PSGR Krishnammal College for Women

DEPARTMENT OF FOOD PROCESSING TECHNOLOGY AND MANAGEMENT

CHOICE BASED CREDIT SYSTEM (CBCS)

&

LEARNING OUTCOMES- BASED CURRICULUM FRAMEWORK (LOCF)

Semester I

BACHELOR OF FOOD PROCESSING TECHNOLOGY AND MANAGEMENT

2025 – 2028 Batch

PSGR
Krishnammal College for Women

DEPARTMENT OF FOOD PROCESSING TECHNOLOGY AND MANAGEMENT

PROGRAMME LEARNING OUTCOMES (PLO's)

After Completion of the program, the students will

PLO1 : Acquire the knowledge about the chemical, biochemical, physical, microbiological changes that occur during processing and preservation of any food.

PLO2 : Possess the ability to identify, and solve problems related to Food manufacturing

PLO3 : Be able to differentiate between processed and safely processed food

PLO4 : Apply better/good practices and be more innovative in developing the food products as per the current requirements of the market.

PLO5 : Acquire skills to analyze different food products and interpret the results in an effective manner.

PLO6 : Be equipped to transfer this knowledge to the consumer

PROGRAMME SPECIFIC OUTCOME

PSO1 : Graduates with sufficient knowledge in the areas of food science, food chemistry, food processing and preservation of foods.

PSO2 : Development of a food technologist, food analyst, nutritionist and an administrator

PSO3 : Equip themselves to higher levels of learning and/or for the development of new products that will accommodate to start up new venture in areas of food processing.

PSO4 : Shall keep themselves abreast with the current trends to meet the food industry challenges.

PSGR Krishnammal College for Women

BACHELOR OF SCIENCE IN FOOD PROCESSING TECHNOLOGY AND MANAGEMENT
CHOICE BASED CREDIT SYSTEM (CBCS)
LEARNING OUTCOMES- BASED CURRICULUM FRAMEWORK (LOCF)

SYLLABUS AND SCHEME OF EXAMINATION
2025 - 2028 BATCH
SEMESTER I

Sem	Part	Course Code	Title of the Course	Course Type	Instruction hours/week	Contact hours	Tutorial	Duration of Examination	Examination Marks			Credits
									CA	ESE	TOTAL	
I	I	TAM2501A/ HIN2501A/ FRE2501A	Tamil Paper I/ Hindi Paper I/ French Paper I	L	4	58	2	3	25	75	100	3
	II	ENG2501A	English Paper I	E	4	58	2	3	25	75	100	3
	III	BF25C01	Food Science	CC	4	58	2	3	25	75	100	3
	III	BF25C02	Principles of Management	CC	5	73	2	3	25	75	100	4
	III	BF25A01	Principles of Food and Nutrition	GE	5	73	2	3	15*	35*	50	3
	III	BF25CP1	Food Science Practical	CC	3	45	-	3	15*	35*	50*	3
	III	BF25AP1	Nutritional Menu Planning Practical	GE	3	45	-	3	15*	35*	50*	2
	IV	NME25B1 / NME25A1	Basic Tamil I / Advanced Tamil I	AEC	2	28	2	-	100	-	100	2
		NME23ES	Introduction to Entrepreneurship	AEC	2	30	-	-	100	-	100	
I - II	VI	NM25GAW	General Awareness	AECC	SS	-	-	-	100	-	100	Gr .
I - II	VI	COM25SER	Community Services 30 Hours	GC	-	-	-	-	-	-	-	-
I-V	VI	24BONL1 24BONL2 24BONL3	Online Course I Online Course II Online Course III	ACC	-	-	-	-	-	-	-	

L – Language
CC – Core Courses
GE – Generic Elective
AEC – Ability Enhancement Course ACC – Additional Credit Course

E- English
CA – Continuous Assessment
ESE–End Semester Examination

*CA conducted for 25 and converted into 15, ESE conducted for 75 and converted into 35
#CA conducted for 25 and converted into 20, ESE conducted for 75 and converted into 25

Examination System

One test for the continuous assessment will be conducted on pre-determined dates, i.e., commencing on the 50th day from the date of reopening. The Model Exam will be conducted after completing 85th working days. Marks for ESE and CA with reference to the maximum for the course will be as follows

