

LS104A**Animal Biology****2 Credits**

Name of the Faculty: Prof. Amal C. Mondal

S. No.	Topic	Faculty Name/ Contact Hours
1.	Origin and Evolution of Life Theories of the origin of life, early earth, modern self-assembly theories, Oparin Haldane theory of chemical evolution, The Miller- Urey experiment, Organic evolution, Development of evolution theory, Darwin's theory, Origin and evolution of human being.	ACM/1
2.	Natural selection The nature of natural selection, Examples of natural selection, levels of selection, selection of organisms and groups, species selection. Artificial selection, Adaptation: The nature of adaptations, Speciation/	ACM/3
3.	Animal Diversity, Animal Kingdom, Animal Classification Basis of classification, levels of organization (Symmetry, diploblastic and triploblastic organization), Coelom, segmentation, Notochord	ACM/3
4.	Characteristic features of each Phyla Protozoa, Porifera, Cnidaria, Platyhelminthes, Nematodes, Annelida, Arthropoda, Echinodermeta, Hemichordata, Chordata	ACM/3
5.	Structural organization in Animals Animals Tissues: Epithelial Tissue, connective Tissue, Muscle Tissue, Neural Tissue	ACM/3
6.	Organ systems Integumentary system, Muscular and Skeletal system, Digestive system, respiratory system, Circulatory system, Excretory system, nervous system, Sensory and Reproductive systems	ACM/16

Further Reading:

1. Comparative Animal Physiology by Philip C Withers
2. Animal Physiology by Richard W Hill, Gordon A Wyse, Margaret Anderson
3. Animal Physiology: mechanisms and adaptation by David Randall, Warren Burggren, Kathleen French
4. Animal Physiology by R C Sobe
5. Essentials of Animal Physiology by S C Rastogi