



## MAHATMA GANDHI UNIVERSITY, KERALA

### Abstract

Bachelor of Science (Honours) Bioinformatics - Fifth Semester - Modifications to the Course Outcomes and Course Content - Approved - Orders Issued.

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### ACA 16

No. 5161/ACA 16/2026/MGU

Priyadarsini Hills, Dated: 22.05.2026

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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 on Bioinformatics (UG).

3. Orders of the Vice Chancellor under Section 10(17), Chapter III of the Mahatma Gandhi University Act 1985, dated. 21.05.2026.

### 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 Bioinformatics (UG), discussed the need to modify the Course Outcomes of the Course MG5DSCBIF300: Perl & BioPerl Programming, to modify the Course Outcome Number Mapping in the Course Content of DSC/SEC type courses and to rectify the typographical error in Course Name in the detailed syllabus page of DSC/DSE type courses, in the Fifth Semester syllabus of Bachelor of Science (Honours) Bioinformatics programme, and has submitted recommendations vide paper read as (2) above.

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

Considering the urgency, sanction has been accorded by the Vice Chancellor, in exercise of 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 said recommendations.

Hence, the Course Outcomes and Course Content of the said courses in the Fifth Semester syllabus of the Bachelor of Science (Honours) Bioinformatics 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. Convenor, Expert Committee, Bioinformatics (UG)
4. JR 2 (Admin)/DR 2, AR 3 (Academic)
5. JR/DR/AR (Exam)
6. Tabulation/Academic Sections concerned
7. AC C1/AC C2 Sections
8. IT Cell 3/OQPM1 Sections
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File No. 33085/AC A16-3 /2026/ACA 16.

Forwarded / By Order

Section Officer

The document is digitally approved. Hence signature is not needed.

## Annexure

### Semester V

**Course Name: Perl & BioPerl Programming**

**Course Code: MG5DSCBIF300**

<b>Course Name (Typographical Error Rectified)</b>	<b>Perl &amp; BioPerl Programming</b>	<b>Page No. 87</b>
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#### **COURSE OUTCOMES(CO) (Modified)**

<b>CO No.</b>	<b>Expected Course Outcome</b>	<b>Learning Domains</b>	<b>PO No.</b>	<b>Page No</b>	
1	No Change	No Change	No Change	87	
2					
3	<b>Removed</b>				
4					
Existing 5	Proposed 3	Apply regular expressions in pattern matching	A		2
Existing 6	Proposed 4	Learn the concept of subroutines and various built in functions	K		1
Existing 7	Proposed 5	Create subroutines in Perl	C		2
Existing 8	Proposed 6	Apply the programming concepts in Bioperl to solve problems in biology	A		2

## COURSE CONTENT

### Content for Classroom Transaction (Units)

Module	Units	Course Description	Hrs	CO No. (Modified)	Page No.	
1	<b>The Perl Language</b>					88,89
	1.1	No Change	No Change	No Change		
	1.2					
	1.3					
	1.4					
	1.5					
	1.6					
	1.7					
2	<b>PERL REGULAR EXPRESSION AND FUNCTIONS</b>					
	2.1	No Change	No Change	3		
	2.2			3		
	2.3			3		
	2.4			3		
	2.5			3,4		
	2.6			4,5		
	2.7			4,5		
3	<b>BIOPERL</b>					
	3.1	No Change	No Change	6		
	3.2			6		
	3.3			6		
	3.4			6		
4	<b>Practicals</b>					
	4.1	No Change	No Change	1,3,5		
	4.2			6		
5	Teacher Specific Content					

**Course Name: Systems & Synthetic Biology**  
**Course Code: MG5DSCBIF301**

<b>Course Name (Typographical Error Rectified)</b>	<b>Systems &amp; Synthetic Biology</b>	<b>Page No. 91</b>
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**Course Name: Evolutionary Biology & Molecular Phylogenetics**  
**Course Code: MG5DSEBIF300**

<b>Course Name (Typographical Error Rectified)</b>	<b>Evolutionary Biology &amp; Molecular Phylogenetics</b>	<b>Page No. 95</b>
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**Course Name: Introduction to R Programming**  
**Course Code: MG5SECBIF300**

**COURSE CONTENT**

**Content for Classroom Transaction (Units)**

<b>Module</b>	<b>Units</b>	<b>Course Description</b>	<b>Hrs</b>	<b>CO No. (Modified)</b>	<b>Page No.</b>	
1	<b>R programming and data structures</b>					113
	1.1	No Change	No Change	No Change		
	1.2					
	1.3					
	1.4					
	1.5					
	1.6					
1.7						
2	<b>Charts Creation and reading files in R</b>					
	2.1	No Change	No Change	No Change		
	2.2					
	2.3					
	2.4					
2.4						

	2.5			
	2.6			
3	<b>Practicals</b>			
	3.1	No Change	No Change	No Change
	3.2			
	3.3			
	3.4			
	3.5			3
	3.6			
	3.7			No Change
	3.8			
	3.9			
3.10				
4	Teacher Specific Content			