



MAHATMA GANDHI UNIVERSITY, KERALA

Abstract

Bachelor of Science (Honours) Microbiology - Fifth Semester - Modifications to Course Title in the syllabus index, Course Outcomes and Course Content - Approved - Orders Issued.

ACA 16

No. 5599/ACA 16/2026/MGU

Priyadarsini Hills, Dated: 03.06.2026

*Read:-*1. U.O. No. 5797/ACA16/2024/MGU, Dated. 27.06.2024.

2. Minutes of the Combined meeting of the Expert Committees on Microbiology (U.G & P.G).
3. Orders of the Vice Chancellor under Section 10(17), Chapter III of the Mahatma Gandhi University Act 1985, dated. 31.05.2026.

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 Microbiology (UG & PG), at its meeting, discussed the need to modify the Course Outcomes of DSE / SEC type courses, Course Content of DSC / DSE / SEC type courses and to modify the Course Title of the course MG5DSEMBG303: Emerging and Re-emerging Infections, in the syllabus index to **MG5DSEMBG303: Emerging and Re-emerging Diseases**, in the Fifth semester syllabus of Bachelor of Science (Honours) Microbiology programme and has submitted recommendations vide paper read as (2) above. **(Recommendations are attached as Annexure.)**

Considering the urgency of the matter, 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, has approved the above recommendations.

Hence, the Course Title in the syllabus index, Course Outcomes ,Course Content of the said courses in the Fifth Semester syllabus of the Bachelor of Science (Honours) Microbiology programme, stands modified to this extent.

Orders are issued accordingly.

SIJI ANNA KURIEN

ASSISTANT REGISTRAR III
(ACADEMIC)
For REGISTRAR

Copy To

1. PS to VC
2. PA to Registrar/CE
3. Convenor, Expert Committee, Microbiology (U.G & P.G).
4. JR 2 (Admin)/ DR 2, AR 3 (Academic)
5. JR/DR/AR (Exam)
6. Tabulation/Academic Sections concerned
7. IT Cell 3 / OQPM - 1 Sections
8. AC C 1/ AC C 2 Sections
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Forwarded / By Order

Section Officer

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

ANNEXURE

SEMESTER V

Syllabus Index (Modified)

Course Code	Title of the Course (Modified)	Type of the Course DSC, MDC, SEC etc.	Credit	Hours /week	Hour Distribution / week				Page No.
					L	T	P	O	
No Change									
MG5DSEMBG303	Emerging and Re-Emerging Diseases								8
No Change									

Course Name : Essentials of Immunology

Course Code : MG5DSCMBG301

COURSE CONTENT

Content for Classroom Transaction(Units)

Module	Units (Modified)	Course Description	Hrs.	CO No.	Page No.	
1		No Change	No Change	No Change	88	
	1.1	No Change				
	1.2					
	1.3					
	1.4					
2		No Change				
	2.1	No Change				
	2.2					
	Existing					Modified
	Nil					2.3
	2.3					2.4
	2.4					2.5
3		No Change				
	3.1	No Change				
	3.2					
	3.3					
	3.4					
4		No Change				
5		Teacher Specific Content				

Course Name : Medical Parasitology

Course Code : MG5DSEMBG301

COURSE OUTCOMES

CO No. (Modified)	Expected Course Outcome (Modified)	Learning Domains (Modified)	PO No. (Modified)	Page No.
1	No Change	No Change	No Change	93
2	Explain Pathogenic mechanisms, disease transmissions, their life cycles and Lab Diagnosis of the protozoans belonging to the genus <i>Entamoeba</i> , <i>Giardia</i> , <i>Trichomonas</i> and <i>Leishmania</i>			
3	Explain Pathogenic mechanisms, disease transmissions, their life cycles and Lab Diagnosis of the protozoans belonging to the genus <i>Plasmodium</i> , <i>Balantidium</i> , <i>Toxoplasma</i> , <i>Cryptosporidium</i> and <i>Naegleria</i> .	A		
4 (Included)	Describe the classification, life cycle, Transmission, pathogenicity, and Laboratory diagnosis of the mentioned helminths.	An	1,2,6,10	

COURSE CONTENT

Content for Classroom Transaction(Units)