Question Paper Pattern

CA Question Paper Pattern and Distribution of marks - Language and English - UG

Section A	5 x 1 (No choice)	:	5 Marks
Section B	4 x 5 (4 out of 6)	:	20 Marks (250 words)
Section C	2 x 10 (2 out of 3)	:	20 Marks (500 words)
	Total	**:**	**45 Marks**

Marks UG- Core and Allied - (First 3 Units)

CA Question from each unit comprising of

One question with a weightage of 2 Marks	:	2 x 3 = 6 Marks
One question with a weightage of 5 Marks (Internal Choice at the same CLO level)	:	5 x 3 = 15 Marks
One question with a weightage of 8 Marks (Internal Choice at the same CLO level)	:	8 x 3 = 24 Marks
Total		**= 45 Marks**

Model & End Semester Examination – Question Paper Pattern and Distribution of Marks

Language and English – UG

Section A	10 x 1 (10 out of 12)	:	10 Marks
Section B	5 x 5 (5 out of 7)	:	25 Marks (250 words)
Section C	4 x 10 (4 out of 6)	:	40 Marks (600 - 700 words)
	Total	**:**	**75 Marks**

Core & Allied (Theory)

Question from each unit comprising of

One question with a weightage of 2 Marks: 2 x 5 = 10 Marks

One question with a weightage of 5 Marks: 5 x 5 =25 Marks

(Internal Choice at the same CLO level)

One question with a weightage of 8 Marks : 8 x 5 = 40 Marks

(Internal Choice at the same CLO level)

Total = 75 Marks

Continuous Internal Assessment (CA)

Language, English, Core & Allied

CIA Test - 5 Marks (Conducted for 45 marks after 50 days)

Model Exam - 7 Marks (Conducted for 75 marks after 85 days - Q.P. Pattern (2,5,8 Marks) (Each Unit 15 Marks)

Sem/Ass/Quiz - 5 Marks

Class Participation - 5 Marks

Attendance - 3 Marks (91-100% attendance: 3 Marks; 81-90% attendance: 2 Marks; 75-80% attendance: 1 Marks)

Total : 25 Marks

Core Practical (25 marks)

Lab performance : 7 marks

Regularity : 5 marks

Model :10 marks (Conducted for 75 marks)

Attendance : 3 marks

Total : 25 Marks

ESE Practical Pattern

The End Semester Examination will be conducted for a maximum of 75 marks respectively with a maximum 15 marks for the record and other submissions if any**.**

Advanced Tamil & Basic Tamil

CIA Test - 25 Marks (Conducted for 50 marks after 50 days)

Model Exam - 50 Marks (Conducted for 75 marks after 85days)

Quiz - 15 Marks

Assignment - 10 Marks

Total - 100 Marks

Introduction to Entrepreneurship

- Quiz after each module of class hours - 50 Marks
- Assignment after each unit -25 Marks
- A project/case study submission at the end of course - 25 Marks

Total Marks - 100 Marks

SEMESTER I

COURSE CODE	COURSE TITLE	Category	L	T	P	Credit
BF25C01	Food Science	Theory	58	2	-	3

Preamble

To enable the students to

- Learn the basic concepts of food science and different methods of cooking
- Understand the classification, composition and nutritive values of various foods
- Gain knowledge on the cooking of cereals, pulses, meat, fish and poultry, types of spices and beverages

Course Learning Outcomes

On the successful completion of the course, students will be able to:

CLO Number	CLO Statement	Knowledge Level
CLO1	Gain knowledge on the basic concepts of food science	K1
CLO2	Recognize structure, nutritive value and role of various food groups and describe their nutritional contribution	K2
CLO3	Gain knowledge on various role of food groups in cookery and develop new cookery concepts	K3
CLO4	Demonstrate effect of processing and preservation on composition and quality changes in foods related to practical application	K4

Mapping with Programme Learning Outcomes

CLOs	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6
CLO1	S	M	M	M	S	M
CLO2	S	M	S	S	S	M
CLO3	S	M	S	S	S	M
CLO4	S	M	S	S	S	M

S- Strong; M-Medium

Food Science (BF25C01) **58 Hours**

Syllabus

Unit I Food Science **12 Hours**

Introduction to food science – definition, functions of food, Classification of foods, food groups, food pyramid, and food in relation to health.

