SRI SARADA COLLEGE FOR WOMEN (AUTONOMOUS)
SALEM – 16
Reaccredited with 'B++' Grade by NAAC
(Affiliated to Periyar University)

Outcome Based Syllabus

DEPARTMENT OF HOME SCIENCE

(For the students admitted from 2021 – 22 onwards)

B.Sc., HOME SCIENCE

Programme Outcomes

PO1: To prepare the students to know about the role of home science in the development and well-being of individuals and communities.

PO2: To embolden the students to identify ethical code of conduct of practice and job requirements.

PO3: To equip the students with entrepreneurial skills to synthesize with industries as an individual or as a team member.

PO4: To recognize the need for understanding business environment and its impact on societal and environmental contexts.

PO5: To update the students with the impact of new developments on current practices.

SRI SARADA COLLEGE FOR WOMEN (AUTONOMOUS), SALEM – 16.

DEPARTMENT OF HOME SCIENCE

B.Sc.

PROGRAMME STRUCTURE UNDER CBCS

(For the students admitted in 2020-21)

Total Credits: 140 + Extra Credits (Maximum 28)

I SEMESTER

Part	Course	Course Title	Code	Hrs./ Week	Credits
I	Language – I	Tamil/Hindi/Sanskrit –I	21ULTC1/ 21ULHC1/ 21ULSC1	6	3
II	English –I	Communicative English – I	21ULEC1	6	3
III	Core Course – I	Human Physiology	21UHSC1	4+2 (prac)	4
III	Core Course – II	Home Science Extension and Entrepreneurship Development	21UHSC2	4	4
III	Allied Course – I	Chemistry – I	21UHAC1	5	5
IV	Skill Based – I	Bakery (Practical)	21UHSSQC1	2	2
V	Society Connect Activities	Group Project Based on Society Connect Activities	21USCAC	1	1
VI	**Total**			**30**	**22**
	Articulation and Idea Fixation Skills				
	Physical Fitness Practice – 35 hours per Semester				
	Advanced Diploma in Food Service ManagementLevel -1: Certificate Course 100 hours per year				

II SEMESTER

Part	Course	Course Title	Code	Hrs./ Week	Credits
I	Language – II	Tamil/Hindi/Sanskrit –II	21ULTC2/ 21ULHC2/ 21ULSC2	6	3
II	English – II	Communicative English –II	21ULEC2	6	3
III	Core Course – III	Food Science	21UHSC3	5	5
III	Core Course – IV	Food Science Practicals – I	21UHSQC1	4	2
III	Allied Course – I	Chemistry – II	21UHSAC2	5	5
IV	Skill Based – II	Beauty Care	21UHSSC2	2	2
IV	Environmental Studies	Environmental Studies	21UEVSC	2	1
V	Society Connect Activities	Group Project Based on Society Connect Activities	21UHSCAC		1
	Total			**30**	**22**
VI	Articulation and Idea Fixation Skills – 1 Extra Credit				
	Physical Fitness Practice – 35 hours per Semester – 1 Extra Credit Certificate Course in Yoga – 30 hours – 1 Extra Credit				
	Extra credits are given for extra skills and courses qualified in MOOC/NPTEL				
	Advanced Diploma in Food Service Management Level -1: Certificate Course 100 hours per year				

III SEMESTER

Part	Course	Course Title	Code	Hrs./ Week	Credits
I	Language – III	Tamil/Hindi/Sanskrit –III	21ULTC3/ 21ULHC3/ 21ULSC3	6	3
II	English – III	Communicative English –III	21ULEC3	6	3
III	Core Course – V	Nutritional Biochemistry	21UHSC4	5	5
III	Core Course – VI	Nutritional Biochemistry (Practical – II)	21UHSQC2	4	2
III	Allied Course – II	Physics –I (Theory Cum Practical)	21UHSAP1	5	5
IV	Skill Based – III	Community Nutrition	21UHSSC3	2	2
IV	Non-Major Elective – I			2	2
	Total			**30**	**22**
V	Society Connect Activities	Group Project Based on Society Connect Activities			
VI	Life Skill Courses	Course I: Communication Skill		2	2 (Extra)
	Articulation and Idea Fixation Skills				
	Physical Fitness Practice – 35 hours per Semester				
	Extra credits are given for extra skills and courses qualified in MOOC/NPTEL.				
	Advanced Diploma in Food Service Management Level -II: Diploma Course 100 hours per year				
	Non-Major Elective – I For B.A./B.Sc./B.Com.	Home Textiles	21UHSNEC1		

IV SEMESTER

Part	Course	Course Title	Code	Hrs./ Week	Credits
I	Language –IV	Tamil/Hindi/Sanskrit –IV	21ULTC4/ 21ULHC4/ 21ULSC4	6	3
II	English – IV	Communicative English –IV	21ULEC4	6	3
III	Core Course – VII	Textile Science	21UHSC5	4	4
III	Elective – I	Food Preservation and Quality Control/Public Health and Community Nutrition	21UHSEC1/ 21UHSEC1a	5	5
III	Allied Course – III	Physics - I (Theory Cum Practical)	21UHSAP2	5	5
IV	Skill Based – IV	Techniques In Preserving Food (Practical)	21UHSSQC2	2	2
IV	Non-Major Elective – II			2	2
	Total			**30**	**24**
V	Society Connect Activities	Group Project Based on Society Connect Activities			2 (Extra)
VI	Life Skill Courses	Course II: Professional Skills		2	2(Extra)
	Articulation and Idea Fixation Skills - 1 Extra Credit				
	Physical Fitness Practice – 35 hours per Semester – 1 Extra Credit				
	Extra credits are given for extra skills and courses qualified in MOOC/NPTEL and societal oriented group Projects				
	Advanced Diploma in Food Service ManagementLevel -II: Diploma Course 100 hours per year				
	Non-Major Elective – II For B.A./B.Sc./B.Com.	Life Span Nutrition	21UHSNEC2		

V SEMESTER

Part	Course	Course Title	Code	Hrs./ Week	Credits
III	Core Course – VIII	Family Resource Management and Interior Design	21UHSC6	5	5
III	Core Course – IX	Apparel Designing	21UHSC7	5+3 (Prac)	5
III	Core Course – X	Nutrition In Health	21UHSC8	5	5
III	Core Course – XI	Nutrition In Health Practical – III	21UHSQC3	4	2
III	Elective – II	Family Finance and Housing/ Personality Development	21UHSEC2/ 21UHSEC2b	5	5
IV	Non-Major Skill Based-I			2	2
IV	Common Paper	Value Education	21UVENC	1	-
	Total			**30**	**24**
V	Society Connect Activities	Group Project Based on Society Connect Activities			
	Life Skill Courses	Course III : Leadership Skills		2	2 (Extra)
VI	Articulation and Idea Fixation Skills				
	Physical Fitness Practice – 35 hours per Semester				
	Internship Training – 1 Extra Credit				
	Extra credits are given for extra skills and courses qualified in MOOC/NPTEL				
	Advanced Diploma in Food Service Management Level - III: Advanced Diploma Course 100 hours per year				

Non-Major Skill Based-I	Therapeutic Nutrition	21UHSNSC1

VI SEMESTER

Part	Course	Course Title	Code	Hrs./ Week	Credits
III	Core Course – XII	Human Development	21UHSC9	5+1(Prac)	5
III	Core Course – XIII	Diet Therapy	21UHSC10	5+2 (Prac)	5
III	Core Course – XIV	Care Of Clothing	21UHSC11	5	5
III	Core Course – XV	Apparel Designing & Construction (Practical- IV)	21UHSQC4	4	2
III	Elective – III	Group Project	21UHSEPC	5	5
IV	Non-Major Skill Based-II			2	2
IV	Common Paper	Value Education	21UVENC	1	2
	Total			**30**	**26**
V	Society Connect Activities	Group Project Based on Society Connect Activities			2 (Extra)
	Life Skill Courses	Course IV: Universal Human Values		2	2 (Extra)
VI	Articulation and Idea Fixation Skills – 1 Extra Credit				
	Physical Fitness Practice – 35 hours per Semester - 1 Extra Credit				
	Extra credits are given for extra skills and courses qualified in MOOC/NPTEL				
	Advanced Diploma in Food Service Management Level - III: Advanced Diploma Course 100 hours per year				

Non-Major Skill Based-II	Fashion Designing	21UHSNSC2

Programme Title : B.Sc HOME SCIENCE.
Course Title : HUMAN PHYSIOLOGY
Course Code : 21UHSC1 **Hours/Week: 4+2(P)**
Semester : I **Credits: 4**

Course Objectives: The course aims to

- Introduce the basics of physiology, blood and its components
- Discuss the structure and functions of body systems
- Impart knowledge on hormones and its role in health

SYLLABUS

Unit – I **12 hrs**

Introduction and cell- definition, structure, Tissues- definition, basic types- epithelial, muscular and connective tissues and their functions. Blood-Function, Composition, Haemoglobin – functions, Coagulation, Factors affecting coagulation; Blood groups.

Unit – II **12hrs**

Cardiovascular system - Structure of heart and functions, Cardiac cycle, Bloodpressure - Measurement and factors affecting blood pressure. Nervous system- structure and function of brain, spinal cord. Structure and function of neuron.

Unit – III **12hrs**

Respiratory system - Definition, Process of respiration, Structure & functions of respiratory tract, Mechanism of breathing, Lung volumes, Lung capacities.

Special senses- Eye, ear and skin- structure and function. Taste – primary taste sensation.

Unit – IV **12hrs**

Digestive system - Structure and Functions of digestive system; Digestion and absorbtion of food stuffs- carbohydrate, protein and lipids.Urinary system - Structure and Functions of kidney, Formation of urine and composition of urine.

Unit – V **12hrs**

Reproductive system - Structure and functions of male and female reproductive system, Menstrual cycle.

Endocrine system - Functions of hormones secreted by Pituitary, Thyroid, Parathyroid and Adrenal glands.

PRACTICALS **30hrs**

I. Experiments

1. Estimation of the blood pressure, pulse pressure, and respiratory rate of a subject before and after exercise
2. Estimation of Haemoglobin content
3. Identification of Blood group

II. Model

- Heart
- Brain
- Ear
- Eye
- Kidney

III. Slides

1. Epithelial tissue types
2. Connective tissue types
3. Muscular tissue types
4. Lung tissue
5. Liver tissue
6. Pancreas
7. Ovarytissue
8. Endocrine glands

BOOKS FOR STUDY:

- Sarada Subramaniam and Madhawan Kutty. K, Text Books of Physiology 5(h edition, S. Chand and Company limited, 1996.
- Sembulingam and Prema Sembulingam, Essentials of Medical Physiology,

BOOKS FOR REFERENCE :

- Rangananthan, T.S. (2004): A Textbook of Human Anatomy, Chand & Co. N. Delhi.
- Chatterjee C.C. (1998): Human Physiology, Vol. I & II, Medical Allied Agency, Calcutta.
- Guyton, A.G. and Hall, J.B. (1996): Text Book of Medical Physiology, (9th Edition, W.B.Sanders Company, Prism Books (Pvt.) Ltd., Bangalore.

Web Resourcehttps://sites.google.com/a/csredhawks.org/anatomy-physiology/syllabus

Course outcomes

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

CO Number	CO statement	Knowledge Level
CO1	Gain the basic knowledge of human physiology.	K1
CO2	Identify the structure of various organs of the system	K2
CO3	Outline the functions of the body Systems	K3
CO4	Analyze the process and mechanisms of various organs	K4
CO5	Predict the influence of improper functioning of the organ system and disease	K5

Mapping with of COs with POs

PO / CO	Programme Outcome (POs)				
	PO1	**PO2**	**PO3**	**PO4**	**PO5**
CO1	S	M	M	M	S
CO2	S	L	M	M	S
CO3	S	M	M	M	S
CO4	S	M	S	S	S
CO5	S	S	S	S	S

S- Strong; M-Medium; L-Low

Programme Title : B.Sc. HOME SCIENCE
Course Title : HOME SCIENCE EXTENSION AND ENTREPRENEURSHIP DEVELOPMENT
Course Code : 21UHSC2 **Hours/Week: 4**
Semester : I **Credits: 4**

Course outcome: The course aims to

- Teach various extension teaching and communication methods
- Have the ability to discern distinct entrepreneurial traits
- Implement new business idea

SYLLABUS

UNIT – I **12hrs**

Home Science Extension Education: Meaning, definition, objectives and Principle of extension education; Need for extension; characteristics of Home science extension, steps in Home Science teaching; Role of Home Science extension in rural development.

UNIT – II **12hrs**

Communication method and teaching aids used in extension; Meaning, Key elements, types, importance of communication in extension; Approaches individual, groups and Mass teaching., Audio-Visual Aids - Classification according to form and use. Their advantages and disadvantages, Audio - Aids; Radio & Recorded talks. Visual Aids,-Flannel graphs, Flash Cards, posters and charts; Slides - LCD; OHP. Audio Visual Aids - Films, Television and Video Cassettes, Power points, e-browsers

Welfare programmes for women and children. ICDS, DWCRA, SGSY, CSWB, SSWB, Nutrition Noon Meal Programmes, Self help groups.

