THE MAHATMA GANDHI UNIVERSITY UNDERGRADUATE PROGRAMMES (HONOURS) SYLLABUS

MGU-UGP (Honours)

(2024 Admission Onwards)



Faculty: Tourism and Hospitality Studies

Expert Committee: Tourism

Subject: Food Nutrition

Mahatma Gandhi University Priyadarshini Hills Kottayam – 686560, Kerala, India

Syllabus Index

Name of the Minor: Food Nutrition

Semester 1

		Type of the Course		Hours/	Но		stribu eek	tion
Course Code	Title of the Course	DSC	Credit	yyaalz				
		DSC,		week	т	т	D	0
		MDC,			L	1	P	U
	GAND	SEC etc.						
	Basic Nutrition for Hotel	DSC B	4	5	3		2	
MG1DSCFNN100	Operations							

Semester: 2

	TOT TO	Type of the Course		Hours/	Hour Distribut		tion		
Course Code	Title of the Course	DSC, MDC, SEC etc.	Credit	week	L	Т	P	О	
MG2DSCFNN100	Hotel Hygiene and Food Safety	DSC B	4	5	3		2		
	MGU-UGP (HONOURS)								

Semester: 3

		Type of the Course	a 1:	Hours/	Но		stribu eek	tion
Course Code	Title of the Course	DSC, MDC, SEC etc.	Credit	week	L	Т	P	О
MG3DSCFNN200	Advanced Nutrition for Hotel Operation	DSC B	4	5	3		2	

Semester: 4

Course Code	Title of the Course	Type of the Course Credit		Hours/		our Distribution /week		
Course Code	factor area	DSC, MDC, SEC etc.	Credit	week	L	Т	P	О
MG4DSCFNN200	Advanced Nutrition for Hotel Operation	DSC C	4	5	3		2	

MGU-UGP (HONOURS)



GANDHIO	Mahatma Gandhi University						
विकास अमुसमारन्ति		Kottayam					
Programme							
Course	Basic Nutritio	n for Hote	l Operatio	ns			
Name							
Type of	DSC B						
Course							
Course Code	MG1DSCFNN100)					
Course Level	100-199	100-199					
Course	The course aims	at providing	g a compreh	ensive introd	uction to th	ne	
Summary	fundamental pri	•		•			
	nutrients in mai				•		
	Macronutrients recommended of		utrients, the	ir functions, s	sources and		
_	recommended e	I			<u> </u>	T	
Semester	ı		Credits		4		
	'		Credits		-		
				1		Total	
Course	Learning	Lecture	Tutorial	Practical	Others	Hours	
Details	Approach	Lecture	Tatoriai	Tractical	Others		
		3		1		75	
Pre-	Students should	have profic	iency in Engl	ish language	as the cour	se	
requisites	involves reading		_				
	have genuine in		_		=		
	a willingness to	-	•	tritional cond	epts while	tostering a	
	curiosity driven	approach to	iearning				



COURSE OUTCOMES (CO)

СО	Expected Course Outcome	Learning	РО
No.		Domains *	No
1	Understand the concept of food and nutrition in Human body	U	1, 2,10
2	Identify various Nutrients present in food, dietary sources and their functions in maintaining good health	An	1, 2, 10
3	Acquire knowledge about their functions, RDA, food sources of nutrients	U	1, 2, 10
4	Should be able to formulate different food groups for the society	С	1, 2, 6, 10
5	Estimate the energy requirements in the diet	С	1, 2, 10

^{*}Remember (K), Understand (U), Apply (A), Analyse (An), Evaluate (E), Create (C), Skill (S), Interest (I) and Appreciation (Ap)

COURSE CONTENT



MGU-UGP (HONOURS)

