FATIMA COLLEGE (AUTONOMOUS)

Re-Accredited with "A" Grade by NAAC (3rd Cycle)
74th Rank in India Ranking 2020 (NIRF) by MHRD
Maryland, Madurai- 625 018, Tamil Nadu, India

NAME OF THE DEPARTMENT : THE RESEARCH CENTRE OF HOME SCIENCE

NAME OF THE PROGRAMME : B.Sc. HOME SCIENCE WITH FOOD BIOTECHNOLOGY

PROGRAMME CODE : UAHS

ACADEMIC YEAR : 2020 - 2021

UG PROGRAMME

EDUCATIONAL OBJECTIVES

PEO 1:

Our graduates will excel in playing the dual role of home maker and bread winner through the knowledge gained in all the major areas of Home Science.

PEO 2:

The skills acquired through Home Science education enable the home scientists to fit various job roles in addition to becoming successful young entrepreneurs**.**

PEO 3:

They will be socially responsible citizen by exhibiting their professional competence by involving in lab to land programmes at regional, national and international levels.

UG PROGRAMME OUTCOMES

PO 1:

Scientific Knowledge in the thrust areas of Home science like Food and Nutrition, Textiles and Clothing, Human Development, Family Resource Management and Extension Education.

PO2:

Acquisition of skills in meal planning, food processing, pattern making and garment construction, interior design and decoration

PO3:

Professional competence in the management of family resources and to establish crèche and preschool.

PO4:

Inculcating social responsibilities through community related activities.

PO5:

Digital literacy in designing garments and calculating the nutritive value of foods.

PROGRAMME SPECIFIC OBJECTIVES

B.SC HOME SCIENCE WITH FOOD BIOTECHNOLOGY

- Acquisition of skills in planning therapeutic diets and diet counselling
- Scientific knowledge in the area of food and nutrition, food processing and production
- Scientific knowledge on the role of microbes in food processing and production
- Scientific knowledge in the conversion of fibre to fabric and technical textiles
- Acquisition of skills in pattern ,making, garment construction, ward robe planning and fashion illustration
- Digital literacy in designing garments using **Fashion Studio** software and calculating the nutritive value of foods using **Nutrical** software
- Behavioural skills are acquired by understanding the basic developmental milestones and dynamics of family
- Professional competence to establish creche and preschool
- Creative thinking in application of elements & principles of design in interior decoration
- Professional competence in the management of family resources
- Social responsibilities in taking the scientific knowledge of Extension Education from lab to land and helping people to help themselves

FATIMA COLLEGE (Autonomous) MADURAI – 625 018.

DEPARTMENT OF HOME SCIENCE – U.G

PAPERS OFFERED

PART – III MAJOR, THEORY AND PRACTICAL PAPERS

sem	Subject code	Title of the paper	No.of Hours	Credit	INTERNALS					Int (A)	Ext (B)	Total (A+B)
							yMonthly	Mid Sem	NS			
I	19TLC1	Language	5	3	5	5	10	15	5	40	60	100
	19ELC1	English	5	3	5	5	10	15	5	40	60	100
	19N1CCI	Human Development	5	4	5	5	10	15	5	40	60	100
	19N1CC2	Physiology	4	3	5	5	10	15	5	40	60	100
	19N1CC3	Physiology -Lab	3	2	-	-	-	-	-	40	60	100
	19N1ACC1	Chemistry	3	3	5	5	10	15	5	40	60	100
	19N1ACC2	Chemistry -Lab	2	2	-	-	-	-	-	40	60	100
	19N1NME	Basics of Nutrition	2	2	5	5	10	15	5	40	60	100
	19G1VE1	Value Education	1	1								
II	19TLC2	Language	5	3	5	5	5	15	5	40	60	100
	19ELC2	English	5	3	5	5	5	15	5	40	60	100
	19N2CC4	Human Nutrition	5	4	5	5	5	15	5	40	60	100
	19N2CC5	Food Science	4	3	5	5	5	15	5	40	60	100
	19N2CC6	Food Science and Nutrition- Lab	3	2	-	-	-	-	-	40	60	100
	19N2ACC3	Chemistry	3	3	5	5	5	15	5	40	60	100
	19N2ACC4	Chemistry Lab	2	2	-	-	-					
	19N2NME	Basics of Nutrition	2	2	5	5	5	15	5	40	60	100
	19G2VE2	Value Education	1	1	15	25	10					

Sem	Subject code	Title of the paper	No.of Hours	Credit	INTERNALS			Int (A)	Ext (B)	Total (A+B)
					T	A	Q			
III	19TLC3	Language	5	3	15	5	5	25	75	100
	19ELC3	English	5	3	15	5	5	25	75	100
	19N3CC7	Extension Education and Communication	5	4	15	5	5	25	75	100
	19N3CC8	Fiber to Fabric	4	3	15	5	5	25	75	100
	19N3CC9	Basics of clothing construction Lab	3	2	-	-	-	40	60	100
	19N3AC1	Catering & Hotel Management – I	3	3	15	5	5	25	75	100
	19N3AC2	Catering & Hotel Management - I -Lab	2	2	-	-	-	40	60	100
	19N3SB1	Entrepreneurial skills – Surface Ornamentation	2	2	15	10	25	50	-	-
	19G3EE1	Environmental Awareness	1	1						
IV	19TLC4	Language	5	3	15	5	5	25	75	100
	19ELC4	English	5	3	15	5	5	25	75	100
	19N4CC10	Basics of biotechnology	5	4	15	5	5	25	75	100
	19N4CC11	Clothing and Fashion	4	3	15	5	5	25	75	100
	19N4CC12	Clothing and Fashion – Lab	3	2	-	-	-	40	60	100
	19N4AC3	Food Production and Service	3	3	15	5	5	25	75	100
	19N4AC4	Food Production and Service Lab	2	2	-	-	-	40	60	100
		SKILL BASED								
	19N4SB2	Entrepreneurial Skills – CAD	2	2	15	10	25	50	-	-
	19G4EE2	Environmental Awareness	1	1						100
V		**MAJOR CORE**	6	4	15	5	5	25	75	100
	N5CC13	Crèche and Preschool Management	4	2	-	-	-	40	60	100
	N5CC14	Creche and Preschool - Lab	6	4	15	5	5	25	75	100
	N5CC15	Housing and Art in	4	2	-	-	-	40	60	100
	N5CC16	Home Art in everyday life - Lab								
		ELECTIVE	5	5	15	5	5	25	75	100
	N5ME1	Technical Textiles								
	N5ME2	Food Biotechnology								

N5SB3	**SKILL BASED** Entrepreneurial Skills – Baking, Adulteration and Food Preservation	2	2	15	10	25	50	-	-
N5SB4	Entrepreneurial Skills – Participatory Rural Appraisal	2	2	15	10	25	50	-	-

VI		**MAJOR CORE**	6	4	15	5	5	25	75	100
	N6CC17	Resource Management	3	2	-	-	-	40	60	100
	N6CC18	Resource Management- Lab	5	4	15	5	5	25	75	100
	N6CC19	Clinical Nutrition and Dietetics								
	N6CC20	Clinical Nutrition and Dietetics –Lab	3	2	-	-	-	40	60	100
		ELECTIVE								
	N6ME3	Family Dynamics	5	5	15	5	5	25	75	100
	N6ME4	Food and Dairy Processing	5	5	15	5	5	25	75	100
	N6ME5	Women and Entrepreneurship Development	5	5	15	5	5	25	75	100
	N6ME6	Nutrition for Health and Fitness	5	5	15	5	5	25	75	100
		SKILL BASED								
	N6SB5	Entrepreneurial Skills –Nutrition Counseling	2	2	15	10	25	50	-	-
	N6SB6	Entrepreneurial Skills – Interior Design and Decoration	2	2	15	10	25	50	-	-
		Project								100
	N6CC21	Dietetic Internship								100
		Total	180	140						

ADD ON CREDITS

Computer Applications 2

Foundation Course 3 +3

Value Education 2

Human Rights 2

Out Reach Programme 3

Project 4

Reading Culture 1

100 %EMPLOYABILITY

I B.Sc HOME SCIENCE WITH FOOD BIO TECHNOLOGY

I SEMESTER

HUMAN DEVELOPMENT - 19N1CC1

(For those who joined in 2019 onwards)

HOURS / WEEK: 5 CREDIT : 4

COURSE DESCRIPTION

This course gives a complete picture of the developmental changes takes place across the stages

COURSE OBJECTIVES

To enable students

- Understand the fundamentals of Human Development
- Get to know information on milestones in all round development of children
- Orient on various childhood problems and disabilities

COURSE OUTCOMES (CO)

The students will be able to

1. Define and distinguish growth and development
2. Understand the principles of growth and development
3. Describe pregnancy, prenatal and birth process
4. Explain developmental stages in human life cycle
5. Solve problems of childhood and adolescence.
6. Identify and explore on children with special needs
7. Classify different parenting styles

UNIT-I CONCEPT OF HOME SCIENCE AND GROWTH &DEVELOPMENT [18 HRS]

a) The meaning, needs and role of Home Science for personality and family development.
b) Definition, Principles and Factors influencing growth and development
c) Pregnancy, Symptoms, discomforts and complications
a) Prenatal stage - Period gestation, Period of embryo, Period of fetus, factors affecting prenatal development

UNIT-II DEVELOPMENT STAGES (Birth – Infancy) [18 HRS]

a) Birth process and Types of birth
b) Infancy
   a. Neonate and Partunate
   b. Physical and motor, cognitive emotional, language and social development.
   c. Care of an infant - breast feeding & artificial feeding, weaning and supplementary feeding, toilet Training, Sleep routines, and hygienic practices.
   d. Common ailments and treatments -Immunization schedule
c) Babyhood - Physical and motor, cognitive emotional, language and social development

UNIT-III DEVELOPMENTAL STAGES (Early childhood) [18 HRS]

Early Childhood (3-6 yrs)

1) Physical and motor, cognitive, language, social and emotional development.
2) Importance of Preschool years.

UNIT-IV DEVELOPMENTAL STAGES (Childhood to Adolescence) [18 HRS]

Middle Childhood (6 - 12 years)
Physical and motor, cognitive, language, social and emotional development.
Adolescence (12 – 20 Yrs)
Physical and motor development, cognitive, social and emotional development.