UNIT – III **12hrs**

Definition of Entrepreneur - Functions - Types, Concept of Women Entrepreneurs - Functions and problems. Recent trends and development in women Entrepreneurship, Rural Entrepreneurship.

UNIT – IV **12hrs**

Steps for starting a small scale enterprise; Preparation of Project Report -Guidelines, Procedure and Formalities for Registration. Selection and types of organization - Sole Proprietorship.Partnership joint stock company.

UNIT – V 12**hrs**

Institutional finance to Entrepreneurs - Commercial banks - IDBI, IFCI, ICICI, IRBI, SIDBI, UTI, LIC.

Institutional support to Entrepreneurs - NSIC, SIDO, SISI, SFC, DIC, TCO, TIIC, KVIC.

BOOKS FORSTUDY

- Reddy, A.A(1987) Extension Education, Sree Lakshmi Press, Andhra Pradesh,.**(UNIT-I)**
- Khan.P.,Somai.L (2009) Fundamentals of Extension Education, Agrotech publishing academy**(UNIT-II)**
- Kaushik,U & Bhatnagar,S(2007) Entrepreneurship,AavinshkarPublisher,Jaipur. ,. **(UNIT-III &IV)**
- Anil Kumar.SSmall Business and Entrepreneurship,I.K.International Publishing House

pvt Ltd **(UNIT-V)**

BOOKS FOR REFERENCE

- Khanka. S.S. "Entrepreneurship Development"

Course outcomes

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

CO number	CO statement	Knowledge Level
CO1	Understand various extension methods to teach rural population	**K2**
CO2	Focus on different types of media and its uses in the implementation of community extension programme	**K2**
CO3	Identify different types of entrepreneurs and the problems faced by women entrepreneurs	**K3**
CO4	Explain project proposal and practice effective accounting processes.	**K6**
CO5	Classify the various institutes and their functions that support entrepreneurs	**K5**

Mapping with of COs with POs

PO/ CO	Programme Outcome (POs)				
	PO1	**PO2**	**PO3**	**PO4**	**PO5**
CO1	S	S	S	S	S
CO2	S	S	S	S	S
CO3	S	S	S	S	S
CO4	S	S	S	S	S
CO5	L	L	S	S	S

S- Strong; M-Medium; L-Low

Programme Title : B.Sc. HOME SCIENCE
Course Title : BAKERY – PRACTICAL
Course Code : 21UHSSQC1 **Hours/Week: 2**
Semester : I **Credits: 2**

Course Objectives: The course aims to

- To learn the role of various ingredients, additives and adjuncts in the preparation of bakery products
- Acquire practical knowledge and skill in the preparation of different types of biscuits, cookies, cakes and pastries.

SYLLABUS

1. Introduction to Bakery and Planning a Bakery Layout
2. Ingredients Used in Baking

a. Flour b. Sugar c. Fat d. Salt e. Egg f. Leavening Agents

3. Preparation and Evaluation of Bread and Sandwich
4. Preparation and Evaluation of Cakes

a. Sponge Cake b. Golden Cake e. Chocolate cake

5. Preparation and Evaluation of Icings

a. Fondant Icing b. Royal Icing e. Butter Cream Icings

6. Preparation and Evaluation of Biscuits

a. Chilly Biscuit b. Cashew Biscuit e. Ground Nut Biscuit

7. Preparation and Evaluation of Cookies

a. Melting Moments b. Coconut Cookies

8. Preparation and Evaluation of Puff Pastry
9. Preparation and Evaluation of Doughnut

Reference:-

- Gali. A., 1994, New Ideas for a Great Taste, Ist edition, P.T. Bell, Publishers, Madras.
- YogambalAshokkumar, 2005, Theory of Bakery & Confectionary Ist edition, Visiga Publications, Sivagangai.

Web Resources: https://www.thekitchn.com/welcome-to-baking-school

Course outcomes (CO): On completion of the course, students should be able to

CO Number	CO Statement	Knowledge Level
CO1	Understand the basic terminology, concepts and principles of baking.	**K1**
CO2	Explain the role of various ingredients, additives and adjuncts in the preparation of bakery products.	**K2**
CO3	Identify the novel ingredients used in bakery.	**K3**
CO4	Acquire practical knowledge and skill in the preparation of different types of biscuits, cookies, cakes and pastries.	**K4**
CO5	Evaluate the quality of bakery products and create new products.	**K6**

Mapping with of COs with POs

PO / CO	Programme Outcome (POs)				
	PO1	**PO2**	**PO3**	**PO4**	**PO5**
CO1	S	L	M	L	S
CO2	S	L	L	L	S
CO3	S	L	L	L	S
CO4	S	L	L	M	S
CO5	S	L	M	M	S

S- Strong; M-Medium; L-Low

Programme Title : B.Sc. HOME SCIENCE
Course Title : FOOD SCIENCE
Course Code : 21UHSC3 **Hours/Week: 5**
Semester : II **Credits: 5**

Course outcome: The course aims to

- Impart the various food groups and cooking methods
- Discuss the structure, composition and nutritive value of different foods
- Describe the various changes takes place during cooking on different foods

SYLLABUS

Unit-I **18hrs**

Functional classification of foods, Basic food groups (4, 5, 7, & 9) Preliminary preparation of foods prior to cooking – Cooking methods – water, oil and air as medium.

Cereals-structure composition, nutritive value of rice, wheat, cookery-cooking methods, effect of most heat on gelatinization, Fermentation-definition, advantages, product- and bread Preliminary preparation of foods prior to cooking.

Unit-II **15hrs**

Pulses-Composition and Nutritive Value of Pulses and oilseeds; Toxic constituents in pulses; - Pulse cookery-methods, effect of cooking, factors affecting cooking quality; Germination-definition, advantages.

Fruits and Vegetables-Classification, composition, selection and nutritive value of some common vegetables and fruits; Pigments in fruits and vegetables, fruits and vegetables cookery methods, effect of cooking on nutrients and pigments.

Unit –III **15hrs**

Fleshy Foods-Structure, composition nutritive value and selection of fleshy foods, post-mortem changes, tenderization of meat, Meat cookery-methods and changes during cooking, Egg-structure, composition, nutritive value, selection and functions of egg in cook factors affecting foam formation, Fish-Classification, composition, nutritive value, selection, curing and smoking of fish.

Unit-IV **15hrs**

Milk-composition, nutritive value, Effect of heat, acid on milk proteins; Milk products-pasteurized milk-whole milk powder and cheese; Fats and oils-composition, nutritive value-Hydrogenation process, types and prevention of rancidity, changes in fat on cooking; Sugar-types of sugar and stages of sugar cookery.

Unit-V **12hrs**

Beverages-classification; coffee and tea, Cocoa-Use of cocoa in chocolate preparation; spices-Uses of spices in cookery

Books for Study:

- Srilakshmi, B.Food Science, (2018) 8th edition, New Age International Pvt., New Delhi.

Booksfor Reference :

- Swamination, M. Essentials of Food Nutrition, Vol. I and II, Ganesh & Company, Madras.
- ManayShakuntahala, N and Shadaksharaswamy, K. (1987) Foods. Facts and Principles, - Wiley Eastern Ltd.,

W**eb Resource**

Course outcomes

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

CO Number	CO statement	Knowledge Level
CO1	Gain knowledge on different types of food and its cooking method.	**K1**
CO2	Interpret different food groups, their composition and nutrients present in the foods.	**K2**
CO3	Identify the changes during cooking of foods.	**K3**
CO4	Apply the principles from the various factors of foods to solve practical problems.	**K4**
CO5	Predict the functions of specific nutrients in maintaining health.	**K5**

Mapping with of COs with POs

PO / CO	Programme Outcome (POs)				
	PO1	**PO2**	**PO3**	**PO4**	**PO5**
CO1	S	S	S	S	S
CO2	S	S	S	S	S
CO3	S	S	S	S	S
CO4	S	S	S	S	S
CO5	S	S	M	M	S

S- Strong; M-Medium; L-Low

Programme Title : B.Sc. HOME SCIENCE
Course Title : FOOD SCIENCE PRACTICAL - I
Course Code : 21UHSQC1 **Hours/Week: 4**
Semester : II **Credits: 2**

Course outcome: The course aims to

- Experimental cookery with different food items
- Demonstrate the changes takes place during cooking
- Prepare different food recipes and evaluate its sensory attributes.

SYLLABUS

1. **Weights and measures** - solid and liquid foods **6 hrs**
2. **Experimental cookery of cereals** **6 hrs**
   a. Steaming, Boiling and pressure cooking of rice.
   b. Determination of gluten content in wheat and evaluation.
   c. Preparation and evaluation of Mixed rice, Ragi leaf cake and Biscuit.
3. **Experimental cookery of pulses** **6 hrs**
   a. Boiling, Steaming and pressure cooking of pulses using hard and soft water with and without baking soda.
   b. Preparation of sprouted /germ pulse flour.
   c. Preparation and evaluation of Sundal, Sambar, Bajji and Pulse flour substituted chapathi.
4. **Experimental cookery of fruit and vegetables** **6 hrs**
   a. Effect of acid and alkali on colour, texture and flavor.
   b. Enzymatic reaction-enzymatic browning and its prevention.
   c. Preparation and evaluation of vegetables/fruit salad, avial, fruit juice and vegetable pickle.
5. **Experimental cookery on milk and milk products** **6hrs**
   a. Effect of acid on milk.
   b. Preparation and evaluation of ice cream and kheer.
6. **Experimental cookery on Egg** **6hrs**
   a. Effect of sugar and salt on egg foam formation.
   b. Preparation and evaluation of poached egg, scrambled egg and egg custard.
7. **Experimental cookery on sugar** **6hrs**
   a. Stages of sugar cookery
   b. Preparation and evaluation of mysore pak and Gulab jamun.
8. **Experimental cookery on fats and oils** **6hrs**
   a. Smoking point of oils
   b. Preparation and evaluation of puri and potato chips.
9. **Experimental cookery on beverages and spices 6hrs**
   a. preparation and evaluation of
      (i) coffee and tea
      (ii) spiced tea

10. Formulation of Healthy foods 6hrs

a. Preparation and evaluation of

(i) Ragi malt

(ii) KulandaiAmudhu

Books for Reference :

- Swaminathan, M Essentials of Food and Nutrition, Vol. I and II. Ganesh & Company, Madras.
- MahayShakuntala. N and Shadaksharaswarny, K.. 1987, Poods Facts and Principles, - Wiley Eastern Ltd , Now Delhi.
- Jacobeon, Marion, Food Principles: An Introduction to experimental study of Foods preparation, Washington State, University Puliman, Washington.
- Peekham G.C , Foundations of food preparations, the Mac Millan Publishing Co New York.

Course outcomes

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

CO Number	CO statement	Knowledge Level
CO1	Gain knowledge on weights and measures used in cooking	**K1**
CO2	Experiment various cooking methods suitable for different Foods	**K3**
CO3	Compile the factors responsible for the changes in the characteristics of foods	**K5**
CO4	Formulate and develop various recipes from different foods	**K5**
CO5	Evaluate the sensory attributes of the prepared recipes	**K6**

Mapping with of COs with POs

PO / CO	Programme Outcome (POs)				
	PO1	**PO2**	**PO3**	**PO4**	**PO5**
CO1	L	M	M	M	S
CO2	L	L	L	L	L
CO3	L	M	M	M	S
CO4	L	M	M	M	S
CO5	L	M	M	M	S

S- Strong; M-Medium; L-Low

Programme Title : B.Sc. HOME SCIENCE
Course Title : BEAUTY CARE
Course Code : 21UHSSC2 **Hours/Week: 2**
Semester : II **Credits: 2**

Course objective: The course aims to

- Impart knowledge on skin and hair care.
- Learn the various techniques in make-up.
- Identify the different tools used in enhancing the beauty.

SYLLABUS

Unit – I **6 hrs**

Introduction and importance of beauty care. Skin care - Types of skin -Factors affecting skin condition. Cleanser, Toner -Definition, Types.

Unit-II **6 hrs**

Bleach- Types of bleaches, Mixing procedure and application in face, neck, hands and other parts. Facial Pack- Types of pack - cereal mask - oats, wheat germ, vegetable mask- carrot, potato, fruit mask- tomato, papaya. Facial massage step by step procedure.

Unit - III **6 hrs**

Hair- Types of hair, Importance of hair care, factors affecting hair growth, Hair cut- Straight cut, U- cut, V-cut, layer cut and Trimming,. Hair Styling- Basic hair styles, party and modern styles. Hair Coloring, Hair Conditioning, Treatment of Dandruff

Unit - IV **6 hrs**

Art of make-up - party make -up, daily make-up, oily make up, bridal makeup, corrective make-up. Threading- definition ,types. Waxing-types, application.

Unit - V **6 hrs**

Preparation and application of mehandi, Pedicure and Manicure Pedicure and Manicure – Tools and ingredients used, procedure. Fragrance - secret of scent, structure of scent, fragrance formulations, fragrance families.