Cooking –objectives, preliminary preparations**;** Cooking methods – moist heat methods, dry heat methods, Combination methods – braising and microwave cooking; Recent methods- Ohmic cooking; Advantages and Disadvantages of cooking methods; Ancient cooking techniques and health benefits : Slow cooking (dum), tempering (tadka).

Factors affecting cooking of foods, Moist heat effect- Gelatinization, Gel formation, Retrogradation & Syneresis; Dry heat effect- Dextrinization; Factors affecting gel formation, denaturation, colloids, emulsion, foam and factors affecting foam formation and stability, fermentation, browning, rancidity.

Unit II Cereals, Pulses, Nuts and Oilseed **12 Hours**

Cereals and cereal products – structure, composition and nutritive value of wheat, rice, maize, jowar, ragi, bajra; Cereal starch –Types of starch, effect of moist heat and dry heat.

Pulses – composition and nutritive value, classification, toxic constituents, Effect of cooking and factors affecting cooking of pulses; Pulse cookery

Nuts & oil seeds – composition and nutritive value of coconut, flax seeds, almonds, groundnut, soya bean, sunflower seeds. Fats and oil- Refining of oils, Effect of heat on oil and Rancidity

Unit III Vegetables and Fruits and Spices **11 Hours**

Vegetables and Fruits – Classification, composition and nutritive value, selection, pigments, enzymes, flavor compounds:-bitter compound, Phytochemicals; ripening of fruits; Browning: - enzymatic and non-enzymatic browning, prevention of browning; Changes and effect of cooking.

Spices – Composition, medicinal values, potential health benefits and role of spices in cookery.

Unit IV Meat, Fish and Poultry **12 Hours**

Meat – classes of meat and related products, composition and nutritive value, post-mortem changes, ageing, tenderizing, curing, cuts, grades and meat cookery, Changes during cooking, methods of cooking

Fish- classification, composition and nutritive value, selection of fish, fish products, fish protein concentrate.

Poultry – classification, composition and nutritive value.

Unit V Egg, Milk and Sugar **11 Hours**

Egg- Structure, composition, nutritive value, egg quality grading, effect of heat on egg proteins, functions of egg in cookery.

Milk- Composition, nutritive value, properties, effects of heat on milk, milk cookery and products and indigenous milk products

Sugar- Properties, sugar and related products, stages of sugar cookery, factors affecting crystallization; Sugar cookery and artificial sweeteners

Text Books

S. No	Name of the Authors	Title of the Book	Publishers	Year and Edition
1.	Srilakshmi, B	Food Science	New Age International (P) Ltd. Publishers, New Delhi.	2024 and 8th edition
2.	Robert L. Shewfelt, Jerry W. H. O'Donnell.	Food Science: An Ecological Approach	CRC Press	2021 and 1st edition,
3.	Sarah J. L. Sutherland, Daniel M. Tomlins	Food Science: From Farm to Table	CRC Press	2021 and 1st edition

Reference Book

S.No	Name of the Authors	Title of the Book	Publishers	Year and Edition
1.	Brian P. Murphy, Sheila R. Dillon	FoodScience An Introduction to the Science of Food and Nutrition	John Wiley & Sons	2021 and 1st edition
2.	Rick Parker	Introduction to Food Science	Cengage Learning	2021 and 4th edition
3.	Michael J. Leubke, Michael R. Clark	Principles of Food Science and Technology	CRC Press	2022 and 1st Edition

Blended learning links

S. No.	Unit	Topics	Links
1.	I	Food Science – Methods of cooking	https://www.youtube.com/watch?v=u7sQjOFFISw
2.	II	Cereals and Millets and their products	https://www.youtube.com/watch?v=YfC4YGxagO8
3.	III	Enzymatic Browning in Fruits and Vegetables,.	https://www.youtube.com/watch?v=sCgcDyfafmM
4.	IV	Preparing And Cooking Meat Part 2 | Methods Of Tenderizing Meat	https://www.youtube.com/watch?v=9h7Q62thXGg
5.	V	Uses of Egg In Cookery	https://www.youtube.com/watch?v=53Lpp6S6SpM

Pedagogy

Blended learning, lecture by chalk & talk, power point presentation, e-content, group discussion, assignment, quiz, seminar.