UNIT-V CHILDHOOD PROBLEMS [18 HRS]

1. Behavior problems - Causes & Prevention, Temper Tantrums, Thumb Sucking, bed wetting, Masturbation, nail biting and Juvenile delinquency, habit and habit formation
2. Children with special needs - a brief study -Physically impaired (Orthopedic, Visual, Hearing, Speech) Mental retardation, gifted and Juvenile Delinquency.
3. Parental styles - Different methods of disciplining children and their effects

PRACTICALS

1. Visit to a preschool and school for children with special needs
2. Any one study on children's behavior

REFERENCE BOOKS:

1. Devadas R.P & Jaya N,(1994) *Textbook on Child Development*, Macmillan and Co, New Delhi.
2. Helen,B. (1995) *Developing Child* , Harpercolins Publishers
3. Hurlock E.B,(1981) *Developmental psychology : a life-span approach* Tata McGraw -Hill., New York.
4. Hurlock E.B, (2004) .*Child Development*, (6th ed). ,McGraw Hill Inc.,New York.
5. Santrock J.W, *(2014)Child Development*, McGraw Hill Inc.,New York.
6. Shrimali S.S ,(2008) *Child Development*, Rawat publications, New Delhi.
7. Suria Kanthi A. (2004)*Child development- An introduction*. Kavitha Publications, Gandhigram, Tamil Nadu

EVALUATION COMPONENTS

T1	T2	TA	C1	C2	TOTAL
15	15	15	5	5	25

100% SKILL DEVELOPMENT

I B.Sc HOME SCIENCE WITH FOOD BIOTECHNOLOGY

I SEMESTER

PHYSIOLOGY - 19N1CC2

(For those who joined in 2019 onwards)

HOURS/WEEK: 4 CREDIT: 3

COURSE DESCRIPTION

The course provides a detailed insight on the anatomy and functions of the various systems of the human body.

COURSE OBJECTIVES

- Location and anatomy of the organs of the body.
- The functions of the different organ systems of the body, with special reference to the control and feedback mechanisms
- Physiological changes at different stages of life.
- Methods of artificial respiration and family planning.

COURSE OUTCOMES (CO)

To enable the students to understand the

1. Recall the importance of the intricacy of the human body.
2. Recognize the position of the various organ systems of the body.
3. Illustrate the anatomy of the organs.
4. Describe the functions of the organs with special reference to the feedback mechanisms.
5. Choose appropriate artificial respiration techniques during emergencies.
6. Plan strategies to maintain ideal family size.
7. Explain the physiology of sleep.

UNIT-I DIGESTIVE AND EXCRETORY SYSTEM [15 HRS]

Anatomy and functions of the organs of the digestive system - oral cavity, stomach, small intestine, large intestine, pancreas, liver; Saliva-composition, function, Bile-composition, function ; process of digestion, absorption and assimilation of food. Movements of the gastro intestinal tract deglutition, gastric tone, digestive peristalsis, Pendular, Segmenting movements, antiperistalsis, Peristaltic rush, gastro colic reflex, Vomiting; Jaundice.

EXCRETORY SYSTEM

Kidneys, Nephron-Structure and functions, renal circulation, Juxta glomerular apparatus; composition, volume and formation of urine, micturition. Urinary Bladder -Structure, filling of bladder, impairment of renal function.

UNIT-II BLOOD AND CIRCULATORY SYSTEM [15 HRS]

Composition, functions and volume, Erythrocytes, Leucocytes, Thrombocytes- types, erythropoiesis, leucopoiesis, fate, functions; Haemoglobin, Erythrocyte sedimentation rate, haemolysis,leucocytosis, leucopenia, leukemia, polycythemia, anaemia.

Blood coagulation, blood grouping transfusion, RH factor, Erythroblastosis foetalis.

Structure and functions of the heart and blood vessels, Junctional tissues, cardiac cycle, Blood pressure- factors affecting blood pressure, ECG, heart sound, cardiac output, regulation of heart rate, pulse.

UNIT-III RESPIRATORY SYSTEM [10 HRS]

Anatomy- respiratory pathway, lungs - lung unit, Mechanism of respiration, lung volumes, Gaseous exchange in tissues, lungs, transport of O_2 and $C0_2$ - chloride shift; Regulation of respiration - nervous, chemical - Herring-Brewers reflex; types of breathing; modified forms of respiration- Hypoxia, Asphyxia, Cyanosis, Oxygen debt; Artificial Respiration.

UNIT-IV REPRODUCTIVE AND ENDOCRINE SYSTEM [10 HRS]

Anatomy of male and female reproductive organs - menstrual cycle, process of reproduction and lactation, conception and contraception.

Structure and functions of pituitary, thyroid and adrenal glands.

UNIT-V SENSE ORGANS AND NERVOUS SYSTEM [10 HRS]

Structure and functions of Eye, Ear and Skin –regulation of body temperature.

Structure and functions of neuron, brain and spinal cord; Autonomic nervous system, Reflex Action; Physiology of sleep.

TEXT BOOKS

1. Ahuja (2001) *Textbook of Physiology*, CBS Publishers.
2. Best, C.H., and Taylor, R.B(1975) *The Physiological Basis for Medical Practice*; The William and Wilkinson Scientific Book Company, Kolkata.
3. Chatterjee C. C (1988) *Text book of Medical physiology*, W B Saunder's Co, London. 4.

Jain, A.K.(1989) *Textbook of Physiology*. Vol.I and II. Avichal Publishing Co., New Delhi.

5. S.Subramanian and S.M.Kutty (1971)*Text Book of Physiology*, Orient Longman.

REFERENCE BOOKS

1. C.C. Chatterjee's .(20160 *Human Physiology*, 11e, Vol.1,CBS Publishers

2. Guyton, A.C, (2009). *Function of the Human body,* 4 Edition, W.B. Sanders Company, Philadephia.

3. Guyton, A.C, and Hall, J. B. (2010). *Text Book of Medical Physiology*, 9 Sanders Company, Prime Books (Pvt.) Ltd., Bangalore

4. Gerald R.Graham (2008). Textbook of Physiology,PMC Company., US. Edition, W.B.

5. Muthaiya N. M (2006). *Human Physiology*, 4th Edition , Jaypee Brothers Medical Publishers Ltd, NewDelhi .

6. Sujit E. Chaudhuri(2008). Concise medical physiology, 6th Edition, Jain Book Depot, New Delhi.

7. Winwood (1988). Sear's Anatomy and Physiology for nurses, Edward Arnold, London

WEBSITES

1. www.cvphsysiology.com - Comprehensive explanation of basic cardiovascular concepts
2. simple.wikipedia.org/wiki/Digestion - 17k
3. www.medicalnewstoday.com/articles/11949.php - 59k

EVALUATION COMPONENTS

T1	T2	TA	C1	C2	TOTAL
15	15	15	5	5	25

100% SKILL DEVELOPMENT

I B.Sc. HOME SCIENCE WITH FOOD BIO TECHNOLOGY

II SEMESTER

PHYSIOLOGY LAB -19N1CC3

(For those who joined in 2019 onwards)

HOURS / WEEK: 3 CREDITS: 2

COURSE DESCRIPTION

The course provides practical experience on the identification of various tissues, blood cells, estimation of haemoglobin, blood pressure and determination of clotting time, bleeding time and blood grouping.

COURSE OBJECTIVES

- To understand the methodology of determining the various blood parameters
- To identify the various tissues
- To assess the bleeding and clotting time
- To interpret the biochemical lab reports.

COURSE OUTCOMES

The students will able to

1. Identify the various tissues of the body.
2. Illustrate and describe the blood cells.
3. Determine the hemoglobin level and blood pressure
4. To determine clotting time, bleeding time and blood grouping

UNIT – I [10 HRS] 1. Histology - Details of the various tissues — identification of slides a) Alimentary tract - Stomach, intestines, Liver and Pancreas b) Lungsc)Kidneyd) Endocrine glands e) Nervous system f)Skin

UNIT – II [10 HRS] 2. Blood Cells — Fresh mount and stained, Differential Count

UNIT – III [20 HRS] 3. RBC and WBC count using Neubauer's counting chamber.

UNIT – IV [30 HRS] 4. Determination of haemoglobin — Sahli's Method.

UNIT – V [10 HRS] 5. Estimating the coagulation of blood and blood grouping.

UNIT – VI [10 HRS] 6. Recording pulse rate and measurement of blood pressure . Interpretation of blood examination reports

100% SKILL DEVELOPMENT

I B.Sc HOME SCIENCE WITH FOOD BIO TECHNOLOGY

II SEMESTER

BASICS OF NUTRITION - 19N1NME/19N2NME

(For those who joined in 2019 onwards)

HOURS / WEEK : 2 CREDIT: 2

COURSE DESCRIPTION

This course helps to understand the basic concepts on health, nutrition and deficiency diseases of various nutrients

COURSE OBJECTIVES

- Understand the components of health, nutrition and deficiency diseases of various nutrients
- To gain knowledge on various cooking methods

COURSE OUTCOMES (CO)

The students will be able to

1. Define the terminologies related to nutrition and health
2. Describe the functions of food, food groups and food guide pyramid
3. Identify the symptoms of deficiency disease of nutrients
4. Classify micro nutrients and identify the impact on health
5. Choose the appropriate cooking methods to conserve the nutrients

UNIT-I NUTRITION AND HEALTH

Definition – Health, Nutrition, Malnutrition, Adequate Nutrition, Balanced Diet, Nutritional status, Definition of Fitness, Components of Fitness, Types of physical activity and their energy consumption level.

UNIT-II FOOD

Definition of Food, Functions, Food groups and their Nutrient contribution (Basic 5), Food pyramid, Definition of Nutrient, Classification.

UNIT-III MACRO NUTRIENTS AND HEALTH

Definition, Functions, Deficiency diseases and their important signs and symptoms, Food sources of carbohydrate, protein and fat.

UNIT-IV MICRO NUTRIENTS AND HEALTH

Definition, Functions, Deficiency diseases and their important signs and symptoms, Food sources of vitamin A, D, E, K, B_1, B_2, B_3, B_6, B_{12}, C and folic acid. Minerals – Ca, P, I, Zn, Na, Fl.

UNIT-V COOKING AND HEALTH

Definition,Glossary and Preliminary preparation and cooking methods – , Merits and Demerits, Conservation of nutrients.

REFERENCE BOOKS:

1. Gitanjali Chatterjee, ,(1999) *Handbook of Nutrition*, Rajat Publications.
2. Srilakshmi.B.(2007). *Food Science*, New age International Pvt.Ltd.,NewDelhi.
3. Robinsion C.H., Lawler M.R. (1990). *Normal and Therapeutic Nutrition*, Oxford and IBH Publisher
4. Swaminathan.M (1988). *Advanced trend took on Food and Nutrition*, Vol I and Vol II, The Bangalore Printing and Publishing Co. Ltd.
5. Anita F.P. (1989). *Chemical Nutrition Dietetics*, Oxford University Press

I B.Sc HOME SCIENCE WITH FOOD BIOTECHNOLOGY

II SEMESTER

19N2CC4 - HUMAN NUTRITION

(For those who joined in 2019 onwards)

HOURS / WEEK : 5 CREDIT: 4

COURSE DESCRIPTION

The course offers the classification, metabolism, functions and deficiency disorders of macro and micronutrients.

COURSE OBJECTIVES

To enable the students to understand the

- To enable the students to gain knowledge of nutrients, their metabolism and functions.
- To adapt the knowledge gained to modify their daily meal pattern.
- To understand the terminologies related to antioxidants, nutrigenetics and nutrigenomics.