BOOKS FOR STUDY:

- Dr.Neenukhanna(2008) Body and beauty care, Param pubulishers, New Delhi

BOOKS FORREFERENCE:

- Haia, Skin and Beauty care (the complete body book. Blossom Kochar (2002) VBSPD, VBS publishers distributor ltd, New Delhi.
- Dr.Renu Gupta (2001),Complete Beautician course, Diamond Pocket books Pvt. Ltd, Delhi.

Course outcomes

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

CO Number	CO statement	Knowledge Level
CO1	Acquire knowledge on basic beauty care treatment	**K1**
CO2	Interpret the knowledge of various beauty care techniques	**K2**
CO3	Demonstrate various beauty care techniques an individual.	**K2**
CO4	Apply the art of makeup.	**K3**
CO5	Formulate several beauty care products	**K5**

Mapping with of COs with POs

PO / CO	Programme Outcome (POs)				
	PO1	**PO2**	**PO3**	**PO4**	**PO5**
CO1	S	L	L	S	S
CO2	S	M	L	L	L
CO3	L	S	L	M	L
CO4	S	M	L	M	S
CO5	M	L	M	L	L

S- Strong; M-Medium; L-Low

Programme Title : B.Sc. HOME SCIENCE

Course Title : NUTRITIONALBIOCHEMISTRY

Course Code : 21UHSC4 **Hours/Week: 5**

Semester : III **Credits: 5**

Course objective: The cour**se** aims to

- Studythe functions and utilization of different nutrients.
- Acquire knowledge on the metabolism of carbohydrates, Proteins and Fats.
- Learn the importance of micro nutrients.

SYLLABUS

Unit – l **15 hrs**

Carbohydrates - Classification, function, digestion, absorption, utilization - Glycolysis, TCA cycle, HMP shunt and energy production - gluconeogenesis, Role of carbohydrate, protein and fat in energy metabolism. Role of fibre in the diet.

Unit – II **15 hrs**

Proteins - Classification, function and utilization; Amino acids - Classification, Function; General pathway of protein metabolism - Denaturation, Transamination, Deamination, Decarboxylation and Urea formation; Amino acid balance and imbalance; Evaluation of protein quality.

Unit – III **15hrs**

Lipids - Definition, Classification, sources and function; Essential Fatty acids - sources, function and deficiency; Transport, utilization and oxidation of fatty acids.

Unit - IV **20 hrs**

Vitamins - Sources, functions, utilization requirements and deficiency of vitamin A, D, E, K, Thiamine, Riboflavin, Folic Acid, Niacin, Vitamin B_{12} and ascorbic acid. Minerals - Sources, functions, utilization, requirements and deficiency of iron, calcium, phosphorous, iodine, sodium and potassium. Water - distribution of water in the body and water balance

Unit – V **10 hrs**

Nutrients – Minerals Part -1, Minerals Part -2

Books for Study:

- Srilakshmi, B. Dietetics, (2005) New Age International Pvt., New Delhi.
- Arnbiga Shanmugan, Fundamentals of biochemistry for medical students, karthik printers -2002

Books for Reference :

- Gopal, C. Kamalakrishnasamy, Nutrition in major metabolic Disease, Oxford India paper backs Publishers, First Edition, 2000
- Mahan, L.K. Stump, S.E and Krause, S. Food Nutrition and Diet therapy, 11th edition, B. Sounders Co. 2004.
- Food science and Nutrition-by Dr.Ansaurooj-SWAYAM MOOC

Course outcomes

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

CO Number	CO statement	Knowledge Level
CO1	Understand the functions of nutrients in the body.	**K2**
CO2	Interpret the utilization of different nutrients.	**K2**
CO3	Identify the metabolism of various nutrients.	**K3**
CO4	Relate the role of micro nutrients in health.	**K4**
CO5	Analyze the impact of nutrient deficiency.	**K5**

Mapping with of COs with POs

PO / CO	Programme Outcome (POs)				
	PO1	**PO2**	**PO3**	**PO4**	**PO5**
CO1	S	S	S	M	S
CO2	S	S	S	M	S
CO3	S	S	S	M	S
CO4	S	S	S	M	S
CO5	S	S	S	M	S

S- Strong; M-Medium; L-Low

Programme Title : B.Sc. HOME SCIENCE
Course Title : NUTRITIONAL BIOCHEMISTRY PRACTICAL - II

Course Code :21UHSQC2 **Hours/Week: 2**

Semester : III **Credits: 2**

Course Objectives: The course aims to

- Acquire knowledge in testing of different sugars
- Know the working Principles of Instruments.
- Develop skills in identifying protein and minerals in food

SYLLABUS

Qualitative Analysis 20 Hours

1. Qualitative test for sugar,
2. Qualitative test for Protein,
3. Qualitative test for Minerals.

Working Principles of Instruments. 10 Hours

1. Muffle furnace
2. Body fat analyser
3. Calorimeter
4. Heamoglobinmeter
5. Spectrophotometer
6. Centrifuge

Quantitative Analysis

1. Estimation of total ash acid insoluble ash 4 Hours
2. Estimation of glucose by benedict's method 4 Hours
3. Estimation of vitamin 'C' by Dye method 4 Hours
4. Estimation of Iron. 6 Hours
5. Estimation of Phosphorus. 6 Hours
6. Estimation of Calcium. 6 Hours

REFERENCE

- Antia, P.P., Clinical nutrition and Dietetics Oxford University press, Delhi, London. New York, 1989.
- C. Gopalan, B.V.RamaSastri and S.C.Balasubramanian, 2007 Nutritive value of Indian Foods. National Institute of Nutrition.
- Ambiga Shanmugam, Fundamentals of Biochemistry for medical students, Karthik Printers - 2002.

Course outcomes

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

CO number	CO statement	Knowledge Level
CO1	Enhance the skills in handling glassware and chemicals	**K3**
CO2	Distinguish the different sugars qualitatively	**K4**
CO3	Interpret the test results for protein and minerals	**K2**
CO4	Identify the techniques used in the estimation of nutrients	**K3**
CO5	Compare the experimental value with the standard reference value of food	**K6**

Mapping with of COs with POs

PO / CO	Programme Outcome (POs)				
	PO1	**PO2**	**PO3**	**PO4**	**PO5**
CO1	L	M	M	L	S
CO2	L	M	L	L	S
CO3	L	M	L	L	S
CO4	L	M	M	L	S
CO5	L	M	M	L	S

S- Strong; M-Medium; L-Low

Programme Title : B.Sc. HOME SCIENCE
Course Title : COMMUNITY NUTRITION
Course Code : 21UHSSC3 **Hours/Week: 2**
Semester : III **Credits-2**

Course Objectives : The course aims to

- Impart knowledge on health aspects
- Emphasis the importance of nutritional screening
- Know the role of organizations in promoting health

SYLLABUS

UNIT - I **6 hrs**

Nutrition and health - Health Index, Hunger Index - Definitions recent trends, dimensions of health, National rural health, mission and millennium development goals of health. Vital health statistics - measures of mortality and morbidity.

UNIT - II **6 hrs**

Nutritional Screening - Objectives, methods of Nutritional Assessment - Direct Nutritional Assessment - Anthropometry, Clinical Examination, Bio-Physical, radiological Examination, Functional assessment, Laboratory and Biochemical Profile.

UNIT - III **6 hrs**

Indirect Nutritional Assessment - Dietary Assessment, Different types of Dietary Survey - Food Frequency, Questionnaire, 24 hour recall method, weighment and survey.

UNIT-IV **6 hrs**

Nutrition Education- Principles of Nutrition Education, Methods of Nutrition Education, Teaching Aids of Nutrition Education, Computer in Nutrition Education.

UNIT –V **6 hrs**

Programmes to improve Nutritional status - objectives, function-WHO,FAO,ICMR,NIN, Applied Nutrition programme, Supplementary feeding,Mid-day meal programme for school children, Prophylaxis programmes to overcome specific deficiency disease-IDD, Vitamin-A, Nutritional Anemia.

BOOKS FOR STUDY:

- Srilakshmi, B. 2005, Nutrition Science, New age International Pvt, Publishers, New Delhi.

BOOKS FOR REFERENCE:

- Mahtab, S. Bamji, 1996 Textbook of Human Nutrition, Oxford and IBM Publishing Co Pvt Ltd, New Delhi.

Course outcomes

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

CO Number	CO statement	Knowledge Level
CO1	Know the basics of public health nutrition	**K1**
CO2	Relate the diet and nutrition requirements relative to age, developmental and disease status	**K2**
CO3	Assess the nutritional and Health Status of an individual and the community	**K6**
CO4	Understand the role of national, international and voluntary nutritional organizations to combat malnutrition	**K6**
CO5	Able to organize community nutrition education programme with the application of computers.	**K3**

Mapping with of COs with POs

PO / CO	Programme Outcome (POs)				
	PO1	**PO2**	**PO3**	**PO4**	**PO5**
CO1	S	M	M	S	L
CO2	M	S	L	S	M
CO3	M	M	M	M	S
CO4	L	M	L	L	M
CO5	S	S	S	M	S

Programme Title : B.Sc. HOME SCIENCE
Course Title : NME- I HOME TEXTILES
Course Code : 21UHSNEC1 **Hours/Week: 2**
Semester : III **Credits-2**

Course Objectives: The course aims to

- Teach them the importance and recent trends in home textiles
- To impart knowledge regarding the factors influencing the selection of home textiles
- Familiarize on different home textile products

SYLLABUS

Unit - I **Hours: 6**

Introduction to Home Textile, Definition, Importance of textiles at home, Types of Home Textiles.

Unit - II **Hours: 6**

Home Textiles – Fibre selection and application, Factors influencing the selection of Home Textiles, Recent trends in Home Textiles.

Unit – III **Hours: 6**

Bed linen– Definition, Materials used, Bed covers, Bed sheets, Cushion covers, Pillow, Pillow covers, Quilt, Blanket, mattress. Table linen – Definition, Materials used, Table Covers, Table Mats, Napkin, Runners.

Unit – IV **Hours: 6**

Kitchen linen– Definition, Materials used, Apron, Gloves, Pot holder, Lunch box cover. Bath linen - Definition, Materials used, Floor mats, Bath mats, Shower cap, Screens, Bath robe.

Unit – V **Hours: 6**

Others - Curtains, Definition, Materials used, Types - Draw, Tailed, Pleated, Cafe curtains, Three tire curtain. Draperies - Definition, Types of draperies, Swags.

Books for Study:

- Raghubalan, G and Raghubala, S (2007), Hotel management and House keeping operations and management,Oxford University Press, New Delhi

Books for Reference:

- Karthik, T and Gopalakrishnan, D (2016), Home Textiles, Daya Publishing House, New Delhi

Web Resources:

- http://textilelearner.blogspot.com/
- http://www.fibre2fashion.com/

Course learning outcome:

Upon completion of this course the students shall be able to

CO number	CO statement	Knowledge Level
CO1	Know the importance of home textiles	**K1**
CO2	Understand recent trends in home textiles and type of fibres used	**K2**
CO3	Identify various home textile items	**K2**
CO4	Compare the various home textile products	**K6**
CO5	Develop skill to design various curtain and drapery	**K5**

Programme Title : B.Sc. HOME SCIENCE.
Course Title : TEXTILE SCIENCE
Course Code : 21UHSC5 **Hours/Week: 4**
Semester : IV

Credits-4

SYLLABUS

Unit – I **12 hrs**

Introduction to the field of textiles, fibre – definition and classification, Manufacturing process of cotton, linen, silk, wool, nylon, polyester and acrylic; Identification of textile fibers - microscopic, burning and solubility test. Properties and uses of textile fibres

Unit – II **12 hrs**

Spinning - definition, Methods of spinning – mechanical and chemical spinning. Objectives of blending, opening, cleaning, carding, combing, drawing, roving, spinning.Yarn classification – simple and novelty, Yarn number – definition and types. Yarn twist – S and Z.

Unit – III **12 hrs**

Weaving– definition, parts of a simple loom, motion of weaving; Types of weaves - Basic and fancy. Basic weaves - plain, twill, satin and sateen. Fancy weaves–dobby, jacquard, pile, double cloth, leno, swivel and lappet. Knitting - definition, classification – warp and weft. Warp – tricot, milanese and raschel. Weft – plain, purl, rib and interlock. Major Fabric Faults and Fabric Inspection.

Unit – IV **12 hrs**

Fabric finishes – definition and classification. Basic finishes – scouring, bleaching, tentering, sizing, singeing, mercerizing and calendering. Special finishes –definition, special calendaring, napping, flocking, Shrinking (sanforization), water repellency, wrinkle resistance, fire proof, stain repellent and anti microbial .

Unit – V **12 hrs**

Dyeing – definition, classification of synthetic dyes, their suitability to different fibers, stages of dyeing - fibre, yarn, fabric and product dying; Natural dyes- history, sources, environmental advantages, method of moranting and dyeing. Printing - definition, methods of printing - block, roller, screen, discharge, resist printing, batik, tie and dye. Technical textiles and Smart textiles .

