fishes	**SS**	**10**
			Unit 3: Food and Feeding of Aquarium Fishes	**SS**	**08**
			Unit 4: Fish Transportation	**SS**	**05**
			Unit 5: Maintenance of Aquarium	**SS**	**05**
	GENERAL	**CC4-4-TH** Genetics & Evolutionary Biology	Unit 1: Mendelian Genetics and Its Extension	**SK**	**10**
			Unit 2: Linkage, Crossing Over	**SK**	**08**
			Unit 3: Mutation	**SK**	**08**
			Unit 4: Sex Determination	**SK**	**08**
			Unit 5: Origin of Life	**SK**	**02**
			Unit 6: Evolutionary Theories	**SK**	**06**
			Unit 7: Process of Evolutionary Changes	**SK**	**04**
			Unit 8: Speciation	**SK**	**04**
		CC4-4-P Genetics & Evolutionary Biology	1. Verification of Mendelian Ratio using Chi square test.	**SK**	**60 Hrs**
			2. Identification of Human Aneuploidy using photograph of karyotype.	**SK**	
			3. Phylogeny of horse with diagram of limb and skull.	**SK**	
			4. Study and identification of Darwin Finches from photographs.	**SK**	
			5. Visit to natural history museum and submission of report.	**PM/SS/ DD/SC/S K**	
5	**HONS**	**CC5-11-TH** Ecology	Unit 1: Introduction to Ecology	**SS**	**04**
			Unit 2: Population	**SS**	**20**
			Unit 3: Community	**SS**	**11**
			Unit 4: Ecosystem	**SS**	**08**
			Unit 5: Applied Zoology	**SS**	**07**
		CC5-11-P Ecology	1. Determination of population density in a natural/hypothetical community by quadrate method and calculation of Shannon-Weiner diversity index for the same community	**SS**	**60 Hrs**

			2. Study of an aquatic ecosystem: Phytoplankton and zooplankton, Measurement of area, temperature, salinity, determination of pH, and Dissolved Oxygen content (Winkler's method), Chemical Oxygen Demand and free CO_2	**SS**	
			3. Report on a visit to National Park/Biodiversity Park/Wildlife sanctuary/ any place of ecological interest/ ecological uniqueness/ Zoological Garden	**PM/SS/ DD/SC/S K**	
		CC5-12-TH Principles of Genetics	Unit 1: Mendelian Genetics and its Extension	**SK**	**12**
			Unit 2: Linkage, Crossing Over and Linkage Mapping	**SK**	**08**
			Unit 3: Mutations	**SK**	**12**
			Unit 4: Sex Determination	**SK**	**08**
			Unit 5: Extra-chromosomal Inheritance	**SK**	**02**
			Unit 6: Genetic Fine Structure	**SK**	**02**
			Unit 7: Transposable Genetic Elements	**SK**	**06**
		CC5-12-P Principles of Genetics	1. Chi-square analyses for genetic ratio test	**SK**	**60 Hrs**
			2. Identification of chromosomal aberration in *Drosophila* and man from photograph	**SK**	
			3. Pedigree analysis of some inherited traits in animals	**SK**	
		DSE(A)-5-1-TH Parasitology	Unit 1: Introduction to Parasitology	**DD**	**02**
			Unit 2: Parasitic Protists	**DD**	**12**
			Unit 3: Parasitic Platyhelminthes	**DD**	**12**
			Unit 4: Parasitic Nematodes	**DD**	**12**
			Unit 5: Parasitic Arthropods	**DD**	**10**
			Unit 6: Parasitic Vertebrates	**DD**	**02**
		DSE(A)-5-1-P Parasitology	1. Study of life stages of *Giardia intestinalis*, *Trypanosoma gambiense*, *Leishmania donovani*, *Plasmodium vivax*, *Plasmodium falciparum* through permanent slides/micro photographs	**DD**	**60 Hrs**
			2. Study of adult and life stages of *Schistosoma haematobium*, *Taenia solium* through permanent slides/micro photographs	**DD**	
			3. Study of adult and life stages of *Ancylostoma duodenale* through permanent slides/micro photographs.	**DD**	
			4. Study of monogenea from the gills of fresh/marine fish [Gills can be procured from fish market as by product of the industry]	**DD**	