COURSE OUTCOMES (CO)

The students will be able to

1. Define the units and concepts of energy
2. Classify and explain the macro and micro nutrients.
3. Describe the nutrients with respect to the excess, deficiency and RDA for each nutrient. 4. Solve the problem of identifying the nutrient quantification to sustain the energy allowance of individuals.
5. Explain the non nutrients – water and dietary fibre.
6. Describe antioxidants, nutrigenetics and nutrigenomics

UNIT-I ENERGY [12 HRS]

Energy - Determination of energy content of foods, physiological fuel value, gross energy value, Thermic effects of foods, basal metabolic rate, factors influencing BMR, determination of energy requirements in man – Human Respiration Calorimeter.

UNIT-II MACRO NUTRIENTS [12 HRS]

Carbohydrates - Classification, functions, digestion, absorption, metabolism, sources

Proteins - Classification, functions, digestion and metabolism, essential amino acids, deficiency – PEM , sources.

Lipids – Classification, functions, digestion, absorption, essential fatty acids, functions, effects of deficiency, sources.

UNIT-III MICRO NUTRIENTS [12 HRS]

Minerals – their role in nutrition, functions, requirements, sources, deficiency – Calcium, phosphorous, sodium, potassium, copper, iron, iodine, fluorine, zinc.

Vitamins - their role in nutrition, functions, requirements, sources, deficiency – Fat soluble vitamins – A,D,E,K, water soluble vitamins - thiamine, niacin, riboflavin, vitamin B_6, vitamin B_{12}, folic acid, ascorbic acid.

UNIT-IV WATER AND FIBRE [12 HRS]

Water: Functions, requirements, sources, balance, dehydration and rehydration.

Fibre: Functions, clinical role in human nutrition, sources and requirements.

UNIT-V ANTIOXIDANTS & NUTRIGENOMICS [12 HRS]

Antioxidants – Sources and effects of free radicals, Antioxidant defense systems, Antioxidant & diseases, Sources of antioxidants.

Nutrigenomics- Basics of Nutrigenomics- Tools of Nutrigenomics- Chronic Disease and Nutritional Genomics

TEXT BOOK:

1. B. Srilakshmi (2016). *Nutrition Science*" New Age International Publishers.

REFERENCE BOOKS:

1. Anita F.P. (1989). *Chemical Nutrition Dietetics*, Oxford University Press.
2. Gulthrie .A (1979). *Introductory Nutrition*, The AVI. Mospy Company.
3. Passmore R. Eastinood M.A. (1986). *Human Nutrition and Dietetics*, Longman Group Ltd.
4. Robinsion C.H., Lawler M.R. (1990). *Normal and Therapeutic Nutrition*, Oxford and IBH Publisher
5. Swaminathan.M (1988). *Advanced trend took on Food and Nutrition*, Vol I and Vol II, The Bangalore Printing and Publishing Co. Ltd.

EVALUATION COMPONENTS

T1	T2	TA	C1	C2	TOTAL
15	15	15	5	5	25

100 %EMPLOYABILITY

I B.Sc HOME SCIENCE WITH FOOD BIOTECHNOLOGY

II SEMESTER

FOOD SCIENCE -19N2CC5

(For those who joined in 2019 onwards)

HOURS/WEEK : 4 CREDIT: 3

COURSE DESCRIPTION

The course emphasizes on the composition of foods and the changes that occur during processing.

COURSE OBJECTIVES

- Gain knowledge on the nutritive value of different foods and understand the classification of foods.
- Develop skills to prepare acceptable foods with regards to appearance palatability and nutritive value

COURSE OUTCOMES (CO)

The students will be able to

1. Define the basic concept and recent trends in food science and nutrition.
2. Classify the cooking methods.
3. Describe the composition of food groups.
4. Choose the suitable cooking methods for various food groups.
5. Identify the role of foods in Indian cookery.

UNIT-I [8 HRS]

Concept of Food Science – definition of foods and food science; functions and classification of foods. Food groups and their nutrient contribution – Basic 5 (ICMR). Methods of cooking – merits and demerits of moist heat methods and dry heat methods, solar and microwave cooking. Recent trends in food science – genetically modified foods & Nutraceuticals.

UNIT-II [10 HRS]

Structure, Nutritive value, changes during preparation

a) Cereals – structure of cereal grains, their nutritive value, milling and parboiling of cereals and its advantages, enrichment and fortification of cereals.

b) Pulses - Their nutritive value, importance of vegetarian diets. Improvement of the protein pulses, toxic constituents, values of geminated pulses.

c) Fruits and vegetables - Classification, nutritive value, pigments, importance in the diet. Conservation of nutrients during preparation and cooking.

UNIT-III [8 HRS]

Flesh foods – Meat, Poultry, Fish - Composition, nutritive value and its role in cookery

UNIT-IV [10 HRS]

a) Eggs - Structure and nutritive value – Role of egg in cookery.

b) Milk and milk products: Nutritive value, different types of milk and its products.

UNIT-V [9 HRS]

a) Spices and condiments – uses and abuses

b) Nuts and oilseeds –their nutritive value and importance of the diet.

c) Beverages– Classification and its role in daily diet.

REFERENCE BOOKS:

1) Benion Marion (1980). *Introductory foods*, Macmillan, New York,

2) Fox B.A., Cameron A.G.(1982) *Food Science a Chemical Approach* Hodden and Stoughton Ltd., Great Britain

3) Peckham G.C.(1978) .*Foundations of Food preparation* Macmillan Co, New York,

4) Potter N.N.(1987) *Food Science*, The AVI Publishing Company INC, USA 5)

Srilakshmi.B.(2007). *Food Science*, New age International Pvt.Ltd.,NewDelhi.

EVALUATION COMPONENTS

T1	T2	TA	C1	C2	TOTAL
15	15	15	5	5	25

100% SKILL DEVELOPMENT

I B.Sc HOME SCIENCE WITH FOOD BIO TECHNOLOGY

II SEMESTER

FOOD SCIENCE & NUTRITION LAB - 19N2CC6

(For those who joined in 2019 onwards)

HOURS/ WEEK: 3 CREDITS: 2

COURSE DESCRIPTION

This course provides culinary knowledge and imparts practical skills in food preparations.

COURSE OBJECTIVES

- To learn basic safety and sanitation practices related to food preparation.
- To practice accurate measuring techniques of the ingredients.
- To apply appropriate food preparation techniques in preparing recipes from different food groups.
- To identify and estimate sugars, protein and minerals in food samples.

COURSE OUTCOMES (CO)

The students will be able to

1. Recall the principles of various cooking methods.
2. Classify edible and non-edible portions of food stuffs.
3. Plan the preparation of recipes based on different food groups.
4. Distinguish the factors affecting the food components during cooking process.
5. Identify sugars, protein and minerals present in food samples.
6. Explain the quantitative analysis of reducing sugar and ascorbic acid

UNIT-I EXPERIMENTAL COOKERY AND PREPARATION OF RECIPES [15 HRS]

- Cereal cookery – Gelatinization, Dextrinization, cooking methods of rice, recipe preparations.
- Pulse cookery – Factors affecting cooking quality, recipe preparations.
- Vegetable cookery – Effect of cooking on pigments- Chlorophyll and Carotenoids, recipe preparations
- Fruit cookery – Factors affecting enzymatic browning, recipe preparations
- Milk & Egg cookery –Factors affecting cooking quality of egg, recipe preparations
- Fleshy foods cookery - recipe preparations

UNIT-II QUALITATIVE ANALYSIS OF CARBOHYDRATES [10 HRS]

- Monosaccharide - Glucose, Fructose, Galactose
- Disaccharide - Sucrose, Lactose and Maltose

UNIT-III QUALITATIVE ANALYSIS OF NUTRIENTS [10 HRS]

- Protein
- Minerals

UNIT-IV QUANTITATIVE ANALYSIS OF NUTRIENTS [10 HRS]

- Reducing sugar
- Vitamin C

100% EMPLOYABILITY

II B.Sc HOME SCIENCE WITH FOOD BIO TECHNOLOGY

III SEMESTER

EXTENSION EDUCATION AND COMMUNICATION- 19N3CC7

(For those who joined in 2019 onwards)

HOURS / WEEK: 5 CREDIT:4

COURSE DESCRIPTION

This course create awareness on principles of extension education and extension teaching methods

COURSE OBJECTIVES

- To understand the concept of community development and panchayat raj.
- To create awareness on women welfare scheme
- To impart knowledge on communication methods
- To develop skill in preparing audio-visual aids
- To understand different extension teaching methods

COURSE OUTCOMES(CO)

The students will be able to

1.Define the concepts of Home Science Extension Education.
2. Describe the various welfare programmes for women
3.Explain the principles and models of communication
4.Classify the extension teaching methods.
5. Construct audio –visual aids.

UNIT – I EXTENSION EDUCATION [20 HRS]

Meaning, objectives and Principles of Extension and definition of Home science extension Allied concepts - Formal, Non-formal, Qualities, Role and Functions of Extension Workers

History of CDP in India, Panchayat Raj – Three tier system

UNIT – II WOMEN WELFARE PROGRAMMES [15 HRS]

RMK, IMY, MGNREGS, PMRY & National livelihood programme, National Rural livelihood mission, National Social Assistance Scheme

UNIT - III: COMMUNICATION [15 Hrs]

Communication - Definition, Meaning, Objectives, Principles, elements of communication, barriers to communication

UNIT – IV EXTENSION TEACHING METHODS [20 HRS]

Meaning and teaching, Classification of extension teaching methods

i. Individual methods: Farm & home visit, farmer's call & personal letters.

ii. Group methods: Result demonstration, method demonstration, group meetings, study tour.

iii. Mass methods: Publications – Leaflet, Pamphlet, Folder ,mass meetings, exhibition, campaign, newspaper, Radio and T.V.

UNIT – V AUDIO - VISUAL AIDS [20 HRS]

Definition, Classification**,** criteria for selection and evaluation of audio-visual aids & Cone of Experience.

Audio Aids: Tape recorders, Public address system, Radio

Visual Aids:

i. Projected: Slides, filmstrip, opaque projection, overhead projection.

ii. ii)Non-projected: Chalkboard, Bulletin board, flannel graph, flash card, poster- diagram, map, chart, graph, specimen and models.

Audio - visual aids**:** Television, Motion pictures, Drama, Puppet show

REFERENCES

1. Adivi Reddy.(1973) *Extension Education*, Lakshmi Pub, Andrapradesh.
2. Dhaina & Batnagar O.P.(1980) *Education and communication for Development*, Oxford Pub., New Delhi.
3. Roy, G.L. (1994).*Extension Communication and Management*, New Delhi,

Web Reference

1. http://www.wanterfall.com/Downloads/Communication.pdf
2. http://www.slideshare.net/pria87/audio-visual-aids

EVALUATION COMPONENTS

T1	T2	TA	C1	C2	TOTAL
15	15	15	5	5	25

100% SKILL DEVELOPMENT

II. B.Sc HOME SCIENCE WITH FOOD BIOTECHNOLOGY

III SEMESTER

FIBRE TO FABRIC – 19N3CC8

(For those who joined in 2019 onwards)

HOURS/WEEK : 4 CREDIT : 3

COURSE DESCRIPTION

This course enlightens the students on the various steps in the conversion of fibre into fabric. It also deals with the dyeing and printing techniques.