Module	Course Description	H rs	Co No.
1	Basic Aspects of Nutrition	1 5	
1.1	Definition - Health, Nutrition and Nutrients	4	1
1.2	Function of Food (Physiological, Psychological and Social) in maintaining Good Health	5	1,3
1.3	Concept of food groups, factors affecting meal planning and importance of meal planning	6	1,4
2	Macronutrients & Micro-Nutrients	15	
	Carbohydrates - Classification, function, sources and RDA		1,2
2.1	Proteins - Classification, function, sources and RDA	5	
	Lipids - Classification, function, sources and RDA		
2.2	Vitamins- Classification, function, sources, Minerals - Classification (MacroMinerals and Trace Minerals), functions, sources		1,2
2.3	Water – Definition, Functions of Water, Role of Water in Maintaining Health (Water Balance)	5	1,2
3	Nutritional Energy dynamics	15	
3.1	Definition of Energy and Units of its Measurement (kcal)	3	1
3.2	Factors affecting Energy Requirements,	3	1,5
3.3	Concept of BMR and SDA	5	1
3.4	Dietary sources of energy	4	5
4	Nutrition Practical	30	
4.1	Preparation of food from different food groups and their significance in relation to health	10	3,4
4.2	Planning and preparation of normal diets and Fluid diet	10	3,4
4.3	General concepts of weights and measures. Eye estimation of raw and cooked foods	10	1, 5
5	Teachers Specific Assessment		

Teaching and Learning Approach

Classroom Procedure (Mode of transaction)

- Role play,
- Critical thinking,
- Teamwork, and
- Leadership skills.



MGU-UGP (HONOURS)
Syllabus

	A. Cont Theo	-	ive Assessment (CCA) -			
	CRITERIA	MARKS DISTRIBUTION				
	Internal Test					
	Assignment					
	Total	25				
		SSESSMENT CCA	MARKS DISTRIBUTION			
		CA- 15 Marks	MARKS DISTRIBUTION			
Assessment Types	Practical Task					
,,,	Practical Reco	ord Preparation				
	Viva Voce					
	Grooming					
	Total		15			

विद्या अस्तसञ्ज्ते

MGU-UGP (HONOURS)
Syllabus

B. End Semester Evaluation (ESE) - Theory

Written Test- 50 Marks - 1.5 Hours Examination

Descriptive Type	Word Limit	No of question to be answered	Marks
Short Answer	50 Words	10 out of 15	10*2= 20
Short Essays	200 Words	4 out of 6	4*5 = 20
Essays	350 Words	1 out of 3	1*10 = 10
	50		

Practical ESE- 35 Marks – 1.5 Hour Examination

PRACTICAL ASSESSMENT ESE	MARKS DISTRIBUTION
Practical Task	14
Practical Record Preparation	8
Viva Voce	8
Grooming	5
निवाया अस्तमञ्जूत	35

References

- Food Facts & Principles by Shakuntala Manay & Shadakhraswamy
- Food Science by Srilakshmi, second edition,2002.
- Sunetra Roday.,2014 Food Science and Nutrition, 2[™] Edition, Oxford University press
- HandBook of Food and Nutrition., Dr.M. Swaminathan