Course Designers:

1. **Dr.N.Deepa Sathish**
2. **Ms Priyanga M**

COURSE CODE	COURSE TITLE	Category	L	T	P	Credit
BF25C02	**Principles of Management**	**Theory**	73	2	-	4

Preamble

- To understand the fundamental concepts, theories, and functions of management.
- To develop managerial skills in planning, decision-making, organizing and controlling for effective management.
- To analyse the application of emerging technologies like AI, RPA, and Predictive Analytics in management.
- To integrate sustainable practices and ethical considerations in food business management.

Course Learning Outcomes

On the successful completion of the course, students will be able to

CLO Number	CLO Statement	Knowledge Level
CLO1	Understand the fundamental concepts, functions, and levels of management, along with traditional and modern management thoughts.	K1
CLO2	Explain the application of key managerial functions such as planning, organizing, staffing, controlling, coordination, delegation and authority	K2
CLO3	Apply management principles, theories, AI-driven decision-making, and indigenous knowledge systems (IKS) in food business management.	K3
CLO4	Analyze management practices, sustainability strategies, ethical concerns, and technological innovations such as AI and RPA in food business management.	K4

Mapping with Programme Learning Outcomes

CLOs	PLO1	PLO2	PLO3	PLO4	PLO5
CLO1	S	M	S	M	L
CLO2	S	S	M	S	M
CLO3	S	S	S	S	S
CLO4	S	S	M	L	L

S-Strong; M-Medium; L-Low

PRINCIPLES OF MANAGEMENT - BF25C02 **73 Hours**

UNIT – I **14 Hours**

Management: Introduction - Meaning and Definition - ***Scope – Features - Levels of Management*-** Skills and Competencies - Management Theories: Maslow's Hierarchy of needs, Theory X, Y. Management Thoughts: Scientific, Modern Management thoughts - ***Functions of Management*-** Sustainable Management practices - IKS in Management.

UNIT – II **15 Hours**

Planning: Introduction -Meaning and Definition - ***Nature and Characteristics -Importance*** - Types of Plans - Planning process - Management by Objectives.

Decision Making: Introduction - Meaning and ***Features of decision making*** - Types of decision making - Decision making phases and process - AI assisted decision making in food industry -. Design Thinking, Creativity & its Stages - Application in Food business.

UNIT – III **15 Hours**

Organizing: Introduction - Meaning and Definition - ***Principles of Organizing*** - Formal and Informal Organization - ***Importance of Organizing*-** Forms of Organisation (Organizational structure) in Food industry. Delegation of Authority: Meaning – Features – Process – Principles – Importance – Barriers – RPA in Delegation of Authority.

Staffing - Meaning- Importance – Process of staffing – Role of RPA in Staffing.

UNIT – IV **14 Hours**

Controlling: Definition - ***Characteristics - Importance *-** Control process - Effective control system - KPIs and Performance Metrics in Controlling - Limitations of controlling - Types of Control - Role of Controlling in Food industry.

Co-ordination: Meaning and Definition – Features – Types - Benefits - Essentials for effective co-ordination.

UNIT – V **15 Hours**

Food Business Management – Definition – Need – Importance - Process and Sustainability of food business in Indian Economy - Application of AI in food business management - Sectors in Food industry - Emerging trends in food industry - Circular Economy in Food Business - ***Ethics in Food Business Management.**

*** Highlighted Text offered in blended mode (Links Provided)**

Text Books:

Sl. No.	Author(s)	Title of the Book	Publisher	Year & Edition
1.	Harold Koontz and Heinz Weihrich	Essentials of Management	Tata McGraw Hill	2023 & 11th Edition
2.	Gupta CB	Management Theory and Practice	Sultan Chand & Sons	2022 & 21st Edition
3.	Dr. Mishra & Gupta	Principles of Management	SBPD PublishingHouse	2021& 1st Edition

Reference Books:

Sl. No.	Author(s)	Title of the Book	Publisher	Year & Edition
1.	Gareth R. Jones & Jennifer M George	Contemporary Management	McGraw-Hill Education	2024 12th Edition
2.	Stephen P. Robbins,Mary Coulter and Neharika Vohra	Management	Pearson Prentice Hall, New Delhi	2022 15th Edition

Blended Learning Links:

SI. No.	Units	Topics	Blended Learning Links
1	I	Scope, Features and Levels of Management	https://www.youtube.com/watch?v=X_0LEIQbgwg
2		Functions of Management	https://www.youtube.com/watch?v=pzSRAM5Hvg4
3	II	Nature, Characteristics and Importance of Planning	https://www.youtube.com/watch?v=zuM3u0du_5g
4		Features of decision making	www.youtube.com/watch?v=KWy_m6QfFhw
5		Principles of Organizing	https://www.youtube.com/watch?v=v9YkwuPPWxQ

	III		https://www.youtube.com/watch?v=p7zjC-HPCYM
6		Importance of Organization	https://www.youtube.com/watch?v=UEXrsZ3vkx0
7	IV	Characteristics, Importance of controlling	https://www.youtube.com/watch?v=__x1O5xaAsY https://www.youtube.com/watch?v=0HeAbUD4H78
8	V	Ethics in food industry	https://www.youtube.com/watch?v=5Qxd7scGnas

Pedagogy: Chalk &Talk, Lecture, Seminar, PPT, Group Discussion, Activity and Case Study

COURSE CODE	COURSE TITLE	Category	L	T	P	Credit
BF25A01	Principles of Food and Nutrition	Theory	73	2	-	3

Preamble

To enable the students to

- Gain knowledge about nutrition and malnutrition, sources and functions of vitamins and minerals
- Determine the energy values of foods
- Learn the Know the importance of water and electrolyte balance in the body

Course Learning Outcomes

On the successful completion of the course, students will be able to

CLO Number	CLO Statement	Knowledge Level
CLO1	Gain basic knowledge on the basic concepts of nutrition, food groups and meal planning	K1
CLO2	Understanding the sources, digestion and absorption of carbohydrates, proteins and fats	K2
CLO3	Understand the role of food and nutrients in health and disease prevention.	K3
CLO4	Able to conceptualize, implement and evaluate the functions, requirements and effects of deficiency of nutrients	K4

Mapping with Programme Learning Outcomes

CLO	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6
CLO1	S	S	S	S	M	M
CLO2	S	S	S	M	M	M
CLO3	S	S	S	M	M	M
CLO4	S	S	S	S	M	M

S-Strong; M-Medium

Principles of Food and Nutrition (BF25A01) 73 Hours

Syllabus

Unit I Introduction to Nutrition and Meal planning 15 Hours

Food as source of nutrients, functions of food; Nutrition-Definition, importance and scope of nutrition, Relation of nutrition to health, Malnutrition, Nutritional Care and Nutritional Status.

Recommended Dietary Allowances (RDA)-Significance and factors affecting RDA, Reference man and women. General concepts about growth and development and through different stages of life and RDA for Indians

Meal planning- Definition, Principles of meal planning, Basic five food groups, Balanced diet, Exchange lists, and factors affecting meal planning, Dietary Guidelines for different age group.

Unit II Carbohydrates and Energy **15 Hours**

Carbohydrate and Dietary fibre; -classification, functions, digestion and absorption, sources and requirements

Energy -Sources, physiological energy value of foods, thermogenic effect of foods; Basal Metabolic Rate (BMR) - factors affecting BMR and energy allowance for various activities

Unit III Proteins, Lipids and Water **15 Hours**

Proteins and Lipids- classification, functions, digestion and absorption, sources and requirements Protein quality of foods-Protein Efficiency Ratio (PER), Biological Value (BV) and Net Protein Utilization (NPU).

Water-Daily requirement, Regulation and distribution of body water, Fluid Balance - Overhydration, Dehydration and water intoxication;

Unit IV Vitamins **14 Hours**

Fat soluble vitamins – vitamins A, D, E and K – functions, sources, requirements and deficiency. Water soluble vitamins (thiamine, riboflavin, niacin, pyridoxine, folic acid, cyanocobalamin, biotin, pantothenic acid and ascorbic acid) – functions, sources, requirements and deficiency

Unit V Minerals **14 Hours**

Minerals – calcium, phosphorus, magnesium, sodium and potassium – functions, sources, requirements and deficiency.

