CURRICULUM RELEVENCE TO LOCAL/REGIONAL/GLOBAL/ AND NATIONAL

DEPARTMENT OF M.SC ZOOLOGY

| SI no | Course code | Course Name | Global/ national/ regional/ local | Description |
|----------|-------------|------------------------------|--------------------------------------|--|
| 1 | 101 | Animal Systematics | global | Basic Concepts of Biosystematics and Taxonomy, Taxonomoc attributes, Taxonomic procedures, Biodiversity and its conservation |
| 2 | 102 | Biology of non- chordates | global | Coelom, Locomotion, Nutrition, Respiration, Excretion, Nervous system and Larval forms of Invertebrates and Minor Phyla |
| 3 | 103 | Molecular Biology | global | Fundamentals of molecular biology, Ultra structure and functions of cell organelles, Bio membranes, Cell surface receptors and biology of Cancer |
| 4 | 104 | Bioinstrumentation | global | Principles and uses of analytical instruments, Microscopy, Biosensor, Separation techniques in biology, Cell culture, sterilization techniques and cryopreservation. |
| 5 | 201 | Molecular Genetics | global | Basic concepts of genetics, Cell physiology, Biochemistry and Biotechnology |
| 6 | 202 | Human Physiology | global | Circulation, Respiration, Immunology, Excretion, Muscle physiology and Nerve PhysiologyDigestion, Physiology of heart, Respiration, Excretion. |
| 7 | 203 | Biology of Chordates | global | Hemichordata and Protochordate, Fertilization and study of vertebrates. |
| 8 | 204 | Developmental Biology | global | Parthenogenesis, Embryonic induction, Differentiation, Regeneration and Placentation in Mammals. |

M.SC ZOOLOGY



Dean Academics
Netaji Subhas University
Jamshedpur, Jharkhand

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|----|-------------|--|--|--|
| 9 | 301 | Biomolecules and Structural Biology | global | Genetic variability and genetic equilibrium, Analysis of quantitative traits, Concepts of Evolution and Molecular clock |
| 10 | 302 | Quantitative Biology, Biodiversity and Wild life | global | Management of Data, Central Tendency, dispersion and skewness, Test of significance and Advanced methods for data validation like: ANOVA, Probability, correlation and regression |
| 11 | 303 | Aquatic Biology / Computer Application | global | General characters and identification Biological factors in fish culture, Fresh water fish culture and fish breeding, Fishing methods, Fish disease and control, Preservation and processing and aquatic animals. Computer fundamentals and Research and publication ethics |
| 12 | 304 | Limnology/ Eco- Toxicology | global | Metals in the environments, Organic pollutants, sources and global transport, Emerging pollutants, Biological and biochemical effects of pollutants, Biomarkers and biomonitoring, Endocrine disrupting chemicals, Toxicokinetic, Effects on individuals and populations, Changes in communities and ecosystems. Study of water bodies |
| 13 | 401 | Evolutionary Biology | global | Evidences and theories of organic evidences and Concepts of ethology. |
| 14 | 402 | Endocrinology | global | Structure and function of Endocrine gland, |
| 15 | 403 | Applied Zoology/ Ichthyology | | General characters and phylogeny of fishes, Integumentary and digestive system, locomotion, Respiratory, blood vascular and excretory system, Nervous system, sense organs and Reproductive system in Fishes. |
| 16 | 404 | Entomology / Immune System | global | Pest Management. Study of insects and their lifecycle. |
| | | | | Study of Immune cells ,immuneorgans ,vaccines cancer. |



