



MAHATMA GANDHI UNIVERSITY, KERALA

Abstract

Bachelor of Science (Hons) Zoology- Third Semester - Modifications to the Course Outcomes, Course Content and Mode of Assessment - Approved - Orders Issued.

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ACA 16

No. 3440/ACA 16/2025/MGU

Priyadarsini Hills, Dated: 11.04.2025

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*Read:-* 1. U.O.No.5797/AC A16/2024/MGU, dated.27.06.2024.

2. Minutes of the meeting of the Expert Committee in Zoology (UG), held on 04.12.2024.

3. Orders of the Vice Chancellor under Section 10(17), Chapter III of the Mahatma Gandhi University Act 1985, dated. 07.04.2025.

ORDER

The syllabi of various Honours Under Graduate Programmes coming under The MGU-UGP (Honours) Regulations, 2024, have been approved vide paper read as (1) above and published on the website of the University.

The Expert Committee on Zoology (UG), deliberated on modifying the Course Outcomes, Course Content and Mode of Assessment of the DSC, DSE, MDC, and VAC type courses in the **Third Semester** syllabus of **Bachelor of Science (Honours) Zoology** programme and has submitted recommendations, vide paper read as (2) above.

**(Recommendations are attached as Annexure).**

Considering the urgency of the matter, sanction has been accorded by the Vice Chancellor, exercising the powers of the Academic Council vested upon him under Section 10(17), Chapter III of the Mahatma Gandhi University Act 1985, vide paper read as (3) above, to approve the aforementioned recommendations.

Hence, the **Course Outcomes, Course Content and Mode of Assessment** of the said courses in the **Third Semester** syllabus of **Bachelor of Science (Honours) Zoology** programme stands modified to this extent.

Orders are issued accordingly.

MANOJ G

ASSISTANT REGISTRAR III  
(ACADEMIC)  
For REGISTRAR

Copy To

1. PS TO VC
2. PA to Registrar/CE
3. Convenor, Expert Committee, Zoology (UG)
4. JR 2 (Admin)/DR 2, AR 3 (Academic)
5. Tabulation/Academic Sections concerned
6. JR/DR/AR (Exam)
7. AC C1/AC C2 Sections
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Section Officer

## ANNEXURE

### SEMESTER III

**Course Code : MG3DSCZGY200**

**Course Name : Protistan Diversity and Animal  
Diversity - Non Chordata - I**

#### **Course Outcomes**

CO. No. (Modified)		Expected Course Outcome (Modified)	Learning Domains (Modified)	PO. No.	Page No.
Practical		Identification of specimens (Genus and species only) Mounting of Earthworm Setae	U,S	No Change	45
Existing	Modified				
1	5				
2		Removed			

#### **Course Content**

##### **Content for Classroom transaction (Units)**

Module	Unit	Course Description	Hours	CO. No.	Page No.
3	3.2	No Change	No Change	1,4	47
	3.3			1,2	
4		Practicals			
		1. No Change		5	
		2. No Change			
		3. No Change			
		4. No Change			
		5. No Change			
		6. No Change			
		Activity			

### Mode of Assessment

Assessment Type	B. End Semester Evaluation (Modified)			Page No.
	Theory			48
	Total Marks = 50			
	Duration - 1.5 hrs.			
	Type of questions	No. of questions to be answered	Total marks	
	Short Essays	4 out of 6	4 x 5= 20	
	Short Answer Questions	6 out of 8	6 x 3 = 18	
	Multiple Choice Questions	12 out of 12	12 x 1 = 12	
	Practical			
	Total Marks = 35			
Duration - 2 hrs.				
Record - 10 Marks, Examination - 25 Marks:				
Spotter identifications:				
1. Identification & classification - 8 Marks (4 specimens) (Common Name 1/2 Marks, Scientific Name- 1 1/2 marks)				
2. Identification of economically important parasitic protist – 5 Marks				
3. Identification, sketch and labeling of section (any one) – 3 Marks				
4. Identify and write notes on larval stage – 4 Marks				
5. Mounting of setae - 5 Marks				