PRACTICAL

- Identification of textile fibers
- Identification of Twist in yarn
- Fabric count-Warp/Weft per inch
- Fabric Weight - Grams per square meter

Books for Study:

- Mullick,P (2005)Text Books of Home Science, Kalyani Publishers, New Delhi **(UNIT-I)**
- Dantyagi,s., (1996) Fundamentals of Textiles and their Care, Orient Long Man Publishers**(UNIT-II &III)**
- Deuldar,D., (2002), Household Textiles & Laundry work, Atam Ram & Sons Publishers, New Delhi **(UNIT-IV & V).**

Books for Reference:

- Textiles, Kadolph, S.J. and Marcketti, S.B., Pearson Publication, 2016**.**

Web Resources:

- http://textilelearner.blogspot.com/
- http://www.fibre2fashion.com/

Swayam MOOC course Textile Study Dr.A. Sarada Devi
Web Resources:

- http://textilelearner.blogspot.com/
- http://www.fibre2fashion.com/

Course outcomes:
Upon completion of this course the students shall be able to

CO number	CO statement	Knowledge Level
CO1	Find out the concepts and basics of textiles	K1
CO2	Understanding the techniques of yarn and fabric manufacture	K2
CO3	Identify the fibres, yarns and fabrics for its appropriate use	K3
CO4	Analyze and asses dyed and printed textiles	K4
CO5	Recommend the dyes, printing and finishing of textiles for specific Use	K6

Mapping with of COs with POs

PO / CO	Programme Outcome (POs)				
	PO1	PO2	PO3	PO4	PO5
CO1	S	S	S	M	S
CO2	S	S	S	L	S
CO3	S	S	S	L	S
CO4	S	S	S	L	S
CO5	S	S	S	M	S

S- Strong; M-Medium; L-Low

Programme Title : B.Sc. HOME SCIENCE
Course Title : FOOD PRESERVATION AND QUALITY CONTROL
Course Code : 21UHSEC1 **Hours/Week: 5**
Semester : IV **Credits-5**

Course Objectives: The course aims to

- Understand the importance and scope of food preservation.
- Demonstrate the various techniques in food preservation.
- Learn the Laws and Organisation involved in food safety.

SYLLABUS

Unit – I **15 hrs**

Definition and importance of Food Preservation, Basic principles of food preservation,equipments for home scale food preservation. Principles of sanitation to be observed in food preservation.Food spoilage - Definition and causes.

Unit – II **15 hrs**

Addition of salt-pickling and curing of meat and fish.Canning-steps, containers and equipment for canning. Sugar concentrates - Jams, Jellies and squashes. Refrigeration and freezing - Advantages and disadvantages. Drying and dehydration-factors influencing, advantages and disadvantages.

Unit – Ill **15 hrs**

Fermentation of foods, advantages and disadvantages, types, factors controlling fermentation, commonly fermented foods-sauerkaut, wine, vinegar, beer, temph, soya sauce.

Unit – IV **15 hrs**

Chemical additives - classification, criteria for selection of chemical additives - mode of action, types of preservative, Irradiation and microwave heating of foods. Principles, effects of irradiation, advantages, disadvantages.

Food adulteration- definition, common adulterants and methods to detect adulterants. Food standards - BIS, AGMARK, FPO, HACCP Food safety and standard act 2006, Fortification and Enrichment - definition, objectives, fortification of cereal, cereal products and salt

Unit – V **15 hrs**

Food safety and Management system. Guidance and documents of FSSAI. Food additives. Health supplements, Nutraceuticals, Functional foods and Novel foods. Packaging and labelling.

REFERENCES:

- Park.J.E.,Park.K,Parks 1991 Textbook of Preventive and Socail Medicine, M/s Banarsidas Bhanot Publishers, Jabalpur, Madhya Pradesh.
- Bamji et al, 2003, Text book of Human Nutrition, Oxford and IBH Publishing Co. Pvt.Ltd., New Delhi, II Edition.
- Sirlakshmi.B 2002, Nutrition Science, New Age International(p) Limited, Publishers.
- Swaminathan.M.,2974, Essentials of Foods and Nutrition, Volume I and II.
- Food Laws and Standards by Dr.M. K. Salooja - SWAYAM MOOC

WEB REFERENCES:

- https://www.fssai.gov.in/home
- Codex e-Learning Centre(http://www.fao.org/ag/agn/agns/capacity_elearning_codex_en.asp)

Course outcomes (CO): On completion of the course, students should be able to

CO Number	CO Statement	Knowledge Level
CO1	Understanding the importance of food preservation.	K2
CO2	Apply the knowledge of food preservation in increasing the shelf life of foods.	K3
CO3	Demonstrate the various preservation techniques	K2
CO4	Evaluate the novel technologies in food preservation and Identify the adulterants in food.	K6
CO5	Discuss the food sanitations & safety functions and assess different techniques of packaging and labelling	K5

Mapping with of COs with POs

PO/ CO	Programme Outcome (POs)				
	PO1	**PO2**	**PO3**	**PO4**	**PO5**
CO1	S	S	S	S	S
CO2	S	S	S	S	S
CO3	S	S	S	S	S
CO4	S	S	S	S	S
CO5	S	S	S	S	M

S- Strong; M-Medium; L-Low

Programme Title : B.Sc. HOME SCIENCE
Course Title : PUBLIC HEALTH AND COMMUNITY NUTRITION
Course Code : 21UHSEC1a **Hours/Week: 5**
Semester : IV **Credits-5**

Course Objectives: The course aims to

- Understand the importance public health.
- Acquire knowledge on malnutrition
- Learn the Laws and Organisation involved in public health.

SYLLABUS

Unit – I **15hrs**

Concepts in community health – Definition of health, public health and community health – Dimensions of health, Determinants of health , Concepts in community health – biochemical, ecology, psychological and holistic, Concept of disease, Classification of disease.

Unit – II **15 hrs**

Epidemiology of communicable disease - Definition of Epidemiology , causes, signs and symptoms, treatment and prevention of communicable diseases. Respiratory infections – chicken pox, measles, mumps and whooping cough, Intestinal infections – poliomyelitis, cholera, amoebiasis and worm form infection other infections – dengue, filariasis.

Unit – III **15 hrs**

Ecology of the malnutrition – Definition, causes and consequences of malnutrition. Ecological factors leading to malnutrition such as income, family size, dietary pattern, occupation, customs, food fads, fallacies, ignorance and other factors. Synergism between malnutrition and infection. Common nutritional problems – PEM, Vitamin – A deficiency, anaemia, iodine deficiency and fluorosis.

Unit – IV **15 hrs**

Measures to overcome malnutrition – increased agricultural production through food technonlogy, food fortification and enrichment. Nutrition intervention programmes – genesis, objectives and operation of school lunch programme and ICDS.

Unit – V **15 hrs**

Organisation that combat malnutrition – International organisation – FAO, WHO, UNICEF, World Bank , National organisation – ICMR, MIN, CFTRI, DFRL, NIPCCD, CSWB, SSWB, Voluntary services – HSAI, AFPRO, AIWC.

BOOKS FOR STUDY:

- Park.J.E.,Park.K,Parks 1991 Textbook of Preventive and Socail Medicine, M/s Banarsidas Bhanot Publishers, Jabalpur, Madhya Pradesh.
- Bamji et al, 2003, Text book of Human Nutrition, Oxford and IBH Publishing Co. Pvt.Ltd., New Delhi, II Edition.
- Sirlakshmi.B 2002, Nutrition Science, New Age International(p) Limited, Publishers.
- Swaminathan.M.,2974, Essentials of Foods and Nutrition, Volume I and II.

CO number	CO statement	Knowledge Level
CO1	Gain knowledge of the science of nutrition to public health	**K1**
CO2	Understand the major and other nutritional problems	**K2**
CO3	Acquire knowledge on health and malnutrition	**K3**
CO4	Apply the food-based interventions to overcome nutritional problems.	**K3**
CO5	Discuss the role of organisation to combat malnutrition	**K5**

Mapping with of COs with POs

PO / CO	Programme Outcome (POs)				
	PO1	**PO2**	**PO3**	**PO4**	**PO5**
CO1	**S**	**M**	**L**	**L**	**L**
CO2	**L**	**S**	**L**	**L**	**M**
CO3	**M**	**L**	**L**	**M**	**M**
CO4	**M**	**S**	**M**	**S**	**S**
CO5	**L**	**L**	**L**	**M**	**M**

S- Strong; M-Medium; L-Low

Programme Title : B.Sc. HOME SCIENCE
Course Title : TECHNIQUES IN PRESERVING FOOD - PRACTICAL
Course Code : 21UHSSQC4 **Hours/Week: 2**
Semester : IV **Credits-2**

Course Objectives: The Course aims to

- To learn the different techniques in preserving the food.
- Acquire practical knowledge and skill in the prepration of different types of jams,jellies, preserves,vathals
- ,pickles, thokku,chutneypowders,sauce& ketchup
- To get practical knowledge in detecting common food adulterants in various food stuffs.

SYLLABUS

Preservation by Sugar Concentrates : **8 hrs**

Preparation of Jam - Mixed fruit, Apple.Jelly - grape.Preserves - Amla, Tutti-Fruity,Orange Marmalade. Fruit Juice - Orange, Mango and Musambi juice. Squash – Pineapple, Mango squash. Sugar syrup-Rose syrup, Almond Syrup.

Preservation by Drying:- **8 hrs**

Preparation of Vathal - Bitter gourd, Chilly & Vegetable Vathal.

Preparation of Vadagam - Onion, Rice & Tomato Sago Vadagam.

Preparation of Chutney Powders - Idlipodi powder, Dal powder, Sambar powder, Rasam powder, Masala powder, & Curry leaves powder.

Preservation by Chemical: **8hrs**

Preparation of Pickles - Onion, lime, garlic & Tomato, Mango, Mixed Vegetable.

Preparation of Thokku - Onion, Tomato & Mango

Preparation of Sauce - Tomato, Chilli, Garlic & Soya.

Preparation of Ketchup - Tomato.

Test for detecting common adulterants in food: **6 hrs**

a. Cereal - Rava, Rice & Wheat flour
b. Pulses - Dhals, Bengal gram flour
c. Spices & condiments - Black pepper, Chilli powder, common salt, coriander powder, Turmeric &Asafoetida.
d. Tea leaves & Coffee powder

e. Milk & Milk products - Milk, Ghee, Butter.

f. Fats & oil

g. Sugar, honey

Sensory evaluation –dilution test, triangle test

BOOKS FOR STUDY

- Sri Lakshmi. B. 2007, Food Science, 4th edition, New Age International (P) Ltd; New Delhi.

BOOKS FOR REFERENCE

- Vasantha Moorthy, 1999, Pickles, Chutney & Preserves, 4th edition, UBS Publishers & Distributors, New Delhi.
- Gali. A. 1994, New Ideas for a Great Taste, Ist edition, P.T. Bell Publishers, Madras.
- Lal. G. Siddappan G.B. and Trandent G.L. 1967. "Preparation A Fruits and Vegetable" Indian Council of Agricultural Research", New Delhi.

Course outcomes (CO):

On completion of the course, students should be able to

CO Number	CO Statement	Knowledge Level
CO1	Know the principles of preservation	**K1**
CO2	Understand the different techniques in preserving Food	**K2**
CO3	Explore the principles of preservation in fruits and vegetables based products	**K4**
CO4	Develop skills to prepare cereals new products with retention of quality.	**K5**
CO5	Identify common food adulterants in various food stuffs by practical method.	**K3**

Mapping with of COs with POs

PO/ CO	Programme Outcome (POs)				
	PO1	**PO2**	**PO3**	**PO4**	**PO5**
CO1	M	S	M	M	S
CO2	M	S	M	M	L
CO3	M	M	L	S	M
CO4	S	M	M	S	S
CO5	M	M	L	S	S

S- Strong; M-Medium; L-Low

Programme Title : B.Sc. HOME SCIENCE
Course Title : NME- II LIFE SPAN NUTRITION
Course Code : 21UHSNEC2 **Hours/Week: 2**
Semester : IV **Credits-2**

Course outcome: The cours**e** aims to

- Outline the importance of understanding nutrition
- Emphasis on the role of nutrition in the promotion of good health
- Point out the deficiency disorders in various stages of life

SYLLABUS

UNIT - I **6 hrs**

Basic Concepts of Health, Food- functions, Food Groups- basic four and five classification by ICMR, Food guide pyramid, Importance of Balanced Diet, Meal Planning– principles and points to consider.

UNIT – II **6 hrs**

Nutrition During Special Conditions – Nutritional requirements and dietary guidelines and General dietary problems during Pregnancy. Nutritional requirements and dietary guidelines during lactation. Nutrition in Infancy – Breast feeding and its advantages, Weaning - Preparation of low cost weaning foods.

