E.M.G. YADAVA WOMEN'S COLLEGE, MADURAI – 625 014.
(*An Autonomous Institution – Affiliated to Madurai Kamaraj University*)
Re-accredited **(3rd Cycle)** with Grade **A+** & **CGPA 3.51** by NAAC

DEPARTMENT OF NUTRITION & DIETETICS

TANSCHE - **CBC**S With OBE

BACHELOR OF SCIENCE

PROGRAMME CODE - N

COURSE STRUCTURE

(w.e.f. 2023 – 2024 Batch onwards)

Annexure -14

E.M.G. YADAVA WOMEN'S COLLEGE, MADURAI -14.

(An Autonomous Institution – Affiliated to Madurai Kamaraj University)

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TANSCHE - CBCS with OBE

DEPARTMENT OF NUTRITION AND DIETETICS – UG

(w.e.f. 2023– 2024 Batch onwards)

Vision

The Department of Nutrition & Dietetics Serves National, Regional and Local Communities through discovery of the ways in which foods and their bioactive components contribute to health and the prevention of disease and through effective application of nutrition knowledge to improve human health and well being

Mission

- To become Self – sustaining individuals .
- By equipping them to take up entrepreneurial activities.
- To work towards the betterment of society.

Programme Educational Objectives (PEOs):B.Sc. Nutrition and Dietetics

Sl.No.	Programme Educational Objective
PEO1	To impart fundamental knowledge in Nutrition and Dietetics.
PEO2	To train students to acquire competencies required to excel in the field of Nutrition and Dietetics.
PEO3	To prepare students for higher degree with specialization.
PEO4	To promote students to venture into food based entrepreneurial activities.
PEO5	To enable students to take up professional carrier in Government / Non – Government sectors.
PEO6	To sensitise students to become socially responsible citizens.

Programme Outcomes for Science Graduates:

On completion of B.Sc., Programmes students will be able to

SL.No.	Programme Outcomes
PO1	Develop necessary foundation in fundamentals, aptitude, applications of sciences and other related subjects. Able to clear competitive examinations, appear with confidence and possess basic skills on the related subjects. Secure jobs in employment in Government / Private / Industry and entrepreneurship.
PO2	Receive basic experimental skills in the observation and study of nature, biological techniques, scientific research and demonstrate proficiency in critical analysis or creativity and provide scientific solutions to the problems of the society.
PO3	Enhance the digital knowledge of statistics and to understand its application in interpreting the obtained data.
PO4	Obtain knowledge with emerging trends in their disciplinary and inter-disciplinary areas. Usage of modern tools and software can also be put to use.
PO5	Lead lifelong learning & contribute sustainability to environment, equip students enough to take up higher studies up to research in various disciplines to become professionals.
PO6	Imbibe democratic, ethical, moral, social & spiritual values in the minds of the learners to become responsible citizens and build a healthy nation.

Programme Specific Outcomes (PSOs):

Programme Specific Outcomes	
On successful completion of the programme, the student:	
PSO1	Acquires fundamental knowledge in the core areas Food Science and Nutrition/ Dietetics/ Food service management /computer application and other core areas of Home Science and Computer application.
PSO2	Develops competency in the application of knowledge in different settings such as family, community, Food and hospitality industry, social welfare sectors.
PSO3	Displays skills in oral and written communication for effective disseminationof knowledge gained in field of Nutrition, Dietetics, food service and other core areas of Home science to benefit society and mankind.
PSO4	Acquires skills that create professionals in different fields related to Home Science.
PSO5	Can pursue higher education, research, teaching, entrepreneurship or render service in the government, public or corporate sector.

Qualification for Admission

Candidates should have passed the Higher Secondary Examination, Home Science, Nutrition and Dietetics, Biology, Pure Science , Bio-Maths or Computer Science or any Vocational Groups as one of the subject, conducted by the Board of Higher Education, Government of Tamil nadu, CBSC & ICSE or any other examination approved by Madurai Kamaraj University as equivalent.

Duration of the Course

The students shall undergo prescribed course of study for the period of three academic years under TANSCHE - CBCS semester pattern with outcome based education.

Medium of Instruction: English.

System: Choice Based Credit System with Outcome Based Model.

Nature of the Course

Courses are classified according to the following nature

1. Knowledge and skill oriented 2. Employability oriented 3. Entrepreneurship oriented

Outcome Based Education (OBE) & Assessment: Students understanding must be built on and assessed for wide range of learning activities, which includes different approaches and are classified along several basis, such as

1. **Based on purpose:**

- Continuous Assessment (internal tests, Assignment, seminar, quiz, Documentation, Case lets, ICT based Assignment, Mini projects administered during the learning process)
- External Assessment (Evaluation of students' learning at the end of instructional unit)

2. **Based on Domain Knowledge: (for UG Upto K4 levels)**

   Assessment through K1, K2, K3 & K4

Annexure -14

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TANSCHE - CBCS with OBE

w.e.f. 2023-2024 batch onwards

(PART I / PART II / PART III)

Internal (Formative) : 25 marks

External (Summative : 75 marks

Total :100 marks

Formative Test (CIA-Continuous Internal Assessment) : 25 Marks

Components	**Marks**
Test (Average of two tests) (Conducted for 100 marks and converted into 10 marks)	**10**
Assignment	**5**
Seminar	**5**
Quiz/ Documentation/ Case lets/ ICT based Assignment/ Mini Projects	**5**
Total	**25**

- ✓ **Centralized system** of Internal Assessment Tests
- ✓ There will be **Two Internal Assessment** Tests
- ✓ Duration of Internal assessment test will be **2 hours for Test I & II**
- ✓ Students shall write **retest** with the approval of HOD on genuine grounds if they are absent.

Question Paper Pattern for Continuous Internal Assessment –Test I and II

Section	**Marks**
A- Multiple Choice Question (7x1mark)	7
B- Short Answer (4x2marks)	8
C- Either Or Type (3/6x5marks)	15
D- Open Choice Type (2/3x 10marks)	20
Total	**50**

Conducted for 100 marks and converted into 10 marks.

Question Paper Pattern for Summative Examination

Section	Marks
A-Multiple choice Questions without Choice (10x1 mark)	10
B-Short Answer without choice (5x2marks)	10
C-Either Or type (5/10x5marks)	25
D-Open Choice type (3/5x10 marks)	30
Total	**75**

In respect of Summative Examinations passing minimum is **36% for UG.**

Latest amendments and revision as per **UGC** and **TANSCHE** norms is taken into consideration in curriculum preparation.

BLUE PRINT FOR INTERNAL ASSESSMENT – I

Articulation Mapping – K Levels with Course Learning Outcomes (CLOs)

Sl. No	CLOs	K- Level	Section A		Section B		Section C	Section D	Total
			MCQs (No Choice)		Short Answers (No Choice)		(Either or Type)	(Open choice)	
			No. of Questions	K-Level	No. of Questions	K-Level			
1	CLO 1	Upto K3	3	(K1/ K2)	3	(K1/ K2)	2 (K2) / 2 (K3) / 2 (K4) (Each set of questions must be in same level)	2 (K3) & 1 (K4)	
2	CLO 2	Upto K3	2	(K1/ K2)					
3	CLO 3	Upto K4	2	(K1/ K2)	1	(K1/ K2)			
No. of Questions to be asked			7		4		6	3	**20**
No. of Questions to be answered			7		4		3	2	**16**
Marks for each question			1		2		5	10	-
Total Marks for each section			7		8		15	20	**50**

Annexure -14

BLUE PRINT FOR INTERNAL ASSESSMENT – II

Articulation Mapping – K Levels with Course Learning Outcomes (CLOs)

<table>
<tr><th rowspan="3">Sl. No</th><th rowspan="3">CLOs</th><th rowspan="3">K- Level</th><th colspan="2">Section A</th><th colspan="2">Section B</th><th>Section C</th><th>Section D</th><th rowspan="3">Total</th></tr>
<tr><th colspan="2">MCQs
(No Choice)</th><th colspan="2">Short Answers
(No Choice)</th><th>(Either or Type)</th><th>(Open choice)</th></tr>
<tr><th>No. of Questions</th><th>K-Level</th><th>No. of Questions</th><th>K-Level</th></tr>
<tr><td>1</td><td>CLO 3</td><td>Upto K4</td><td>2</td><td>(K1/ K2)</td><td>1</td><td>(K1/ K2)</td><td rowspan="3">2 (K2) / 2 (K3) / 2 (K4)
(Each set of questions must be in same level)</td><td rowspan="3">2 (K3) & 1 (K4)</td><td></td></tr>
<tr><td>2</td><td>CLO 4</td><td>Upto K3</td><td>2</td><td>(K1/ K2)</td><td rowspan="2">3</td><td rowspan="2">(K1/ K2)</td><td></td></tr>
<tr><td>3</td><td>CLO 5</td><td>Upto K4</td><td>3</td><td>(K1/ K2)</td><td></td></tr>
<tr><td colspan="3">No. of Questions to be asked</td><td>7</td><td></td><td>4</td><td></td><td>6</td><td>3</td><td>20</td></tr>
<tr><td colspan="3">No. of Questions to be answered</td><td>7</td><td></td><td>4</td><td></td><td>3</td><td>2</td><td>16</td></tr>
<tr><td colspan="3">Marks for each question</td><td>1</td><td></td><td>2</td><td></td><td>5</td><td>10</td><td>-</td></tr>
<tr><td colspan="3">Total Marks for each section</td><td>7</td><td></td><td>8</td><td></td><td>15</td><td>20</td><td>50</td></tr>
</table>

Distribution of Marks with K-Levels CIA I and CIA II

CIA	K Levels	Section -A MCQ (No choice)	Section -B Short Answer (No choice)	Section -C (Either or Type)	Section –D (Open choice)	Total Marks	% of Marks
I & II	K1	4	4	-	-	8	10
	K2	3	4	10	-	17	23
	K3	-	-	10	20	30	40
	K4	-		10	10	20	27
	Marks	**7**	**8**	**30**	**30**	**75**	**100**