**Course Code: MG3DSCZGY201**

**Course Name: Animal Diversity - Non Chordata II**

**Course Outcomes**

CO. No.	Expected Course Outcome (Modified)	Learning Domains (Modified)	PO. No.	Page No.
1	Explain salient features and classification of Phylum Onychophora, Arthropoda and Minor Phyla.	U	No Change	50
2	Discuss the type study of Prawn, and significance of Phylum Arthropoda.	U		
3	Describe salient features and classification of Mollusca, Echinodermata and Hemichordata.	U		
4	General identification, Scientific drawing, Mounting and Dissection.	U,S		
5	Removed			

**Course Content**

**Content for Classroom transaction (Units)**

Module	Unit	Course Description	Hours	CO. No.	Page No.
<b>1</b>	1.1	No Change	No Change	1	51
	1.2				
<b>3</b>	3.1			3	52
	3.2				
	3.3				
	3.4				
		<b>Practicals</b>			
	2				

<b>4</b>	3	No Change		4	53
	4				
	5				
	6				
	7				
		<b>Teacher Specific Module</b>			

### **Mode of Assessment**

<b>Assessment Type</b>	<b>B. End Semester Evaluation (Modified)</b>			<b>Page No.</b>
	<b>Theory</b>			53
	<b>Total Marks = 50</b>		<b>Duration - 1.5 hrs.</b>	
	Type of questions	No. of questions to be answered	Total marks	
	Short Essay	4 out of 6	4 x 5 = 20	
	Short Answer Questions	6 out of 8	6 x 3 = 18	
	Multiple Choice Questions	12 out of 12	12 x 1 = 12	
	<b>Practical</b>			
	<b>Total Marks = 35</b>		<b>Duration - 2 hrs.</b>	
	Record - 10 Marks, Examination - 25 Marks:			
	Dissection - 10 Marks, Mounting- 4 marks			
	Scientific drawing – 5 Marks			
	Spotter identification/taxonomic identification – 6 Marks			

**Course Code: MG3DSEZGY200**

**Course Name: Ethology**

**Course Content**

**Content for Classroom transaction (Units)**

Module	Unit	Course Description	Hours	CO. No.	Page No.
3	3.1	No Change	No Change	3	56
	3.2				57
	3.3				

**Mode of Assessment**

Assessment Type	B. End Semester Evaluation (Modified)			Page No.
	Theory			57
	Total marks = 70		Duration - 2 hrs.	
	Type of questions	No. of questions to be answered	Total marks	
	Short Essay	6 out of 8	6 x 5 = 30	
	Short Answer Questions	10 out of 12	10 x 3 = 30	
	Multiple Choice Questions	10 out of 10	10 x 1 = 10	

**Course Code: MG3DSEZGY201**

**Course Name: Value Added Products of Animals**

### Course Outcomes

CO. No.	Expected Course Outcome (Modified)	Learning Domains (Modified)	PO. No.	Page No.
1	Describe products and value-added products of bee keeping and their entrepreneurial possibilities.	U,A	No Change	59
2	Explain Fishery products, by-products and value-added Products and their employment opportunities.	U,A		
3	Explain Meat, Poultry Products and entrepreneurial significance.	U,A		
4	Describe testing and grading of raw milk, Preparation of cultured milk, milk products and commercial importance.	U,A		
5	Removed			

### Course Content

#### Content for Classroom transaction (Units)

Module	Course Description (Modified)	Hours	CO. No. (Modified)	Page No.
1	Products and value-added products of bee keeping & their entrepreneurial possibilities			
	No Change		1	
2	Fisheries: Products, By- Products, Value Added Innovations, and Employment Opportunities			