UNIT - III **6 hrs**

Nutrition in Childhood - Building Up Food Concept in Children, Importance of Packed Lunch , Nutritional Deficiency Disorder - PEM, Kwashiorkor, Marasmus, Vitamin A Deficiency, Supplementary Foods .

UNIT – IV **6 hrs**

Nutrition in Adolescence - Nutritional Requirements, Food Habits, Nutritional problems. Nutrition in Adults – definition of Reference Man and Reference Woman Nutritional Requirements.

UNIT – V **6 hrs**

Nutrition in Old Age – Nutrition related problems, degenerative diseases, Meeting the Physical and Emotional Needs, Modification of Diet, Diet Counseling

Books to Study:

- Srilakshmi, B.,(2010) "Dietetics",6thedition,New Age International (p) Limited

Books For Reference:

- Mahan, L.K. Stump, and Sylvia Escott and Krause.S (2004) Food, Nutrition and Diet Therapy", 11th edition, W.B. Sanders company, Philadelphia.
- Swaminathan, M., Principles of Nutrition and dietetics II Revised edition 1989, The Bangalore printing and publishing Co. Ltd.

Course outcomes

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

CO number	CO statement	Knowledge Level
CO1	Acquire knowledge regarding food groups and RDA	**K1**
CO2	Interpret the nutritional requirements during special conditions	**K2**
CO3	Compare the diet and nutritional requirements for different age groups	**K4**
CO4	Assess the links between early nutrition and disease.	**K6**
CO5	Apply the science of nutrition to human health across the lifespan.	**K3**

Programme Title : B.Sc. HOME SCIENCE
Course Title : FAMILY RESOURCE MANAGEMENT AND INTERIOR DESIGN
Course Code : 21UHSC6 **Hours/Week: 5**
Semester : V **Credits-5**

Course Objectives: The course aims to

- To increase awareness of human being as resource potentials in attaining goals of family life and as an important natural resource.

SYLLABUS

Unit – I **15hrs**

Definition and meaning of management - characteristics of a good manager, Management process - planning, controlling and evaluating; Values, goals and standard; Decision making - concepts, types of decision, steps in decision making,

Unit – II **15hrs**

Resources - Classification and characteristics of resources, factors affecting the use of resources; Management process applied to the use of time and energy; Work simplification in the home - techniques, Mendel's laws of changes; Money management - types of family income;, managerial process, savings - need, institutions for saving.

Unit – III **15hrs**

Importance of good taste; Elements of design - Types of design and characteristics of good design; Principles of design-Harmony, Proportion, Balance, Emphasis and Rhythm.

Unit – IV **15hrs**

Colour - Qualities of colour - hue, value and intensity; Colour harmonies, Prang colour system; Advancing and Receding colours; principles in the use of colours in interiors.

Furniture - selection and arrangement of furniture in various rooms; Accessories - Types, selection, use and care of accessories, Flower arrangement.

Unit – V **15hrs**

Basic principles in landscaping – simplicity, balance, focalisation, rhythm and line, scale and proportion ,Garden components – Trees, climbers and creepers, edge and hedges ,topiary and trophy, lawn, sunken garden, green house and garden adornments , Landscaping places of pubic importance - commercial areas, Designing a home landscape garden

Practical/Related Experience

1. Visit to various houses, parks, hotels, gardens etc., to observe the application of principles of design and report preparation.

2. Preparation of colour chart arc colour schemes for different rooms.
3. Application of design principles in preparation of greeting card.
4. Making different types of flower arrangement and furniture arrangement for various rooms.

BOOKS FOR STUDY

Text books:

- Varghese, MA., N.N. Ogale, and Srinivasan, 1C, Home Management; Wiley Eastern Ltd., 1992
- Nickel and Dorsey, 'Management in family' living, John Willy and Sones, 1975.
- Bose et al, (1999), "Floriculture and Landscaping": Calcutta, Naya Prakash, India.
- Singh,A. and Sisodia,A, (2017) , "Floriculture and Landscaping:, New Delhi: New India Publishing Agency,India.
- Bruce,S, (2016), "Thinking about Landscape Architecture: Principles of a Design Profession for the 21st century": New York, Routledge Taylor and Francis group, London.

BOOKS FOR REFERENCE

- Deshpande, R.S., 'Modern Ideal Homes for India', United Book Corporation, Pune, 1983
- Kumar, N, (1999), "Introduction to Horticulture", Nagarkoil: Rajalakshmi Publications, "ICAR Publications", India.
- Randhawa, G.S, and Mukhopadhy, A, (2000) "Floriculture in India", Chennai: Allied Publishers, India.
- Reed Sue, (2010),"Energy-Wise Landscape Design: A New Approach for Your Home and Garden":, Canada, New Society publishers, North America

Course Outcomes (CO):

On completion of the course, students should be able to

CO Number	CO Statement	Knowledge Level
CO1	Understand the concepts related to family resource management	K1
CO2	Identify the human values and standards for successful management and decision making	K3
CO3	Focus on management of human resource	K2
CO4	Analyze the significance of management process in efficient use of resources	K4
CO5	Elaborate principles of design and the contributing factors and refine personal aesthetic senses	K5

Mapping with of COs with POs

PO / CO	Programme Outcome (POs)				
	PO1	**PO2**	**PO3**	**PO4**	**PO5**
CO1	S	S	S	M	M
CO2	S	S	S	S	M
CO3	S	S	S	S	S
CO4	S	S	S	S	S
CO5	S	S	S	S	S

S- Strong; M-Medium; L-Low

Programme Title : B.Sc. HOME SCIENCE
Course Title : APPAREL DESIGNING
Course Code : 21UHSC7 **Hours/Week: 5**
Semester : V **Credits-5**

Course Objectives: The course aims to

- Develop creativity in designing through the principles of design
- To impart knowledge regarding the factors that affect making clothes for different age group and from the standpoint of texture, fabric, growth, development, etc
- Familiarize with the basics of apparel making

SYLLABUS

Unit - I **Hours: 15**

Introduction to Apparel Designing : Definition - Design, Fashion, Style, Silhouette,Fashion Cycle. Elements of design: Line, Shape, Colour and Texture in apparel designing. Principles of design; Balance, Emphasis, Rhythm, Proportion and Harmony in apparel designing. Principles applied to minimize figure irregularities -Short, Tall, Thin and Stout.

Unit - II **Hours: 15**

Clothing for different age groups - Factors to be considered in the choice of styles in clothing for different age groups - Infants, Toddlers, Pre-schoolers, School boys and girls, Teenagers and Adults.

Unit - III **Hours: 15**

Pattern Making: Types of Pattern making – Pattern drafting, Draping and Pattern using personal measurements, Principles in the Preparation of paper patterns, Advantages Commercial pattern. Pattern alterations: General principles for pattern alterations. Standards of a good fit. **Fabric Cutting:** Preparation of fabric before cutting, importance of grain in fabric cutting and garment construction. **Fabric Layout:** Types of fabric layout, laying the pattern on fabric and transferring pattern markings.

Unit - IV **Hours: 15**

Garment Details: Sleeves – Types. Collars – Types, Factors to be considered in designing collar styles. Yoke – Selecting yoke design, Creating variety in yoke design. Pocket – Types, Selecting pocket design, Creating variety in pocket design.

Unit – V **Hours: 15**

Traditional Textiles and Embroidery of India:

Woven Textiles :Patola, Jamdani, Kanchipuram silk, Benaras brocade, Dakka muslin, Baluchari saree, Kashmiri shawl

Dyed and Printed Textiles:Pochampalli, Ikkat, Bandhani, Kalamkari, Batik, Block

Traditional Embroidery :Kashida, Phulkari, Chikankari, Kantha, Kasuti, Kutch.

Basic of Apparel Designing Practical

1. **Use and care of sewing machine and sewing tools.**
2. **Sewing Processes**
    - Hand and decorative stitches
    - Seams and seam finishes
    - Fullness - darts, tucks, gathers, pleats, smocking.
    - Plackets and openings - continuous placket, bound and faced plackets, zipper placket.
    - Fasteners - buttons, button holes, fabric loops, press buttons, hooks and eyes.
    - Neckline – Application of true bias, facing and binding.
    - Sleeves / collar / pockets / yoke any one sample from each.

Books for Study:

- Sodhia, M., (2009), History of Fashion, Kalyani Publishers, New Delhi. **(UNIT- I)**
- Gupta,S.etal,(2008), Textbook of Clothing Textile and Laundry, Kalyani publishers, New Delhi. **(UNIT- II)**
- Mathews,M., (2012),Practical Clothing Construction Part –I, Basic Sewing Processes, Bhattaramsprinters, Chennai. **(UNIT- III & IV)**
- Mullick, P., (2006), Textbook of Textile Designing,Kalyani Publishers, New Delhi. **(UNIT- V)**

Books for Reference:

- Zarapkar, K.R., (2011), Tailoring Book Zarapkar System Cutting, Navnee publication, India

Web Resources:

- http://textilelearner.blogspot.com/
- http://www.fibre2fashion.com/

Course Learning outcomes

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

CO Number	CO statement	Knowledge Level
CO1	Acquire knowledge on principles and elements of design in apparel design	**K1**
CO2	Discuss the clothing selection of different age groups	**K5**
CO3	Identify the steps in drafting, pattern making and learn traditional textiles	**K3**
CO4	Explore the skills of apparel construction	**K4**
CO5	Create variations in apparel design	**K5**

Mapping with of COs with POs

PO / CO	Programme Outcome (POs)				
	PO1	**PO2**	**PO3**	**PO4**	**PO5**
CO1	**S**	**S**	**S**	**S**	**S**
CO2	**S**	**S**	**S**	**S**	**M**
CO3	**S**	**S**	**S**	**S**	**S**
CO4	**S**	**S**	**S**	**S**	**S**
CO5	**S**	**S**	**S**	**S**	**S**

- S- Strong; M-Medium; L-Low

Programme Title : B.Sc. HOME SCIENCE
Course Title : NUTRITION IN HEALTH
Course Code : 21UHSC8 **Hours/Week: 5**
Semester : V **Credits-5**

Course objective: The course aims to

- Acquaint the students to plan the diet for various age group using food groups
- Learn physiological changes during pregnancy, complications and nutritional requirement during pregnancy and lactation
- Familiarize with importance of breast feeding and types of supplementary food during infancy

SYLLABUS

UNIT – I **15 hrs**

Health- Definition, Food Group - Five food group plan. Classification of food - functional food groups Balanced diet, Recommended Dietary Allowance. Meal planning- Definition, Basic principles, factors influencing meal planning for different age groups.

UNIT – II **15 hrs**

Pregnancy - Physiological changes, complications during pregnancy, Nutritional requirements, Dietary Guide-lines, Food Allowances, General dietary problem, Suggested recipes during pregnancy.

Lactation - Role of hormones in the production of milk. Nutritional requirements, Food allowance Suggested recipes for lactating mother.

UNIT – III **15 hrs**

Nutrition in infancy - Nutritional requirements in infancy. Food requirements, Breast feeding and Artificial feeding - Advantages and Disadvantages. Feeding Problems.

Weaning - Need for weaning, Problems in weaning, factors to be considered in introducing weaning foods, Types of Supplementary foods- Liquid Supplements solid supplements Processed food, Low cost supplementary foods developed in India , Suggested recipes .

Nutrition in pre school children - Nutrient and food requirements, Menu planning, factors to be considered while planning a diet for pre school children.

Nutrition in school children - Nutrient requirements and menu planning, factors to be considered while planning a menu and packed lunch.

UNIT – IV **15 hrs**

Nutrition in Adolescence - Nutrient and food requirements, Menu planning. Nutritional problems.

Nutrition in Adults - Reference Man and Reference Women, Nutrient and food allowance, Menu planning. Nutrient requirements in relation to physical activity.

Nutrition in old age - Nutrient requirements during old age, Menu planning, Nutrition related problems.

UNIT – V

Nutrition & Wellness / Fitness Introduction to Sport Nutrition, An introduction into Sports, Exercise and Nutrition, including types of Sports, Sport Nutrition Pyramid. Energy requirement, energy availability. Thermoregulation, Fluid balance, (de)hydration & rehydration strategies

Carbohydrates & fats as energy source, nutritional strategies. Skeletal muscle protein metabolism and dietary protein intake. Function of micronutrients and recommendations: Iron, Magnesium, calcium and Vitamins D and B. Ergogenic supplements and sports performance.