Minor and Trace minerals – iron, zinc, iodine, selenium, chromium, fluorine and chlorine – functions, sources, requirements and deficiency

Text Books

S.No	Name of the Authors	Title of the Book	Publishers	Year and Edition
1.	Srilakshmi, B	Nutrition Science	New age international Pvt. Ltd. New Delhi.	2022 and 8th edition
2.	Sunil Kumar, Priyanka Agarwal	Nutrition Science: From Basics to Advanced	CRC Press	2022 and 1st edition
3.	Sunil Kumar, Priyanka Agarwal	Nutrition Science: From Basics to Advanced	CRC Press	2021 and 1st edition
4.	P. V. Satyanarayana, S. R. S. Reddy	Nutrition Science and Dietetics	Jaypee Brothers Medical Publishers	2021 and 2nd edition

Reference Books

S.No	Name of the Authors	Title of the Book	Publishers	Year and Edition
1.	Peter J. R. Smith, Anne M. O'Connor	Essentials of Nutrition Science	Wiley-Blackwell	2021 and 3rd edition
2.	Jeffrey S. Volek, Richard D. Feinman	Nutrition Science and the Science of Nutrition	Elsevier	2022 and 4th edition
3.	Deborah P. McHugh, Thomas M. Saunders	Fundamentals of Human Nutrition Science	McGraw-Hill Education	2023 and 1st edition

Blended learning links

S. No.	Unit	Topics	Links
1.	I	Malnutrition	https://www.youtube.com/watch?v=jEd91r___5Y

2.	II	Proteins	https://www.youtube.com/watch?v=HSCUAjZQhXI
3.	III	Basal Metabolic Rate (BMR)	https://www.youtube.com/watch?v=zeZn2p-40QE
4.	IV	Fat- Soluble Vitamins	https://www.youtube.com/watch?v=ZLGMCYeeRgM
5.	V	Mineral: Iodine, Zinc, Fluoride, Selenium	https://www.youtube.com/watch?v=cWwpt3uI5d4

Pedagogy

Blended learning, lecture by chalk & talk, power point presentation, e-content, group discussion, assignment, quiz, seminar

Course Designers:

1. Dr. N. Deepa Sathish

2. Ms. Santhiya R

COURSE CODE	COURSE TITLE	Category	L	T	P	Credit
BF25CP1	Food Science Practical	Practical	58	2	-	3

Preamble

To enable the students to

- Learn the preparation of various food products- milk, egg & beverages
- Understand the effect of dry & moist heat methods of cooking
- Gain knowledge on browning of fruits & effect of acid/alkali/heat on vegetables
- Determine melting point, smoking point and flash point of fats

Course Learning Outcomes

On successful completion of the course

CLO Number	CLO Statement	Knowledge Level
CLO1	Classify the food groups and understand its properties	K1
CLO2	Recognize the effect of processing on structural changes of different food	K2
CLO3	Gain knowledge on the factors affecting properties of food	K3
CLO4	Apply the concepts of the changes and develop products	K4

Mapping with Programme Learning Outcomes

CLOs	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6
CLO1	S	S	S	S	S	S
CLO2	S	S	S	S	S	S
CLO3	S	S	S	S	S	S
CLO4	S	S	S	S	S	S

S- Strong

FOOD SCIENCE PRACTICAL (BF25CP1)

Total Hours: 45 **Credit: 3**

Syllabus

1. Study on organoleptic evaluation of foods
2. Determination of effect of taste thresholds of sugar, salt and acid on sensory perception
3. Effect of dry heat and moist heat on starch granules
4. Determination of gluten content in wheat
5. Cooking characteristics of pulses
6. Germination characteristics of pulses
7. Cooking characteristics of vegetables - effect of acid, alkali, heat and time
8. Study of enzymatic and non-enzymatic browning in fruits
9. Cooking characteristics of milk and it products.
10. Cooking characteristics of egg
11. Study on foam formation and stability
12. Study the shortening effects of fats and oils during cooking
13. Stages of sugar crystallization