			5. Study of nematode/cestode parasites from the intestines of Poultry bird [Intestine can be procured from poultry/market as a by-product] & Goat.	**DD**	
			6. Submission of a brief report on parasitic vertebrates	**DD**	
		DSE(B)-5-2-TH Reproductive Biology	Unit 1: Reproductive Endocrinology	**PM**	**10**
			Unit 2: Functional Anatomy of Male Reproduction	**PM**	**14**
			Unit 3: Functional Anatomy of Female Reproduction	**PM**	**18**
			Unit 4: Reproductive Health	**PM**	**08**
		DSE(B)-5-2-P Reproductive Biology	1. Study of animal house: set up and maintenance of animal house, breeding techniques, care of normal and experimental animals (only demonstration through chart).	**PM**	**60 Hrs**
			2. Tissue fixation, embedding in paraffin, microtomy and slide preparation of any endocrine gland.	**PM**	
			3. H-E staining of histological slides.	**PM**	
			4. Examination of histological sections from photomicrographs/ permanent slides of rat/human: testis, epididymis and accessory glands of male reproductive systems; ovary, fallopian tube, uterus (Proliferative and secretory stages), cervix and vagina.	**PM**	
	GENERAL	**DSE-A-5-1-TH** Applied Zoology	Unit 1: Host & Parasite Relationship	**DD**	**02**
			Unit 2: Epidemiology of Diseases	**SK**	**05**
			Unit 3: Parasitic Protozoa	**DD**	**07**
			Unit 4: Parasitic Helminthes	**SK**	**08**
			Unit 5: Insect of Economic Importance	**PM**	**08**
			Unit 6: Insect of Medical Importance	**PM**	**02**
			Unit 7: Animal Husbandry	**SC**	**06**
			Unit 8: Poultry Farming	**SS**	**06**
			Unit 9: Fish Technology	**SS**	**06**
		DSE-A-5-1-P Applied Zoology	1. Study of *Plasmodium vivax, Entamoeba histolytica, Trypanosoma gambiense, Ancylostoma duodenale* and *Wuchereria bancrofti* and their life stages through permanent slides/ photomicrographs or specimens.	**DD, SK**	**60 Hrs**
			2. Study of arthropod vectors associated with human diseases: *Pediculus, Culex, Anopheles, Aedes*	**SK**	
			3. Study of insect damage to different plant parts/stored grains through damaged products/photographs.	**SK**	

			4. Identifying feature and economic importance of *Helicoperva; Heliothis armigera,Papilio demoleus*, *Pyrilla perpusilla*, *Callosobruchus chinensis, Sitophilus oryzae* and *Tribolium castaneum*	**SK**	
			5. Visit to poultry farm or animal breeding centre. Submission of visit report	**SK**	
			6. Maintenance of freshwater aquarium (demonstration only)	**SK**	
6	**HONS**	**CC6-13-TH** Developmental Biology	Unit 1: Early Embryonic Development	**PM**	**20**
			Unit 2: Late Embryonic Development	**PM**	**10**
			Unit 3: Post Embryonic Development	**PM**	**08**
			Unit 4: Implications of Developmental Biology	**PM**	**12**
		CC-6-13-P Developmental Biology	1. Study of whole mounts of developmental stages of chick embryo through permanent slides: 24, 48, and 96 hours of incubation	**PM**	**60 Hrs**
			2. Study of the developmental stages and life cycle of *Drosophila*	**PM**	
			3. Study of different sections of placenta (photomicropgraph/ slides)	**PM**	
			4. Identification of Invertebrate larva through slides/ photographs of Phylum Annelida, Arthropoda, Mollusca and Echinodermata	**PM**	
		CC6-14-TH Evolutionary Biology	Unit 1: Origin of Life	**SC**	
			Unit 2: Historical Review of Evolutionary Concepts	**SC**	
			Unit 3: Geological time Scale	**SC**	
			Unit 4: Natural Selection	**SC**	
			Unit 5: Species Concept	**SC**	
			Unit 6: Origin and Evolution of Man	**SC**	
			Unit 7: Population Genetics	**SK**	
			Unit 8: Extinction	**SC**	
			Unit 9: Phylogenetic Tree	**SC**	
		CC-6-14-P Evolutionary Biology	1. Study of fossils from models/ pictures: Dickinsonia, Paradoxides (Trilobita), Asteroceras (Ammonoid), Pentremites (Blastoid Echinoderm), Ichthyosaur, Archaeopteryx, Cynodont.	**SC**	**60 Hrs**
			2. Study of homology and analogy from suitable specimens.	**SC**	
			3. Phylogenetic trees, Construction & interpretation of Phylogenetic tree using parsimony, Construction of dendrogram following principles of phenetics & cladistics from a data table.	**SC**	

