



**Dr. Bhimrao Ambedkar University, Agra**

A State University of Uttar Pradesh (Paliwal Park, Agra -282004)

[www.dbrau.ac.in](http://www.dbrau.ac.in)

A Documentary Support  
for  
*Matric No. – 1.1.2*  
**employability/ entrepreneurship/ skill development**

*under the*  
**Criteria - I**  
**(Curriculum Design and Development)**

*Key Indicator - 1.1*

*in*  
*Matric No. – 1.1.2*

**MASTER OF SCIENCE (ZOOLOGY)**

1988

*Mapping of course to:*

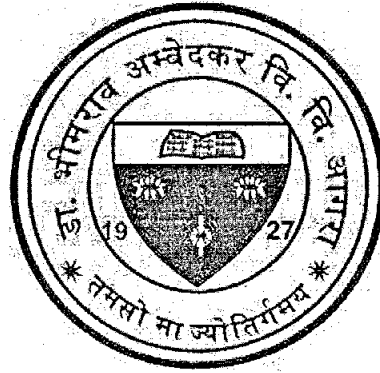
 Employability  Entrepreneurship  Skills Development

  
Registrar  
Dr. B.R.A. University, Agra

Syllabus based on NEP 2020 and developed by the Board of  
Studies of Zoology

Dr. B. R. Ambedkar University Agra

MASTERS IN ZOOLOGY



PROPOSED SYALLBUS OF THE CORE/ELECTIVE PAPERS FOR M.Sc. ZOOLOGY

(Based on Choice Based Credit System) SUBJECT:

ZOOLOGY

Dr. Geeta Maheshwari  
(Convenor)  
Agra College, Agra

Dr. Dinesh Lal  
(Member)  
St. John's College, Agra

Dr. J. Andrew  
(Member)  
St. John's College, Agra

Dr. P.K. Agrawal  
(Member)  
BSA College, Mathura

Dr. Kamal Singh  
(Member)  
RBS College, Agra

Dr. Vijay Kumar Singh  
(Member)  
Agra College, Agra

Dr. Amita Sarkar  
(Member)  
Agra College, Agra

G  
Meh  
09/11/22

**NATIONAL EDUCATION POLICY-2020 Dr. B.R. AMBEDKAR UNIVERSITY,  
AGRA  
PAPER CODING AND CREDIT DISTRIBUTION  
M.Sc. (ZOOLOGY)**

S.No.	Name of Degree	SEMESTER	TITLE OF PAPER	CREDITS	CODE NUMBER		
1	Bachelor (Research) of Science in Zoology	VII	Systematic and Structure and Function of Invertebrate	4	B050701T		
			Molecular and Cell Biology	4	B050702T		
			Biological Techniques and Instrumentation	4	B050703T		
			Microbiology and Immunology	4	B050704T		
			Practical	4	B050705P		
			Research Project				
2		Bachelor (Research) of Science in Zoology	VIII	Chordates Anatomy	4	B050801T	
				Genetics and Biotechnology	4	B050802T	
				Animal Physiology and Biochemistry	4	B050803T	
				Developmental Biology	4	B050804T	
				Practical	4	B050805P	
				Research Project	8	B050806R	
	One Minor Paper to be selected from OTHER FACULTY in VII or VIII Semester			4/5/6			
3	Master of Science in Zoology		IX	Biostatistics and Computer Application	4	B050901T	
				Animal Behaviour	4	B050902T	
				Chronobiology	Choose ANY TWO	4	B050903T
				Genomics		4	B050904T
				Bioinformatics		4	B050905T
		Insect Pest Management		4		B050906T	
		Human Population & Pollution		4		B050907T	
		Vector and Vector borne Diseases		4		B050908T	
		Fish Culture		4		B050909T	
		Apiculture		4		B050910T	
		Biodiversity Conservation		4		B050911T	
		Conservation of Endangered Species		4		B050912T	
		Aquaculture		4		B050913T	
		Sericulture		4		B050914T	

*G. J. J.*

			Practical	4	B050915P			
			Research Project					
4	Master of Science in Zoology	X	<b>Choose ANY ONE Course (A/B/C/D)</b>					
			<b>OPTIONAL COURSE A-ENTOMOLOGY</b>					
			Insect Morphology and anatomy	4	B051001T			
			Insect Physiology and Development	4	B051002T			
			Insect Systematics	4	B051003T			
			Ecology and Applied Entomology	4	B051004T			
			Practical	4	B051005P			
			Research Project	8	B051006R			
			<b>OPTIONAL COURSE B-ICHTHYOLOGY</b>					
			Systematics and Morphology of fishes	4	B051007T			
			Physiology and Embryology Fishes	4	B051008T			
			Aquaculture and fisheries	4	B051009T			
			Pisciculture and economic importance	4	B051010T			
			Practical	4	B051011P			
			Research Project	8	B051012R			
			4	Master of Science in Zoology	X	<b>OPTIONAL COURSE C-PARASITOLOGY</b>		
						General Parasitology	4	B051013T
						Biology of Parasite	4	B051014T
Parasitological Technique	4	B051015T						
Host Parasites Interaction	4	B051016T						
Practical	4	B051017P						
Research Project	8	B051018R						
<b>OPTIONAL COURSE D-WILDLIFE AND ENVIRONMENTAL BIOLOGY</b>								
Wildlife Ecology	4	B051019T						
Wildlife Biodiversity and Conservation	4	B051020T						
Environmental Physiology	4	B051021T						
Environmental Pollution and Management	4	B051022T						
Practical	4	B051023P						
Research Project	8	B051024R						
5	P.G.D.R.	XI	Application of Biostatistics in Research	6	B051101T			
			Instrumentation in Applied Research	6	B051102T			
			Research Methodology	4	B051103T			
			Research Project	Qualifying	B051104R			

Students of Science Faculty may choose MINOR paper from Faculty of Commerce/ Arts, Humanities and Social Sciences/ Languages/Fine Art and Performing Art/Education/Rural Science.