Text Books

S.No	Name of the Authors	Title of the Book	Publishers	Year and Edition
1	Manay Shakunthala, N And Shadaksharaswamy M.	Foods facts and Principles,	New Age International (P) Ltd Publishers,	2022 and 5th edition
2	J. M. Ritchie	The Chemistry of Food and Nutrition	Macmillan.	2005 and 2nd edition
3	Usha Chandrasekar,	Food Science in Indian Cookery	Phoenix publishers House Private Limited	2002
4	Srilakshmi B.	Food Science	New Age International (P) Ltd Publishers	2024 and 8th edition

Reference Books

S.No	Name of the Authors	Title of the Book	Publishers	Year and Edition
1.	Paul and Paulmer	Food Theory and Application	John Wiley and sons, New York	1972
2.	Norman N. Potter and Joseph H. Hotchkiss,	Food Science	CBS Publishers anddistributers	1997
3.	Swaminathan M	Food Science, Chemistry and Experimental foods	Bappo Publishers company Ltd	1997
4.	Meyer LH,	Food Chemistry	CBS Publication	1987

Pedagogy: Demonstration and hands on practical's

Course Designers:

1. Dr.N.Deepa Sathish

2. Ms. Sujithra S

COURSE CODE	COURSE TITLE	Category	L	T	P	Credit
BF25AP1	Nutritional Menu Planning Practical	Practical	-	-	45	2

Preamble

To enable the students to

- Gain knowledge on the energy value of foods and the energy requirements of individual
- Understand about the nutritional composition of food.
- Analyze the methods of assessing nutritional status of an individual

Course Outcomes

On the successful completion of the course, students will be able to

CLO Number	CLO Statement	Knowledge Level
CLO1	To calculate the energy value of foods	K1
CLO2	To learn the standardization of menu planning	K2
CLO3	To learn energy requirements of an individual	K3
CLO 4	To gain knowledge on preparing a day's diet based on the nutritional status	K4

Mapping with Programme Learning Outcome

CLOs	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6
CLO1	S	S	S	S	S	S
CLO2	S	S	S	S	S	S
CLO3	S	S	S	S	S	S
CLO4	S	S	S	S	S	S

S-Strong

NUTRITIONAL MENU PLANNING PRACTICAL (BF25AP1)

Total Hours: 45 **Credits: 2**

1. Calculation of energy values in foods from food composition tables and Preparation of food exchange lists
2. Calculation of basal metabolic rate and energy requirements of an individual per day.
3. Preparation and standardization of recipes, portion control and calculation of nutritive value
    i. Controlling techniques - Weights and measures standard, Measurement Techniques, household measures for raw and cooked food
    ii. Basic preparation of various foods from different food groups & their nutritive value(porridges, Salads, Beverages, Soups, desserts and puddings, custard, kheer, ice cream, poached, scrambled, fried omlette & eggnogs and meat preparations)

4. Preparation of a day's diet and calculation of Nutritive value
    a. Pregnant and Lactating Mother
    b. Infants
    c. School going children
    d. Adolescents
    e. Adults and
    f. Elderly people

5. Preparation of a day's diet and calculation of Nutritive value for various health conditions
    i. Weaning food
    ii. Iron rich food
    iii. Underweight
    iv. Obesity

6. Methods of Assessing Nutritional status of an individual- BMI, Head circumference, Upper arm, mid arm circumference, skin fold thickness

Text Books

S.No	Name of the Authors	Title of the Book	Publishers	Year and Edition
1	Dr. C. Gopalan	Nutritive Value of Indian Books	ICMR and NIN	2021 and 1st edition
2	Dr. C. Gopalan	Dietary Guidelines for Indians	ICMR and NIN	2024 and 3rd edition
3	Pomrenz Y & Meloan CE	Food Analysis - Theory and Practice	CBS	2000 and 4th edition
4	Food safety and standards, Ministry of health and family welfare FSSAI Authority of India	Manual of methods for analysis of foods	Government of India	2024 and 2nd edition
5	David T Plummer	An Introduction to Practical Biochemistry	Tata McGraw Hill	2007 and 3rd edition

Pedagogy

Demonstration and hands on practical's

Course Designers:

1. **Dr. N. Deepa Sathish**
2. **Ms Santhiya R**