Mahatma Gandhi University							
	Kottayam						
Hotel Hygiene	and Food	l Safety					
DSC B							
MG2DSCFNN100							
100-199	100-199						
This course pro	vides a con	nprehensive	introduction	to the fu	ndamental		
•	principles of Food safety, emphasising the role of microorganisms to maintain optimal health.						
II		Credits		4	Total Hours		
Learning Approach	Lecture	Tutorial	Practical	Others			
	3		1		75		
	-						
_	_			-			
_		_	•	•	-		
_	•	luestion nyg	ienic concept	., iostering	a curiosity		
	Hotel Hygiene DSC B MG2DSCFNN100 100-199 This course proprinciples of Formaintain optima II Learning Approach Students should reading and ungenuine interes willingness to expense of the property of t	Hotel Hygiene and Food DSC B MG2DSCFNN100 100-199 This course provides a comprinciples of Food safety, maintain optimal health. II Learning Lecture Approach 3 Students should have profice reading and understanding genuine interest in learning	Hotel Hygiene and Food Safety DSC B MG2DSCFNN100 100-199 This course provides a comprehensive principles of Food safety, emphasising maintain optimal health. II Credits Learning Lecture Tutorial Approach 3 Students should have proficiency in Engl reading and understanding scientific genuine interest in learning Food safe willingness to explore and question hyg	Hotel Hygiene and Food Safety DSC B MG2DSCFNN100 100-199 This course provides a comprehensive introduction principles of Food safety, emphasising the role of maintain optimal health. II Credits Learning Lecture Tutorial Practical Approach 3 1 Students should have proficiency in English language reading and understanding scientific materials. He genuine interest in learning Food safety and its if willingness to explore and question hygienic concepts.	Hotel Hygiene and Food Safety DSC B MG2DSCFNN100 100-199 This course provides a comprehensive introduction to the furbinciples of Food safety, emphasising the role of microorg maintain optimal health. II Credits 4 Learning Lecture Tutorial Practical Others Approach 3 1 Students should have proficiency in English language as the courreading and understanding scientific materials. He/she should genuine interest in learning Food safety and its impacts on willingness to explore and question hygienic concept, fostering		



COURSE OUTCOMES (CO)

СО	Expected Course Outcome	Learning	PO No
No.		Domains *	
1.	To impart students with a basic understanding of food safety	U	1,2,10
2.	To develop an understanding on the role of microorganisms in maintenance of health.	U	1,2,10
3.	To inspect the presence of common food adulterants and their detection	An	1,2,6 ,10
4	To create a general awareness on food borne illnesses and their preventive measures	С	1,6,10

^{*}Remember (K), Understand (U), Apply (A), Analyse (An), Evaluate (E), Create (C), Skill (S), Interest (I) and Appreciation (Ap)

COURSE CONTENT



MGU-UGP (HONOURS)

Module	Course Description	H rs	CO No.
1	Introduction to food safety	15	
1.1	Basic Introduction to Food Safety, Food Hygiene and Sanitation	4	1
1.2	Contaminants – Physical, Chemical and Biological	5	1
1.3	Food Hazards and their risks	6	1
2	Microorganisms in Food	15	
2.1	General characteristics of Microorganisms based on their occurrence and structure.	5	1,2,4
2.2	Factors affecting growth of microorganisms in food (intrinsic and extrinsic)	5	1,2
2.3	Common food borne microorganisms: Bacteria (spores/capsules) Fungi, Viruses, Parasites	5	1,2
3	Food-borne Diseases & Food Adulteration	15	
3.1	Types (infections and intoxication)	3	1,2,4
3.2	Common diseases caused by food borne pathogens	3	1,2,4
3.3	Preventive measures	2	1,2,4
3.4	Food Adulteration Introduction to Food Adulteration and its Types	3	1,3
3.5	Common Adulterants in Food.	2	1,3
3.6	Method of Detection (Basic Principles)	2	1,3
4	Nutrition Practical	30	
4.1	Composition and adulterant detection in the following foods- Milk, Sugar, Spices, Honey, Ghee (one method of detection for each food item)	30	3
5	Teachers Specific Content		

Teaching and Learning Approach Role play, Critical thinking, Teamwork, and Leadership skills.

A.Continuous Comprehensive Assessment (CCA) - Theory **CRITERIA MARKS DISTRIBUTION Internal Test Assignment** Total **Practical CCA-15 Marks** PRACTICAL ASSESSMENT CCA **MARKS DISTRIBUTION Practical Task Practical Record Preparation Assessment** Viva Voce **Types** Grooming Total 15 B. End Semester Evaluation (ESE) - Theory Written Test- 50 Marks - 1.5 Hours Examination Descriptive Word No of question to be Marks Limit Type answered **Short Answer** 50 Words 10 out of 15 10*2= 20 200 Words 4 out of 6 4*5 = 20 **Short Essays** 1*10 = **Essays** 350 Words 1 out of 3 10 **TOTAL** 50 **Practical ESE: 35 Marks - 1.5 Hours Examinations PRACTICAL ASSESSMENT ESE MARKS DISTRIBUTION**