TEXT BOOKS

- Srilakshmi, B.(2002) "Dietetics", New Age International (p) Limited, Publishers, Fourth edition

REFERENCES:

- Mahan, L.K. and Sylvia Escott-Stump, Krause,(2004)Food, Nutrition and Diet Therapy", 11th edition, W.B. Sanders company, Philadelphia.
- Antia. F.P. (1989) "Clinical Dietetics and Nutrition", Oxford University press, Bombay,
- Robinson, C.H., Lawler, M.R., (1982) "Normal and Therapeutic Nutrition" Oxford and IBM publishing co., Calcutta,
- Swaminathan, M., (1989) "Principles of Nutrition and dietetics" II Revised edition The Bangalore printing and publishing Co. Ltd.,

C. Gopalan, B.V. Rama Sastri and SC. Balasubramanian,(2007) Nutritive Value of Indian Foods. National Institute of Nutrition

- Humanities / Sports
- Nutrition & Wellness / Fitness

Course Learning outcomes

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

CO number	CO statement	Knowledge Level
CO1	Understand the basic food groups and RDA for different age groups.	**K2**
CO2	Identify nutritional issues and conditions to recommend nutrition intervention.	**K3**
CO3	Compare the diet and nutritional requirements for different age groups to improve the health and well-being	**K4**
CO4	Assess the links between diet and deficiency disorder.	**K6**
CO5	Plan and evaluate diets for different age groups income and activity	**K5& K6**

Mapping with of COs with POs

PO/ CO	Programme Outcome (POs)				
	PO1	PO2	PO3	PO4	PO5
CO1	S	S	S	S	L
CO2	S	S	S	S	M
CO3	S	S	S	S	S
CO4	S	S	S	S	S
CO5	S	S	S	S	S

S- Strong; M-Medium; L-Low

Programme Title : B.Sc. HOME SCIENCE
Course Title : NUTRITION IN HEALTH PRACTICAL - III
Course Code : 21UHSQC3 **Hours/Week: 4**
Semester : V **Credit : 2**

Course objective: The course aims to

- Acquaint the students to plan the diet for various age group using food groups
- Plan and prepare a day's menu and able to Calculate the nutrient content of the menu and compare with RDA

SYLLABUS

1. Calculating total energy requirement depending upon activities of an Individual and distribution of Calorie requirement.
2. Calculating the portion size for menu planning of different age groups.
3. Planning and preparation of day's menu. Calculating the nutrient content of the menu and compare with RDA of ICMR for the following groups of different income groups.
    a. Pregnancy
    b. Lactation
    c. Infants - Weaning food preparation
    d. Pre-school children
    e. School-going children
    f. Adults
    g. Old age
4. Preparation of Energy supplements
    a. Energy drink /beverages
    b. Sports bar/meal/snacks/gel

REFERENCE

- Vinodhini Reddy, PrahladRao, GovinthSastry and Kashinath (1993), Nutrition Trends in India, NIN, Hyderabad
- Shills EM. Olson, A.J., Shike, Lea and Febiger (1983) Modern Nutrition in Health and Disease.
- Sri lakshmi (2003), Dietetics, New age International Pvt. Ltd.
- Swaminathan, M., "Principles of Nutrition and dietetics" II Revised edition 1989, The Bangalore printing and publishing Co. Ltd.,
- C. Gopalan, B.V. Rama Sastri and S.C. Balasubramanian, Nutritive Value of Indian Foods. National Institute of Nutrition 2007.

REFERENCE

- Vinodhini Reddy, PrahladRao, GovinthSastry and Kashinath (1993), Nutrition Trends in India, NIN, Hyderabad
- Shills EM. Olson, A.J., Shike, Lea and Febiger (1983) Modern Nutrition in Health and Disease.
- Sri lakshmi (2003), Dietetics, New age International Pvt. Ltd.
- Swaminathan, M., "Principles of Nutrition and dietetics" II Revised edition 1989, The Bangalore printing and publishing Co. Ltd.,
- C. Gopalan, B.V. Rama Sastri and S.C. Balasubramanian, Nutritive Value of Indian Foods. National Institute of Nutrition 2007.

Course Learning outcomes

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

CO Number	CO statement	Knowledge Level
CO1	Know the basic principles of menu planning.	**K1**
CO2	Implement the principles in menu planning.	**K4**
CO3	Plan and prepare the menu for all age groups and special Conditions	**K3**
CO4	Evaluate the nutritive value for the prepared menu and compare with the RDA	**K6 &K4**
CO5	Formulate energy supplements for different age Groups.	**K5**

Mapping with of COs with POs

PO / CO	Programme Outcome (POs)				
	PO1	**PO2**	**PO3**	**PO4**	**PO5**
CO1	L	L	M	L	L
CO2	L	L	M	M	M
CO3	L	M	M	S	S
CO4	S	M	M	L	S
CO5	S	S	S	S	S

S- Strong; M-Medium; L-Low

Programme Title : B.Sc. HOME SCIENCE
Course Title : FAMILY FINANCE AND HOUSING
Course Code : 21UHSEC2 **Hours/Week: 5**
Semester : V **Credits-5**

Course objective: The course aims to

- Understand basic financial concepts and principles of taxation.
- Outline the consumer problems, consumer protection and law related to rights.
- Explain the principles and construction in housing and its components.

SYLLABUS

Unit - I **15 hrs**

Introduction to Home Economics: Indian standard of living - ways to improve the standard of living in India.

Human wants: Nature and classification the concept of marginal utility, principles of equi-marginal utility, law of diminishing marginal utility.

Unit - II **15 hrs**

Family income and expenditure: Types of Income, Methods of handling family income, Family budget, Engle's laws of consumption, Home account maintenance, Institutions for family saving.

Household purchases: Functions of money, rise in prices and methods used to curb it in India, When and how to purchase.

Unit - III **15 hrs**

Consumer Protection: Consumerism - Need for consumer protection, Right of a consumer, Methods adopted to provide consumer protections. Consumer Protection - Government and Private. Consumer redressal, functioning of consumer courts Consumer information and education: Consumer Aids – label, brand, trademark and other certification marks, Consumer education and awareness

The main Indian Taxes: The influence of taxes on willingness to work and save

Unit - IV **15 hrs**

House Planning: Selection of a site; Principles involved in planning a good house, Building Components and - Substructure – Foundation, types of foundations, Superstructure– Wall, Doors and Windows, Roof .Plans for different income groups namely low, middle and high. Housing finance, financial consideration in housing, Sources of finance Government and other agencies - Co-operative Banks, Nationalized Banks, Housing Board and NGO.

Unit - V **15 hrs**

House and its services: Lighting in home, importance, types of lights: lighting requirements for various rooms, selection of lamp shades. Building Services: Water supply, Electricity, Plumbing and sanitation. Conservation Practices- Rain water Harvesting, utilization of solar energy, Waste management at household level.

Major Labour Saving devices: Selection, use and care of washing machines - Vacuum cleaner, refrigerator and mixer.

BOOKS FOR STUDY:

- Nickell P and Dorsey, J.M. "Management in Family Living" John Wiley arid sons, 1978.

BOOKS FORREFERENCE:

- Deshpande KS.-"Modern ideal Homes for India &' United Book Corporation, Pune, 1983.

Course outcomes

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

CO Number	CO statement	Knowledge Level
CO1	Gain knowledge on standard of living	**K1**
CO2	Intrepret the significance of family income , expenditure and savings.	**K2**
CO3	Categories the consumer problems, consumer protection law and consumer rights and responsibilities.	**K4**
CO4	Apply the basic principles of house planning and finance.	**K3**
CO5	Analyse and design the house plan and lighting.	**K4**

Mapping with of COs with POs

PO / CO	Programme Outcome (POs)				
	PO1	**PO2**	**PO3**	**PO4**	**PO5**
CO1	S	S	S	S	S
CO2	S	L	L	S	S
CO3	S	M	M	S	S
CO4	S	M	M	S	S
CO5	S	M	S	S	S

S- Strong; M-Medium; L-Low

Programme Title : B.Sc. HOME SCIENCE
Course Title : PERSONALITY DEVELOPMENT
Course Code : 21UHSEC2b **Hours/Week: 5**
Semester : V **Credits-5**

Course objective: The course aims to

- Recognize the importance &characteristics of personality.
- Understand the listen skills
- Emphasize yoga in the management of stress.

SYLLABUS

UNIT – I **15 hrs**

Name of personality - Definition, Major characteristics of personality formation, Major characteristics of personality change, Factors affecting personality - biological and social, Measurement of personality.

UNIT – II **15 hrs**

Listening Skills - Meaning and myths of listening, Listening barriers, Types of listening, Overcoming listening barriers, increasing listening efficiency, Benefits of effective listening.

UNIT – III **15 hrs**

Stress in the work place - Definition, concept, signs, sources and types of stress, Stress prevention, Ways of handling stress, stress reducing techniques and exercises. Managing stress - Yoga, Meditation.

UNIT – IV **15 hrs**

Basic skill sets of a manager - interpersonal skills, Dealing with criticisms, Managing conflicts, Negotiating skills, Manager's telephone skills, Gender communication

UNIT – V **15 hrs**

Keeping place with the changing world the PR way - Need, definition of Public Relations (PR), Realities of Public Relations, Use of communication skills for media and Public Relations.

REFERENCE BOOKS

- Sharma,R., (2002), Child psychology, Atlantic Publishers, New Delhi.
- Verma. D.(2005), Body language-Your success mantra, Chand and Company, New Delhi.

Course Outcomes (CO):

On completion of the course, students should be able to

CO Number	CO Statement	Knowledge Level
CO1	Recognize the importance &characteristics of personality.	K1
CO2	Understand the listening skills	K2
CO3	Make use of yoga in the management of stress.	K3
CO4	Familiarize with managerial skills.	K1
CO5	Apply the communication skills in Personality Development.	K3

Mapping with of COs with POs

PO / CO	Programme Outcome (POs)				
	PO1	**PO2**	**PO3**	**PO4**	**PO5**
CO1	L	L	L	L	L
CO2	L	L	L	M	M
CO3	L	M	L	S	S
CO4	S	M	M	L	S
CO5	S	S	S	S	S

S- Strong; M-Medium; L-Low

Programme Title : B.Sc. HOME SCIENCE
Course Title : THERAPEUTIC NUTRITION
Course Code : 21UHSNSC1 **Hours/Week: 2**
Semester : V **Credits-2**

Course objective : The course aims to

- Introduce the routine hospital diet.
- Discuss the etiology, signs and symptoms with relevance to various diseases.
- Inculcate skills to plan therapeutic diets for specific disease.

SYLLABUS

UNIT - I **6hrs**

Routine hospital diets - Clear fluid, full fluid, soft and regular diet. Fevers - Causes, types, metabolic changes in fever, general dietary consideration. Typhoid and Tuberculosis - causes, signs, symptoms and dietary management.

UNIT - II **6hrs**

Obesity and Underweight - Definition, Etiology and dietary management.

Atherosclerosis and Hypertension -Definition, causes, symptoms and Dietary management.

UNIT - III **6hrs**

Peptic ulcer -Definition, etiology, symptoms and dietary management.

Diarrhoea and Constipation - Definition, etiology, types and dietary management. Infective hepatitis and Cirrhosis of Liver - Etiology, symptoms and dietary management.

UNIT - IV **6hrs**

Diabetes Mellitus - Meaning, types, etiology, symptoms, dietary management. Renal failure - Types, causes, symptoms & dietary management. Basic knowledge about dialysis.

UNIT - V **6hrs**

Cancer – Meaning, classification, risk factors, nutrient as cancer preventing agentsand dietary management.

Food Allergy - Meaning, types of reactions, allergens, symptoms, dietary treatment & advice.

BOOKS FOR STUDY:

- Srilakshmi, B.(2002) "Dietetics", New Age International (p) Limited, Publishers, Fourth edition

BOOKS FOR REFERENCE:

- Mahan, L.K. and Sylvia Escott-Stump, Krause,(2004)Food, Nutrition and Diet

Therapy", 11th edition, W.B. Sanders company, Philadelphia.

- Antia. F.P. (1989) "Clinical Dietetics and Nutrition", Oxford University press, Bombay,
- Robinson, C.H., Lawler, M.R., (1982) "Normal and Therapeutic Nutrition" Oxford and IBM publishing co., Calcutta,
- Swaminathan, M., (1989) "Principles of Nutrition and dietetics" II Revised edition The Bangalore printing and publishing Co. Ltd.,
- C. Gopalan, B.V. Rama Sastri and SC. Balasubramanian,(2007) Nutritive Value of Indian Foods. National Institute of Nutrition

Course Outcomes (CO):

On completion of the course, students should be able to

CO Number	CO Statement	Knowledge Level
CO1	Understand the etiology, physiologic and metabolic anomalies of acute and chronic disease and patient needs.	**K1**
CO2	Outline the effect of various disease on nutritional and dietary requirements.	**K2**
CO3	Relate the principles of diet therapy and formulating different therapeutic diets for various disease Conditions	**K2**
CO4	Plan therapeutic diets for prevention of diseases	**K3**
CO5	Recommend specialized dietary regimes	**K6**

Programme Title : B.Sc. HOME SCIENCE
Course Title : HUMAN DEVELOPMENT
Course Code : 21UHSC9 **Hours/Week: 5**
Semester : VI **Credits-5**

Course objective: The course aims to

- Understand the major concepts and process of human development.
- Develop awareness of important aspects of development during the whole life span.
- Understand the behaviour problems of school children

SYLLABUS

Unit- I **15 hrs**

Methods of Child Study: Longitudinal and cross-sectional approaches, Observation, Case study, Interview, Questionnaire, Projective technique, Experimental study and Sociometry.

