MAHATMA GANDHI UNIVERSITY, KERALA

Abstract

Bachelor of Science (Honours) Botany and Biotechnology (Double Major) - Third Semester - Recommendations for modifications to the Course Outcomes, Course Content and Mode of Assessment - Academic Council Resolution - Orders issued.

ACA 16

No. 7486/ACA 16/2025/MGU Priyadarsini Hills,Dated: 12.08.2025

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

2. Item No: 141/62342/ACA 16 -3/2025, of the minutes of the meeting of the Academic Council held on 04.07.2025,

ORDER

The syllabi of various 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 Biotechnology (UG), deliberated on modifying the Course Outcomes, Course Content and Mode of Assessment of DSE, MDC and VAC type courses in the Third Semester syllabus of Bachelor of Science (Honours) Botany and Biotechnology (Double Major) programme, and has submitted recommendations (Recommendations are attached as Annexure.)

The said recommendations were placed before the Academic Council for consideration as per the orders of the Professor in charge of the Vice Chancellor on 25.06.2025.

The Academic Council meeting, vide paper read as (2) above, has resolved to approve the recommendations of the Expert Committee on Biotechnology (UG).

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

Orders are issued accordingly.

SUDHA MENON J

ASSISTANT REGISTRAR III
(ACADEMIC)

For REGISTRAR

Copy To

1. PS to VC
2. PA to Registrar/CE
3. JR 2 (Admin)/DR 2, AR 3 (Academic)
4. JR/DR/AR (Exam)
5. Convenor, Expert Committee, Biotechnology (UG)
6. Tabulation /Academic Sections Concerned
7. AC C1/ AC C2 Sections
8. IT Cell 3/OQPM1 Sections
9. PRO/IQAC/Records Sections
10. Action Taken Report
11. Stock File/ File Copy

File No: 62342/AC A16 -3/2025/ACA 16

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Section Officer

Annexure

Semester III

Course Name: Developmental Biology and Assisted Reproduction Technology
Course Code: MG3DSEBBT201

COURSE OUTCOMES (CO)

CO No.	Expected Course Outcome(Modified)	Learning Domains	PO No.	Page No
1	Able to recall the anatomy of human reproductive system and its structures, gametogenesis.	No Change	No Change	82
2	Gain a knowledge about fertilization, pregnancy, parturition, placenta and its hormones.			
3	Gain a comprehensive understanding of early embryonic development with its stages.			
4	Gain a knowledge about Assisted Reproductive Technology, Equipped to comprehend genetic counselling along with an exploration of the ethical and future considerations in assisted reproductive technology.			83

COURSE CONTENT

Content for Classroom Transaction (Units)

Module	Units	Course Description	Hrs.	CO No (Modified)	Page No
1	1.1	No Change	No Change	3	83
	1.2			1	
	1.3			1	
	1.4			1	
	1.5			1	
	1.6			1	
2	2.1			2	
	2.2			2	
	2.3			2	

	2.4			2	
	2.5			2	
4	4.2			3	84
5	Teacher Specific Content				

MODE OF ASSESSMENT (Modified)

A. Continuous Comprehensive Assessment (CCA)

Theory	Page No
25+5 (for Teacher Specific Content) = 30 Marks .	84

B. End-Semester Evaluation (ESE)

Theory			
Max.Marks: 70			**Duration: 2 Hrs**
Type of Questions	**Number of Questions to be answered**	**Marks**	**Page No**
One Word Answer	10 out of 12	10 x 2 = 20	84
Short Essay	4 out of 6	4 x 5 = 20	
Essay	2 out of 4	2 x 15 = 30	

Course Name: Plant and Animal Physiology
Course Code: MG3DSEBBT202

COURSE OUTCOMES (CO)

CO No.	Expected Course Outcome(Modified)	Learning Domains (Modified)	PO No. (Modified)	Page No
1	Understand the structure and functions of various organ systems in the human body – digestion, respiration, circulation, nervous system and renal physiology and their roles in maintaining homeostasis.	No Change	2,10	

2	Apply knowledge on human physiology to diagnose and treat diseases affecting the human body.	A	1,2,3,10	86
3	Understand plant physiological processes including nutrition and nutrient transport, stress response, mechanisms like photoperiodism and vernalization and hormonal response.	U	2,10	
4	Use knowledge on plant physiology in practical applications like crop improvement, plant defense, breeding and secondary metabolite production.	A	1,2,3,10	
5	Removed			87
6				

