MINOR SYLLABUS

ZOOLOGY

FOR

P.G.

EFFECTIVE FROM SESSION 2024-25 ONWARDS

MAHARAJA SUHEL DEV UNIVERSITY

AZAMGARH (U. P.) -276128, INDIA

PREPARED BY

PROF. M. SULTAN AHMAD

HOD, DEPARTMENT OF ZOOLOGY, SHIBLI NATIONAL P.G. COLLEGE, AZMGARH, U.P.

CONVENOR OF ZOOLOGY

MSD STATE UNIVERSITY, AZMAGRH, U.P.

P.G.

SUBJECT – ZOOLOGY MINOR	SEMESTER – 1	
Unit	Topics	Total no. of lectures (30)
1	**Introduction to cell** • Cell theory • Prokaryotic cells and Eukaryotic cells • Methods and Techniques to study cell: Light Microscopes & Electron Microscopes • Cell organelles and their functions: Mitochondria Nucleus & Ribosome	8
2	**Principles of Inheritance** • Study of cell cycle: Process and importance of Mitosisand Meiosis • Mendel's Law of Inheritance and its significance • Structure of Chromosome • Types of chromosomes • DNA & RNA	8
3	**Diversity in Living Organisms** • 5-kingdom classification • Outline classification of kingdom Animalia, characteristics and examples of each phylum. • Binomial classification	6

4	Physiology and Chemical Coordination	8
	- Digestive system - Respiratory system - Circulatory system - Introduction to endocrine system - Functions and significance of some important hormones such as insulin, ADH, Thyroxin FSH and GH	

SUBJECT- ZOOLOGY MINOR	SEMESTER- 2	
Unit	Topics	No. Of lectures (30)
1	Human Diseases - Lifestyle diseases- Diabetes, Obesity & Fatty liver disease. - Agent, prevention, symptoms and cure of- Malaria ,Filarial , typhoid - Brief information of- AIDS,STD and COVID-19(corona)	8

2	Food and Health	8
	- Components of food. - Concept of balanced diet, nutrients need for different age group people. - Dietary sources of Carbohydrates, Protein and lipids - vitamins - metabolic disorders	
3	Evolution	8
	- Concept of evolution - Evidences of evolution - Theory of Darwin and Lamarck - Mutation - Adaptive radiation	
4	Ecosystem and Biodiversity	6
	- Concept and components of ecosystem - Food chain, food web and Ecological pyramids - Concept and Importance of biodiversity - Global warming, green House Effect and Acid rain - Wildlife and its conservation: Hotspots in India, Endangered animals, Extinction, Red data book, Biosphere reserves, National Parks, Sanctuaries.	