COURSE OBJECTIVES

- The course will make the students
- To gain knowledge on the various textile fibres, their manufacture, spinning and weaving operations.
- To understand the basic and functional finishes applied on fabrics and the qualities imparted.
- To develop skill to choose appropriate dyes and printing technique for a given fabric.

COURSE OUTCOMES (CO)

The students will be able to

1. Classify the textile fibres and describe the manufacturing process of natural, manmade and minor textile fibres.
2. Identify the fibre content of the fabric.
3. Illustrate and give examples of yarns and weaves.
4. Choose the basic and functional finishes based on the end use of the material.
5. Restate in own words the pros and cons of natural and synthetic dyes.
6. Describe the hand and machine printing techniques.

UNIT-I CLASSIFICATION AND MANUFACTURING PROCESS OF TEXTILE FIBRES [15 HRS]

Classification of textile fibres blends and mixtures. Manufacturing process of:

1. Natural fibres- Cotton, Linen, Wool Silk and Asbestos
2. Man made fibres- Rayon, Nylon, Polyester, Acrylic and Glass
3. Minor fibres- Jute, Hemp, Kapok and Coir

UNIT-II FIBRE IDENTIFICATION, PROPERTIES AND SPINNING [10 HRS]

1. Identification of textile fibres
2. Physical properties of fibres
3. Yarn making-Spinning, Mechanical and Chemical Spinning
4. Types of yam-simple, complex and novelty.

UNIT-III FABRIC MANUFACTURING TECHNIQUES [15 HRS]

1. Weaving - basic- plain, twill, satin; Fancy weaves-Pile, Dobby and Jacquard. 2. Non-woven- Knitting, felting and bonding

UNIT-IV FABRIC FINISHING [10 HRS]

1. Basic- singeing, scouring, bleaching, mercerizing, sizing, calendering, tentering.
2. Functional- water proofing, water repellency, fire proofing, moth proofing, sanforising, crease recovery.

UNIT-V DYEING AND PRINTING [10 HRS]

1. Classification of dyes, application to different fibres, stages of dyeing.
2. Printing: Hand: Resist, stencil, screen and block.
3. Machine: Rotary Screen Printing, Roller Printing

REFERENCE BOOKS:

1. Dantyagi, S. (1996). *Fundamentals of textiles and their care.* Orient Longman Limited, New Delhi.
2. Gordon Cook, J. (2001). *Handbook of Textile Fibres*. Woodhead Publishing Ltd, England.
3. Howard L.Needles. (2001). *Textile Fibres, Dyes, Finishes and Processes*. Standard Publishers Distributors, Delhi.
4. Lord, P.R. & Mohamed, M.H. (2001) *Weaving: Conversion of yarn to Fabric*. Woodhead Publishing Ltd, England.
5. Rattan, J.B. (2001). *Modern Textile Technology*. Abhishek Publications, Chandigarh.
6. Sara J Kadolph. (2009). *The Textiles*. Dorling Kindersley India Pvt., Ltd.
7. Vidyasagar, P. V. (1998). *Handbook of Textiles*. Mittal Publications.
8. Murphy, W.S. (2003). *Handbook of Weaving*. Abhishek Publications, Chandigarh.

WEBSITE:

1. www.fibre2fabric.com
2. www.fibretofashion.com

EVALUATION COMPONENTS

T1	T2	TA	C1	C2	TOTAL
15	15	15	5	5	25

II B.Sc. HOME SCIENCE WITH FOOD BIOTECHNOLOGY

III SEMESTER

BASICS OF CLOTHING CONSTRUCTION LAB – 19N3CC9

(For those who joined in 2019 onwards)

HOURS / WEEK : 3 CREDIT :2

COURSE DESCRIPTION

This practical paper aims at imparting skill in the basics of stitching a garment.

COURSE OBJECTIVES

To familiarize students with the parts and functions of the sewing machine.

To impart skill in constructing seams, darts, tucks, pleats and gathers.

To make the students apply appropriate edge finishes to garments.

To develop skill in attaching pockets and yokes to dresses.

COURSE OUTCOMES (CO)

The students will be able to

1. Identify the parts and functions of the sewing machine.
2. Construct various seams and seam finishes.
3. Build samples for introducing fullness in a garment.
4. Choose and apply appropriate edge finishes like binding, facing and hems.
5. Illustrate and develop pockets and yokes

UNIT –I [5 HRS]

Parts and functions of the sewing machine, use and care.

UNIT – II [10 HRS]

Seams and seam finishes: plain seam, flat fell seam, French seam, single top stitching, double top stitching.

UNIT – III [10 HRS]

Fullness: Darts, tucks, pleats, gathers and shirrs.

UNIT – IV [10 HRS]

Edge finishing: Bias binding, facing and hems.

UNIT – V [10 HRS]

Pockets and yokes.

100% EMPLOYABILITY

II B.Sc HOME SCIENCE WITH FOOD BIO TECHNOLOGY
III SEMESTER
ALLIED OPTION - CATERING AND HOTEL MANAGEMENT -

19N3AC1 (For those who joined in 2019 onwards)

HOURS/ WEEK : 3 CREDIT : 3

COURSE DESCRIPTION

This course describes the role of front office and housekeeping in Hotel Management

COURSE OBJECTIVES

To enable students to

- Learn the functions of the front office and House keeping
- Understand their importance in increasing the revenue of hotels

COURSE OUTCOMES (CO)

The students will be able to

1. Identify the different types of catering establishments and front office management
2. Explain the functions of front office department
3. Plan reservation and registration procedure
4. Describe the management and functioning of housekeeping department
5. Classify the cleaning agents and equipments

UNIT-I INTRODUCTION TO HOTEL INDUSTRY [9 HRS]

Evolution of Hotel industry, Types of catering establishment, Types of hotels, Organization chart of a hotel, Front office- Importance of front office, Front office organization, layout, sections of front office. Types of room and room codes, types of plans, types of room rates.

UNIT-II FRONT OFFICE MANAGEMENT [9 HRS]

Duties and responsibilities of front office staff- Reception, Reservation, Bell Desk Travel Desk. Reservation- procedure, Types of reservation, Sources of reservation, Modes of reservation.

Registration- Check in and Checkout procedure.

UNIT-III HOTEL ACCOUNTING [9 HRS]

Lobby – Duties and responsibilities of Manager, Guest luggage Handling procedure. Hotel credit - Front office accounting system – Guest ledger, City ledger, C- form

UNIT-IV HOUSEKEEPING MANAGEMENT [8 HRS]

Housekeeping department- Importance , organization chart, duties and responsibilities of housekeeping staff, Interdepartmental relationship of front office and House Keeping.

Bed making- Procedures of bed making.

Preparation of room report - check lists.

Linen-Classification of linen, modes of obtaining linen.

Furnishings- soft furnishings, Floor furnishings-Carpets and wall covering.

UNIT-V CLEANING AND LAUNDRY MANAGEMENT [10 HRS]

Cleaning –methods. Cleaning agents -classification, selection of cleaning equipments

Laundry procedures - laundry equipments. Stain removal.

Uniform -selection, code and maintenance of staff uniform.

REFERENCES

1. Allen D.M. (1992).*Accomodation and cleaning service*, Vol II Management 2.

Andrews.S.(1995) *Hotel Front Office Training Manual*, Tata McGraw Hill, New Delhi. 3.

Andrews.S.(1982) *House Keeping Training Manual*, Tata McGraw Hill, New Delhi. 4. Baker,

Beadley & Huyton., *Principles of Hotel front office operations*, Publication, London. 5.

Branson j. c., Lennox .m, *Hotel, Hostel and Hospital Housekeeping*.

6. Madhukar.M, *Professional Housekeeping*, Rajat publication, New Delhi.

7. Negi Jagmohan (2007) *Managing Hotel and Restaurants*, Authors Press .

EVALUATION COMPONENTS

T1	T2	TA	C1	C2	TOTAL
15	15	15	5	5	25

100% EMPLOYABILITY

II B.Sc. HOME SCIENCE WITH FOOD BIOTECHNOLOGY

III SEMESTER

CATERING AND HOTEL MANAGEMENT - LAB - N3AC2

(For those who joined in 2019 onwards)

HOURS /WEEK: 2 CREDITS: 2

COURSE DESCRIPTION

This course gives a practical knowledge and hands on experience on the front office Management and housekeeping skills.

COURSE OBJECTIVES

To orient and train the students on

- Filling of various documents used in Front Office
- Registration procedures
- Handling reservations and Telephone Manners
- Use of cleaning equipments and cleaning agents for various surfaces
- Bed making procedures

COURSE OUTCOMES (CO)

The students will be able to

1. Recall organization structure and management
2. Plan reservation and registration procedure
3. Illustrate bed making procedure
4. Explain the front office process
5. Identify cleaning equipments and agents of different hotels

UNITS:

UNIT - I : Identification of organization structure of different star hotels

UNIT - II : Reservation and registration procedure

UNIT - III : Bed making procedure

UNIT - IV : Exhibiting front office process

UNIT – V : Understanding Cleaning equipments and agents of different hotels

II B.Sc HOME SCIENCE WITH FOOD BIO TECHNOLOGY

III SEMESTER

ENTREPRENEURIAL SKILLS - SURFACE ORNAMENTATION –

19N3SB1 (For those who joined in 2019 onwards)

HOURS / WEEK-2 CREDITS: 2

COURSE DESCRIPTION

This skill based paper aims at imparting hand embroidery and fabric painting techniques.

COURSE OBJECTIVES

- To develop skill in making hand embroidery stitches.
- To encourage students to apply embroidery on table cloth, hand kerchief, tops and blouse.
- To inculcate fabric painting technique in students and make them use this skill on clothing and household linen.

COURSE OUTCOMES (CO)

To enable students to

1. Illustrate a basic motif .
2. Recognise the basic hand stitches and prepare samples.
3. Choose and apply appropriate embroidery stitches on various products.
4. Describe different methods of painting on fabrics.
5. Plan the fabric painting technique for clothing and household linen.

UNIT-I [6 HRS]

Development of design from a basic motif applying the elements and principles of design**.**

UNIT-II [6 HRS]

Embroidery – Basic hand stitches like chain, satin, long and short, feather, back, lazy daisy, French knot, bullion knot, Herring bone, Button hole.

UNIT-III [6 HRS]

Application of embroidery stitches on table cloth, hand kerchief, tops and blouse.

UNIT-IV [6 HRS]

Fabric painting - study of paints & brush available, different methods of painting.

UNIT-V [6 HRS]

Application of fabric painting technique on place mats, pillow cover, saree and kameez.