Practical Task	14
Practical Record Preparation	8
Viva Voce	8
Grooming	5
Total	35

References

- Frazier, W.C. (1968): Food Microbiology. 4 th Edition. McGraw Hill Inc.
- Jay, J.M., Lossner M.J. and Golden D.A. (2008): Modern Food Microbiology. 7 th edition.
 Springer. ISBN: 0387231803
- Longree, K. (1967): Quality Food Sanitation. McGraw Hill Publishers: New York.
- Srilakshmi B. (2007): Food Science. NewAge International
- Subbulakshmi G. (2001): Food Science and Preservation. NewAge International (P) Ltd



MGU-UGP (HONOURS)
Syllabus

Mahatma Gandhi University Kottayam					
Advanced Nut	trition for	Hotel Ope	rations		
DSC B					
MG3DSCFNN200	MG3DSCFNN200				
200-299	200-299				
	•		•		
	which includes designing intricate nutritional plans for various populations and managing nutritional programs.				
III	Total				Total Hours
Learning Approach	Lecture	Tutorial	Practical	Others	
	3		1		75
	Students should have proficiency in English language as the course involves				
_	reading and understanding scientific materials. He/she should have a				
-	genuine interest in learning nutrition and its impacts on health, willingness				
	to explore and question nutritional concepts, and foster a curiosity driven				
	Advanced Nut DSC B MG3DSCFNN200 200-299 This course offer which includes of and managing nut III Learning Approach Students should reading and und genuine interest to explore and quantic stores.	Advanced Nutrition for DSC B MG3DSCFNN200 200-299 This course offers a compression which includes designing into and managing nutritional professional profession in the second secon	Advanced Nutrition for Hotel Oper DSC B MG3DSCFNN200 200-299 This course offers a comprehensive un which includes designing intricate nutrit and managing nutritional programs. III Credits Learning Lecture Tutorial Approach 3 Students should have proficiency in Engli reading and understanding scientific mat genuine interest in learning nutrition and to explore and question nutritional concerns.	Advanced Nutrition for Hotel Operations DSC B MG3DSCFNN200 Z00-299 This course offers a comprehensive understanding which includes designing intricate nutritional plans for and managing nutritional programs. III Credits Learning Approach 3 1 Students should have proficiency in English language a reading and understanding scientific materials. He/sh genuine interest in learning nutrition and its impacts of to explore and question nutritional concepts, and fosti	Advanced Nutrition for Hotel Operations DSC B MG3DSCFNN200 This course offers a comprehensive understanding of nutrition which includes designing intricate nutritional plans for various pand managing nutritional programs. III Credits 4 Learning Lecture Tutorial Practical Others Approach 3 1 Students should have proficiency in English language as the course reading and understanding scientific materials. He/she should have genuine interest in learning nutrition and its impacts on health, we to explore and question nutritional concepts, and foster a curiosis.

approach to learning

COURSE OUTCOMES (CO)

CO No.	Expected Course Outcome	Learning Domains	PO No
1	To apply knowledge of nutrition to human health across the lifespan.	А	1, 2,10
2	Relate foods and nutrients to the biological requirements of humans at different stages of life cycle.	U	1,2,6,10
3	Explain, compare and contrast the nutritional requirements of humans during different stages of the life cycle.	E	1,2,6,10
4	Apply collaboration and teamwork skills through shared learning in nutritional disease topics.	U	1,,2,6,5,4,10
5	To formulate a dietary intervention plan to address nutritional deficiencies or excesses according to the health needs of individuals relative to age, developmental and disease status.	С	1,2, 10,6

*Remember (K), Understand (U), Apply (A), Analyse (An), Evaluate (E), Create (C), Skill (S), Interest (I) and Appreciation (Ap)

COURSE CONTENT



MGU-UGP (HONOURS)