Articulation Mapping - K Levels with Course Learning Outcomes (CLOs) for External Assessment

Sl. No	CLOs	K-Level	Section A MCQs (No choice)		Section B Short Answers (No choice)		Section C (Either/or Type)	Section D (open choice)	Total
			No. of Questions	K-Level	No. of Questions	K-Level			
1	CLO 1	Upto K3	2	K1/K2	1	K1/K2	2 (K3& K3)	1(K2)	
2	CLO 2	Upto K3	2	K1/K2	1	K1/K2	2(K2& K2)	1(K3)	
3	CLO 3	Upto K4	2	K1/K2	1	K1/K2	2 (K4&K4)	1(K4)	
4	CLO 4	Upto K 3	2	K1/K2	1	K1/K2	2 (K3& K3)	1(K3)	
5	CLO 5	Upto K 4	2	K1/K2	1	K1/K2	2 (K4& K4)	1(K4)	
No. of Questions to be asked			10		5		10	5	**30**
No. of Questions to be answered			10		5		5	3	**23**
Marks for each question			1		2		5	10	
Total Marks for each section			**10**		**10**		**25**	**30**	**75**

Annexure -14

Distribution of Section-wise Marks with K Levels for External Assessment

K Levels	Section A (MCQ'S) (No choice)	Section B (Short Answer) (No choice)	Section C (Either or Type)	Section D (Open Choice)	Total Marks	% of Marks
K1	9	6	-	--	**15**	13
K2	1	4	10	10	**25**	21
K3	-	-	20	20	**40**	33
K4	-	-	20	20	**40**	33
Total Marks	10	10	50	50	**120**	100

K1- Remembering and recalling facts with specific answers

K2- Basic understanding of facts and stating main ideas with general answers

K3- Application oriented- Solving Problems, Justifying the statement and deriving inferences

K4- Examining, analyzing, presentation and make inferences with evidences

Annexure -14

EVALUATION (THEORY)

(PART IV - SEC / DSEC)

Internal (Formative) : 25 marks

External (Summative) : 75 marks

Total : 100 marks

Formative Test (CIA-Continuous Internal Assessment) : 25 Marks

Components	Marks
Test (Average of two tests) (Conducted for 60 marks and converted into 20 marks)	20
Assignment / Seminar/ Quiz/ Documentation (from Unit 5)	5
Total	**25**

- ✓ There will be two Internal Assessment Test
- ✓ Duration of Internal assessment test will be 1 hour for Test

Students shall write retest with the approval of HOD on genuine grounds if they are absent.

Question Paper Pattern for Continuous Internal Assessment Test I & II

Section	Marks
A- Multiple Choice Question (4x1mark)	4
B- Short Answer (3x2marks)	6
C- Either Or type (2/4 x5marks)	10
D- Open choice type (1/2 x10marks)	10
Total	**30**

Conducted for 60 marks and converted into 20 marks

Annexure -14

Question Paper Pattern for External Examination

Section	Marks
A- Multiple Choice Question (10x1mark)	10
B- Short Answer (5x2marks)	10
C- Either Or type (5/5 x5marks)	25
E- Open choice type (3/5 x10marks)	30
Total	**75**

BLUE PRINT FOR INTERNAL ASSESSMENT –I

Articulation Mapping - K Levels with Course Learning Outcomes (CLOs)

Sl. No	CLOs	K- Level	Section A		Section B		Section C	Section D	Total
			MCQs (No Choice)		Short Answers (No Choice)		(Either or Type)	(Open choice)	
			No. of Questions	K-Level	No. of Questions	K-Level			
1	CLO 1	Upto K3	2	K1	3	K1	1 (K2) / 1 (K3) (Each set of questions must be in same level)	1 (K2) & 1 (K3)	
2	CLO 2	Upto K3	2						
No. of Questions to be asked			4		3		4	2	**13**
No. of Questions to be answered			4		3		2	1	**10**
Marks for each question			1		2		5	10	**-**
Total Marks for each section			**4**		**6**		**10**	**10**	**30**

Annexure -14

BLUE PRINT FOR INTERNAL ASSESSMENT –II

Articulation Mapping - K Levels with Course Learning Outcomes (CLOs)

Sl. No	CLOs	K- Level	Section A		Section B		Section C	Section D	Total
			MCQs (No Choice)		Short Answers (No Choice)		(Either or Type)	(Open choice)	
			No. of Questions	K-Level	No. of Questions	K-Level			
1	CLO 3	Upto K3	2	K1	3	K1	1 (K2) / 1 (K3) (Each set of questions must be in same level)	1 (K2) & 1 (K3)	
2	CLO 4	Upto K3	2						
No. of Questions to be asked			4		3		4	2	**13**
No. of Questions to be answered			4		3		2	1	**10**
Marks for each question			1		2		5	10	**-**
Total Marks for each section			**4**		**6**		**10**	**10**	**30**

Distribution of Marks with K Levels – CIA I & II

CIA	K Levels	Section A MCQ	Section B (Short Answers)	Section C (Either Or Type)	Section D (Open Choice)	Total Marks	% of Marks
I & II	K1	4	6	-	-	10	20
	K2	-	-	10	10	20	40
	K3	-	-	10	10	20	40
	Marks	**4**	**6**	**20**	**20**	**50**	**100**

.

Annexure -14

Articulation Mapping - K Levels with Course Learning Outcomes (CLOs) for External Assessment

Sl. No	CLOs	K-Level	Section A		Section B		Section C (Either or Type)	Section D (Open Choice)	Total
			MCQs		Short Answers				
			No. of Questions	K-Level	No. of Questions	K-Level			
1	CLO 1	Upto K3	2	K1	1	K1	6(K2) & 4(K3) (Each set of questions must be in same level)	2(K2) & 3(K3)	
2	CLO 2	Upto K3	2		1				
3	CLO 3	Upto K3	2		1				
4	CLO 4	Upto K 3	2		1				
5	CLO 5	Upto K 3	2		1				
No. of Questions to be asked			10		5		10	5	30
No. of Questions to be answered			10		5		5	3	23
Marks for each question			1		2		5	10	
Total Marks for each section			**10**		**10**		**25**	**30**	**75**

Distribution of Section-wise Marks with K Levels for External Assessment

K Levels	Section A (MCQ's)	Section B (Short Answer)	Section C (Either or Type)	Section D (Open Choice)	Total Marks	% of Marks
K1	10	10	-	--	**20**	16
K2	-	-	30	20	**50**	42
K3	-	-	20	30	**50**	42
Total Marks	**10**	**10**	**50**	**50**	**120**	**100**

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TANSCHE – CBCS WITH OBE

DEPARTMENT OF NUTRITION AND DIETETICS – UG

COURSE STRUCTURE

(w.e.f. 2023 – 2024 Batch onwards)

Semester	Part	Course Code	Title of the Course	Teaching hrs (per week)	Duration of Exam (hrs.)	Marks Allotted			Credits
						CIA	SE	Total	
I	I	**23OU1TA1 / 23OU1HIN1**	**Part I :**Tamil / Hindi	6	3	25	75	100	3
	II	**23OU2EN1**	**Part II :**General English –I	6	3	25	75	100	3
	III	**23OUND11**	**Core Course 1:** Food Science	5	3	25	75	100	5
	III	**23OUND1P**	**Core Course 2 :** Basic Cookery Practicals	3	3	40	60	100	3
	III	**23OUNDGECH1**	**GEC1:**Chemistry for Biological Sciences I	4	3	25	75	100	3
	III	**23OUNDGECH1P**	**GEC2:**Chemistry Practical for Biological Sciences I	2	3	40	60	100	2
	IV	**23OUNDSECN1**	**SEC - 1 (NME)** Basic Nutrition	2	3	25	75	100	2
	IV	**23OUNDFC1**	**FC :** Women Health and wellness	2	3	25	75	100	2
				30					**23**
II	I	**23OU1TA2 / 23OU1HIN2**	**Part I :** Tamil / Hindi	6	3	25	75	100	3
	II	**23OU2EN2**	**Part II :** General English – II	6	3	25	75	100	3
	III	**23OUND21**	**Core Course 3:** Human Physiology	4	3	25	75	100	4
	III	**23OUND22**	**Core Course 4 :** Basics of Food Microbiology	4	3	25	75	100	4
	III	**23OUNDGECH2**	**GEC3:**Chemistry for Biological Sciences II	4	3	25	75	100	3
	III	**23OUNDGECH2P**	**GEC4:**Chemistry Practical for Biological Sciences II	2	3	40	60	100	2
	IV	**23OUNDSECN2**	**SEC - 2 (NME)** Consumer Education	2	3	25	75	100	2
	IV	**23OUNDSEC3**	**SEC - 3** House Keeping	2	3	25	75	100	2
				30					**23**

Annexure -14

Department of N&D						Class : I N&D		
Sem	**Category**	**Course Code**	**Course Title**	**Credits**	**Contact Hours / Week**	**CIA**	**SE**	**Total**
I	Core	23OUND11	Food Science	5	5	25	75	100

Nature of the Course		
Knowledge and Skill Oriented	**Employability Oriented**	**Entrepreneurship oriented**
	✓	

Learning Objectives

To enable students to

1. Understand the science of food and factors that affect its quality, Nutritive value and shelf life.
2. Understand the physical, biological and chemical characteristics of various foods and their uses.
3. Apply knowledge of foods in planning diets and preparing meals that are safe, nutritious and palatable.

UNIT – I

Nutrient content of foods and Cooking Methods - Classification of foods according to nutrient content. Food groups for balanced diets. Study of the different cooking methods- dry heat, moist and combination methods, solar cooking, microwave cooking - merits and demerits, dishes prepared by these methods.

UNIT – II

Cereals, **Millets**, **Pulses, Legumes and Nuts -**Classification of Cereals, Structure, nutrient composition, storage, processing, milling, parboiling, scientific methods of preparation and cooking, acceptability and palatability of rice, wheat, maize and millets Cooking of starches- Dextrinization and gelatinization, retrogradation and resistant starch.