REFERENCES

1. *Creative Craft in Fabric and Yarn* . (1979). Gallery Press, London.
2. Gladys Cunnigharn. (1969). *Singer Sewing Book*. Golden press, New York.
3. Julia Barton. (1989). *The Art of Embroidery.* Merchurst Ltd., London.
4. Pamela Cabburn. (1976). *The Needle Work's Dictionary*. William and Morrow and Company, Inc. New York.
5. Reader's Digest. (1955). Complete Guide to Needlework.
6. Simon and Schuster. (1960). *McCall's Treasury of Needle craft*. Schuster Publishing, New York.
7. *The ultimate Design Source Book for Crafters*. (2007). Search Press Ltd, Kent, Australia.

100% EMPLOYABILITY

II B.Sc HOME SCIENCE WITH FOOD BIOTECHNOLOGY

IV SEMESTER

BASICS OF FOOD BIOTECHNOLOGY- 19N4CC10

(For those who joined in 2019 onwards)

HOURS/WEEK: 5 CREDITS: 4

COURSE DESCRIPTION

The course describes the concepts of biotechnology, role of microorganism in food industry

COURSE OBJECTIVES

- To enable students to understand the concepts of biotechnology
- To gain knowledge on role of microorganism in food industry

COURSE OUTCOMES (CO)

The students will be able to

1. Define the concepts of biotechnology, its branches and scope
2. Classify the food microorganisms
3. Identify the factors affecting the microbial growth
4. Explain the techniques of preparation of culture media, sterilization, inoculation and staining
5. Build knowledge on fermentation process and its application
6. Describe the production of single cell protein

UNIT – I INTRODUCTION [15 HRS]

Biotechnology –Definitions – Branches - Biotechnology in India.

Food Biotechnology - Scope, Importance and applications in fields of medicine, agriculture, industry and environment.

UNIT – II MICROORGANISMS ASSOCIATED WITH FOOD BIOTECHNOLOGY [15 HRS]

Microorganisms associated with food biotechnology – Bacteria, Yeast, Mould Factors affecting microbial growth, Microbial kinetics

UNIT – III PRODUCTION OF CULTURES FOR FOOD FERMENTATION [15 HRS]

Culture of food microbes - Preparation of nutrient media, Sterilization and disinfection, inoculation techniques, Staining methods, Microbial examination.

UNIT – IV FERMENTATION TECHNOLOGY [15 HRS]

Fermentation – Definition, Fermentation process, Fermented food Products – Yoghurt, Cheese, Tempeh, saurkraut, Idli, Dosa. Advantages of fermented products

UNIT – V SINGLE CELL PROTEIN [15 HRS]

Single cell Protein: Definition, Microorganisms used for SCP production, Substrates, procedure for production of SCP, Biomass recovery, Advantages of SCP, Limitations of SCP.

REFERENCES

TEXT BOOK : COURSE MATERIAL

1. Frazier, (1989) .*Food Microbiology,* THM Publications
2. Gupta, P.K. (1995).*Elements of Biotechnology*, Rastogi Publications, Meerut.
3. Jay, (1987). *Modern Food Microbiology,* CBS Publishers,
4. Rita Singh. (2004).*Food Biotechnology*, Global Vision Publishing House, Delhi. 5.

Singh, B. D (2004). *Biotechnology Expanding Horizons*, Kalyani Publishers, Ludhiana.

6. Sri Ram Sridhar (2005). *Enzyme Biotechnology*, Dominant Publishers and Distributors, New Delhi.

WEB REFERENCE

1. http://www.businessdictionary.com/definition/food-biotechnology.html
2. http://www.mrothery.co.uk/genetech/genetechnotes.htm
3. http://www.wpi.edu/Pubs/E-project/Available/E-project-031405-135846/unrestricted/IQP.pdf
4. http://www.sciencedaily.com/articles/t/transgenic_plants.htm

EVALUATION COMPONENTS

T1	T2	TA	C1	C2	TOTAL
15	15	15	5	5	25

II B.SC. HOME SCIENCE WITH FOOD BIOTECHNOLOGY

IV SEMESTER

CLOTHING AND FASHION – 19N4CC11

(For those who joined in 2019 onwards)

HOURS/WEEK : 4 CREDITS : 3

COURSE DESCRIPTION

This course aims at imparting knowledge on basics of clothing construction, clothing selection, care and wardrobe planning. It also deals with fashion industry, fashion promotion and fashion illustration.

COURSE OBJECTIVES

- To enable students to develop skills in clothing construction and care of clothes.
- To introduce the concept of fashion.
- To develop fashion sketching techniques.

COURSE OUTCOMES (CO)

The students will be able to

1. Identify the different techniques of pattern making and pattern layout.
2. Explain the principles of wardrobe planning and factors to be remembered in the selection of clothes.
3. Summarize the laundering agents.
4. Recall the terms related to fashion industry, fashion cycle and fashion trends.
5. Describe the structure of fashion industry, fashion market and fashion promotion techniques.
6. Illustrate and apply elements and principles of design on casual wear, party wear and kids wear.

UNIT – I BASICS OF CLOTHING CONSTRUCTION [10 HRS]

a) Preparation of fabric,

b) Importance of body measurement,

c) Techniques of patterns making – drafting, draping and flat pattern

d) Pattern layout.

UNIT – II CLOTHING SELECTION, CARE AND WARDROBE PLANNING [15 HRS]

1. Factors influencing the choice of clothes – age, sex, income, family size, occupation, customs and tradition, climate, fashion, occasion and suitability.
2. Wardrobe planning – principles, clothing inventory, spending plan, shopping skill and accessories.
3. Water – hardness, methods of softening.
4. Soaps and detergents
5. Bleaching agents
6. Dry cleaning.

UNIT – III INTRODUCTION TO FASHION [10 HRS]

a) Definition of Fashion, Style Classic, Fad.

b) Terms related to fashion industry – Mannequin, Boutique, Fashion shows, Apparel, Catalogue, Haute Couture, forecasting.

c) Fashion – origin, concept, fashion cycle and trends.

UNIT – IV FASHION INDUSTRY AND FASHION PROMOTION [10 HRS]

a) Structure of the Fashion industry

b) Structure of the Fashion market

c) Techniques for fashion promotion – fashion advertising, fashion conferences, trade fairs, Exhibition, fashion shows, fashion journalism and window display.

UNIT – V FASHION ILLUSTRATION [15 HRS]

a) Elements and Principles of design

b) Designing casual wear using templates

c) Designing party wear using templates

d) Designing kids wear using templates

REFERENCES:

1. Anne Allen & Julian Seaman. (2005). *Fashion Drawing – The Basic Principles*. Replika Press Pvt. Ltd, India.
2. Erwin, M.D. (1975). *Clothing for Moderns*. The Mac Millan Company, New York. 3. Gini Stephens Frings. (2005). *Fashion – From Concept to Consumer*. Pearson Education.
4. Jay Diamond & Ellen Diamond. (1997). *The World of Fashion*. Fair Child Publications, New York.
5. Mary Mathews. (1985). *Practical Clothing Construction Part I and II*. Chennai. 6. Retu, T. (1998). *Hand book for Fashion Designing*. Mittal Publications, New Delhi.
7. Sharon Lee Tate. (2004). *Inside Fashion Design.* Pearson Education.
8. Tracy Diane & Tom Cassidy. (2005). *Colour Forecasting*. Blackwell Publishing.

WEBSITES:

1. www.fibretofashion.com
2. www.businessoffashion.com

EVALUATION COMPONENTS

T1	T2	TA	C1	C2	TOTAL
15	15	15	5	5	25

II B.SC. HOME SCIENCE WITH FOOD BIO TECHNOLOGY IV SEMESTER

CLOTHING AND FASHION LAB -19N4CC12

(For those who joined in 2019 onwards)

HOURS / WEEK : 3 CREDITS : 2

COURSE DESCRIPTION

This course makes the students to become skillful in constructing garments and creating fashion sketches.

COURSE OBJECTIVES

- To impart skill in drafting and construction of garments.
- To train students in fashion illustration.

COURSE OUTCOMES (CO)

The students will be able to

1. Construct baby garment and saree petticoat.
2. Plan drafting and construct nighty and salwar kameez.
3. Build flesh figure using 8 head theory.
4. Choose and draw different hairstyles and accessories.
5. Illustrate casual wear, party wear and festive wear based on themes.

UNIT – I [12 HRS]

Drafting paper pattern and construction of

(i) Baby's Night Gown

(ii) Six Gore Saree petticoat

UNIT – II [12 HRS]

Drafting paper pattern and construction of

(i) Nighty

(ii) Salwar Kameez

UNIT – III [7 HRS]

Drawing flesh figure using 8 head theory.

UNIT – IV [7 HRS]

Drawing shoes, handbags, hats and hairstyles.

UNIT – V [7 HRS]

Developing sketches bases on themes

II B.Sc. HOME SCIENCE WITH FOOD BIOTECHNOLOGY

IV SEMESTER

ALLIED OPTIONAL – FOOD PRODUCTION AND SERVICE -

19N4AC3 (For those who joined in 2019 onwards)

HOURS / WEEK : 3 CREDITS : 3

COURSE DESCRIPTION

The course provides knowledge on the production of food in different styles and the service procedure.

COURSE OBJECTIVES

- To understand the concept of Catering and Food Production.
- To learn different types of cuisine and service types.

COURSE OUTCOMES (CO)

The students will be able to

1. Recall the methods of cooking
2. Plan and prepare different types of soups and salads
3. Restate in own words the selection procedure for flesh foods
4. Organize different styles of food services
5. Explain the organization and management process in hotel industry

UNIT – I Classification of Raw Materials [9 HRS]

Aims and objectives of cooking Food – Classification of Raw Materials
Pre preparation of Ingredients – Methods of mixing Foods –cooking methodology for Indian, Continental and Chinese Cookery.

UNIT – II Soups , Sauces and salads [9 HRS]

Stocks and Sauces -Definition, Types of stocks and Roux
Derivatives- Soups and Sauces- Types of soups and sauces
Salads -– Definition, classification and preparation- Recipes for simple and compound salads, salad Dressings –Preparation of Salad Dressing.

UNIT – II Standardization and Menu planning [9 HRS]

Selection procedures for Meat (pork, mutton, Beef), Poultry, Fish, Cuts of Meat, Poultry, Fish. Standardization of recipes, quality standards and portion control, Utilization of left over.
Menu – Definition, Types of menu, Menu planning.

UNIT – IV Food and Beverage Service [9 HRS]

Food and Beverage Service – Introduction, Definition, various outlets for food and beverage services.

Type of service - Russian, French, English and Indian, Etiquettes of service staff. Qualities of a waiter, waiting at the table. Table setting – buffet setting. Table wares -Crockery, cutlery and hollow wares. Napkin folding.

UNIT – V Management of food and beverage production department [9 HRS]

Management for food and beverage of food production department– Principle and functions of management. Organizational chart ,Tools of management.