Prenatal development: Signs of Pregnancy, time table of prenatal period; Management of normal pregnancy - Hygiene, diet and medical supervision; Factors influencing prenatal development Complications during pregnancy ; Types of deliveries- Normal, Breech and Caesarian; Types of birth- Normal birth, still birth, premature birth, post maturity, twins, triplets.

Unit – II **15 hrs**

New born baby (Period of infancy): Characteristics of new born baby; Adjustment to life. Feeding - Breast feeding and bottle feeding.

Babyhood; Developments - Physical, Social, Emotional, Intellectual and language during Infancy (Birth to 2 years); Feeding- weaning, supplementary feeding; Toilet training, bathing, Clothing and sleeping.

Minor ailments and their prevention, Immunization, Oral rehydration therapy, Common accidents at home,

Unit – III **15 hrs**

Pre-school years (Early Childhood): Physical and motor development, social, emotional, intellectual and language development; Behaviour problems- causes and treatment of temper tantrums, thumb sucking, bed wetting, nail-biting, masturbation telling lies and stealing.

Play: Definition, types, characteristics and values of play; Criteria for the selection of play equipment's for the pre-school children.

Unit IV **15 hrs**

School- going children: Physical, social, emotional and intellectual developments, interests and hobbies.

Adolescence: Definition, Developments - Physical, Social Emotional and Intellectual; Problems of adolescents; Role of parents and teachers in guiding adolescents, Delinquency -

causes, prevention and rehabilitation; Drug addiction -Rehabilitation measures for the victims. Sex Education: Definition, need for imparting sex education to adolescents.

Unit – V **15 hrs**

Introduction to special education: Learners with special education needs. Shifting models of disability, Education Provisions, O & M-Barriers to inclusive education. Guidelines for inclusive education, Curriculum adaptations, managing inclusive education, recent initiatives in special education.

TEXT BOOKS

- A.Suriakanthi,(2009) Child Development –An Introduction 4 th edition, kavitha publication ,GandhigramTamilnadu

REFERENCE BOOKS

- Hurlock, E.B. "Child Development" Mc. Graw Hill Publishing Co., Ltd., New Delhi.
- R.P. Devadas&Jaya "Text book on Child Development' Madras Macmillan India Ltd., 1984.
- Newman and Newman, "Development through Life-A Psychosocial Approach" 6th edition, Books - Cole Publishing company, 1995.
- Advani, L. (2002). “Education: A Fundamental Right of Every Child Regardless of His/Her Special Needs”. Journal of Indian Education; Special Issue on Education of Learners with Special Needs. New Delhi: NCERT.
- Alur, M. (2002). “Special Needs Policy in India”, in S. Hegarty and M. Alue (eds), Education and Children with Special Needs: From Segregation to Inclusion. New Delhi: Sage.
- Applebee, A. (1998). Curriculum and Conversation: Transforming Traditions of Teaching and Learning. Reviewed by B. Day and T. Yarbrough, Journal of Curriculum Studies, 30 (3): 357–74.
- Balasubramanian, K. (2004). The Helping Hand (A Short Story about a Disabled Child). Hyderabad: Spark-India. Baquer, A. and A. Sharma (1997). Disability: Challenges vs. Responses. New Delhi: CAN

Swayam Course :

- Children with Developmental Challenges programme being offered CEC The English And Foreign Languages University (Host University)

Course outcomes:

Upon completion of this course the students shall be able to

CO Number	CO statement	Knowledge Level
CO1	Understand the need and importance of studying human growth and development across life span	K2
CO2	Explain the historical views and theories on childhood and adolescent development.	K2
CO3	Discuss the characteristics, needs and developmental tasks of infancy, early childhood, middle childhood and early and late adolescence.	K5
CO4	Identify the biological and environmental factors affecting development during childhood to old age.	K3
CO5	Analyze key issues that influence human development.	K4

Mapping with of COs with POs

PO / CO	Programme Outcome (POs)				
	PO1	**PO2**	**PO3**	**PO4**	**PO5**
CO1	**S**	**M**	**M**	**S**	**S**
CO2	**S**	**M**	**M**	**S**	**S**
CO3	**S**	**M**	**M**	**S**	**S**
CO4	**S**	**M**	**M**	**S**	**S**
CO5	**S**	**M**	**M**	**S**	**S**

S- Strong; M-Medium; L-Low

Programme Title : B.Sc. HOME SCIENCE
Course Title : DIET THERAPY
Course Code : 21UHSC10 **Hours/Week: 5**
Semester : VI **Credits-5**

Course objective : The course aims to

- Know about the routine hospital diet and role of dietician.
- Study the etiology, signs and symptoms, clinical effects with relevance to various disease.
- Develop skills to plan therapeutic diets for all disease condition

SYLLABUS

UNIT - I **15 hrs**

Routine hospital diets - Clear fluid, full fluid, soft and regular diet. Special feeding - Tube feeding - Types of foods, feeding requirement. Parenteral feeding -Definition, Types, Differences between Parenteral and Enteral feeding. Role of dietician -classification, Responsibilities, diet counseling.

Fevers- Causes, types, Metabolic changes in fever, general dietary consideration. Typhoid - causes, signs and symptoms, Principles of diet. Malaria -causes, signs and symptoms, dietary Management. Tuberculosis - causes, Clinical features, Principles of diet. Swine flu, Chikunguniya.

UNIT - II **15 hrs**

Obesity- Definition, Etiology, Assessment, Principles of diet and dietarymanagement.Under weight - causes, limitations of underweight, signs and symptoms, dietary guidelines.

Hypercholestrolemia - Atherosclerosis - role of fat in the development of atherosclerosis, clinical effects, risk factors, dietary management. Hypertension -Definition, causes, types, symptoms, Dietary management.

UNIT - III **15 hrs**

Indigestion and peptic ulcer- Definition, mechanism of ulcer formation, etiology, symptoms, clinical findings, treatment and dietary guidelines. Constipation - Types, Dietary considerations, correction of faulty habits. Diarrhoea - Definition, types, dietary management in weanling diarrhoea and in adults. Oral rehydration therapy (ORT) Dietary guidelines.

Agents causing liver damage, types of damages caused to the liver. Infective hepatitis - Symptoms, dietetic management. Cirrhosis of Liver - etiology, symptoms, Principles of diet. Cholecystitis & Cholelithiasis - Differences and treatment.

UNIT - IV **15 hrs**

Diabetes Mellitus- Meaning, Types, Etiology, Symptoms, diagnosis - GTT. Management of diabetes &dietary guidelines. Glomerulonephritis - Symptoms and dietary management. Nephrotic syndrome- Symptoms and dietary treatment. Renal failure - types, causes, Symptoms &dietary management.

Basic knowledge about dialysis. Urolithiasis - causes, types and dietary treatment. Basic knowledge on cancer, Breast cancer, oral cancer, Role of antioxidants in cancer. Food Allergy- Meaning, types of reactions, allergens, symptoms, treatment & dietary advice.

UNIT – V **15 hrs**

Microbiota diet and disease- Introduction, Impact diet and genes, Diet and Disease, Microbial therapies and diagnostics - Microbial therapies, Personalised therapies, Diagnostics -IBD, Basic knowledge about Pre-biotics, Pro-biotics and Synbiotics. Microbiota and aging- Adult life, Healthy aging and Aging Related Diseases.

PRACTICAL

1. Types of Diet - clean fluid, Full fluid, Bland diet, soft diet, Normal diet.
2. Diet in Fever condition - Typhoid, Tuberculosis.
3. Diet in obesity and under weight.
4. Diet in Cardio Vascular Disorders,
   a. Hyper Cholestrolemia
   b. Atherosclerosis
   c. Hyper Tension - Mild, Moderate, severe
5. Diet in Gastro - Intestinal Disorders
   a. Peptic Ulcer
   b. Diarrhoea ,Constipation
6. Diet in liver Disorder
   a. Jaundice
   b. Cirrhosis of Liver
7. Diet in Diabetes mellitus

a. Type I - IDDM
b. Type II- NIDDM
c. Gestational

8. Diet in kidney Disorders
   a. Nephrosis
   b. Nephritis
   c. Urolithiasis
9. Microbiota diet
   a.Prebiotic based diet
   b.Probiotic based diet

BOOKS FOR STUDY:

- Srilakshmi, B.(2002) "Dietetics", New Age International (p) Limited, Publishers, Fourth edition

BOOKS FOR REFERENCE:

- Mahan, L.K. and Sylvia Escott-Stump, Krause,(2004)Food, Nutrition and Diet Therapy", 11th edition, W.B. Sanders company, Philadelphia.
- Antia. F.P. (1989) "Clinical Dietetics and Nutrition", Oxford University press, Bombay,
- Robinson, C.H., Lawler, M.R., (1982) "Normal and Therapeutic Nutrition" Oxford and IBM publishing co., Calcutta,
- Swaminathan, M., (1989) "Principles of Nutrition and dietetics" II Revised edition The Bangalore printing and publishing Co. Ltd.,
- C. Gopalan, B.V. Rama Sastri and SC. Balasubramanian,(2007) Nutritive Value of Indian Foods. National Institute of Nutrition
- MOOC COURSE (edx) Nutrition and Health: Human Microbiome

BOOKS FOR STUDY:

- Srilakshmi, B.(2002) "Dietetics", New Age International (p) Limited, Publishers, Fourth edition

Course outcomes

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

CO Number	CO statement	Knowledge Level
CO1	Understand the etiology, physiologic and metabolic anomalies of acute and chronic disease and patient needs.	**K2**
CO2	Outline the effect of various disease on nutritional and dietary requirements.	**K2**
CO3	Relate the principles of diet therapy and formulate different therapeutic diets for various disease conditions	**K2&K5**
CO4	Plan and prepare therapeutic diets for prevention of diseases based on pathphysiology	**K3**
CO5	Recommend specialized dietary regimes or meal plans to dietetics practice	**K5**

Mapping with of COs with POs

PO / CO	Programme Outcome (POs)				
	PO1	**PO2**	**PO3**	**PO4**	**PO5**
CO1	S	S	S	M	S
CO2	S	S	S	M	S
CO3	S	S	S	M	S
CO4	S	S	M	S	S
CO5	S	S	S	S	S

S- Strong; M-Medium; L-Low

Programme Title : B.Sc. HOME SCIENCE
Course Title : CARE OF CLOTHING
Course Code : 21UHSC11 **Hours/Week: 5**
Semester : VI **Credits-5**

Course Objectives: The course aims to

- Describe the materials, reagents and process involved in laundering
- Distinguish the laundering processes used for different fabrics
- Instruct knowledge relevant to stiffening, bleaching and stain removal

SYLLABUS

UNIT-I **Hours: 15**

Water – Hard and Soft water, methods of softening water. Laundry soaps- types of soap, Manufacture of soap (Hot process and cold process), composition of soap, properties of soap, soap less detergents, chemical action, detergent manufacture, advantages of detergents. Indigenous cleaning agents - rita nut - shikakai - green gram - bran solution.

UNIT-II **Hours: 15**

Laundry equipment: Study of laundry equipment - different methods of washing - application of friction by hand rubbing - scrubbing -tumble wash. Washing Machine: Studyof different types of house hold/industrial washing machine-rotary - swirling - pressure - tumble wash.

UNIT III **Hours: 15**

Laundering and their principles - Principles of washing, kneading and squeezing. Laundering of different fabrics – cotton, silk, wool and colored fabrics. Methods of finishing – damping and ironing. Dry cleaning – using absorbents, using grease solvents.

UNIT-IV **Hours: 15**

Stiffening agents - starch and other stiffening agents, preparation of starch and their application.Bleaching agents -types and their application. Laundry blues – types and their application.Optical whiteners.

UNIT –V **Hours: 15**

Stain Removal – definition, classification of stain, principles involved in stain removal, general rules and methods of stain removal. Care labels – washing, bleaching, Drying, ironing and different placements of label in garments. Factors to be considered in the storage of cotton, silk and woollen fabrics.