Module	Course Description		CO No.
1	Balanced Diet and Malnutrition	15	
1.1	Definition - Balanced diet Importance of a balanced diet	4	1
1.2	Malnutrition (undernutrition and overnutrition)	5	1,2
1.3	Disorder and its clinical symptoms- Diabetes Mellitus, Obesity, Marasmus, Kwashiorkor, Marasmic kwashiorkor, Cholesterol, Blood pressure	6	1
2	Menu Planning and Therapeutic Nutrition	15	
2.1	Planning of nutritionally balanced meals based upon the three- group system, Factors affecting meal planning, calculation of nutritive value of dishes or meals	5	1
2.2	Factors affecting meal planning, calculation of nutritive value of dishes or meals, Critical evaluation of meals served at institutes or hotels based on the principle of meal planning	5	1,2
2.3	Nutrition in pregnancy – Food and nutrient requirements, physiological changes during pregnancy, Nutrition during infancy	5	1,2
3	Developmental Nutrition	15	
3.1	Nutrition for school going children – Food and nutrient requirement, growth pattern, packed lunches, school lunch programmes.		1,2,3,5
3.2	Nutrition during adolescence – Food and nutrient requirements, changes in growth pattern, and puberty	5	1,2,3,5
3.3	Nutrition in adulthood – Food and nutrient requirements, physical, mental and social changes influencing meal pattern		1,2,3,5
4	Nutrition Practical-2		
4.1	Planning, preparation and calculation of following diets: 1. High and low caloric diet 2. Diet for Diabetes Mellitus 3. Diet for Hypertension	30	1,2,3,4,5
5	Teachers Specific Assessment		

Teaching and Learning Approach

Classroom Procedure (Mode of transaction)

- Role play,
- Critical thinking,
- Teamwork, and
- Leadership skills.

A.Continuous Comprehensive Assessment (CCA) - Theory

CRITERIA	MARKS DISTRIBUTION
Internal Test	
Assignment	SANDA
Total	25

Practical CCA-15 Marks

Assessment Types

PRACTICAL ASSESSMENT CCA	MARKS DISTRIBUTION
Practical Task	
Practical Record Preparation	
Viva Voce	
Grooming	MI/
Total	15

B. End Semester Evaluation (ESE) - Theory

Written Test- 50 Marks - 1.5 Hours Examination

Descriptive Type	Word Limit	No of question to be answered	Marks
Short Answer	50 Words	10 out of 15	10*2= 20
Short Essays	200 Words	4 out of 6	4*5 = 20
Essays	350 Words	1 out of 3	1*10 = 10
	50		

Practical ESE: 35 Marks - 1.5 Hours Examinations

PRACTICAL ASSESSMENT ESE	MARKS DISTRIBUTION

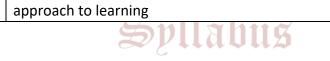
Practical Task	14
Practical Record Preparation	8
Viva Voce	8
Grooming	5
Total	35

References

- 1. Wardlaw G.M, Hampi J.S, DiSilvestro R.A.: Perspectives in Nutrition, 6th edition, McGraw Hill, 2004.
- 2. Chadha R. and Mathur P.: Nutrition: A Lifecycle Approach. Orient Blackswan New Delhi, 2015.
- 3. Seth V. and Singh K.: Diet Planning through the Life Cycle: Part 1 Normal Nutrition: A Practical Manual, Elite Publishing House Pvt. Ltd. New Delhi, 2006.
- 4. Robinson, Normal and Therapeutic Nutrition.: Macmillan Pub. Company New York, 2006.
- 5. Sumati R. Mudambi, M.V. Rajagopal.: Fundamentals of Food, Nutrition and Diet Therapy, New Age international publishers, New Delhi, 2015.
- 6. Srilakshmi B.: Dietetics, New Age international publishers, New Delhi, 2014.