Pulses and legumes - Types, nutritive value, methods of cooking, effect of soaking and germination, judicious combination of cereals and pulses- complementary effect, soya beans, fava beans and kesari dhal-methods to inactivate /remove toxins; storage.

Nuts - types, composition, market forms, roasting, steaming of nuts, nuts butters; uses in sweets, baking, and confectionery; Storage.

Oilseeds - types, methods of processing, uses and shelf life.

UNIT – III

Vegetables: Classification, nutritive value, effect of cooking on colour, texture ,flavour, appearance and nutritive value, Purchase - storage and preservation.

Fruits: Classification, nutritive value, changes during ripening, enzymaticbrowning, uses, preservation.

UNIT – IV

Flesh foods, Eggs, and Milk

Meats – structure, nutritive value, selection of meat, postmortem changes in meat, ageing, factors affecting tenderness of meat, methodsof cooking and storage.

Poultry-types, nutritive value, selection and cooking.

Fish - classification, nutritive value, selection, storage, cooking andpreservation.

Eggs - Structure, nutritive value, methods of cooking, storage, preservationand uses in cookery; foam formation and factors affecting foam. formation

Milk and milk products - Nutritive value, kinds of milk, pasteurization, and homogenization, coagulation of milk, fermentation of milk; milk products - whole and skimmed milk, milk powders and yogurt, ghee, butter, cheese. Storageand preservation.

UNIT – V

Fats and oils, sugars, food adjuncts and beverages Fats and Oils:Types, sources-animal fats and vegetable fats, functions, processing- difference between cold pressed and regular cooking oils, hydrogenated fat, emulsification, rancidity, smoking point. Factors affecting absorption of oils while frying foods, harmful effects of reheated oils.

Sugars: Types and market forms of sugars; stages of sugar cookery, crystallization, factors affecting crystallization, uses in confectionery.**Food adjuncts and food additives**

Spices and condiments: classification, source, use in food preparation, Leavening agents, stabilizers, thickeners, anticaking agents, enzymes, shortenings, stabilizers, flavouring agents, colouring agents,

sweeteners-use and abuse.

Food adulteration - Definition, common adulterants in food

Beverages - Classification-fruit based beverages; milk-based beverages nutritive. value and uses, alcoholic beverages, coffee, tea and cocoa, malted.beverages. Sources, manufacture, processing, and service; methods of preparation of coffee and tea.

Books for Study:

1. Manay, S. and Shadaksharaswamy, M. (1987) Foods Facts and Principles. New Age International Publishers, New Delhi.
2. Srilakshmi. B *Food Science* (8 ed.), New Age International Pub., New Delhi, 2020.

Books for Reference

1. Shewfelt R.L. (2015) Introducing Food Science. CRC Press, Taylor and Francis Group.Boca Raton
2. Srilakshmi B (2019) Food Science, (7th Ed.) New Age International Publishers
3. Thangam E.Philip, Modern Cookery for Teaching and the Trade Volume - 1&2 (6th Revised Edition), Orient Black
4. Vaclavik, V.A. and Elizabeth, W.C. (2013) Essentials of Food Science.2nd ed.
    i. Springer Publication, New Delhi

Webresources / E.Books:

https://ia801408.us.archive.org/20/items/textbookoffoodsc0000khad/textbookoffoodsc0000khad.pdf

https://egyankosh.ac.in/handle/123456789/32947

https://unacademy.com/content/kerala-psc/study-material/basic-food-science/

Pedagogy: Chalk and Talk, PPT, Group discussion , OHP presentations, quiz, on the spot test and Virtual Labs, youtubelinks.

Rationale for nature of Course:

Knowledge and Skill:

To gain knowledge regarding the methods of cooking.

To know about the nutritional composition and their nutrients of foods.

Activities to be given:

Innovation recipes, Assignment, ppt, Quiz, Group discussion, collect different cereals and pulses.

Course learning Outcomes (CLO's):

CLO	Course Outcomes Statement	Knowledge (According to Bloom's Taxonomy)
CLO1	Identify foods based on food groups and list their uses.	K1 to K3
CLO2	Describe classification, nutritive value, storage and preservation of foods.	K1 to K3
CLO3	Explain changes in food due to cooking, processing and factors that affect palatability, acceptability, and nutritive value.	K1 to K4
CLO4	Compare different methods of cooking and select the methods best suited for cooking different foods.	K1 to K3
CLO5	Justify the selection, processing, storage, and cooking methods to preserve nutritive values of various foods and make them safe and acceptable	K1 to K4

Mapping of Course Learning Outcomes (CLOs) with Programme Outcomes (POs)

	PO1	PO2	PO3	PO4	PO5	PO6
CLO1	1	2	3	1	2	3
CLO2	2	2	2	3	2	3
CLO3	1	3	3	3	2	3
CLO4	3	2	2	3	2	2
CLO5	2	3	3	3	2	2

1-Basic Level **2- Intermediate Level** **3- Advanced Level**

Annexure -14

LESSON PLAN: TOTAL HOURS (75 Hrs)

UNIT	DESCRIPTION	Hrs	MODE
I	**Unit – I Nutrient content of foods and Cooking Methods** - Classification of foods according to nutrient content. Food groups for balanced diets. Study of the different cooking methods- dry heat, moist and combination methods, solar cooking, microwave cooking - merits and demerits, dishes prepared by these methods.	12	Chalk and Talk, PPT, quiz, on the spot test
II	**Unit – II Cereals**, **Millets**, **Pulses, Legumes and Nuts** -Classification of Cereals, Structure, nutrient composition, storage, processing, milling, parboiling, scientific methods of preparation and cooking, acceptability and palatability of rice, wheat, maize and millets Cooking of starches-Dextrinization and gelatinization, retrogradation and resistant starch.	18	Chalk and Talk, OHP quiz, on the spot test
III	**Unit –III Vegetables:** Classification, nutritive value, effect of cooking on colour, texture ,flavour, appearance and nutritive value, Purchase - storage and preservation.**Fruits:** Classification, nutritive value, changes during ripening, enzymatic browning, uses, preservation.	15	Chalk and Talk, PPT, group discussion , OHP andYou tube Links
IV	**Unit – IV Flesh foods, Eggs, and Milk** **Meats** – structure, nutritive value, selection of meat, postmortem changes in meat, ageing, factors affecting tenderness of meat, methodsof cooking and storage. **Poultry**-types, nutritive value, selection and cooking. **Fish** - classification, nutritive value, selection, storage, cooking andpreservation. **Eggs** - Structure, nutritive value, methods of cooking, storage, preservationand uses in cookery; foam formation and factors affecting foam. formation **Milk and milk products** - Nutritive value, kinds of milk, pasteurization, and homogenization, coagulation of milk,	15	Chalk and Talk, OHP,PPT presentations, quiz,

	fermentation of milk; milk products - whole and skimmed milk, milk powders and yogurt, ghee, butter, cheese. Storageand preservation..		
V	**Unit -V Fats and oils, sugars, food adjuncts and beverages Fats and Oils**:Types, sources-animal fats and vegetable fats, functions, processing-difference between cold pressed and regular cooking oils, hydrogenated fat, emulsification, rancidity, smoking point. Factors affecting absorption of oils while frying foods, harmful effects of reheated oils. **Sugars:** Types and market forms of sugars; stages of sugar cookery, crystallization, factors affecting crystallization, uses in confectionery.**Food adjuncts and food additives** **Spices and condiments**: classification, source, use in food preparation, Leavening agents, stabilizers, thickeners, anticaking agents, enzymes, shortenings, stabilizers, flavouring agents, colouring agents, sweeteners-use and abuse. **Food adulteration -** Definition, common adulterants in food **Beverages -** Classification-fruit based beverages; milk-based beverages nutritive. value and uses, alcoholic beverages, coffee, tea and cocoa, malted.beverages. Sources, manufacture, processing, and service; methods ofpreparation of coffee and tea.	15	Chalk and Talk, PPT, group discussion , OHP presentations, quiz, open book test

Course Designer : Mrs. K. Janaki

Department of N&D				Class : I N&D				
Sem	**Category**	**Course Code**	**Course Title**	**Credits**	**Contact Hours / Week**	**CIA**	**SE**	**Total**
I	Core	23OUND1P	Basic cookery practical	3	3	40	60	100

Nature of the Course		
Knowledge and Skill Oriented	Employability Oriented	Entrepreneurship oriented
		✓

Learning Objectives

To enable the students to :

Learn the principles and scientific methods of cooking.

Learn the best methods of cooking foods to preserve its nutrient content and minimize cooking time.

Apply the principles of cookery to prepare tasty and nutritious food.

UNIT I

Introduction to Basic Cooking Skills

Introduction to different cooking methods, cooking terminology; equipment and techniques used for pre-preparation and for different cooking methods.

Methods of measuring and weighing liquids and dry ingredients. The useand care of simple kitchen equipment.

Introduction to food safety, sanitation and hygiene in the kitchen, Safe practices in handling knives, sharp instruments and materials at high temperature.

UNIT II

Cereals, Millets and pulses

Cereals and Millets: Methods of combining fine and course cereal withLiquid (eg.Ragi porridge, rava upma)

Method of cooking cereals and factors influencing texture and nutritivevalue- cooking rice by boiling and straining, absorption method, steaming, pressure cooking, microwave cooking; Gelatinization anddextrinization

Preparation of recipes using rice-puttu, dosai,idli/idiappam, lemon rice, curd rice, coconut rice, fried rice, tamarind rice, tomato rice, mint pulao- a few

Wheat and Millet preparations - Kesari, Phulka, poori, paratha, naan, ragi adai, samai curd rice, thinai uppuma, -a

few

Pulses:

Factors influencing texture, digestibility and nutritive value of whole gram/legumes andpulses -soaking, addition of soda bicarbonate, additionof salt, water quality- hard and softwater, pressure cooking, boiling andstraining.

Pulse preparations- Sundal, sambhar, sprouted green gram patchadi, Vadai, pongal, ompodi, green gram payasam, masala vadai ,medhu vadai-a few.