		DSE(A)-6-2-TH Animal Biotechnology	Unit 1: Introduction	**SK**	**05**
			Unit 2: Molecular Techniques in Gene manipulation	**SK**	**23**
			Unit 3: Genetically Modified Organisms	**SK**	**12**
			Unit 4: Culture Techniques and Application	**SK**	**10**
		DSE(A)-6-2-P Animal Biotechnology	1. Genomic DNA isolation from *E. coli* and Plasmid DNA isolation (pUC 18/19) from *E. coli*	**SK**	**60 Hrs**
			2. To study following techniques through photographs - Southern Blotting, Northern Blotting, Western Blotting, PCR, DNA fingerprinting	**SK**	
			3. Project report on animal cloning & Application & ethical Issues.	**SK**	
		DSE(B)-6-1-TH Animal Behaviour	Unit 1: Patterns of Behaviour	**DD**	**10**
			Unit 2: Social and Sexual Behaviour	**DD**	**20**
			Unit 3: Chronobiology & Biological Rhythm	**DD**	**20**
		DSE(B)-6-1-P Animal Behaviour	1. To study nests and nesting habits of the birds and social insects.	**DD**	**60 Hrs**
			2. To study the behavioural responses of wood lice to dry and humid conditions (demonstration only).	**DD**	
			3. To study geotaxis behaviour in earthworm.	**DD**	
			4. To study the phototaxis behaviour in insect larvae.	**DD**	
			5. Visit to Forest/ Wildlife Sanctuary/Biodiversity Park/Zoological Park to study behavioural activities of animals and prepare a short report.	**DD**	
			6. Study of circadian functions in humans (daily eating, sleep and temperature patterns).	**DD**	
	GENERAL	**DSE-B-6-2-TH** Ecology & Wildlife Biology	Unit 1: Introduction to Ecology	**SS**	**04**
			Unit 2: Population	**SS**	**20**
			Unit 3: Community	**SS**	**11**
			Unit 4: Ecosystem	**SS**	**10**
			Unit 5: Wildlife	**SS**	**05**
		DSE-B-6-2-P Ecology & Wildlife Biology	1. Identification of flora, mammalian fauna, avian fauna	**SS**	**60 Hrs**
			2. Demonstration of basic equipment needed in wildlife studies use, care and maintenance (Compass, Binoculars, Spotting scope, Range Finders, Global Positioning System, Various types of Cameras and lenses)	**SS**	

			3. Familiarization and study of animal evidences in the field; Identification of animals through pug marks, hoof marks, scats, pellet groups, nest, antlers, etc.	**SS**	
			4. Study of an aquatic ecosystem: Phytoplankton and zooplankton, Measurement of area, temperature, salinity, determination of pH, and Dissolved Oxygen content (Winkler's method), Chemical Oxygen Demand and free CO_2	**SS**	
		SEC-B-6-4-TH Medical Diagnosis	Unit 1: Diagnostic Methods Used for Analysis of Blood	**SK**	**08**
			Unit 2: Diagnostic Methods Used for Urine Analysis	**SS**	**04**
			Unit 3: Non-infectious Diseases	**DD**	**06**
			Unit 4: Infectious Diseases	**SC**	**03**
			Unit 5: Clinical Biochemistry	**SS**	**01**
			Unit 6: Clinical Microbiology	**SC**	**01**
			Unit 7: Tumours	**SK**	**02**
			Unit 8: Visit to Pathological Laboratory and Submission of Project	**SC**	**05**

PM – Dr. PATRALEKHA MUKHOPADHAY

SS – Dr. SUCHARITA SAHA

DD – Dr. DEBJANI DAS (GHOSH)

SC – Sm. SUCHONA CHAKRABORTY

SK – Sri SUMALLYA KARMAKAR