



MAHATMA GANDHI UNIVERSITY, KERALA

Abstract

Bachelor of Science (Honours) Food Science and Quality Control - Fourth Semester - Modifications to the Course Outcomes, Course Content and Mode of Assessment - Approved - Orders Issued.

ACA 16

No. 416/ACA 16/2026/MGU

Priyadarshini Hills, Dated: 14.01.2026

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

2. Minutes of the meeting of the Expert Committee on Food Science and Quality Control (UG)
4. Orders of the Vice Chancellor under Section 10 (17), Chapter III of the Mahatma Gandhi University Act 1985, dated 09.01.2026.

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 Food Science and Quality Control (UG), deliberated on modifying the Course Outcomes, Course Content and Mode of Assessment of the DSC, DSE, SEC and VAC type courses in the Fourth Semester syllabus of Bachelor of Science (Honours) Food Science and Quality Control 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, 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 aforementioned recommendations.

Hence, the **Course Outcomes, Course Content and Mode of Assessment** of the said courses in the Fourth Semester syllabus of Bachelor of Science (Honours) Food Science and Quality Control 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, Food Science and Quality Control (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/OQPM1Sections
9. PRO/IQAC/Records Sections
10. Stock File/File Copy

File No. 76963/AC A16-1/2025/AC A16

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Section Officer

ANNEXURE

SEMESTER IV

Course Name : Sensory Science
Course Code : MG4DSCFSQ200

Course Outcomes

CO.No	Expected Course Outcome (Modified)	Learning Domains (Modified)	PO.No (Modified)	Page No.
1	No Change			
2	Understand and explain the principles, components and methods of sensory evaluation, including panel selection, sample preparation, and scoring techniques.	No Change	No Change	
3	Understand and explain various sensory testing methods, along with basic statistical tools like measures of central tendency and standard deviation.	U	No Change	101
4	Apply sensory evaluation methods and analyze sensory data to assess product characteristics and consumer preferences.	A, An	1,2,4,10	
5	Removed			

Course Content

(Content for classroom transaction (units))

Module	Unit	Course Description	Hours	CO.No (Modified)	Page No.
1. Introduction to Sensory Science, Evaluation of Food and Perception	1.1	No Change	No Change	No Change	101,102
	1.2				
	1.3				
	1.4				
	1.5				
	1.6				
	1.7				

2. Sensory Evaluation Requirements	2.1	No Change	No Change	2	102				
	2.2								
	2.3								
	2.4								
3. Testing Methods in Food and Data Analysis	3.1	No Change	No Change	3					
	3.2								
	3.3	Ranking test, hedonic scale and scoring test							
	3.4	No Change							
	3.5								
4. Practicum	4.1	No Change	No Change	4					
	4.2								
	4.3								
5	Teacher Specific Content								

Mode of Assessment

A. Continuous Comprehensive Assessment (Modified)	Page No.	
Theory: 25 marks Assignment/Test/ Seminar		
Practicals: 15 marks Viva/ Skill/ Knowledge		
B. End Semester Evaluation: Theory (Modified)		
Total Marks :50	Duration: 1.5 Hrs	
Type of Questions	No.of Questions to be Answered	Total Marks
MCQ	10 out of 10	$10 \times 1 = 10$ marks
Short Answer	4 out of 6	$4 \times 5 = 20$ marks
Essay	2 out of 4	$2 \times 10 = 20$ marks

Course Name : Introduction to Food Microbiology
Course Code : MG4DSCFSQ201

Course Outcomes

CO.No	Expected Course Outcome (Modified)	Learning Domains	PO.No (Modified)	Page No.
1	No Change			
2	Understand the environmental factors on the growth and response of microorganisms, their sterilization techniques and cultivation methods.	No Change	No Change	
3	Understand the spoilage of different food groups, foodborne illness.			104,105
4	Identification of microorganisms, microbiological analysis of food and water.		1,3,10	
5				
6				
7				
8		Removed		

Course Content (Content for classroom transaction (units))

Module	Unit	Course Description	Hours	CO.No (Modified)	Page No.
1- Introduction to Food Microbiology	1.1	No Change		No Change	
	1.2				
	1.3				
	1.4				
	1.5			1	
2- Sterilization Techniques and Cultivation of Microorganisms	2.1	No Change	No Change	No Change	105,106
	2.2				
	2.3				
3- Spoilage of Specific Food Groups	3.1	No Change		3	
	3.2				
	3.3				

and Foodborne Diseases	3.4				
4- Practicum	4.1	No Change	4		
	4.2				
	4.3				
	4.4				
5	Teacher Specific Content				

