

**Zoology: Minor Elective - Applied Zoology  
(Credits - 4)**

**4h/week**

Unit	Topics	Total No. of Lectures
<b>I</b>	<b>Life cycle, pathogenecity and control of</b>	<b>8</b>
	<i>Plasmodium</i>	
	<i>Entamoeba</i>	
<b>II</b>	<b>Life cycle, pathogenecity and control of</b>	<b>8</b>
	<i>Ascaris</i>	
	<i>Wuchereria</i>	
<b>III</b>	<b>Sericulture</b>	<b>8</b>
	Life cycle and economic importance of Bombyx and Anthaerea	
	Diseases of silk worm and their control	
<b>IV</b>	<b>Apiculture</b>	<b>8</b>
	Life cycle and social organisation of honey bee	
	Methods and products of bee keeping	
<b>V</b>	<b>Pearl culture</b>	<b>8</b>
	Process of Pearl formation	
	Pearl culture in India	
<b>VI</b>	<b>Pest of major crops</b>	<b>8</b>
	Pest of Paddy ( Leptocorisa)	
	Pest of Sugarcane (Pyrilla)	
	Introduction to Integrated pest management	
<b>VII</b>	<b>Vermiculture and vermicomposting</b>	<b>6</b>
<b>VIII</b>	<b>Introduction to Poultry farming</b>	<b>6</b>

## Zoology: Minor Elective - Animal Ecology and Biodiversity

(Credit - 4)

4h/week

Unit	Topics	Total No. of Lectures
<b>I</b>	<b>Ecology: its aim and scope</b>	<b>6</b>
<b>II</b>	<b>Ecosystem</b>	<b>8</b>
	Concept of ecosystem with reference to pond ecosystem	
	Food chain and food web	
<b>III</b>	<b>Population ecology</b>	<b>8</b>
	Population characteristics, growth and regulation of densities	
	Interrelationships in animal: commensalism and mutualism; predations and parasitism,	
<b>IV</b>	<b>Environmental pollution:</b>	<b>8</b>
	Air pollution; green house effects	
	Water pollution	
	Soil pollution	
<b>V</b>	<b>Biogeochemical cycles</b>	<b>8</b>
	Carbon cycle	
	Nitrogen cycle	
<b>VI</b>	<b>Biodiversity</b>	<b>8</b>
	Components of biodiversity	
	Wild life management: wild life sanctuaries, national parks, biosphere reserves.	
<b>VII</b>	<b>Natural resources and their Conservation</b>	<b>8</b>
	Renewable resources	
	Non-renewable resources	
	Conservation of natural resources	
<b>VIII</b>	<b>Environment Protection Acts and Policies in India</b>	<b>6</b>

**NEP B.Sc. SYLLABUS Designed By:**

Sl. No.	Name	Designation
1.	Prof. Tumul Singh	Professor and Head, Department of Zoology, U.P. College, Varanasi
2.	Dr. Sanjay Kumar Srivastava	Assistant Professor (Senior Scale), Department of Zoology, U.P. College, Varanasi
3.	Dr. Brajesh Kumar Sinha	Assistant Professor, Department of Zoology, U.P. College, Varanasi
4.	Dr. Ashwini Kumar Nigam	Assistant Professor, Department of Zoology, U.P. College, Varanasi
5.	Mr. Satish Pratap Singh	Assistant Professor, Department of Zoology, U.P. College, Varanasi
6.	Ms. Preeti Yadav	Assistant Professor, Department of Zoology, U.P. College, Varanasi
1.	Mr. Vinay Pratap	Assistant Professor, Department of Zoology, U.P. College, Varanasi
2.	Ms. Kirti Singh	Assistant Professor, Department of Zoology, U.P. College, Varanasi

**Approved by:****Members of Board of Studies in the meeting held on 24.08.2022**

Sl. No.	Name	Designation	Board of Studies
1.	Prof. Tumul Singh	Professor and Head, Department of Zoology, U. P. College, Varanasi	Convener, BOS
2.	Prof. Bechan Lal	Vice Chancellor, Cluster University, Jammu	External Expert
3.	Prof. S.K. Trigun	Professor and Head Department of Zoology, BHU, Varanasi	External Expert
4.	Prof. Arvind Kumar	Professor, School of Biotechnology, BHU, Varanasi	External Expert
5.	Dr. Sanjay Kumar Srivastava	Assistant Professor (Senior Scale), Department of Zoology, U.P. College, Varanasi	Internal Expert
6.	Dr. Brajesh Kumar Sinha	Assistant Professor Department of Zoology, U.P. College, Varanasi	Internal Expert