*G. Madh*

# PROPOSED YEAR WISE STRUCTURE OF PG PROGRAM IN ZOOLOGY

SEMESTER-WISE TITLE OF THE PAPERS AND CODE FOR M.Sc. ZOOLOGY(IV and V year )

year	Name of Degree	SEM	CODE NUMBER	TITLE OF PAPER	MAXIMUM MARKS		TOTAL MARKS	CREDITS	CREDITS PER SEMESTER	TOTAL CREDITS
4th	Bachelor (Research) of Science in Zoology	VII	B050701T	Systematic and Structure and Function of Invertebrate	75	25	100	4	20	52
			B050702T	Molecular and Cell Biology	75	25	100	4		
			B050703T	Biological Techniques and Instrumentation	75	25	100	4		
			B050704T	Microbiology and Immunology	75	25	100	4		
			B050705P	Practical	75	25	100	4		
				Research Project						
4th		VIII	B050801T	Chordates Anatomy	75	25	100	4	20	
			B050802T	Genetics and Biotechnology	75	25	100	4		
			B050803T	Animal Physiology and Biochemistry	75	25	100	4		
			B050804T	Developmental Biology	75	25	100	4		
			B050805P	Practical	75	25	100	4		
			B050806R	Research Project				8		
One Minor Paper to be selected from OTHER FACULTY in VII or VIII Semester							4/5/6	4		
5th	Master of Science in Zoology	IX	B050901T	Biostatistics and Computer Application	75	25	100	4	20	48
			B050902T	Animal Behaviour	75	25	100	4		
			B050903T	Chronobiology	75	25	100	4		
			B050904T	Genomics	75	25	100	4		
			B050905T	Bioinformatics	75	25	100	4		
			B050906T	Insect Pest Management	75	25	100	4		
			B050907T	Human Population	75	25	100	4		



			& Pollution				
		B050908T	Vector and Vector borne Diseases	75	25	100	4
		B050909T	Fish Culture	75	25	100	4
		B050910T	Apiculture	75	25	100	4
		B050911T	Biodiversity Conservation	75	25	100	4
		B050912T	Conservation of Endangered Species	75	25	100	4
		B050913T	Aquaculture	75	25	100	4
		B050914T	Sericulture	75	25	100	4
		B050915P	Practical	75	25	100	4
			<b>Choose ANY ONE Course (A/B/C/D)</b>				
			<b>OPTIONAL COURSE A-ENTOMOLOGY</b>				
		B051001T	Insect Morphology and anatomy	75	25	100	4
		B051002T	Insect Physiology and Development	75	25	100	4
		B051003T	Insect Systematics	75	25	100	4
		B051004T	Ecology and Applied Entomology	75	25	100	4
		B051005P	Practical	75	25	100	4
		B051006R	Research Project				8
			<b>OPTIONAL COURSE B-ICHTHYOLOGY</b>				
		B051007T	Systematics and Morphology of fishes	75	25	100	4
		B051008T	Physiology and Embryology Fishes	75	25	100	4
		B051009T	Aquaculture and fisheries	75	25	100	4
		B051010T	Pisciculture and economic importance	75	25	100	4
		B051011P	Practical	75	25	100	4
		B051012R	Research Project				8
			<b>OPTIONAL COURSE C-PARASITOLOGY</b>				
		B051013T	General Parasitology	75	25	100	4
		B051014T	Biology of Parasite	75	25	100	4
		B051015T	Parasitological Technique	75	25	100	4
		B051016T	Host Parasites Interaction	75	25	100	4
5th	Master of Science in Zoology	X					28
4		X					

*Ans*

			B051017P	Practical	75	25	100	4				
			B051018R	Research Project				8				
			<b>OPTIONAL COURSE D-WILDLIFE AND ENVIRONMENTAL BIOLOGY</b>									
			B051019T	Wildlife Ecology	75	25	100	4				
			B051020T	Wildlife Biodiversity and Conservation	75	25	100	4				
			B051021T	Environmental Physiology	75	25	100	4				
			B051022T	Environmental Pollution and Management	75	25	100	4				
			B051023P	Practical	75	25	100	4				
			B051024R	Research Project				8				
5	P.G.D.R.	XI	B051101T	Application of Biostatistics in Research				6				
			B051102T	Instrumentation in Applied Research				6	16	16		
			B051103T	Research Methodology				4				
			B051104R	Research Project				Qualifying				

#### ELECTIVE COURSES (Select any two in the IX semester)

1. Chronobiology (course code B050903T)
2. Genomics (course code B050904T)
3. Bioinformatics (course code B050905T)
4. Insect pest management (course code B050906T)
5. Human population and pollution (B050907T)
6. Vector and vector borne diseases (B050908T)
7. Fishculture (B050909T)
8. Apiculture (B050910T)
9. Biodiversity conservation (course code B050911T)
10. Conservation of endangered species (course code B050912)
11. Aquaculture (course code B050913)
12. Sericulture (course code B050914)

Employability

Entrepreneurship

Skill Development

*Smah*