Mode of Assessment

A. Continuous Comprehensive Assessment (Modified)	Page No.												
Theory: 25 marks Assignment/Test/ Seminar													
Practicals: 15 marks Viva/ Skill/ Knowledge													
B. End Semester Evaluation: Theory (Modified)													
Total Marks :50	Duration: 1.5 Hrs												
<table border="1"> <thead> <tr> <th>Type of Questions</th><th>No.of Questions to be Answered</th><th>Total Marks</th></tr> </thead> <tbody> <tr> <td>MCQ</td><td>10 out of 10</td><td>$10 \times 1 = 10$marks</td></tr> <tr> <td>Short Answer</td><td>4 out of 6</td><td>$4 \times 5 = 20$ marks</td></tr> <tr> <td>Essay</td><td>2 out of 4</td><td>$2 \times 10 = 20$ marks</td></tr> </tbody> </table>		Type of Questions	No.of Questions to be Answered	Total Marks	MCQ	10 out of 10	$10 \times 1 = 10$ marks	Short Answer	4 out of 6	$4 \times 5 = 20$ marks	Essay	2 out of 4	$2 \times 10 = 20$ marks
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Short Answer	4 out of 6	$4 \times 5 = 20$ marks											
Essay	2 out of 4	$2 \times 10 = 20$ marks											

Course Name : Food Packaging Technology
Course Code : MG4DSEFSQ200

Course Outcomes

CO.No	Expected Course Outcome (Modified)	Learning Domains	PO.No	Page No.
1	Understand the basic concepts and define food packaging, its primary functions, and classify various types of packaging based on materials, use, and package levels.	No Change	No Change	109-110

2	Describe and compare different food packaging materials with respect to their properties, applications, advantages, and limitations. Explain the role of laminates, closures, and forms of packages used in the food industry.	No Change	No Change	
3	Apply knowledge of advanced food packaging technologies and interpret national and international packaging laws and regulations.			
4	Evaluate the quality and integrity of food packaging materials through appropriate testing methods and performance assessments.			

Course Content

(Content for classroom transaction (units)

Module	Unit	Course Description	Hours	CO.No. (Modified)	Page No.
I- Introduction to Food Packaging	1.1			No Change	110
II- Rigid and Flexible Packaging	2.1	No Change	No Change	2	110,111
	2.2				
	2.3				
	2.4				
	2.5				
	2.6				
	2.7				
III- Recent Trends & Regulation	3.1			3	
	3.2			No Change	
IV- Testing in Food Packaging	4.1			4	
	4.2				
	4.3				
V	Teacher Specific Content				

Mode of Assessment

A. Continuous Comprehensive Assessment (Modified)	Page No.
Theory: 30 marks Assignment/Test/ Seminar	111-112

Course Name : Principles and Practices in Food Hygiene
Course Code : MG4DSEFSQ201

Course Content
(Content for classroom transaction (units))

Module	Unit	Course Description	Hours	CO.No. (Modified)	Page No.
1- Introduction to Food Hygiene	1.1			1	114
	1.2				
	1.3				
2- Food Hygiene and Food Storage	2.1	No Change	No Change	2	114
	2.2				
	2.3				
	2.4				
	2.5				
3- Food Handling	3.1			3	114
	3.2				
	3.3				
	3.4				
4- Food Service Hygiene	4.1			4	114
	4.2				
5		Teacher Specific Content			

Mode of Assessment

A. Continuous Comprehensive Assessment (Modified)	Page No.
Theory: 30 marks Assignment/Test/ Seminar	115

Course Name : Principles of Sanitation and HACCP
Course Code : MG4DSCFSQ202

Course Outcomes

CO.No	Expected Course Outcome (Modified)	Learning Domains (Modified)	PO.No	Page No.
1	Understand the systematic approach of HACCP in identifying, evaluating and controlling food safety hazards.	No Change	No Change	118
2	No Change			
3	Examine twelve steps and seven principles of the HACCP system in food industries and evaluate role of total quality management for effective sanitation in food industries.	E	No Change	
4	Combine the knowledge, confidence and skills to apply sanitation methods and effective HACCP system in food industries and create a practical exercise atmosphere for implementation of principles of food safety.	C		
5	Removed			
6				

Course Content (Content for classroom transaction (units))

Module	Unit	Course Description	Hours	CO.No (Modified)	Page No.	
1- Introduction To Sanitation and HACCP System	1.1	No Change	No Change	1	118-120	
	1.2					
	1.3					
	1.4					
2- Food Borne Bio Terrorism and Prerequisite Programs	2.1			2		
	2.2					
	2.3					
	2.4					
3- HACCP System, Food Safety and	3.1			3		
	3.2					

Quality Assurance for Sanitation, Cleaning Compound and Sanitizers	3.3	No Change	No Change	3
	3.4			
	3.5			
	3.6			
	3.7			
	3.8			
	3.9			
4- Practicum	4.1	No Change	No Change	4
	4.2			
	4.3			
	4.4			
	4.5			
5	Teacher Specific Content			