UNIT III

Vegetables and Fruits

Vegetables: Basic cuts of vegetables-Slice and mince (onions) Shred (cabbage, spinach),dice (carrot), chop (tomato), grating (beetroot), andtheir uses in dishes. Changes in colour and texture of vegetables and nutritive value due to different methods of cooking, cooking medium and addition of acid/alkali.

Vegetable preparations – Poriyal, Aloo methi curry, vegetable cutlet **.** thoran, vegetablekurma, avial, keerai maseal, vegetable salad, vegetablesoup, vegetable sandwich, kootu, mint chutney and carrot halwa.

Fruits:

Enzymatic browning in fruits and methods to prevent it. Fruit preparations- stewed apple, banana fritters, fruit salad, fruit punch, fruityoghurt and fruit smoothie, preserve/jam.

UNIT IV

Eggs,milk and milk products ,meat and fish:

Egg Cookery:

Boiling of eggs-hard and soft boiled eggs. Best method of boiling eggs.Prevention of Ferrous sulphide formation on the yolk. Poaching and frying. Coagulation of egg protein-stirred and baked custard

Egg preparations - egg curry, omelet, French toast, caramel custard (steamed), scrambled eggs and fried eggs- a few Factors affecting whipping quality of egg white – effect of salt, sugar, vinegar, fatand milk,type of container used and beaters, Stages of foam formation in whippedegg whites and their uses in cookery.

Milk and milk products

Curdling of milk using lime juice, butter milk, tomato juice,

Milk preparations

Cream of tomato soup, paneer masala, payasam, patchadi, thayir vadai, morkulumbu, basundhi, lassi, spiced buttermilk and baked macaroni and cheese.

Meat and Fish

Methods of tenderizing meat-Pounding, mincing addition of acids likecurd/limejuice in marinade, addition of proteolytic enzymes-raw papayaEffect of different methods of cooking on flavour, texture and appearanceof meat and fish.

Meat preparations - mutton ball curry, mutton vindaloo, mutton keema,liver fry, chicken spring roll, chicken sweet corn soup, chicken biriyani.Sea food preparations- fish fry, fish moilee, fish cutlet, sweet and sourprawns.

UNIT V

Sugar cookery, Fats and oils food additives and raising agents Sugar Cookery –

Stages of sugar cookery and uses. Preparations ofsweets using different stages of sugar cookery

Fats and oils - Effect of temperature of oil on texture and palatabilityof foods- Frying pooris at different temperatures

Smoking point of oil - bread cube test.

Emulsions- definition, Preparation of mayonnaise

Food additives and Raising agents

Role of MSG, sodium benzoate and KMS in food preparation and preservation., Natural versus synthetic preservatives, -Advantages and limitations Use of baking soda, baking powder, yeast in baking and food preparation- Prepare one dish with each of these

Uses of herbs and spices to enhance flavour.

Books for Study:

1. Manay, S. and Shadaksharaswamy, M. (1987) Foods Facts and Principles. New Age International Publishers, New Delhi.
2. Srilakshmi. B *Food Science* (8 ed.), New Age International Pub., New Delhi, 2020.

Books for References:

1. Martland, R.E. and Welsby, D.A. (1980) Basic Cookery, Fundamental Recipes and Variations. William Heinemann Ltd., London.
2. Krishna Arora (2008) Theory of cookery, Frank Brothers & Co.,
3. Negi J (2013) Fundamentals of Culinary Art, S.Chand and Co.
4. Peckham,G .C .and Freeland- Graves,J.H. (1987) Foundation of food preparation.4th ed. Macmillan Publishing co, New York
5. Penfield MP and Ada Marie C (2012), Experimental Food Science, Academic Press,,SanDiego

Web Resources / E - Books:

https://www.ihmnotes.in/assets/Docs/Books/Theory_of_Cookery.pdf

http://staffnew.uny.ac.id/upload/132318572/pendidikan/buku-esp.pdf

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Pedagogy

Experiment cookery, Menu planning, demo, method of cooking and preparation.

Rationale for nature of Course:

Knowledge and Skill:

To gain knowledge regarding the methods of cooking.

To know about the nutritional composition and their nutrients of foods.

Activities to be given:

Innovation recipes, Assignment, ppt, Quiz, Group discussion, collect different cereals and pulses.

LESSON PLAN : TOTAL HOURS (45 HRS)

Unit	Description	Hrs	Mode
1	**Unit - I Introduction to Basic Cooking Skills** Introduction to different cooking methods, cooking terminology; equipment and techniques used for pre-preparation and for different cooking methods.Methods of measuring and weighing liquids and dry ingredients. The useand care of simple kitchen equipment.Introduction to food safety, sanitation and hygiene in the kitchen, Safe practices in handling knives, sharp instruments and materials at high temperature.	9	Demonstration & Preparation
2	**Unit-II Cereals, Millets and pulses** **Cereals and Millets:** Methods of combining fine and course cereal with Liquid (eg.Ragi porridge,rava upma) Method of cooking cereals and factors influencing texture and nutritive value-cooking rice by boiling and straining, absorption method, steaming, pressure cooking, microwave cooking; Gelatinization anddextrinizationPreparation of recipes using rice-puttu, dosai,idli/idiappam, lemon rice,curd rice, coconut rice, fried rice, tamarind rice, tomato rice, mint pulao- a fewWheat and Millet preparations - Kesari, Phulka, poori, paratha, naan, ragiadai, samai curdrice, thinai uppuma, -a few	9	Demonstration & Preparation
3	**Unit - III Vegetables and Fruits** **Vegetables:** Basic cuts of vegetables-Slice and mince (onions) Shred (cabbage, spinach),dice (carrot), chop (tomato), grating (beetroot), andtheir uses in dishes. Changes in colour and texture of vegetables and nutritive value due to different methods of cooking, cooking medium and addition of acid/alkali. Vegetable preparations – Poriyal, Aloo methi curry, vegetable cutlet **.** thoran, vegetablekurma, avial, keerai maseal, vegetable salad, vegetablesoup, vegetable sandwich, kootu ,mint chutney and carrot halwa.	9	Demonstration & Preparation

	Fruits: Enzymatic browning in fruits and methods to prevent it. Fruit preparations- stewed apple, banana fritters, fruit salad, fruit punch, fruityoghurt and fruit smoothie, preserve/jam.		
4	**Unit - IV Eggs,milk and milk products ,meat and fish:** **Egg Cookery:** Boiling of eggs-hard and soft boiled eggs. Best method of boiling eggs.Prevention of Ferrous sulphide formation on the yolk. Poaching and frying. Coagulation of egg protein-stirred and baked custard Egg preparations - egg curry, omelet, French toast, caramel custard (steamed), scrambled eggs and fried eggs- a few Factors affecting whipping quality of egg white – effect of salt, sugar, vinegar, fatand milk,type of container used and beaters, Stages of foam formation in whippedegg whites and their uses in cookery.**Milk and milk products** Curdling of milk using lime juice, butter milk, tomato juice, **Milk preparations**Cream of tomato soup, paneer masala, payasam, patchadi, thayir vadai, morkulumbu, basundhi, lassi, spiced buttermilk and baked macaroni and cheese. **Meat and Fish**Methods of tenderizing meat-Pounding, mincing addition of acids like curd/limejuice in marinade, addition of proteolytic enzymes-raw papaya Effect of different methods of cooking on flavour, texture and appearanceof meat and fish. Meat preparations - mutton ball curry, mutton vindaloo, mutton keema,liver fry,chicken spring roll, chicken sweet corn soup, chicken biriyani.Sea food preparations- fish fry, fish moilee, fish cutlet, sweet and sourprawns.	9	Demonstration & Preparation
5	**Unit - V Sugar cookery, Fats and oils food additives and raising agents Sugar Cookery** Stages of sugar cookery and uses. Preparations ofsweets using different stages of sugar cookery **Fats and oils -** Effect of temperature of oil on texture and palatabilityof foods- Frying pooris at different temperatures Smoking point of oil - bread cube test. Emulsions- definition, Preparation of mayonnaise **Food additives and Raising agents** Role of MSG, sodium benzoate and KMS in food preparation and preservation.,Natural versus synthetic preservatives, -Advantages and limitations Use of baking soda, baking powder, yeast in baking and foodpreparation- Prepare one dish with each of these Uses of herbs and spices to enhance flavour.	9	Demonstration & Preparation

Course Designer : Mrs . K. Janaki

Annexure -14

EVALUATION (PRACTICAL)

Internal (Formative) : 40 marks

External (Summative) : 60 marks

Question Paper Pattern for Internal Practical Examination : 40 marks

S. No	Components	Marks
1.	Menu Planning	5
2.	Experimental Cookery	5
3.	Menu Preparation	5
4.	Menu Display	10
5.	Observation Note Book	5
6.	Model Exam	10
	Total	**40**

Question Paper Pattern for External Practical Examination (Major) : 60 marks

S. No	Components	Marks
1.	Menu Planning	10
2.	Experimental Cookery	10
3.	Menu Preparation	15
4.	Menu Display	10
5.	Record	10
6.	Viva	5
	Total	**60**

In respect of External Examinations Passing Minimum is **35 %for Under Graduate** Courses and in total , **aggregate of 40%**

Department of N&D				Class : I N&D				
Sem	**Category**	**Course Code**	**Course Title**	**Credits**	**Contact Hours / Week**	**CIA**	**SE**	**Total**
I	Skill Enhancement Course(NME)	23OUNDSECN1	Basic Nutrition	2	2	25	75	100

Nature of the Course		
Knowledge and Skill Oriented	**Employability Oriented**	**Entrepreneurship oriented**
✓		

Learning Objectives:

To help the students to

1. Understand the functions and sources of nutrients.
2. Acquire skills in the maintenance of good health
3. Know about the various deficiency disorders

Course Content:

Unit – I Basic concepts - Meal planning , factors and principles of meal planning, food groups, food pyramid, my plate. **n**utrition, nutrients, health, nutritional status, malnutrition, under nutrition, over nutrition, balanced diet and RDA.