REFERENCES:

1. Andrews.S (1982). *Food and Beverage Service Training Manual* , Tata McGraw Hill, New Delhi,
2. Jitendar ,M.D.(2000). *Catering Management*, Denumant Publication, New Delhi.
3. Jomes & Merricks (1995). *The Management of Food Service operation*, Cassell Publication, London.
4. Sethi & Mathan.(1997).*Catering Management* – An integration approach, New Age International, Chennai,
5. Thangam Phillip (1992). *Modern cookery*, Orient Longman, Mumbai,

Web Reference

1. http://www.cocktailtimes.com
2. http://www.Food and beverages skills.org
3. http://www.wpi.edu/Pubs/E-project/Available/E-project-031405-135846/unrestricted/IQP.pdf
4. http://www.sciencedaily.com/articles/t/transgenic_plants.htm

EVALUATION COMPONENTS

T1	T2	TA	C1	C2	TOTAL
15	15	15	5	5	25

II B.Sc. HOME SCIENCE WITH FOOD BIOTECHNOLOGY

IV SEMESTER

FOOD PRODUCTION AND SERVICE LAB - 19N4AC4

(For those who joined in 2019 onwards)

HOURS /WEEK : 2 CREDITS : 2

COURSE DESCRIPTION

This practical course develops the skills on the production and service of the food.

COURSE OBJECTIVES

- To acquire the skill on planning the coarse menu
- To prepare the food on various styles

COURSE OUTCOMES (CO)

The students will be able to

1. Plan and prepare starters and desserts
2. Choose and prepare main dishes of different cuisines
3. Identify and prepare suitable side dishes
4. Construct the course menu for Indian, Continental cuisine
5. Organize different types of service

FOOD PREPARATION

Unit I - Preparation of soups, salads and desserts

Unit II – Main dish (Indian, Continental)

Unit III – Side dish

Unit IV – Course menu

FOOD SERVICE

Unit V – Types of service, cover laying, table setting, napkin folding

II B.SC. HOME SCIENCE WITH FOOD BIO TECHNOLOGY

IV SEMESTER

ENTREPRENEURIAL SKILLS- CAD- FASHION STUDIO – 19N4SB2

(For those who joined in 2019 onwards)

HOURS / WEEK: 2 CREDITS : 2

COURSE DESCRIPTION

This course imparts skill in designing fashion garments, texture mapping and application of suitable accessories and background using Fashion Studio software.

COURSE OBJECTIVES

- To train the students in drawing basic silhouettes.
- To impart skill in designing fashion garments.

COURSE OUTCOMES (CO)

The students will be able to

1. Illustrate the basic silhouettes of garments.
2. Plan the colour and design based on the type of garment
3. Identify the areas for the application of transparent effect
4. Choose appropriate pleat, fold and accessories
5. Organize the designed garment against a background

UNIT – I Drawing basic silhouettes **[10 hrs]**

UNIT – II Texture mapping – introducing colours and designs **[5 hrs]**

UNIT – III Colour way studio **[5 hrs]**

UNIT – IV Introducing pleat and fold **[5 hrs]**

UNIT – V Draping **[5 hrs]**

III B.Sc HOME SCIENCE WITH FOOD BIO TECHNOLOGY

V SEMESTER

CRECHE AND PRESCHOOL MANAGEMENT- N5CC13

(For those who joined in 2019 onwards)

HOURS/WEEK: 6 CREDITS: 4

COURSE DESCRIPTION:

This course imparts a comprehensive theoretical knowledge on the management of crèche and preschool management

Objectives :

- To disseminate the knowledge on the theories of philosophers.
- To teach them the various type of Preschools .
- Enable them to learn the principles and curricula of the preschool

COURSE OUTCOMES (CO)

The students will be able to

1. the importance of children's environment and overall development of pre-school children.
2. Construct the administrative skills to establish the preschool.
3. Express the views of educationists of preschool
4. Build a skill in preparing various teaching aids for preschoolers
5. Organize and maintain different play equipments and records in preschool centre.

UNIT – I EARLY CHILDHOOD CARE AND DEVELOPMENT [18 HRS]

Importance of children's environment, early childhood care and development, Psychological, Nutritional and healthcare of preschool children

UNIT – II CRECHE MANAGEMENT [18 HRS]

Need for crèche – a supportive Agency. Role of a care taker – planning activities for children, care of an infant – sleep, feeding, and hygienic aspects Prevention of accidents, special requirements – furniture, rooms, play equipments and utensils

UNIT – III PRESCHOOL EDUCATION [18 HRS]

Preschool – Meaning, Objectives, Significance, Functions. Views of educationists – Rousseau, Pestalozzi, Froebel, Dewey, Montessori

UNIT – IV PRESCHOOL PROGRAMME [18 HRS]

Preschool programme- Principles involved, a day's schedule

Preschool curriculum – types – child controlled, teacher controlled, child teacher mutually controlled

UNIT – V ORGANISATION OF A PRESCHOOL CENTRE [18 HRS]

Physical setup – building equipment, Play Definition, importance of play

Play equipment for preschool children -Selection and maintenance

Preschool staff and personnel,

Records and reports maintained in preschool

Home school relationship

PRACTICALS:

PLANNING PROGRAMMES FOR VARIOUS - SETTINIGS:

1. Plan 3 activities for children. List – Objectives, Select and Organize the instructional and learning material – Teacher's role, preparation of evaluation sheets.
2. Observations in various ECCE settings. (e.g.) Daycare centre, preschools and primary school.

REFERENCES

1. Chowdhry. A & Chowdhry. R, *Pre-school children – Development care and Education*, New Age International CP Limited, NAIP publishing, Chennai, 2002.
2. Devadas R.P. & Jaya.N(1991), *Textbook of Child Development*, Macmillan India limited, India

3. Moony S.G(2013).*Theories of childhood :an introduction Dewey, Montessori, Erikson, Piaget, and Vygotsky, Tradepaperback,USA.*

4. Santrock J.W, *(2014)Child Development*, McGraw Hill Inc.,New York.

EVALUATION COMPONENTS

T1	T2	TA	C1	C2	TOTAL
15	15	15	5	5	25

III B.SC. HOME SCIENCE WITH FOOD BIO TECHNOLOGY

SEMESTER – V

N5CC14 PRESCHOOL ADMINISTRATION LAB

(For those who joined in 2019 onwards)

HOURS / WEEK: 3 CREDITS: 2

COURSE DESCRIPTION :

This course helps the students to develop constructive knowledge on the various skills in managing the crèche and preschool.

Objectives:

To teach how to

- Plan a preschool programme –activities for children.
- Prepare audio visual aids to support teaching
- prepare a play equipment.
- Manage the preschool

COURSE OUTCOMES (CO)

The students will able to

1. Construct the knowledge in developing stories, rhymes, and creative activities on their own.
2. Develop skills on the preparation of low cost play equipment for preschool children 3. Plan and Organize indoor and outdoor games for preschool children
4. Explore their skills in strengthening the moral values and health concepts of children.

UNIT – I [20 HRS]

Developing Stories with suitable aids for Preschool Children

Preparing audio visual aids for informal talk

UNIT – II [10 HRS]

Compose rhymes with expression and action for Preschool Children

UNIT – III [10 HRS]

Developing creative activities for Preschool Children

Planning science experience for Preschool Children

UNIT – IV [30 HRS]

Construct low cost play equipment for children.

Planning for indoor and outdoor games

UNIT – V [10 HRS]

Preparing picture book for Readiness activity.

Preschool participation in celebration and in health programmes

III B.Sc HOME SCIENCE WITH FOOD BIO TECHNOLOGY V SEMESTER

HOUSING AND ART IN HOME - N5CC15

(For those who joined in 2019 onwards)

HOURS/WEEK: 6 CREDITS: 4

COURSE DESCRIPTION

This course elicit knowledge on all aspects of housing and application of art in home.

COURSE OBJECTIVES

- ➢ Gain basic knowledge of art principles and gain skills in their application in the home.
- ➢ Understand basics of house planning
- ➢ Understand the housing problems and social effects of housing in India.
- ➢ Gain basic knowledge of principles of maintenance of house.

COURSE OUTCOMES (CO)

The students will be able to

1. Classify the types, elements of design.
2. Explain the principles of design, and its application in interiors.
3. Construct house plan and landscaping
4. Describe the housing problems and remedies.
5. Build skills in interior designing.

UNIT – I ART IN HOME [15 HRS]

Design-Meaning, Types, Characteristics

Elements of Design – Line, Shape, Form, Colour, Size etc

UNIT – II PRINCIPLES OF DESIGN [15 HRS]

Principles of Design – Harmony, Balance, Proportion, Rhythm, Emphasis

Colour – Prang colour system, Classes of colour, Colour harmony-related & contrast.

UNIT – III TRENDS IN INTERIOR DESIGN [20 HRS]

Furniture – Selection, use and care, furniture arrangement in various rooms.

Accessories – Selection, use and care, Flower Arrangement – Types – Basic principles Lighting – Requirements of good lighting, types – based on reflection and purpose.

UNIT – IV HOUSING AND ITS ENVIRONMENT [20 HRS]

Functions of house, selection of site, Principles of planning, Interior and exterior finishes – Wall, Floor and Ceiling, Landscape gardening – meaning, basic principles and units, Desirability of owning vs renting a house.

UNIT – V HOUSING DEVELOPMENT IN INDIA [20 HRS]

Housing shortage in India, causes of housing problems in India, Role of Tamil Nadu Housing Board & NBO in Housing Development

Daily, weekly, periodical cleaning of house, Domestic pests and measures. Purification of water household & large scale. Waste management-solid waste-burning, dumping and composting.

REFERENCES

1. Bettar and Lockarty (1961), *Design for you*, Jotiss Wiley & Sons, Inc., New York.
2. Faulkner, R & Faulkner. S (1960).*Inside Today's Home*, Rinc Hart and Winston Inc. New York,
3. Goldstein H. & Goldstein V.(1978). *Art in Everyday life*, The Macmillan Company, New York,
4. Gross I.H, Grandall E.W, & Knoll H.M. (1975) *Management for modern families* 5.

Mullick.P.(2007) *Text Book of Home Science*, Kalyani Publishers, Ludhiyana. 6. Nickell & Dorsey, J.N (1976). Management in Family Living, Indian Edition, 7. Rutt, A.H.,(1967). *Home Furnishings* Wiley Easters Private Ltd., New Delhi.

WEB REFERENCE

1. http://www.gautamshah.in/PDF/SFIJul07.pdf
2. http://www.gautamshah.in/DM2.html
3. http://freshome.com/
4. http://pinterest.com/concept2design/interior-design-notes/

EVALUATION COMPONENTS

T1	T2	TA	C1	C2	TOTAL
15	15	15	5	5	25

III B.Sc HOME SCIENCE WITH FOOD BIO TECHNOLOGY

V SEMESTER

ART IN EVERYDAY LIFE - LAB - N5CC16

(For those who joined in 2019 onwards)

HOURS/WEEK: 4 CREDITS: 2

COURSE DESCRIPTION

This course imparts skill in decorating the interior based on art principles.

COURSE OBJECTIVES

- To impart knowledge on principles of design.
- To train students to set table for different occasions.
- To prepare wall hangings for different rooms.

COURSE OUTCOMES (CO)

The students will be able to

1. Recall the elements and principles of design.
2. Organize the table for various occasions.
3. Construct a wall hanging.
4. Illustrate a suitable design on crockery.
5. Describe the recent trends in crockery and cutlery.