GANDH TATAN	Mahatma Gandhi University Kottayam					
Programme						
Course	Advanced Nut	trition for	Hotel Ope	rations		
Name						
Type of	DSC C					
Course						
Course						
Code	MG4DSCFNN200	ı				
Course	200-299					
Level						
Course		This course offers a comprehensive understanding of nutritional science				
Summary		which includes designing intricate nutritional plans for various populations and managing nutritional programs.				
Semester	IV	Total			Total Hours	
Course						110413
Details	Learning Approach	Lecture	Tutorial	Practical	Others	
		3		1		75
Pre-		Students should have proficiency in English language as the course involves				
requisites	genuine interest	reading and understanding scientific materials. He/she should have a genuine interest in learning nutrition and its impacts on health, willingness to explore and question nutritional concepts, and foster a curiosity driven				



COURSE OUTCOMES (CO)

CO No.	Expected Course Outcome	Learning Domains	PO No
1	To apply knowledge of nutrition to human health across the lifespan.	А	1, 2,10
2	Relate foods and nutrients to the biological requirements of humans at different stages of life cycle.	U	1,2,6,10
3	Explain, compare and contrast the nutritional requirements of humans during different stages of the life cycle.	E	1,2,6,10
4	Apply collaboration and teamwork skills through shared learning in nutritional disease topics.	U	1,,2,6,5,4,10
5	To formulate a dietary intervention plan to address nutritional deficiencies or excesses according to the health needs of individuals relative to age, developmental and disease status.	С	1,2, 10,6

^{*}Remember (K), Understand (U), Apply (A), Analyse (An), Evaluate (E), Create (C), Skill (S), Interest (I) and Appreciation (Ap)

COURSE CONTENT



MGU-UGP (HONOURS)



Module	Course Description		CO No.
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1.1	Definition - Balanced diet Importance of a balanced diet	4	1
1.2	Malnutrition (undernutrition and overnutrition)	5	1,2
1.3	Disorder and its clinical symptoms- Diabetes Mellitus, Obesity, Marasmus, Kwashiorkor, Marasmic kwashiorkor, Cholesterol, Blood pressure	6	1
2	Menu Planning and Therapeutic Nutrition	15	
2.1	Planning of nutritionally balanced meals based upon the three- group system, Factors affecting meal planning, calculation of nutritive value of dishes or meals	5	1
2.2	Factors affecting meal planning, calculation of nutritive value of dishes or meals, Critical evaluation of meals served at institutes or hotels based on the principle of meal planning	5	1,2
2.3	Nutrition in pregnancy – Food and nutrient requirements, physiological changes during pregnancy, Nutrition during infancy	5	1,2
3	Developmental Nutrition	15	
3.1	Nutrition for school going children – Food and nutrient requirement, growth pattern, packed lunches, school lunch programmes.		1,2,3,5
3.2	Nutrition during adolescence – Food and nutrient requirements, changes in growth pattern, and puberty	5	1,2,3,5
3.3	Nutrition in adulthood – Food and nutrient requirements, physical, mental and social changes influencing meal pattern	5	1,2,3,5
4	Nutrition Practical-2	30	
4.1	Planning, preparation and calculation of following diets: 1. High and low caloric diet 2. Diet for Diabetes Mellitus 3. Diet for Hypertension	30	1,2,3,4,5
5	Teachers Specific Assessment		

Teaching and Learning Approach Role play, Critical thinking, Teamwork, and Leadership skills.

		25 Marks SSMENT CCA	MARKS DISTRIB		
Assessment Types	Viva Voce Grooming Total 15 B. End Semester Evaluation (ESE) - Theory Written Test- 50 Marks - 1.5 Hours Examination				
	Descriptive Type	Word Limit	No of question to be answered	Marks	
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	Essays	350 Words	1 out of 3	1*10 = 10	
	TAL	50			
	Practical ESE: 35 M	larks - 1.5 Hou	ırs Examinations	•	

PRACTICAL ASSESSMENT ESE	MARKS DISTRIBUTION
Practical Task	14
Practical Record Preparation	8
Viva Voce	8
Grooming	5
Total	35

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