Unit – II Carbohydrate – definition, classification, function, sources and RDA for different age groups.

Unit – III Protein- definition, classification, functions, sources, deficiency and RDA. **Lipids-**definition, functions, types, sources, deficiency and RDA.

Unit – IV Vitamins - water soluble (thiamine,riboflavin,niacin,B12), fat soluble (A,D,E, and K) ,functions, sources, deficiency and RDA.

Unit –V Minerals – functions, sources, deficiency and RDA of calcium , iron, iodine, zinc and sodium**.**

Books for study:

1. Srilakshmi.B , *Nutrition Science* (5th edn), New Age International Publications, New Delhi, 2016
2. Sunetra Roday.*Food Science & Nutrition* (2 ed) Published in India by Oxford University Press, 2012.

Books for Reference :

1. Monika Sharma *Textbook of Nutrition for Bsc Nursing Students* CBS Publishers &Distributors Pvt, Ltd, New Delhi, 2017.
2. Pooja Verma *Food Nutrition and Dietetics* CBS Publishers &Distributors Pvt, Ltd, New Delhi, 2015.
3. Shrinandhan *Bansal Food and Nutrition* AITBS Publishers India New Delhi 2012.
4. Shubhangini A Joshi *Nutrition and Dietetics with Indian Case studies* ,Tata Mc Graw –Hill Pvt.Ltd 2011.
5. Varinder Karu *Textbook of Nutrition for GNM students*) CBS Publishers &Distributors Pvt, Ltd, New Delhi, 2018.

Web resources / E.Books:

1. **https://byjus.com/biology/nutrients/**
2. **https://www.healthline.com/health/balanced-diet**
3. **https://www.slideshare.net/DhakaGaurav/carbohydrates-classification-functions-source-rda**
4. **https://www.medicalnewstoday.com/articles/196279**
5. **https://www.hsph.harvard.edu/nutritionsource/vitamins/**
6. **https://www.mea.elsevierhealth.com/nursing-midwifery/nutrition**

Pedagogy:

Chalk and Talk, PPT, group discussion , OHP presentations, quiz, on the spot test and Virtual Labs.

Rationale for nature of Course:

Knowledge and Skill:

To articulate the various nutritional deficiency disorders.

To acquire knowledge on balanced diet and maintenance of good health.

Activities to be given: Assignment, ppt, Quiz, Group discussion

Course learning Outcomes (CLO's):

Sl.No	Course out come Statement	Knowledge (According to Bloom's Taxonomy)
CLO1	Explain the basic concepts of nutrition and health.	K1 to K3
CLO2	Classify major and minor nutrients	K1 to K3
CLO3	Identify major and minor nutrients in the food sources.	K1 to K3
CLO4	Choose food sources rich in nutrients.	K1 to K3
CLO5	Apply the knowledge on nutrients to maintain their health.	K1 to K3

K1- Remembering and recalling facts with specific answers.

K2- Basic understanding of facts and stating main ideas with general answers.

K3- Application oriented- Solving Problems.

Mapping of Course Learning Outcomes (CLOs) with Programme Outcomes (POs)

(SCIENCE)

	PO1	PO2	PO3	PO4	PO5	PO6
CLO1	2	2	2	3	3	2
CLO2	2	2	2	2	1	3
CLO3	2	2	2	3	2	2
CLO4	2	3	3	3	3	3
CLO5	2	3	3	3	3	3

1-Basic Level **2- Intermediate Level** **3- Advanced Level**

Annexure -14

Mapping of Course Learning Outcomes (CLOs) with Programme Outcomes (POs)

(ARTS)

	PO1	PO2	PO3	PO4	PO5	PO6
CLO1	2	2	2	2	3	2
CLO2	2	1	1	2	1	2
CLO3	2	2	2	3	2	2
CLO4	2	1	1	2	3	3
CLO5	2	2	2	2	2	2

1-Basic Level 2- Intermediate Level 3- Advanced Level

Annexure -14

LESSON PLAN : TOTAL HOURS (30 hrs)

Unit	Description	Hrs	Mode
1	**Unit – I Basic concepts** - Meal planning , factors and principles of meal planning, food groups, food pyramid, my plate. **n**utrition, nutrients, health, nutritional status, malnutrition, under nutrition, over nutrition, balanced diet and RDA.	4	Chalk and talk, Group Discussions, Quiz
2	**Unit – II Carbohydrate –** definition, classification, function, sources and RDA for different age groups.	4	Chalk and talk, Quiz
3	**Unit – III Protein-** definition, classification, functions, sources, deficiency and RDA. **Lipids-** definition, functions, types, sources, deficiency and RDA.	6	Chalk and talk, PPT, On the spot Test
4	**Unit – IV Vitamins -** water soluble (thiamine,riboflavin,niacin,B12), fat soluble (A,D,E, and K) ,functions, sources, deficiency and RDA.	10	Chalk and talk, PPT, On the spot Test
5	**Unit –V Minerals –** functions, sources, deficiency and RDA of calcium , iron, iodine, zinc and sodium	6	Chalk and talk, PPT, On the spot Test, Assignment

Course Designer : Mrs. K. Gowsalya

Department of N&D				Class : I N&D				
Sem	**Category**	**Course Code**	**Course Title**	**Credits**	**Contact Hours / Week**	**CIA**	**SE**	**Total**
I	Foundation Course	23OUNDFC1	Women Health and Wellness	2	2	25	75	100

Nature of the Course		
Knowledge and Skill Oriented	**Employability Oriented**	**Entrepreneurship oriented**
✓		

Learning Objectives

To enable the students to:

Understand the diverse factors that has a bearing on women's health.

Highlight different aspects of health that contributes to a good lifestyle for women across the globe.

UNIT - I

Nutrition for Women - Dietary Guidelines for a healthy lifestyle, Current concepts pertaining to Balanced Diets, Nutrient requirements for young and older women with special focus on Protein, Iron,Vitamin D and Calcium, Factors affecting nutrient intake in women- Socioeconomic, Environmental conditions, Health conditions; Consequences of Eating disorders in young women.

UNIT – II

Physical Health - Significance of Body weight and Body composition parameters, Benefits of Aerobic, Flexibility and Strength training exercises- on General health, Bone health, and risks associated with NCD's.

UNIT – III

Reproductive Health - Menstrual Health, Pregnancy and Lactation,Pre- and Post-Menopausal concerns-preventive measures, sexually transmitted diseases- an overview.

UNIT – IV

Mental Health - Common mental health problems - Trends and issuesrelating to women, Depression, Anxiety and coping with Stress, Strategies to improve mental health- learning new skills and hobbies, Relaxation techniques such as yoga and meditation.

UNIT - V

Social Health - Balancing home and career, strengthening relationships, enhancing communication skills and Personality Development, technological advancements and its impact, Dealing with domestic violence, and harassment issues.

Books for Study :

1. Lanza di Scalea T, Matthews KA, Avis NE, et al. (2012) Role stress, role reward, and mental health in a multiethnic sample of midlife women: results from the Study of Women's Health Across the Nation (SWAN). J Women's Health; 21(5):481-489.
2. Mahan K and Sylvia E. Stump (2000) Krause's Food Nutrition and Diet Therapy, Saunders, USA.

Books for References:

1. Minkin M. J. and Wright C. V. (2003) The Yale Guide to Women's Reproductive Health from menarche to menopause. Yale University Press, London
2. Sizer F. S. and Whitney E. (2014) Nutrition: Concepts & Controversies. 13th Ed., Wadsworth, Cengage Learning, USA.
3. Sperry L. (2016) Mental Health and Mental Disorders. ABC-Clio, Californi
4. Williams M.H., Anderson D.E., Rawson E.S. (2013) Nutrition for Health, Fitness and Sport. McGraw Hill, New York.
5. Wrzus C, Hänel M, Wagner J, Neyer FJ. (2013) Social network changes and lifeevents across the life span: a meta-analysis. Psychol Bull;139(1):53-80.

Web Resources / E. Books:

https://www.nhp.gov.in/social-health_pg

https://ncert.nic.in/textbook/pdf/jehp112.pdf

https://ncert.nic.in/textbook/pdf/iehp113.pdf

https://ncert.nic.in/textbook/pdf/lebo104.pdf

Pedagogy :

Chalk and Talk, PPT, group discussion , OHP presentations, quiz, on the spot test and Virtual Labs.

Rationale for nature of Course:

Knowledge and Skill:

Gaining knowledge of women's health.

Activities to be given:

Assignment, ppt, Quiz, Group discussion

LESSON PLAN : TOTAL HOURS (30 hrs)

Unit	Description	Hrs	Mode
1	**UNIT – I Nutrition for Women -** Dietary Guidelines for a healthy lifestyle, Current concepts pertaining to Balanced Diets, Nutrient requirements for young and older women with special focus on Protein, Iron,Vitamin D and Calcium, Factors affecting nutrient intake in women- Socioeconomic, Environmental conditions, Health conditions; Consequences of Eating disorders in young women.	4	Chalk and talk, Group Discussions, Quiz
2	**UNIT – II Physical Health -** Significance of Body weight and Body composition parameters, Benefits of Aerobic, Flexibility and Strength training exercises- on General health, Bone health, and risks associated with NCD's.	4	Chalk and talk, Quiz
3	**UNIT – III Reproductive Health -** Menstrual Health, Pregnancy and Lactation,Pre- and Post-Menopausal concerns-preventive measures, sexually transmitted diseases- an overview	6	Chalk and talk, PPT, On the spot Test
4	**UNIT – IV Mental Health -** Common mental health problems - Trends and issuesrelating to women, Depression, Anxiety and coping with Stress, Strategies to improve mental health- learning new skills and hobbies, Relaxation techniques such as yoga and meditation	10	Chalk and talk, PPT, On the spot Test
5	**UNIT – V Social Health -** Balancing home and career, strengthening relationships, enhancing communication skills and Personality Development, technological advancements and its impact, Dealing with domestic violence, and harassment issues.	6	Chalk and talk, PPT, On the spot Test, Assignment

Course Designer : Mrs. K. Janaki

Annexure -14

Department of N&D				Class : I N&D				
Sem	**Category**	**Course Code**	**Course Title**	**Credits**	**Contact Hours / Week**	**CIA**	**SE**	**Total**
II	Core Course	23OUND21	Human Physiology	4	4	25	75	100

Nature of the Course		
Knowledge and Skill Oriented	**Employability Oriented**	**Entrepreneurship oriented**
✓		

Learning Objectives

To enable the students to :

Gain basic understanding of human anatomy and physiology

Learn the integrated functioning of cells, tissues, organs and systems.