UNIT –1 [5 HRS]

Identification of elements and principles of design on art object.

UNIT—2 [5 HRS]

Setting the table for various occasions like birthday party , formal dinner and buffett

UNIT—3 [10 HRS]

Design and development of a wall hanging based on the principles of mounting pictures.

UNIT –4 [5 HRS]

Application of related and contrasting colour harmonies on various crockeries.

UNIT—5 [5 HRS]

Survey on types of crockery and cutlery available in the market.

III B.Sc HOME SCIENCE WITH FOOD BIO TECHNOLOGY

V SEMESTER

TECHNICAL TEXTILES – N5ME1

(For those who joined in 2019 onwards)

HOURS / WEEK - 5 CREDITS : 5

COURSE DESCRIPTION

This course offers deep insight into the various application areas of technical textiles.

COURSE OBJECTIVES

- To acquaint students with the concept of technical textiles and its scope.
- To know the applications of various types of technical textiles.

COURSE OUTCOMES (CO)

The students will be able to

1. Identify the application areas of Technical Textiles.
2. Describe the types of Geo Textiles, their properties and applications.
3. Organise the four areas of Medical Textiles .
4. Choose the appropriate protective textiles for short term and long term survival. 5.

Restate in own words the application of technical textiles for various modes of transport.

UNIT – I INTRODUCTION TO TECHNICAL TEXTILES [10 HRS]

Definition and scope of technical textiles, milestones in the development of technical textiles, textile processes and applications.

UNIT – II GEO TEXTILES [15 HRS]

Introduction, types, essential properties- mechanical, filtration and chemical resistance. Natural fibre geotextiles, applications for natural geotextiles.

UNIT – III MEDICAL TEXTILES [20 HRS]

Introduction, areas of application, fibres used, nonimplantable materials, extracorporeal devices, implantable materials, healthcare/ hygiene products.

UNIT – IV PROTECTIVE TEXTILES [15 HRS]

- Introduction, types, short term survival- drowning and extreme low
- temperatures, ballistic protection, protection from fire.
- Long term survival - extreme weather conditions, high temperatures and associated hazards, chemical, microbiological and radiation hazards.

UNIT – V TRANSPORTATION TEXTILES [15 HRS]

Introduction, textiles in passenger cars, textiles in other road vehicles- heavy goods vehicles, buses and coaches. Rail applications, Textiles in aircraft, Marine applications.

REFERENCES:

1. Horrocks, A.R. & Anand, S.C. *Handbook of Technical Textiles.* Wood Head Pub. Ltd., England.

2. w.w.w.technical textiles.com

EVALUATION COMPONENTS

T1	T2	TA	C1	C2	TOTAL
15	15	15	5	5	25

100% SKILL DEVELOPMENT

III B.Sc. HOME SCIENCE WITH FOOD BIO TECHNOLOGY

V SEMESTER

FOOD BIOTECHNOLOGY - N5ME2

(For those who joined in 2019 onwards)

HOURS / WEEK: 5 CREDITS: 5

COURSE DESCRIPTION

The course offers knowledge on the scope, importance and the basic aspects of biotechnology relating to foods

COURSE OBJECTIVES

- To enlighten the students on role of enzymes in food industries**.**
- To create awareness on biotechnological aspects of food additives
- To gain knowledge in plant and animal biotechnology

COURSE OUTCOMES (CO)

The students will be able to

1. Describe the techniques in enzymes production and its application
2. Summarize the process distilled alcoholic beverages
3. Classify the types of food additives of microorganism origin
4. Explain the concept of transgenic plants and its application in food industry 5. Define genetically modified foods and its application in food industry

UNIT – I ENZYMES [15 HRS]

Definition, Properties of enzymes, Microorganisms producing enzymes, Methods of enzyme production, Enzymes produced - ∝-amylases, lipases, proteases, Use of enzymes in food industry – Proteases, glucose oxidase, catalase, lactase.

UNIT – II ENZYMES IN FRUIT JUICES AND BREWING INDUSTRY [15 HRS]

Enzymes used in the production of fruit juices, beer and distilled alcoholic drinks, processing steps of wine and beer.

UNIT – III FOOD ADDITIVES [15 HRS]

Organic acids – Production of citric acid, acetic acid, lactic acid

Sweeteners - Production of HFCS and glucose syrup

Microbial colour, Microbial flavours

Modification of starch and Oilseeds

UNIT – IV FOOD AND PLANT BIOTECHNOLOGY [15 HRS]

Application of Plant Biotechnology in Food industry.

Fruits and Vegetables, Milled Corn Product and Milled Soy Products,

Golden rice, Vegetable oil.

UNIT – V FOOD AND ANIMAL BIOTECHNOLOGY [15 HRS]

Application of Animal Biotechnology in Food industry – fish, meat, milk and milk products Advantages and disadvantages of genetically modified foods

Ethical issues of genetically modified foods

REFERENCES:

TEXT BOOK: COURSE MATERIAL

1. Dubey, R.C.(1996) *A textbook of Biotechnology,* S. Chand and company ltd., New Delhi
2. Gupta, K. (1995). *Elements of Biotechnology*, Rastogi Publications, Meerut.
3. Sriram Sridhar. (2005) *Enzyme Biotechnology*, Dominant Publishers and Distributors, New Delhi
4. Rita Singh. (2004) *Food Biotechnology*, Global Vision Publishing House, Delhi.
5. Trevor Palmer. (2004). *Enzymes: Biochemistry, Biotechnology and Clinical chemistry;* Affiliated East West press pvt ltd., New Delhi.
6. Primrose S.B.(1987). *Modern Biotechnology*, Oxford Blackwell

WEB REFERENCE

1. http://www.businessdictionary.com/definition/food-biotechnology.html
2. http://www.mrothery.co.uk/genetech/genetechnotes.htm
3. http://www.wpi.edu/Pubs/E-project/Available/E-project-031405-135846/unrestricted/IQP.pdf

EVALUATION COMPONENTS

T1	T2	TA	C1	C2	TOTAL
15	15	15	5	5	25

III B.Sc HOME SCIENCE WITH FOOD BIO TECHNOLOGY

V SEMESTER

SKILL BASED ENTRERENEURIAL SKILLS

BAKING, ADULTERATION AND PRESERVATION- N5SB3

(For those who joined in 2019 onwards)

HOURS / WEEK: 2 CREDITS: 2

COURSE DESCRIPTION

The course gives hands on training in the preparation, display of various baked, preserved food products and identification of adulterants in commercially available foods.

COURSE OBJECTIVES

To enable students

- ➢ To understand the principles of baking of various bakery products
- ➢ To understand the principles of food preservation and preparation of preserved foods.
- ➢ Developed skills for setting up production unit.

COURSE OUTCOMES (CO)

The students will be able to

1. Define the terminology in baking, adulteration and preservation.
2. Recognize the principles of food preservation.
3. Choose the method of food preservation .
4. Identify the adulterants in foods.
5. Classify the food additives.

UNIT – I INTRODUCTION TO BAKERY AND BAKERY TECHNIQUES [6 HRS]

Introduction to Bakery, Baking Techniques - Bread - Cake - Biscuits & Cookies

UNIT – II FOOD PRESERVATION [6 HRS]

Introduction, Classification and use of preservatives

UNIT – III METHODS OF FOOD PRESERVATION [6 HRS]

Methods of Food preservation, Preparation of Jam, Jelly, Squash, Tutty fruity

UNIT – IV FOOD ADULTERATION [6 HRS]

Types of Adulterants and Methods of Adulteration

UNIT – V FOOD ADDITIVES [6 HRS]

Additives – functions, uses, importance - antioxidants, coloring matter, emulsifying agent and stabilizers.

PRACTICALS

1. Visit to Bakeries and Food processing Units.
2. Preparation of following items.

   Cakes, Biscuits, Jams - 3 type each.
3. Visit to regional Adulteration Unit

REFERENCES

1. Dearosier. N.N(1975). *The Technology of Food Preservation.*

2. Lai G. Sideleappa G.B. (1987), *Preservation of Fruits and Vegetables* ICAR, New Delhi. *3.* Parvinder S. Bali (2009). *Food Production Operations*, Oxford University Press, New Delhi. *4.* Srilakshmi. B, (2008), *Food science,* New age international publishers.

5. Sudesh Jood & Neelani (2002) *Food Preservation.*

6. Thangam E. Philip, (1981). *Modern Cookery*, Vol I, Orient Longman, Mumbai.

100% EMPLOYABILITY

III B.Sc HOME SCIENCE WITH FOOD BIOTECHNOLOGY

V SEMESTER

ENTREPRENEURIAL SKILLS

PARTICIPATORY RURAL APPRAISAL- N5SB4

(For those who joined in 2019 onwards)

HOURS / WEEK: 2 CREDIT: 2

COURSE DESCRIPTION

This course enlightens the students on concept of participatory rural appraisal.

COURSE OBJECTIVES

- To enable the students to understand the concept of participatory rural appraisal.
- To develop knowledge on tools of participatory rural appraisal.
- To impart knowledge on different types of mapping.
- To train students to prepare project appraisal.
- To apply different resources in mapping.

COURSE OUTCOMES (CO)

The students will be able to

1. Define PRA and its principles
2. Describe the application of PRA.
3. List the types and techniques of mapping.
4. Plan participatory research method in the field
5. Identify the rural problems and plan projects.

UNIT- I INTRODUCTION TO PRA [6 HRS]

PRA- Introduction, Meaning, Importance, History and nature of Participatory Appraisal and Planning

UNIT- II PRINCIPLES AND MENU OF METHODS [6 HRS]

Application of PRA in Rural Setting – Principles of PRA - Tools of PRA: Timeline, Trend change, Seasonal calendar, Daily routine

UNIT- III MAPPING AND MODELLING [6 HRS]

Mapping – Social and Resource mapping

UNIT-IV RANKING METHODS [6 HRS]

Concept of wealth, health, Pair wise and Matrix Ranking

UNIT- V PROJECT FORMULATION [6 HRS]

Focus Group Discussion, Income and Expenditure Matrix, Problem Analysis and Project Formulation

REFERENCE

1. Narayanasamy.N,(2009). *Participatory Rural Appraisal: Principles, Methods And Application*, SAGE Publications Ltd.

2. Neela mukherjee (1997). *Participatory Rural Appraisal volume I of studies in rural participation, concept* publishing company, New Delhi.

3. Stringer, E.T.(2007). *Action research* (3rd ed). Thousand oaks, A: Sage Publications Ltd.

III B.Sc HOME SCIENCE WITH FOOD BIOTECHNOLOGY

SEMESTER – VI

RESOURCE MANAGEMENT – N6CC17

(For those who joined in 2019 onwards)

HOURS / WEEK: 6 CREDITS: 4

COURSE DESCRIPTION

This course offers knowledge on managing resources like time, money and energy. It also deals with consumerism and standard of living.