COURSE CONTENT

Content for Classroom Transaction (Units)

Module	Units	Course Description	Hrs.	CO No (Modified)	Page No
1	1.1	No Change	No Change	1	`
	1.2			1	
	1.3			1	
	1.4			1	
2	2.1			1	87
	2.2			1	
	2.3			1	
	2.4			2	
3	3.1			2	
	3.2			3	
4	4.1			3	
	4.2			4	88
5	Teacher Specific Content				

MODE OF ASSESSMENT (Modified)

A. Continuous Comprehensive Assessment (CCA)

Theory	Page No
25+5 (for Teacher Specific Content) = 30 Marks .	88

B. End-Semester Evaluation (ESE)

Theory			
Max.Marks: 70			**Duration: 2 Hrs**
Type of Questions	**Number of Questions to be answered**	**Marks**	**Page No**
One Word Answer	10 out of 12	10 x 2 = 20	88
Short Essay	4 out of 6	4 x 5 = 20	
Essay	2 out of 4	2 x 15 = 30	

Course Name: Nutritional Biotechnology
Course Code: MG3MDCBBT201

Programme	**Bsc(Hons) Botany and Biotechnology (Double Major Programme)**	Page No: 96
Pre-requisites, if any	**Need to complete 100-199 level courses.**	

COURSE OUTCOMES (CO)

CO No.	Expected Course Outcome(Modified)	Learning Domains (Modified)	PO No.	Page No
1	Student will be able to understand the role of nutrients and it's importance in keeping well balanced diet for a healthy life.	U,C	No Change	96
2	Student will be able to apply Biotechnology and bioprocess technology for improving the nutritional quality of plants and animal foods and managing food adulterants.	A,E,U		
3	Students are able to assess the reasons, management and treatment of life style diseases.	No Change		
4	Removed			
5				
6				
7				

8		97

COURSE CONTENT

Content for Classroom Transaction (Units)

Module	Units	Course Description	Hrs.	CO No (Modified)	Page No
1	1.1	No change	No change	1	97
	1.2			3	
2	2.1			2	
	2.2			2	
	2.3			2	
	2.4			2	
3	3.1			2	
	3.3			2	
	3.4			3	98
	3.7			1	
	3.8			1	
	3.9			3	
	3.10			3	
	3.11			3	
4	Teacher Specific Content				

MODE OF ASSESSMENT (Modified)

A. Continuous Comprehensive Assessment (CCA)

Theory	Page No
20+5(for Teacher Specific Content) = 25 Marks .	99

B. End-Semester Evaluation (ESE)

Theory			
Max.Marks: 50			**Duration: 1.5Hrs**
Type of Questions	**Number of Questions to be answered**	**Marks**	**Page No**
One Word Answer	10 out of 12	10 x 2 = 20	99
Short Essay	5 out of 7	5 x 4 = 20	
Essay	1 out of 2	1 x 10 = 10	

Course Name: Environmental Biotechnology and Human Rights
Course Code: MG3VACBBT201

Programme	**Bsc (Hons) Botany and Biotechnology (Double Major Programme)**	Page No: 104

COURSE OUTCOMES (CO)

CO No.	Expected Course Outcome(Modified)	Learning Domains	PO No.	Page No
	Upon completion of this course participants should be able to:			
4	Gain insights into human rights, including their concept, history, and international dimensions, the role of the United Nations in promoting human rights and critically appraise its regime.	No Change	No Change	105
5	Removed			
6				

COURSE CONTENT

Content for Classroom Transaction (Units)

Module	Units	Course Description	Hrs.	CO No (Modified)	Page No
2	2.7	No Change	No Change	1	106
3	3.2			4	
3	3.3			4	
4	Teacher Specific Content				

MODE OF ASSESSMENT (Modified)

A. Continuous Comprehensive Assessment (CCA)

Theory	Page No
20+5 (for Teacher Specific Content) = 25 Marks .	106

B. End-Semester Evaluation (ESE)

Theory			
Max.Marks: 50			**Duration: 1.5Hrs**
Type of Questions	**Number of Questions to be answered**	**Marks**	**Page No**
One Word Answer	10 out of 12	10 x 2 = 20	106
Short Essay	5 out of 7	5 x 4 = 20	
Essay	1 out of 2	1 x 10 = 10	