Apply the principles of nutrition and dietetics on the basis of thorough understanding of human physiology.

UNIT – I

Cell and tissues - Structure of Cell and functions of different ofdifferent organelles.

Classification, structure and functions of tissues.

Blood- Constituents of blood- RBC, WBC and Platelets and itsfunctions. Erythropoiesis, Blood clotting, Blood groups and histocompatibility

Immune system- Antigen, Antibody, Cellular and Humoral Immunity

UNIT – II

Nervous system - General anatomy of nervous system, functions of the different parts

Sense organs - Structure and functions of Eye, Ear, Skin. Physiology of Taste andSmell

UNIT – III

Heart and circulation

Anatomy of the heart and blood vessels, properties of cardiac muscle, origin and conduction of heartbeat, cardiac cycle, cardiac output, bloodpressure - definition and factors affecting blood pressure, and description of ECG.

Respiratory system

Anatomy and physiology of respiratory organs. Gaseous exchange inthe lungs and tissues, Mechanism of respiration.

UNIT – IV

Digestive system

Anatomy of Gastro-intestinal tract, Structure and functions of Liver and Pancreas. Digestion and absorption of carbohydrates, proteins and fats.

Excretory system Structure of kidney, functions of Nephron

UNIT – V

Endocrine system

Functions of hormones secreted by Pancreas, Pituitary gland, thyroid,parathyroid and adrenal glands. Effects of hypo and hypersecretion ofthese glands.

Reproductive system

Anatomy of male and female reproductive organs, Ovarian and Uterinecycle, influence of hormones on pregnancy and lactation.

Books for Study :

1. Beck, W.S. (1971) Human Design. Harcourt Brace Jovanovich Inc., New York.
2. Best, C. H. and Taylor, N. B. (1980) Living Body. 4th ed. BIP, Bombay.

Books for Reference:

1. Creager, J. G. (1992) Human Anatomy and Physiology. 2nd ed. WMC Brown Publishers,England.
2. Guyton, A.C. (1979) Physiology of the Human Body. 5th ed. Saunders College ofPublishing, Philadelphia.
3. Subramaniam, S. and Madhavan Kutty, K. (1971) The Text Book of Physiology. Orient i. Longman Ltd., Madras.
4. Tortora G. J.Anagnostakos N.P. (1984)Principles of Anatomy and Physiology, 4th edition, Harper and Row Publishers, New York.
5. Waugh A and Grant A. (2012) Ross and Wilson Anatomy and Physiology inHealth and Illness. 11th ed. Churchill and Livingston, Elsevier
6. Wilson, K. J. W. (1987) Anatomy and Physiology in Health and Illness.6th ed.ELBS, Churchill Livingstone, London.

Websites e -learning resources

https://youtu.be/uFf0zxQ3rBU

http://epgp.inflibnet.ac.in/Home/Download

Pedagogy :

Chalk and Talk, PPT, group discussion , OHP presentations, quiz, on the spot test and

Rationale for nature of Course:

Knowledge and Skill:

Gain knowledge on human Anatomy.

To know about clinical abbreviations.

Activities to be given:

Assignment, ppt, Quiz, Group discussion, Drawing

Course learning Outcomes (CLO's):

Sl.No	Co Statement	Knowledge (According to Bloom's Taxonomy)
CLO1	Describe the structure and functions of a cell, various tissues, primary organs andsystems in the body.	K1 to K3
CLO2	Explain the interrelationship between systems for maintenance of equilibrium	K1 to K3
CLO3	Evaluate the role of the nervous and endocrine system in regulating the activities ofother systems.	K1 to K4
CLO4	Identify the structure of basic tissues, label the parts of primary physiological systems in the body such as nervous, respiratory, digestive, endocrine and reproductive systems.	K1 to K3
CLO5	Perform haematological study of blood such as blood smear, blood count and blood grouping, record pulse, blood pressure and interpret a normal ECG.	K1 to K4

Mapping of Course Learning Outcomes (CLOs) with Programme Outcomes (POs)

	PO1	PO2	PO3	PO4	PO5	PO6
CLO1	1	3	1	2	2	2
CLO2	1	2	2	2	3	3
CLO3	2	3	3	2	2	3
CLO4	2	2	2	2	2	2
CLO5	2	2	3	2	2	2

1-Basic Level 2- Intermediate Level 3- Advanced Level

Annexure -14

LESSON PLAN: TOTAL HOURS (75 Hrs)

UNIT	DESCRIPTION	Hrs	MODE
I	**UNIT – I Cell and tissues -** Structure of Cell and functions of different ofdifferent organelles. Classification, structure and functions of tissues. **Blood-** Constituents of blood- RBC,WBC and Platelets and itsfunctions. Erythropoiesis, Blood clotting, Blood groups and histocompatibility **Immune system-** Antigen, Antibody, Cellular and Humoral Immunity	12	Chalk and Talk, PPT, quiz, on the spot test
II	**UNIT – II Nervous system** General anatomy of nervous system, functions of the different parts **Sense organs** Structure and functions of Eye, Ear, Skin. Physiology of Taste andSmell	18	Chalk and Talk, OHP quiz, on the spot test
III	**UNIT – III Heart and circulation** Anatomy of the heart and blood vessels, properties of cardiac muscle, origin and conduction of heartbeat, cardiac cycle, cardiac output, bloodpressure - definition and factors affecting blood pressure, and description of ECG. **Respiratory system** Anatomy and physiology of respiratory organs. Gaseous exchange inthe lungs and tissues, Mechanism of respiration.	15	Chalk and Talk, PPT, group discussion , OHP andYou tube Links
IV	. **UNIT – IV Digestive system** Anatomy of Gastro-intestinal tract, Structure and functions of Liver and Pancreas. Digestion and absorption of carbohydrates, proteins and fats. **Excretory system** Structure of kidney, functions of Nephron.	15	Chalk and Talk, OHP,PPT presentations, quiz,.
V	**UNIT – V Endocrine system** Functions of hormones secreted by Pancreas, Pituitary gland, thyroid,parathyroid and adrenal glands. Effects of hypo and hypersecretion ofthese glands. **Reproductive system** Anatomy of male and female reproductive organs, Ovarian and Uterine cycle, influence of hormones on pregnancy and lactation.	15	Chalk and Talk, PPT, group discussion , OHP presentations, quiz, open book test

Course Designer : Mrs. P. Tamilarasi

Annexure -14

Department of N&D				Class : I N&D				
Sem	**Category**	**Course Code**	**Course Title**	**Credits**	**Contact Hours / Week**	**CIA**	**SE**	**Total**
II	Core Course	23OUND22	Basics of Food Microbiology	4	4	25	75	100

Nature of the Course		
Knowledge and Skill Oriented	**Employability Oriented**	**Entrepreneurship oriented**
✓		

Learning Objectives

To enable the students to :

Gain knowledge on the characteristics of micro-organisms in food and environment.

Understand the role of microorganisms in food spoilage, health and illness.

Familiarize with the methods of controlling microorganisms.

UNIT I

Introduction to Microbes in Foods

History and Development of Food Microbiology Classification of microorganisms. General morphologicalcharacteristics of bacteria, yeast, algae. mold, virus.

Characteristics of predominant microorganisms in food, sources ofmicroorganisms in foods

UNIT II

Microbial spoilage and contamination of common food

Factors affecting growth of microorganisms- intrinsic and extrinsic. Sources of contamination and spoilage of common foods -Cereal andcereal products, fruits and vegetables, egg, meat and fish, milk and milk products.

UNIT III

Beneficial uses of microorganisms in food and health Microorganisms used in fermented products - Alcoholic drinks, Dairyproducts, Bread, Vinegar, Pickled foods. Single-cell protein

Food Bio preservatives of microbial origin.Intestinal Bacteria and Probiotics.

UNIT IV

Food poisoning and Food borne disease

Food poisoning/ intoxication and food infection- definition. Bacterial food poisoning – Staphylococcus aureus, Clostridium botulinum, Clostridium perfringens, Bacillus cereusFood Infection- Salmonellosis, Shigellosis, Cholera, Gastroenteritis.Measures to prevent food poisoning and food borne infection.

UNIT V

Microorganisms found in water, soil, air and sewage- List of microorganisms and diseases caused; Test for sanitary quality ofwater, Purification of water **Control of Microorganisms in food**Control of Access of Microorganisms: sanitation, sterilization and disinfection Control by Heat (Thermal Processing), Low Temperature, Reduced Water Activity and Drying, Low pH and Organic Acids, Modified Atmosphere, Reducing O-R Potential) Antimicrobial Preservatives and Bacteriophages Irradiation, Novel Processing Technologies, Combination of Methods (Hurdle Concept)

Books for Study :

1. Parija SC. (2012) Textbook of Microbiology and Immunology, 2nd edition, Elsevier India.
2. Garbutt J. (1997) Essentials of Food Microbiology, 2nd edition, Arnold publication, New York,1997

Books for References:

1. Adams M.R, Moss M.O and Peter.M (2016). Food Microbiology. 4th edition. Royal Society of Chemistry, United Kingdom.
2. Frazier W.C and Westhoff D.C. (1995). Food Microbiology. 5th edition. Tata Mc Graw Hill Publishing Company Ltd, New Delhi.
3. Jay J.M, Loessner MJ and Golden D.A. (2005). Modern Food Microbiology. 7th edition, CBS Publishers and Distributors, New Delhi.
4. Ananthanarayan and Paniker. (2017). Text book of Microbiology, Tenth Edition, Orient Longman Limited, Hyderabad.
5. Ramesh. V. (2007). Food Microbiology, MJP publishers, Chennai.
6. Gerald McDonell. (2020). Block's Disinfection, Sterilization and Preservation. 6th edition. Lippincott Williams and Wilkins, Philadelphia.