Books for study :

- Dantyagi, S (1996) Fundamental of Textiles and their care, Orient Longman

Publication. **Unit – I**

- Davis (1995) Laundry and Clothing Care", Drama Book Publishers. **Unit - II**
- D'Souza, N. (1998) "Fabric Care", New Age International Publisher. **Unit –III**
- Mullick, P (2005)Text Books of Home Science, Kalyani publishers, New Delhi **Unit – IV & V**

Books for Reference:

- Denlkar, "Household Textiles and Laundry Work", Atma Ram and Sons, Delhi, 1993

Web Resources:

- http://textilelearner.blogspot.com/
- http://www.fibre2fashion.com/

Course outcome:

Upon completion of this course the students shall be able to

CO number	CO statement	Knowledge Level
CO1	Acquire knowledge on water and soap	K1
CO2	Understand the various laundering equipment and washing machine	K2
CO3	Identify the principles of laundering	K3
CO4	Analyze various stiffening and bleaching agents	K4
CO5	Build skills to remove fabric stains	K5

Mapping with of COs with POs

PO / CO	Programme Outcome (POs)				
	PO1	PO2	PO3	PO4	PO5
CO1	S	S	S	M	S
CO2	S	S	S	S	S
CO3	S	M	S	M	S
CO4	S	S	S	M	S
CO5	S	M	S	S	S

- S- Strong; M-Medium; L-Low

Programme Title : B.Sc. HOME SCIENCE
Course Title : APPAREL DESIGNING AND CONSTRUCTION PRACTICAL IV
Course Code : 21UHSQC4 **Hours/Week: 5**
Semester : VI **Credits-5**

Course Objectives: To enable the students to

- Learn how to take different body measurement
- Acquaint practical skill in pattern preparation
- Impart skill in making selected garments for standard measurements

SYLLABUS

Drafting the following garments and constructing the same: Hours: 60

a. Baby's dress - Jhabla
b. Babasuit - shirt & Nicker
c. Girls's frock
d. Saree petticoat
e. Saree blouse
f. Salwar kameez
g. Skirt

Books for Study:

- Gupta,S.etal, (2008), Textbook of Clothing Textile and Laundry, Kalyani publishers, New Delhi
- Mathews,M., (2012), Practical Clothing Construction Part –I, Basic SewingProcesses, Bhattarams printers, Chennai

Books for Reference:

- Zarapkar, K.R., (2011), Tailoring Book Zarapkar System Cutting, Navnee publication, India
- Anon, (2016), Simplicity Sewing Book for Young Fashion Designers, Read books Ltd

Web Resources:

- http://textilelearner.blogspot.com/
- http://www.fibre2fashion.com/

Course outcome:
Upon completion of this course the students shall be able to

CO Number	CO statement	Knowledge Level
CO1	Gain an insight on usage of sewing machine	**K1**
CO2	Understand the seams and its finishes	**K2**
CO3	Apply the basics of designing in pattern preparation	**K3**
CO4	Analyze the various garment construction process	**K4**
CO5	Create new styles in garment	**K5**

Mapping with of COs with POs

PO / CO	Programme Outcome (POs)				
	PO1	**PO2**	**PO3**	**PO4**	**PO5**
CO1	S	S	S	S	S
CO2	S	M	M	M	S
CO3	S	M	M	M	S
CO4	S	S	S	S	S
CO5	S	S	S	S	S

S- Strong; M-Medium; L-Low

Programme Title : B.Sc. HOME SCIENCE
Course Title : FASHION DESIGNING
Course Code : 21UHSNSC2

Hours/Week: 2
Semester : VI **Credits-2**

Course Objectives: The course aims to

- Explain the essentials of Fashion Designing.
- Give insight about elements and principles of design.
- Classify types of surface embellishments and surface trimmings.

SYLLABUS

Unit – I **6 hrs**

Fundamentals of Fashion: Meaning of Fashion, Types of Fashion - Classic, High, and Massive, Mass and Fad. **Silhouette** – Meaning and types. **Fashion cycle**- Stages of fashion cycle.

Unit – II **6 hrs**

Introduction to design - structural and decorative design. Types of design: natural, conventional, geometric, abstract, historical. **Elements of design**: Line, shape or form, colour and texture.

Unit – III **6 hrs**

Principles of Design: Balance- Symmetrical, Asymmetrical and Radial. Proportion - Golden Mean law, Rhythm - repetition, alteration, progression, continuous line movement. Emphasis- Through decoration, using contrast color, using plain back ground. Harmony- line, shape, color, texture and idea.

Unit – IV **6 hrs**

Colour: Elements of colour: Hue, Value and intensity. Prang Colour theory, Colour wheel: Primary, secondary and tertiary. Colour Harmonies- Related and Contrasting. Cool and warm colors. Colour – Season and Occasion.

Unit – V **6 hrs**

Surface Embellishments : Definition and types. Applique, Patch Work, Smocking, Batik Painting, Tie and Dye, Fabric Painting

BOOKS FOR STUDY

- Manmeet Sodhia (2009) History of Fashion, , KalyaniPublishers,NewDelhi
- Premlata Mullick (2004) Textbook of Home Science,Kalyani Publishers,NewDelhi
- Gupta,S.etal,(2008) Textbook of Clothing Textile and Laundry, KalyaniPublishers,NewDelhi
- Mathews,M., (2012),Pratical Clothing Construction Part –I,Basic Sewing Processes,

Course Outcomes (CO):

On completion of the course, students should be able to

CO Number	CO Statement	Knowledge Level
CO1	Understand the principles and elements of design in textiles and fashion design.	**K2**
CO2	Design visual compositions in fashion illustration.	**K5**
CO3	Translate design ideas onto fabric.	**K3**
CO4	Apply the Indian Embroidery, painting and printing for developing products	**K3**
CO5	Analyse and use information from a varietyof sources, work collaboratively with others to achieveindividual and collective goals.	**K3**

SRI SARADA COLLEGE FOR WOMEN

(AUTONOMOUS)

Re-accredited with B ++ Grade by NAAC

Affiliated to Periyar University

Fairlands, Salem - 636 016.

ADVANCE DIPLOMA IN FOOD SERVICE MANAGEMENT

SYLLABUS

Branch X Home Science - B.Sc., Main

(for the students admitted from the academic year 2021-2022 onwards)

SRI SARADA COLLEGE FOR WOMEN (AUTONOMOUS), SALEM- 16.
B.Sc., Branch X - HOME SCIENCE

PAPER – I:BASICS OF FOOD PRODUCTION

Hours of instruction/week : 5

Objectives

To enable students:

1. Learn menu planning and basic techniques of food production.
2. Acquire skill in preparing recipes.
3. Gain knowledge on cuisines around the world.

Unit1 Menu planning **10 hrs**

Menu pattern, factors influencing menu planning, types of menu, construction of menu, menu writing, presentation and display.

Unit2 Preparation Techniques **15 hrs**

Handling knife, basic cuts and shapes, cutting techniques, preliminary cooking – blanching, marinating and preparation for frying. Equipment's used in food production. Fuel conservation. Hygiene and sanitation.

Unit3 Methods of cooking **10 hrs**

Moist heat methods – boiling, simmering, steaming, pressure cooking, poaching. Dry heat methods – frying, sautéing, grilling, toasting and baking.

Combination method – braising.

Unit4 Stocks, soups, sauces, gravies and salads **15 hrs**

Stocks- Ingredients, procedures – reduction, glazes and convenience bases.

Soups– types, uses and method of preparation.

Sauces- functions and structure, roux, thickening agents and finishing techniques.

Gravies (Indian) - basic gravies: yellow, white, green, makhni and Chettinadu gravy.

Salads and salad dressings- types, ingredients, arrangements, garnishing and Presentation.

Unit 5 Cuisines around the world **10 hrs**

Culinary terms, ingredients used, characteristics of menu and preparation methods of Indian, Chinese, Continental, French, Italian, Mexican and Arabian cuisines.

PRACTICAL **40 hrs**

Writing Menus

North Indian, South Indian, Central Region Indian, Continental cuisines, Religious festivals and events.

Methods of cooking

Recipes for each method of cooking – boiling, steaming, poaching, simmering, pressure cooking, frying, grilling, baking, toasting, braising and microwave cooking.

Stocks, soups, sauces, gravies and salads

Cuts of vegetables, basic stocks, soups- thin, thick and cream soup, sauces- white sauces, brown sauces, roux, veloute and béchamel. Types of gravies, thickening agents for

gravies.Salads- main and accompaniment salads.

Production of Indian Cuisines

Three menus which include Veg. dishes, Non-Veg. dishes, accompaniment & snacks, cold drinks & Indian salad, special Indian dishes (Tandoori and Kebab preparation), pudding and fruits.

Production of continental, French, Italian, Mexican and Arabian cuisines

Menu each for French, Italian, Mexican and Arabian cuisines.

Text Books:

1. Sethi M. and Malhan S.M., Catering Management an Integrated approach (2015), 3rd edition, Published by New Age International PrivateLimited.
2. Thangam Philip (2005). Modern Cookery. Orient Longmam Limited. Third edition
3. Arora.K ,Theory of cookery, Cookery kinton publisher.

Reference Books:

1. Cessarani,V. Kinton,R (2002). Practical Cookery. seventh edition. Hodder and Stoughton publishers.
2. Khan, M.A (2003). Food Service Operations. AVI Publications Co.,Connecticut.

PAPER II : QUANTITY FOOD PRODUCTION

Hours of instruction/week: 5

Objectives:

To enable students:

1. Learn different food service systems.
2. Gain knowledge on production, planning, forecasting, purchasing and inventory control.
3. Understand stepping up of recipes and cost control.

	Hours
Unit1 Service systems	10
Traditional, Commissary, Ready prepared – cook chill, cook freeze, assembly serve.	
Unit2 Production, Planning and Standardization of recipes	15
Production forecasting, planning, production scheduling, standardization of recipes, portion control, Stepping up of recipes of different cuisines	
Unit 3 Menu planning	15
Definition of menu, menu classifications, techniques of writing a menu, menu presentation, menu evaluation, purchasing procedures, procurement, product selection, specification, and method of purchasing,	
Unit 4 Receiving and Storage	10
Receiving, storage, inventory control and issuing	
Unit 5 Quantity food production	15
Product standards, effective utilization of leftovers, waste disposal, Equipment's for large scale production, holding and service, cost control, menu pricing.	

PRACTICALS **35 HOURS**

Menu planning

Plan menu for different types of food service institutions- commercial and non-commercial food service institution.

Standardization of recipes

Standardization of recipes of Indian and Continental cuisines, Portion control

techniques, Pricing.

Indian Cuisine

Stepping up of recipes for cuisine – State and Regional, Pricing and sales.

Stepping up of recipes

Stepping up of recipes for continental and oriental cuisines.

Preparation of Cuisines

Preparation of menus for different types of events. Pricing and sale of products

Text Books:

1. Sethi M. and Malhan S.M., Catering Management an Integrated approach (2015), 3rd edition, Published by New Age International PrivateLimited.

2. Palacio, J.P., Harger, V., Shugari, G. Thesis, M (2001). West and Woods Introduction to Food Service. Mac Millan Pub Co., NewYork.

3. ParvinderS.Bali, Quantity Food Production Operations and Indian Cuisine (2011), published by Oxford UniversityPress.

Reference Books:

1. Cessarani,V. Kinton,R (2002). Practical Cookery. seventh edition. Hodder and Stoughtonpublishers.

2. Khan, M.A (2003). Food Service Operations. AVI Publications Co.,Connecticut.

3. Thangam Philip (2005). Modern Cookery. Orient Longmam Limited. Third edition.

SRI SARADA COLLEGE FOR WOMEN (AUTONOMOUS),SALEM- 16.
B.Sc., Branch X - HOME SCIENCE

PAPER III : FOOD PRODUCT DEVELOPMENT AND PACKAGING

Hours of instruction/week: 5

Objectives

To enable students:

1. Formulate products that are nutritionally and commercially viable
2. Acquire skill to develop food products from farm to table.
3. Understand the packaging techniques and the role of packaging materials in product development

	Hours
Unit 1 Evaluation of Food Products	9
Evaluating the acceptability of foods by subjective and objective methods Textural measurement of various food samples using texture analyzer.	
Unit 2 Formulation of Novel Food Products	9
Formulation of selected cereal based and pulse based food products, nutritional supplementary And health foods Extrusion products: Noodles, pastas, macaroni, rice sticks	
Unit3 Vegetable and Fruit Preserves	9
Development of fruit juices, squash, syrups, cordial, jam, jelly, marmalade, fruit toffees, preparation of pickles, ketchup, sauces, vathal and vadagam.	
Unit 4 Instant and Value Added Products	9
Development of instant foods (RTS &RTE), convenience foods, designer foods and Value addition of selected recipes.	
Unit 5 Food Packaging and Labeling	9
Selection of suitable packaging materials, Product & nutritional labelling, cost calculation and marketing,	

Text Books:

1 Srilakshmi, B (2007). Food Science. New Age International Limited, NewDelhi.

2 Hand book of Packaging Technology-EIRI Board of Consultants and Engineers. India Research Institute,2007.

3 Fellow.P.J.(2017). Food Processing Technology Principles and Practices. FourthEdition. Woodhead publishing is an imprint of Elsevier, England

4 Watson, David, H (2003).Performance Functional Foods.CRC Press woodland Publishing limited,England.

References:

1 ***Srivastava , R.P., Sanjeev Kumar (2000). Fruit and Vegetables Preservation,*** Principles and Practices.Second edition. International Book Distributing Company, Lucknow,India.

2 Webb, G.P (2006). Dietary Supplementation and Functional Foods. Blackwell Publishing limited, NewYork.

3 Fuller, Gordon,W (2005). New Food Product Development. Second edition. CRC Press, Boca Raton,Florida.

4 Sudhir Gupta (2007). Handbook of Packaging Technology. Engineers India Research Institute, NewDelhi,

5 YeshajahuPomeranz and Clifton E. Meloan, , (2002) Food Analysis & Theory & Practice,1st Indian ed. CBS Publisher & Distributors, NewDelhi,