# COURSES OFFERED TO M.SC. ZOOLOGY

#### According to NEP-2020 Guideline

# Syllabus 2024 onwards:

### **SEMESTER-I**

S. No	Course Name	Course Code	Credits
•	Major Courses (Total Credits = 10)	I	
1	Animal Physiology	ZOO 415	2
2	Structure and Function of Invertebrate	ZOO 416	2
3	Cell and Molecular Biology	ZOO 417	2
4	Cell and Molecular Biology & Animal Physiology Lab.	ZOO 418	2
5	Structure and Function of Invertebrate Lab.	ZOO 419	2
	**Minor Courses (Total Credits =04		
1	Entomology	ZOO 420	2
2	Ecology, Environment and Biodiversity	ZOO 421	2
3	Immunology	ZOO 422	2
	**Vocational / Skill Courses (Total Credit	ts =04)	
1	Advanced Techniques in Biology	ZOO 423	2
2	Basics of Wild Life Study	ZOO 424	2
3	Parasitology	ZOO 425	2
	Indian Knowledge system (Total Credits	s=02)	
1	Indian Knowledge System <sup>#</sup>	IKS	2
	Interdisciplinary Course (Total Credits	=02)	1
1	Foundation Course in Ecology	ZOO 426	2
2	Introduction to Apiculture	ZOO 427	2

## SEMESTER-II

S. No	Course Name	Course Code	Credits
	Major Courses (Total Credits = 12)		
1.	Cytogenetics	ZOO 465	2
2.	Comparative Anatomy of Vertebrate	ZOO 466	2
3	Biosystematics and Evolution	ZOO 467	2
4	Developmental Biology	ZOO 468	2
5	Cytogenetics and Developmental Biology Lab.	ZOO 469	2
6	Comparative anatomy of Vertebrate and Biosystematics Lab.	ZOO 470	2
	**Minor Courses (Total Credits =04)		
1	Endocrinology and Neural Physiology	ZOO 471	2
2	Principles of Biochemistry	ZOO 472	2
3	Animal Behaviour	ZOO 473	2
	**Vocational / Skill Course (Total Credits =	=02)	
1	Applied Zoology	ZOO 474	2
2	Histology and Histochemistry	ZOO 475	2
	Indian Knowledge system (Total Credits=	02)	
1	Traditional Uses of Animals for sustainable social and health welfare	ZOO 476	2
	Interdisciplinary Course (Total Credits=0	)2)	
1	Perspectives of Animal Behaviour	ZOO 477	2
2	Principles of Aquaculture	ZOO 478	2

SEMESTER-	

S. No	Course Name	Course Code	Credits
	<b>***Major Courses (Elective Specialization) (Total C</b>	redits = 04)	
1a	Agricultural Entomology	ZOO 515	2
1b	Entomology Lab.	ZOO 516	2
2a	Fish Biology	ZOO 517	2
2b	Fish Biology Lab.	ZOO 518	2
3a	Advances in Molecular Biology	ZOO 519	2
3b	Advances in Molecular Biology Lab.	ZOO 520	2
	Minor Courses (Research Methodology) (Total Cro	edits = 04)	
1	Minor Courses (Research Methodology) (Total Cro Research Methodology	edits = 04) ZOO 521	4
1		ZOO 521	
1	Research Methodology	ZOO 521	
1	Research Methodology   Vocational / Skill Courses (Analysis of Data through Software   Application of Computer, GPS, Image Analysis and PAST in	ZOO 521 ) (Total Credits	= 04)
1	Research Methodology Vocational / Skill Courses (Analysis of Data through Software Application of Computer, GPS, Image Analysis and PAST in Research	ZOO 521 ) (Total Credits ZOO 522 ZOO 523	= 04)
	Research Methodology   Vocational / Skill Courses (Analysis of Data through Software   Application of Computer, GPS, Image Analysis and PAST in   Research   Role of Biostatics in Research	ZOO 521 ) (Total Credits ZOO 522 ZOO 523	= 04)

S. No	Course Name	Course Code	Credits
	***Major Courses (Elective Specialization) (Total Cre	edits = 04)	
1a	Medical Entomology	ZOO 565	2
1b	Medical Entomology Lab.	ZOO 566	2
2a	Advances in Fisheries and Aquaculture	ZOO 567	2
2b	Advances in Fisheries and Aquaculture Lab.	ZOO 568	2
3a	Molecular Genetics	ZOO 569	2
3b	Molecular Genetics Lab.	ZOO 570	2
	Minor Courses (Total Credits = 04)		
1	Academic writings	ZOO 571	2
2	Paper Publications/Seminar, Conferences Presentation at National Level	ZOO 572	2
	Vocational / Skill Courses (Analysis of Data through Software)	(Total Credits	= 04)
1	Role of Artificial Intelligence in Animal Science Research	ZOO 573	2
2	Use of advanced software like: Biorender, GIS, Mendeley and Turnitin etc. in Research	ZOO 574	2
	Dissertation (Total Credits = 08)		
1	M.Sc Dissertation (50% Dissertation and 50% Presentation and viva-voce)	ZOO 595	8
	COURSES OFFERED TO Ph.D. ZOOLO	DGY	
<b>S.</b>	Course Name	Course	Credits

No		Code	
•			
	<b>Core Compulsory</b>		
1.	Research and Publication Ethics	CPE-RPE	2
2.	Pedagogy of Teaching Learning Process	PTLP-01	2
3.	Indian Traditional Knowledge and Practices	ITKP-01	2
4.	Basic Research Methodology	ZOO 601	4
	Elective Courses		
5.	Advanced Research Tools and Techniques	ZOO 602	4
6.	Cell and Molecular Biology	ZOO 603	4
7.	Advances in Entomology and Management of Insect Pest	ZOO 604	4
8.	Advances in Fish and Fishery	ZOO 605	4

### **CERTIFICATE COURSEs**

S. No	Course Name	Course Code	Credits
1.	Introduction To Apiculture	VAT-C-01/1	4
2.	Introduction To Sericulture	VAT-C-01/2	4
3.	Pests Of Honeybees and Silkworm and Their Management	VAT-C-01/3	4
4.	Apiculture Lab.	VAT-C-01/4	4
5.	Sericulture Lab.	VAT-C-01/5	4

## **CERTIFICATE COURSEs**

aquaculture

S. No	Course Name	Course Code	Credits
1.	Principles of Aquaculture	VAT-C-02/1	4
2.	Aquaculture Engineering	VAT-C-02/2	4
3.	Fish Pathology	VAT-C-02/3	4
4.	Fishery Lab.	VAT-C-02/4	4
5.	Advances in Aquaculture Lab.	VAT-C-02/5	4

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