Web resources / E.books

http://people.uleth.ca/~selibl/Biol3200/CourseNotes/MicroTaxonomyCh10.pdf

https://www.cdc.gov/vaccines/hcp/conversations/downloads/vacsafe-understand-color- office.pdf

https://www.who.int/news-room/fact-sheets/detail/food-safety

https//epi.dph.ncdhhs.gov/cd/diseases/food.html

http://vikaspedia.in/health/nutrition/food-borne-diseases-or-food-poisoning

https://www.microrao.com/micronotes/sterilization.pdf

https://ehs.colorado.edu/resources/disinfectants-and-sterilization-methods

Pedagogy: Chalk and Talk, PPT, Group discussion , OHP presentations, quiz, on the spot test and Virtual Labs,youtubelinks.

Rationale for nature of Course:

Knowledge and Skill:

To gain knowledge regarding the different types of micro organism.

To know about the causes and prevention of food poisoning and food borne infections.

Activities to be given:

Innovation recipes, Assignment, ppt, Quiz, Group discussion.

Course learning Outcomes (CLO's):

Sl.No	Co Statement	Knowledge (According to Bloom's Taxonomy)
CLO1	Comprehend the characteristics of microorganisms in food and its environment and apply the knowledge to control them.	K1 to K3
CLO2	Differentiate between organisms that are beneficial from those causing spoilage.	K1 to K3
CLO3	Explain the causes and prevention of food poisoning and food borne infections.	K1 to K4
CLO4	Identify the microscopic structure of algae, molds, yeast, virus and bacteria.	K1 to K3
CLO5	Perform appropriate tests to identify the size, shape, arrangement and motility of organisms.	K1 to K4

Mapping of Course Learning Outcomes (CLOs) with Programme Outcomes (POs)

	PO1	PO2	PO3	PO4	PO5	PO6
CLO1	1	3	2	2	2	3
CLO2	1	2	3	2	2	2
CLO3	2	2	2	3	3	2
CLO4	2	3	3	2	2	3
CLO5	1	2	2	2	3	2

1-Basic Level 2- Intermediate Level 3- Advanced Level

LESSON PLAN: TOTAL HOURS (75 Hrs)

UNIT	DESCRIPTION	Hrs	MODE
I	**UNIT I Introduction to Microbes in Foods** History and Development of Food Microbiology Classification of microorganisms. General morphological characteristics of bacteria, yeast, algae. mold, virus .Characteristics of predominant microorganisms in food, sources of microorganisms in foods	12	Chalk and Talk, PPT, quiz, on the spot test
II	**UNIT II Microbial spoilage and contamination of common food** Factors affecting growth of microorganisms-intrinsic and extrinsic. Sources of contamination and spoilage of common foods -Cereal and cereal products, fruits and vegetables, egg, meat and fish, milk and milk products.	18	Chalk and Talk, OHP quiz, on the spot test
III	**UNIT III Beneficial uses of microorganisms in food and health** Microorganisms used in fermented products - Alcoholic drinks, Dairy products, Bread, Vinegar, Pickled foods. Single-cell protein Food Bio preservatives of microbial origin. Intestinal Bacteria and Probiotics.	15	Chalk and Talk, PPT, group discussion , OHP andYou tube Links

IV	. **UNIT IV** **Food poisoning and Food borne disease** Food poisoning/ intoxication and food infection- definition. Bacterial food poisoning – Staphylococcus aureus, Clostridium botulinum, Clostridium perfringens, Bacillus cereus Food Infection- Salmonellosis, Shigellosis, Cholera, Gastroenteritis. Measures to prevent food poisoning and food borne infection.	15	Chalk and Talk, OHP,PPT presentations, quiz,
V	**UNIT V** **Microorganisms found in water, soil, air and sewage**- List of microorganisms and diseases caused; Test for sanitary quality of water, Purification of water **Control of Microorganisms in food** Control of Access of Microorganisms: sanitation, sterilization and disinfection Control by Heat (Thermal Processing), Low Temperature, Reduced Water Activity and Drying, Low pH and Organic Acids, Modified Atmosphere, Reducing O-R Potential) Antimicrobial Preservatives and Bacteriophages Irradiation, Novel Processing Technologies, Combination of Methods (Hurdle Concept)	15	Chalk and Talk, PPT, group discussion , OHP presentations, quiz, open book test

Course Designer : Mrs. B. Rubarani

Department of N&D				Class : I N&D				
Sem	**Category**	**Course Code**	**Course Title**	**Credits**	**Contact Hours / Week**	**CIA**	**SE**	**Total**
II	NME	23OUNDSECN2	Consumer Education	2	2	25	75	100

Nature of the Course		
Knowledge and Skill Oriented	**Employability Oriented**	**Entrepreneurship oriented**
✓		

Learning Objectives

To enable the students to:

Be familiar with the problems in buying and consumer legislations.

Become aware of marketing conditions and the means for problem redressal.

Create awareness on various consumer buying problems

UNIT I

Consumerism and consumer buying problem - Definition and the concept of consumerism – consumer, producer and market. Characteristics of consumers, role of consumers in the Indian economy.Malpractices – Incorrect weights and measures. Misleading Advertisement and Misbranding.

UNIT II

Human wants, Demand and Supply - Definition, classification of human wants –necessities, comfort and luxuries. Meaning of demand and supply. Relation between utility, demand and supply. Factors influencing demand and supply.

Types of income - Real, money, psychic, relationship of GNP, national income, personal income, disposable income.

UNIT III

Markets and marketing - Basic Concept, Classification and functionsof Markets, Types of Market. Channels of Distribution: Meaning, types and their advantages and disadvantages.

Consumer in the market - Consumer buying habits, buying motives and buying problems.

Consumer Aids

a. Brand – Different types and its importance.

b. Labels – Importance, Merits and demerits.Importance of Packaging and Advertising.

UNIT IV

Quality Assessment of Products - Definition – Standards and standardization and its Importance. Quality Seal – BIS, ISI,AGMARK, ISO, HALL MARK, BEELABEL and FPO

UNIT V

Consumer decision making process - Types of consumer decisions, process of decision making, factors determining and influencing consumer behavior, guidelines for wise buying practices.

Consumer Protective Services - Consumer Protection Act, Food Adulteration Act – FSSAI. Quality control and inspection Act**.** Consumer Rights and consumer responsibilities.

Books for Study :

1. Gupta, C.B. and Nair, R.N (2004). Marketing Management: Sultan Chandand Sons,
2. Juliana, M (2011). Green consumerism, United States: SAGE Publishers.

Books for References:

1. Kathiresan, S. Radha, V (2004), Marketing: Chennai, Prasanna Publisher.
2. Kumar, N., (1999), Consumer Protection in India, Delhi, Himalaya PublishingHouse.
3. Pattanchetti, C.C. and Reddy, 2002). Principles of Marketing,Coimbatore: RainbowPublishers,India.
4. Seetharaman, P. and Sethi, M. (2001). Consumerism: Strategies and Tactics,CBS Publishers and Distributors, New Delhi.
5. Steven, D.S, (2016). Consumer Economics: A Practical Overview",NewYork: Routledge Taylor and Francisgroup.
6. Suja Nair (2002). Consumer Behaviour: New Delhi. Sultan Chand and Sons.

Web Resources / E. Books:

http://www.jagograhakjago.com/consumer-rights/

https://consumeraffairs.nic.in/organisation-and-units/division/bureau-indian-standards

https://www.consumer-voice.org/food/know-your-quality-marks/

http://ecoursesonline.iasri.res.in/mod/page/view.php?id=120087

http://ecoursesonline.iasri.res.in/mod/page/view.php?id=120086

Pedagogy:

Chalk and Talk, PPT, Group discussion , OHP presentations, quiz, on the spot test and Virtual Labs, you tube links.

Rationale for nature of Course:

Knowledge and Skill:

To gain knowledge on consumer protection legislations and standards

Activities to be given:

Innovation recipes, Assignment, ppt, Quiz, Group discussion.

Course learning Outcomes (CLO's):

Sl.No	Course out come Statement	Knowledge (According to Bloom's Taxonomy)
CLO1	Identify the major influences on consumer behavior	K1 to K3
CLO2	Analyze the implications of demand and supply.	K1 to K3
CLO3	Implement wise buying practices.	K1 to K3
CLO4	Explain consumer protection legislations and standards.	K1 to K3
CLO5	Assess the quality of a product based on the knowledge gained	K1 to K3

K1- Remembering and recalling facts with specific answers

K2- Basic understanding of facts and stating main ideas with general answers

K3- Application oriented- Solving Problems

Mapping of Course Learning Outcomes (CLOs) with Programme Outcomes (POs) (SCIENCE)

	PO1	PO2	PO3	PO4	PO5	PO6
CLO1	2	2	2	3	3	2
CLO2	2	2	2	2	1	3
CLO3	2	2	2	3	2	2
CLO4	2	3	3	3	3	3
CLO5	2	3	3	3	3	3

1-Basic Level 2- Intermediate Level 3- Advanced Level

Mapping of Course Learning Outcomes (CLOs) with Programme Outcomes (POs) (ARTS)

	PO1	PO2	PO3	PO4	PO5	PO6
CLO1	2	2	2	2	3	2
CLO2	2	1	1	2	1	2
CLO3	2	2	2	3	2	2
CLO4	2	1	1	2	3	3
CLO5	2	2	2	2	2	2

1-Basic Level 2- Intermediate Level 3- Advanced Level

Annexure -14

LESSON PLAN : TOTAL HOURS (30 hrs)