	Fish protein concentrate, fish oils, fish liver oil and body oil, squalene from shark liver oil, fish gelatin, fish glue, fish maws, and isinglass, fish wafers, fish silage, fish skin leather, shark cartilage, fertilizer from fish waste, chitin and chitosan, surimi, roe, ambergris, ready to cook and ready to eat products.	No Change	2	60
3	<b>Meat and Poultry Products: Entrepreneurial Opportunities and Market Significance</b>			
	Meat Products: Canned meat, Frozen meat, Cooked and Refrigerated meat, Dried and Preserved meat, Cured meat, Prepared meat products, Production methods for Intermediate moisture and dried meat products, Organ products for food and pharmaceuticals.		3	
4	<b>Milk products: Commercial Value and Market Significance</b>		4	61
	<b>ACTIVITY</b> No Change			

### Mode of Assessment

Assessment Type	B. End Semester Evaluation (Modified)			Page No.
	<b>Theory</b>			61
	<b>Total marks = 70</b>		<b>Duration - 2 hrs.</b>	
	Type of questions	No. of questions to be answered	Total marks	
	Short Essay	6 out of 8	6 x 5 = 30	
	Short Answer Questions	10 out of 12	10 x 3 = 30	
	Multiple Choice Questions	10 out of 10	10 x 1 = 10	

**Course Code : MG3DSCZGY202**

**Course Name : Applied Zoology**

### Course Outcomes

CO. No.	Expected Course Outcome (Modified)	Learning Domains (Modified)	PO. No.	Page No.
1	Identify different breeds of cattle, poultry and their management.	U	No Change	63
2	Discuss the economic importance of insects and their role in nutrition and health sector.	U		
3	Explain the methods and management techniques in aquaculture.	A		
4	Explore the economic significance of various aquaculture methods, dairy, and poultry sectors.	U		
5	Removed			

### Course Content

#### Content For Classroom Transaction (Units)

Module	Unit	Course description	Hours	CO. No. (Modified)	Page No.
1		Poultry and Dairy Farming			64
	1.1	No Change	No Change	1	
	1.2				
	1.3				
	1.4				
	1.5				
	1.6				
		Economically Important Aspects			

2	2.1	No Change	No Change	2	
	2.2				
	2.3				
3		Aquaculture			
	3.1	No Change	No Change	3	
	3.2				
	3.3				
4		Practicals			65
	4.1	No Change	No Change	4	
	4.2				
	4.3				
	4.4				
5		Teacher Specific Module			

### **Mode of Assessment**

Teaching and Learning Approach (Modified)	Classroom Procedure (Mode of transaction)			Page No.
	Tutorial, Videos, Visit to any 2 units (Poultry, Dairy, Aquaculture)			65
Assessment Types	B. End Semester Evaluation (Modified)			
	Theory			
	Total Marks = 50                      Duration - 1.5 hrs.			
	Type of questions	No. of questions to be answered	Total marks	
	Short Essay	4 out of 6	4 x 5 = 20	
	Short Answer Questions	6 out of 8	6 x 3 = 18	
	Multiple Choice Questions	12 out of 12	12 x 1 = 12	

	<b>Practical</b> <b>Total = 35 Marks</b> <b>Duration - 2 hrs.</b> <b>Record - 10 Marks, Examination - 25 Marks:</b> Spotter Identification - 16 Marks (8 Nos- Identification- 1/2 marks, Comment on Economic Importance, 1 1/2 (2 x 8= 16 marks) Demonstrate Methylene Blue test- 3 marks. Field Study Report – 4 Marks, Viva – 2 marks	
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**Course Code : MG3DSCZGY203**

**Course Name : Biological Basis of Behaviour - III**

### **Course Outcomes**

<b>CO. No.</b>	<b>Expected Course Outcome (Modified)</b>	<b>Learning Domains (Modified)</b>	<b>PO. No.</b>	<b>Page No.</b>
3	To apply knowledge of sensory systems to analyze and explain defects affecting visual perception and critically examine the anatomy of the skin and its receptors in the somatosenses.	No Change	No Change	67
4	To understand the functions and abnormalities of major glands and its role in stress response.	A		68
5	To understand the structure and function of sensory and endocrine systems, as well as recognize related disorders through practical observation and analysis.	E		