Mode of Assessment

A. Continuous Comprehensive Assessment (Modified)	Page No.	
Theory: 25 marks Assignment/Test/ Seminar		
Practicals: 15 marks Viva/ Skill/ Knowledge		
B. End Semester Evaluation: Theory (Modified)		
Total Marks :50	Duration: 1.5 Hrs	
Type of Questions	No.of Questions to be Answered	Total Marks
MCQ	10 out of 10	$10 \times 1 = 10$ marks
Short Answer	4 out of 6	$4 \times 5 = 20$ marks
Essay	2 out of 4	$2 \times 10 = 20$ marks

Course Name : Management in Food Industry
Course Code : MG4SECFSQ200

Course Outcomes

CO.No	Expected Course Outcome (Modified)	Learning Domains	PO.No (Modified)	Page No.			
1	Explain management, importance, principles, levels, functions and challenges.	No Change	No Change 1,2,3,4,5,10	122			
2	Summarize the different channels of distribution, pricing techniques and promotional activities.						
3	Analyze the new trends in marketing.						
4	Removed						
5	Removed						

Course Content (Content for classroom transaction (units))

Module	Unit	Course Description	Hours	CO.No. (Modified)	Page No.
I- Management-Principles, Levels and Functions	1.1	No Change	No Change	1	123
	1.2				
	1.3				
	1.4				
	1.5				
II- Channels of Distribution and Promotional Activities	2.1				
	2.2				
	2.3				
	2.4				
	2.5				
III- New Trends in Marketing	3.1				123-124
	3.2				
	3.3				
IV	Teacher Specific Content				

Mode of Assessment

B. End Semester Evaluation: Theory (Modified)			Page No.
Total Marks :50		Duration: 1.5 Hrs	
Type of Questions	No.of Questions to be Answered	Total Marks	
MCQ	20 out of 20	20 x 1= 20 marks	
Short Answer	5 out of 7	5 x 4 = 20 marks	
Long Essay	1 out of 2	1 x 10 = 10 marks	

Course Name : First Aid, Fire Safety and Disaster Management
Course Code : MG4SECFSQ201

Course Outcomes

CO.No	Expected Course Outcome (Modified)	Learning Domains (Modified)	PO.No. (Modified)	Page No.
1	Understand the importance of basic first aid techniques, fire safety, and industrial safety management systems in maintaining a safe and secure workplace environment.	No Change	No Change	
2	Identify and apply appropriate first aid techniques to assess, stabilize and provide initial care for injuries such as cuts, burns, fractures, and medical emergencies including cardiac arrest and choking.	A	1,2,3,6,10	
3	Identify, assess and apply fire fighting strategies, evacuation procedures and communication protocols.	No Change	No Change	
4	Removed			
5	Removed			

Course Content (Content for classroom transaction (units))

Module	Unit	Course Description	Hours	CO.No (Modified)	Page No.
1- Introduction to	1.1		No Change	1	126,127

Emergency Preparedness and Response	1.2				
	1.3				
2- First Aid Techniques and Basic Life Support	2.1	No Change		2	
	2.2				
	2.3				
	2.4				
	2.5				
3- Fire Safety and Prevention Measures	3.1			3	
	3.2				
	3.3				
	3.4				
4	Teacher Specific Content				

Mode of Assessment

B. End Semester Evaluation: Theory (Modified)			Page No.
Total Marks :50		Duration: 1.5 Hrs	
Type of Questions	No.of Questions to be Answered	Total Marks	
MCQ	20 out of 20	20 x 1= 20 marks	127
Short Answer	5 out of 7	5 x 4 = 20 marks	
Long Essay	1 out of 2	1 x 10 = 10 marks	

Course Name : Entrepreneurship Development
Course Code : MG4VACFSQ200

Course Outcomes

CO.No	Expected Course Outcome (Modified)	Learning Domains (Modified)	PO.No (Modified)	Page No.
1	Interpret scope of business and forms of business organizations and explain entrepreneurship, entrepreneurs, classification of entrepreneurs, entrepreneurs and managers.	No Change	3,5,6,7,10	129
2	Explain EDP and identify the			

	role of entrepreneurs in the economic development of a nation.			
3	Discuss product identification, selection and project formulation.	No Change	1,2,3,6,10	
4	Removed			

Course Content
(Content for classroom transaction (units))

Module	Unit	Course Description	Hours	CO.No. (Modified)	Page No.
1- Scope of Business, Forms of Business Organization and Entrepreneurship	1.1	No Change	No Change	1	130
	1.2				
	1.3				
	1.4				
	1.5				
2- Entrepreneurship Development Programme	2.1			2	
	2.2				
	2.3				
	2.4				
3- Product Identification, Selection and Project Formulation	3.1			3	
	3.2				
	3.3				
	3.4				
4	Teacher Specific Content				

Mode of Assessment

B. End Semester Evaluation: Theory (Modified)			Page No.
Total Marks :50			Duration: 1.5 Hrs
Type of Questions	No.of Questions to be Answered	Total Marks	131
MCQ	20 out of 20	20 x 1= 20 marks	
Short Answer	5 out of 7	5 x 4 = 20 marks	
Long Essay	1 out of 2	1 x 10 = 10 marks	