Unit	Description	Hrs	Mode
1	**UNIT I** **Consumerism and consumer buying problem -** Definition and the concept of consumerism – consumer, producer and market. Characteristics of consumers, role of consumers in the Indian economy.Malpractices – Incorrect weights and measures. Misleading Advertisement and Misbranding.	4	Chalk and talk, Group Discussions, Quiz
2	**UNIT II** **Human wants, Demand and Supply -** Definition, classification of human wants – necessities, comfort and luxuries. Meaning of demand and supply. Relation between utility, demand and supply. Factors influencing demand and supply. **Types of income -** Real, money, psychic, relationship of GNP, national income, personal income, disposable income.	4	Chalk and talk, Quiz
3	**UNIT III** **Markets and marketing -** Basic Concept, Classification and functionsof Markets, Types of Market. Channels of Distribution: Meaning, types and their advantages and disadvantages. **Consumer in the market -** Consumer buying habits, buying motives and buying problems. **Consumer Aids** a. Brand – Different types and its importance. b. Labels – Importance, Merits and demerits.Importance of Packaging and Advertising.	6	Chalk and talk, PPT, On the spot Test
4	**UNIT IV** **Quality Assessment of Products -** Definition – Standards and standardization and its Importance. Quality Seal – BIS, ISI,AGMARK, ISO, HALL MARK, BEELABEL and FPO	10	Chalk and talk, PPT, On the spot Test
5	**UNIT V** **Consumer decision making process -** Types of consumer decisions, process of decision making, factors determining and influencing consumer behavior, guidelines for wise buying practices. **Consumer Protective Services -** Consumer Protection Act, Food Adulteration Act – FSSAI. Quality control and inspection Act**.** Consumer Rights and consumer responsibilities	6	Chalk and talk, PPT, On the spot Test, Assignment

Course Designer : Mrs. B. Rubarani

Department of N&D				Class : I N&D				
Annexure -14								
Sem	**Category**	**Course Code**	**Course Title**	**Credits**	**Contact Hours / Week**	**CIA**	**SE**	**Total**
II	Skill Enhancement Course	23OUNDSEC3	House Keeping	2	2	25	75	100

Nature of the Course		
Knowledge and Skill Oriented	**Employability Oriented**	**Entrepreneurship oriented**
	✓	

Learning Objectives

To enable the students to:

Gain theoretical knowledge and practical applications of housekeeping

Learn the layout and functions of guest room.

Get acquainted with the attributes, qualities and skills required for proper functioning of the housekeeping department

UNIT I

Housekeeping Department - Importance of housekeeping, Duties and Responsibilities of Housekeeping Department. Organizational Structure, types of lodging establishments. Job Description and Job Specification of staff in the department. Layout of the department, Personal Attributes. Qualities of the Housekeeping staff - skills of a good Housekeeper.

UNIT II

Housekeeping co-ordination and Procedures

Briefing, Debriefing, Gate pass, **I**nter departmental Co-ordination with more emphasis on Front office and the Maintenance department. Indenting from stores- Inventory of Housekeeping Items, Housekeeping control desk, Importance, Role, Co-ordination, check list, key control, Handling Lost and Found, Forms, Formats and registers used in the Control Desk, Paging systems and methods, Handling of Guest queries,problem, request. General operations of control desk, Role of controldesk during Emergency.

UNIT III

Hotel Guest room - Importance of the Guestroom to a Guest, Types ofguest rooms, Guest Supplies/Amenities in a guest room, Bed making procedures and types.

Different types and importance of keys – section key, master key, floorkey and grand master key. Key of executive offices and public areas andcomputerized key.

Pest control and eradication – with special reference to rats, cockroaches, furniture beetle, clothes moth, etc. Dealing with emergency like fire, death, theft, accidents, safety securitycontrol.

UNIT IV

Linen/ Uniform / Sewing Room

Its importance in hotels, selection and buying of linen, inspecting,Storage Facilities, receiving used linen.

Linen stock for any establishment, layout, types of linen, sizes and linen exchange procedure, and conditions, Linen Inventory system.

Uniform designing: Importance, selection, characteristics, and types.

UNIT V

Housekeeping Inventories

Introduction, Cleaning equipment – Selection of equipment.

Manual Equipment - brooms and brushes, protective equipment,cloths used incleaning and box sweeper.

Mechanical equipment - electric equipment, vacuum cleaner, floor scrubbing and polishing machine, floor shampooing machine, containers trolley, chambermaid's trolley, etc.

Cleaning Agents – Water, Detergents, Abrasives, Reagents, Organic Solvents, Disinfectants and Bleaches, Glass Cleaners, Laundry Aids, Toilet Cleaners, Polishes, Floor sealers and Carpet Cleaners, characteristics of a good cleaning agent.Selection, Storage and Issuing of Cleaning Agents.

Books for Study :

1. Aleta Nitschke (2008) "Managing Housekeeping Operations" Educational Inst Of The AmerHotel; Revised Edition, Isbn-13 **:** 978-0866123365
2. G. Raghubalan (2015) "Hotel Housekeeping: Operations and Management"3e Oxford UniversityPress India, Isbn-13 978-0199451746

Books for References:

1. Jatashankar Tewari (2016), "Hotel Front Office 2E: Operations and Management" Oxford University Press; Third Edition

2.Nishant Pal (2022) "Accommodation Operations: Introduction to Housekeeping and Hotel Guest Room, Guest Services, HousekeepingControl Desk, Linen Room" Kindle Edition.

3.Reeta Pal and Nishant Pal (2022), Housekeeping - Housekeeping Procedures,Hotel Guest Room, Housekeeping Manpower Planning, Cleaning Science and Managing Quality Service, Kindle Edition.

Web Resources / E. Books:

https://www.ihmnotes.in/assets/Docs/Books/9780199451746.pdf

https://www.slideshare.net/SatyajitRoy21/personal-attributes-of- housekeeping-staff-62900148

https://www.slideshare.net/96vidya/duties-and-responsibilities-of-an-executivehousekeeper

https://www.ihmnotes.in/assets/Docs/Sem-3&4/Accomodation/Ch-1,%20Linen%20Room.pdf

http://kubershah.blogspot.com/2017/04/uniform-room.html

Pedagogy: Chalk and Talk, PPT, Group discussion , OHP presentations, quiz, on the spot test and Virtual Labs,youtubelinks.

Rationale for nature of Course:

Knowledge and Skill:

To gain knowledge procedure and services provided by the housekeepingdepartment

Activities to be given:

Innovation recipes, Assignment, ppt, Quiz, Group discussion.

Annexure -14

Course learning Outcomes (CLO's):

Sl.No	Course out come Statement	Knowledge (According to Bloom's Taxonomy)
CLO1	Describe the Qualities, Skills, and responsibility of good housekeeper	K1 to K3
CLO2	Explain the procedure and services provided by the housekeeping department.	K1 to K3
CLO3	Identify different types of guest rooms and list the common pest control methods used in hotels	K1 to K3
CLO4	Choose appropriate storage procedures for linen and uniforms.	K1 to K3
CLO5	Evaluate suitability of cleaning agents to clean different surfaces	K1 to K3

Mapping of Course Learning Outcomes (CLOs) with Programme Outcomes (POs)

	PO1	PO2	PO3	PO4	PO5	PO6
CLO1	2	2	3	2	2	3
CLO2	1	2	2	3	2	3
CLO3	1	2	3	2	2	3
CLO4	2	2	2	3	2	2
CLO5	2	3	3	3	2	2

1-Basic Level 2- Intermediate Level 3- Advanced Level

LESSON PLAN : TOTAL HOURS (30 hrs)

Annexure -14

Unit	Description	Hrs	Mode
1	**UNIT I** **Housekeeping Department -** Importance of housekeeping, Duties and Responsibilities of Housekeeping Department. Organizational Structure, types of lodging establishments. Job Description and Job Specification of staff in the department. Layout of the department, Personal Attributes. Qualities of the Housekeeping staff - skills of a good Housekeeper.	4	Chalk and talk, Group Discussions, Quiz
2	**UNIT II** **Housekeeping co-ordination and Procedures** Briefing, Debriefing, Gate pass, **I**nter departmental Co-ordination with more emphasis on Front office and the Maintenance department. Indenting from stores- Inventory of Housekeeping Items, Housekeeping controldesk, Importance, Role, Co-ordination, check list, key control, Handling Lost and Found, Forms, Formats and registers used in the Control Desk, Paging systems and methods, Handling of Guest queries,problem, request. General operations of control desk, Role of controldesk during Emergency.	4	Chalk and talk, Quiz
3	**UNIT III** **Hotel Guest room -** Importance of the Guestroom to a Guest, Types ofguest rooms, Guest Supplies/Amenities in a guest room, Bed making procedures and types. **Different types and importance of keys** – section key, master key, floorkey andgrand master key. Key of executive offices and public areas and computerizedkey. **Pest control and eradication** – with special reference to rats, cockroaches, furniture beetle, clothes moth, etc. Dealing with emergency like fire, death, theft, accidents, safety security control.	6	Chalk and talk, PPT, On the spot Test
4	**UNIT IV** **Linen/ Uniform / Sewing Room** Its importance in hotels, selection and buying of linen, inspecting, StorageFacilities, receiving used linen. Linen stock for any establishment, Layout, Types of Linen, sizes and Linenexchange procedure, and conditions, Linen Inventory system. Uniform designing: Importance, selection, characteristics, and types.	10	Chalk and talk, PPT, On the spot Test

5	**UNIT V** **Housekeeping Inventories** Introduction, Cleaning equipment – Selection of equipment. **Manual Equipment -** brooms and brushes, protective equipment,cloths used incleaning and box sweeper. **Mechanical equipment -** electric equipment, vacuum cleaner, floor scrubbing and polishing machine, floor shampooing machine, containers trolley, chambermaid's trolley, etc. **Cleaning Agents** – Water, Detergents, Abrasives, Reagents, Organic Solvents, Disinfectants and Bleaches, Glass Cleaners, Laundry Aids, Toilet Cleaners, Polishes, Floor sealers and Carpet Cleaners, characteristics of a good cleaning agent. Selection, Storage and Issuing of Cleaning Agents.	6	Chalk and talk, PPT, On the spot Test, Assignment

Course Designer : Mrs. P. Tamilarasi