Module (Modified)	Units (Modified)	Course Description (Modified)	Hrs (Modified)	CO No. (Modified)	Page No.
1	1.1	No Change	No Change	No Change	94
	1.2				
2	2.1	Clinical characterisation of protozoans Protozoology: Pathogenic mechanisms, Disease transmissions, their life cycles and Lab Diagnosis of the following Entamoeba histolytica, Giardia lamblia, Trichomonas vaginalis, and Leishmania donovani.	11	No Change	

	2.2	Removed			94
3	3.1	Clinical characterisation of protozoans Protozoology: Pathogenic mechanisms, Disease transmissions, their life cycles and Lab Diagnosis of the following Plasmodium vivax, Plasmodium falciparum, Balantidium coli, Toxoplasma gondii, Cryptosporidium parvum and Naegleria fowleri	11	3	
4	4.1	Clinical Characterisation of Helminths Helminthology: Classification Cestodes – Taenia solium, T. saginata, T.echinococcus Trematodes –Schistosoma haematobium, Fasciola hepatica	10	4	
	4.2	Nematodes – Ascaris, Anchylostoma, Trichuris - their life cycle, Transmission, pathogenicity and Lab Diagnosis	10	4	
	4.3	Enterobius and Wuchereria- their life cycle, Transmission, pathogenicity and Lab Diagnosis			
5	Teacher Specific Content				

Course Name : Food Safety and Management

Course Code : MG5DSEMBG302

COURSE CONTENT

Content for Classroom Transaction(Units)

Module	Units (Modified)	Course Description (Modified)	Hrs	CO No.	Page No.
1	1.1	No Change	No Change	No Change	97,98
	1.2	Introduction to Hazards in food: Physical hazards, Biological hazards, and Chemical hazards Safety of Ready-to-Eat food (RTE)			
	1.3	No Change			
2	2.1	Food Safety Regulations in India Highlights of the Food Safety and			

2			Standards Act of 2006 & Food Safety Regulations, 2011	No Change	No Change	97,98
	2.2		Establishment of the Food Safety and Standards Authority of India (FSSAI); Functions of FSSAI - A brief account of FSSAI manual			
	Existing	Modified	Role of National Food Quality Regulatory bodies: Agricultural and Processed Food Export Development Authority (APFEDA), Marine Product Export Development Authority(MPEDA), Export Inspection Council and Export Inspection Agency (EIA)			
3	3.1		No Change	No Change	97,98	
	3.2					
	3.3					
4	4.1		No Change	No Change	97,98	
	4.2		Prerequisites for the implementation of HACCP 1. Assemble the HACCP team 2. Describe the product 3. Identify the intended use 4. Construct a flow diagram 5. On-site confirmation of flow diagram			
	4.3		No Change			
	4.4		Implementation and Maintenance of the HACCP Program An example of a HACCP process flow diagram - for the production of poultry meat			
5	Teacher Specific Content					

Course Name : Entrepreneurship in Microbiology

Course Code : MG5SECMBG300

COURSE OUTCOMES

CO No. (Modified)	Expected Course Outcome (Modified)	Learning Domains (Modified)	PO No. (Modified)	Page No.
1	No Change	No Change	No Change	103
2	Analyse the role of Entrepreneurs In problem-solving, technology in Entrepreneurship.			
3	Understand the startups, MSMEs, and various agencies supporting entrepreneurship.	U	1,2,10	
4 (Included)	Assess entrepreneurial ventures in the field of Microbiology	E	1,10	

COURSE CONTENT

Content for Classroom Transaction(Units)

Module	Units (Modified)	Course Description (Modified)	Hrs (Modified)	CO No. (Modified)	Page No.
1	1.1	No Change	No Change	No Change	104
	1.2				
2	2.1		10		
	2.2	Removed			
3	3.1	Difference between startups and MSMEs.NISP (NATIONAL INNOVATION AND STARTUP POLICY), Brief Insight into National Innovation Foundation (NIF), MoES Innovation Council (MIC), Kerala Start-up Mission, and IEDC.	10	No Change	
4	4.1	Conduct a case study of any entrepreneurial venture in the field of Microbiology in your nearby area, OR Interaction with a successful entrepreneur.	5	4	
5	Teacher Specific Content				