## Course Content

### Content For Classroom Transaction (Units)

Module	Unit	Course description	Hours	CO. No. (Modified)	Page No.
2		Biology of Sensory Systems II			68
	2.1	No Change	No Change	3	
	2.2			No Change	
	2.3			3	
3		Neuroendocrine system			
	3.1	No Change	No Change	4	
	3.2				
	3.3				
4		Practicals			
	1	No Change	No Change	5	
	2				
	3				
	4				
	5				
	6				
	7				
	8				
5		Teacher Specific Module			

### Mode of Assessment

	<b>B. End Semester Evaluation (Modified)</b>			<b>Page No.</b>
	<b>Theory</b>			
	<b>Total Marks = 50</b>		<b>Duration - 2 hrs.</b>	
	Type of questions	No. of questions to be answered	Total marks	
	Short Essays	5 out of 7	5 x 4 = 20	

Assessment Type	Short Answer Questions	10 out of 12	10 x 2 = 20	70
	Multiple Choice Questions	10 out of 10	10 x 1 = 10	
	<p><b>Practical</b></p> <p><b>Total = 35 Marks</b> <b>Duration - 2 hrs.</b></p> <p><b>Record - 10 Marks, Examination - 25 Marks:</b></p> <p>1. Identify and mark the sensory areas of brain mark/shade the areas on the given image -5Marks</p> <p>2. Identify and comment on the functions of any three labelled parts of eye/ear on models/image -6 Marks</p> <p>3. Identify and comment on given refractory errors giving reasons- 4 marks</p> <p>4. Identify and comment on the endocrine gland/a major endocrine disorder -4 Marks</p> <p>4. Construct the visual/auditory pathway in the correct order-6 Marks</p>			

**Course Code : MG3MDCZGY200**

**Course Name : Human Diseases & Their Management**

### Course Outcomes

CO. No.	Expected Course Outcome	Learning Domains (Modified)	PO. No.	Page No.
3	No Change	A	No Change	71

## Course Content

### Content For Classroom Transaction (Units)

Module	Unit	Course description	Hours	CO. No. (Modified)	Page No.
2	2.1	No Change	No Change	3	72
3	3.1			3	
	3.2			4	
4		Teacher Specific Module			

### Mode of Assessment

Assessment Type	B. End Semester Evaluation (Modified)			Page No.
	Theory			73
	Total Marks = 50		Duration - 1.5 hrs.	
	Type of questions	No. of questions to be answered	Total marks	
	Short Essays	4 out of 6	4 x 5 = 20	
	Short Answer Questions	6 out of 8	6 x 3 = 18	
	Multiple Choice Questions	12 out of 12	12 x 1 = 12	

**Course Code : MG3VACZGY200**

**Course Name : Science of Happiness & Human Rights**

### Course Outcomes

CO. No.	Expected Course Outcome (Modified)	Learning Domains (Modified)	PO. No.	Page No.
3	Distinguish potential sources and consequences of stress & individual approaches to stress management	An, C	No Change	74

4		Removed			
Existing	Modified	No Change	U	No Change	
5	4				

## Course Content

### Content For Classroom Transaction (Units)

Module	Unit	Course Description	Hours	CO. No.	Page No.
2		Stress management	No Change		75
	2.1	No Change		3	
	2.2				
	2.3				
3		Human Rights			76
	3.1	No Change		4	
	3.2				
	3.3				
		Activity			1,3,4

### Mode of Assessment

Assessment Type	B. End Semester Evaluation (Modified)			Page No.
	<b>Theory</b>			77
	<b>Total marks = 50</b>		<b>Duration - 1.5 hrs.</b>	
	Type of questions	No. of questions to be answered	Total marks	
	Short Essays	4 out of 6	4 x 5 = 20	
	Short Answer Questions	6 out of 8	6 x 3 = 18	
	Multiple Choice Questions	12 out of 12	12 x 1 = 12	