COURSE OBJECTIVES

To enable the students to

- Understand the housing values and goals.
- Understand the importance of Family Resource Management in family and personal living.
- Develop ability to apply Family Resource Management concepts in living situations to improve quality of family life.
- Appreciate the role of successful financial management in satisfying family living.

COURSE OUTCOMES (CO)

The students will be able to

1. Describe the management process.
2. Identify the human and non-human resources
3. Explain the financial management .
4. Summarize the key elements of standard of living
5. Built the concepts of consumerism.

UNIT – I MANAGEMENT PROCESS [15 HRS]

Management- Meaning, Elements of management (planning, controlling and evaluation). Decision Making- Meaning, Steps in decision making, Types, Values, Goals, and Standards. Characteristics of a good home maker.

UNIT – II RESOURCES [15 HRS]

Types of resources- Human, Non human resources

Time and Energy Management.

Work simplification- Principles and Techniques.
Labour Saving Devices- Major and Minor, Selection, Use and Care.

UNIT – III MONEY MANAGEMENT [15 HRS]

Family income – types, sources of income, supplementing Family Income. Income management – Family Budget and its main items and steps in making budget. Engel's law of consumption, Law of Diminishing Marginal Utility, Law of Substitution, Financial Records of House, Savings.

UNIT – IV STANDARD OF LIVING [15 HRS]

Meaning, Factors affecting standard of living, reasons for low standard of living, Remedial measures to overcome low standard of living.

UNIT – V CONSUMERISM [15 HRS]

Meaning of consumer, Consumerism, Problem faced by consumers Adulteration, Faulty weights and measures, misleading advertisements . Problem of purchasing – When, Where, How, how much to buy? Types of labels, Consumer rights, consumer protection acts, consumer court, CGSI.

REFERENCES:

1. Bigelow H.P.(1953) *Family finance*, J.B. Lippincott Co.
2. Dewett, K.K. & Varma (1976). *Elementary Economics Theory*, S. Chand and Company Ltd. New Delhi,
3. Gisban, L.B., (1971) .*Economics of Consumers*, American book Co,
4. Gordan (1971).*Economics of Consumers*, American book Co,
5. Gross, I.H., Crandall, E.W. & Knoll, H. M (1975) *Management for Modern Families*,
6. Maneesh.S. (2006). *Home Management and Family Finance*, Dominant Publishers and Distributors, New Delhi.
7. Mullick.P., (2007) *Text Book of Home Science*, Kalyani Publishers, Ludhiyana.
8. Nickell & Dorsey (1976), *Management in Family living*, Indian Edition,
9. Swarison, V (1981). *Introduction to Home Management*, Mac Milan and Co.,
10. Thankamma, J. (1965) .*Food Adulteration*, Mac Milan Co., New Delhi.

WEB REFERENCE

1. http://www.goodreads.com/book/show/9873788-large-family-logistics
2. http://www.goodreads.com/book/show/1249008.Time_Management_For_Manic_Mums
3. http://www.eric.ed.gov/ERICWebPortal/search/detailmini.jsp?_nfpb=true&_&ERICExtSearch_SearchValue_0=EJ248177&ERICExtSearch_SearchType_0=no&accno=EJ248177

EVALUATION COMPONENTS

T1	T2	TA	C1	C2	TOTAL
15	15	15	5	5	25

III B.Sc HOME SCIENCE WITH FOOD BIOTECHNOLOGY

VI SEMESTER

RESOURCE MANAGEMENT – LAB - N6CC18

(For those who joined in 2019 onwards)

HOURS / WEEK: 3 CREDITS: 2

COURSE DESCRIPTION

This course trains the students in managing the resources efficiently.

COURSE OBJECTIVES

- To understand the concepts of furniture
- To select the different types of lighting
- To develop skill in bouquet making

COURSE OUTCOMES (CO)

The students will be able to

1. Plan suitable furniture for different rooms.
2. Choose appropriate modes of lighting .
3. Illustrate and create various styles of flower arrangement.
4. Classify accessories for home interiors.
5. Restate in own words the principles of resource management.

UNIT ---1 [5 HRS]

Furniture Arrangement for living room , dining room , kids room ,teenages room (girl ,boy) and master room.

UNIT ---2 [5 HRS]

Types of Lightining ---- Direct ,Indirect and Diffused lig htining.

UNIT ---- 3 [10 HRS]

Arranging flowers in various styles for different areas ------ Vertical , Horizantal , Diagonal , Japanese , Mass ,Crescent and S –bend .

UNIT------4 [5 HRS]

Market survey on availability of accessories for Kitchen , Living , Dining and Bed room.

UNIT ----5 [5 HRS]

Application of principles for efficient money ,energy and time management.

100% EMPLOYABILITY

III B.Sc HOME SCIENCE WITH FOOD BIOTECHNOLOGY

VI SEMESTER

CLINICAL NUTRITION AND DIETETICS - N6CC19

(For those who joined in 2019 onwards)

HOURS/WEEK: 5 CREDIT: 4

COURSE DESCRIPTION

The course gives a detailed picture of the normal & therapeutic nutrition, highlighting the importance, recommended dietary allowance, medical nutrition therapy for various stages of life cycle and all disease conditions.

COURSE OBJECTIVES

- Learn the principles of meal planning, plan and prepare meals for families at different income levels and for special groups.
- Gain knowledge and develop skills and techniques in the planning and preparation of therapeutic diets for nutritional deficiencies.
- To recommend and provide appropriate nutritional care, prevention and treatment of various diseases.

COURSE OUTCOMES (CO)

The students will be able to

1. Identify the principles of meal planning in nutrition through life cycle.
2. Recall the nutritive value of foods for planning diets
3. Recognize the etiology and symptoms of diseases
4. Build skills in preparation of therapeutic diets
5. Solve problem of malnutrition through intervention programmes

UNIT – I NUTRITION FOR DEVELOPMENTAL MILESTONES [20 HRS]

Meal Planning – Principles of planning meals, meal pattern and its modification to suit to different disease conditions.

1. Nutrition during pregnancy – importance – changes nutritional requirements and complication.
2. Nutrition during lactation – importance, advantages of breast feeding, need for enhanced nutritional requirements.
3. Nutrition during infancy – nutritional requirement, weaning – methods – low cost supplementary foods.
4. Nutrition for Preschoolers – nutritional requirements, inculcating feeding habits.
5. Nutrition for school children and adolescents – nutritional requirements in adolescence nutritional problems of adolescents.
6. Geriatric nutrition – changes during old age, nutritional requirements during old age, nutrition related problems of old age.

UNIT – II DIET THERAPY [15 HRS]

Diet therapy – Objectives of therapeutic diets

1. Routine Hospital diet –

    a. a.TPN b. EN

2. Modification of diets in different diseases,

Etiology /Pre-disposing factors, clinical symptoms and modification of diets for a.

Obesity and Underweight

b. Diabetes mellitus

c. Febrile disease conditions – Typhoid (acute), Tuberculosis (chronic) and Malaria (intermittent).

d. Gastrointestinal disorders – Peptic- ulcer, diarrhea, constipation

e. Anemia – type

UNIT – III THERAPEUTIC DIETS FOR HEART, KIDNEY & LIVER DISEASES [15 HRS]

Etiology or Pre-disposing factors, clinical symptoms and modification of diets for

a) CVD-Hypertension and Atherosclerosis.

b) Diseases of urinary tract – Nephritis, Nephrosis, Renal failure.

c) Diseases of the liver – Hepatitis and Cirrhosis

UNIT – IV DIET IN AIDS AND CANCER [10 HRS]

Etiology of Pre-disposing factors, clinical symptoms and modification of diets for

a) Cancer

b) AIDS

UNIT – V COMMUNITY NUTRITION [15 HRS]

Malnutrition – etiology and measures to overcome

Assessment of nutritional status

Nutrition Education

Nutrition Intervention Programme – CMNMP, ICDS

National and International Organisations

FAO, WHO, UNICEF, CARE, CFTRI and NIN

TEXT BOOK:

B. Srilakshmi (2018) *Dietetics*, New Age International Publishers.

REFERENCE:

1. Antia H. P (1989) *Clinical Nutrition and Dietetics* Oxford University press

2. Caroll, A. Lutz (1997) *Nutrition for Diet Therapy*, Edition – 2, F. A. Davis Company, Philadelphia.

3. Davidson S. Passmore, R. Brock J. K. & Truwell A. S.(1975) *Human Nutrition and Dietetics,* The English Language Book Society and Churchill.

4. Ghosh S (1976). *The feeding and care of Infant and Young children*

5. Gupta L. C. &. Kusium Gupta (1989).*Foods mid Nutrition, Facts and Figures*, Jayapahothas, New Delhi,

6. Passmore R. Eastwood (1986) *Human Nutrition and Dietetics*, Longman Group Ltd., **7.**

Raheena Begum, A. (1989).*Textbook of food, nutrition and dietetics,* Stanley Publishers,

8. Skinner Paul (2000) *Development of a medical nutrition therapy protocol for female collegiate alhotetes,* J. AM. Diet ASS 101

9. Swaminathan M. (1988) *Advanced textbook of Food and Nutrition,* Vol. I and II, the Bangalore Printing and Publishing Co., Ltd.,

10. Williams S.R (1977). *Nutrition and Diet Therapy* C.V. Mospy CO.

WEB REFERENCE

1. cnr.berkeley.edu/site/majors/nsd_resources.php
2. journal of human nutrition and dieteticseditor.wordpress.com/.../journal
3. www.siemens.com/cardiovascular-care
4. www.who.int/mediacentre//cardiovascular_diseases
5. www.cdc.gov/diabetes/pubs/factsheets/kidney.htm

EVALUATION COMPONENTS

T1	T2	TA	C1	C2	TOTAL
15	15	15	5	5	25

.

100% EMPLOYABILITY

III B.Sc HOME SCIENCE WITH FOOD BIOTECHNOLOGY

VI SEMESTER

CLINICAL NUTRITION AND DIETETICS LAB- N6CC20

(For those who joined in 2019 onwards)

HOURS/WEEK – 3 CREDIT: 2

COURSE DESCRIPTION

The course provides hands-on experience in the planning, formulation and calculation of nutrients for various stages of life cycle and deficiency disorders/degenerative diseases.

COURSE OBJECTIVES

- To enable the students to know the importance of the various stage of life cycle. •

To plan and prepare food for various therapeutic conditions.

- To alleviate deficiency disorders by planning diets rich in particular diseases.
- To share the knowledge from lab to land.

COURSE OUTCOMES (CO)

The students will be able to

1. Recall the principles of meal planning
2. Choose and prepare balanced diets
3. Describe the dietary modification
4. Plan and prepare/execute therapeutic diets
5. Construct diet for deficiency diseases

UNIT ---I [5 HRS]

Planning meals for families at low, medium and high income levels.

UNIT ---II [5 HRS]

Planning, Preparation and serving of meals for

a) Expectant woman

b) Lactating woman

c) Preschool children

d) School going children

UNIT ---III [5 HRS]

e) Adolescents – boys, girls

d) Adult woman – Lady Lecturer

e) Adult Man – Hard working

f) Old man

UNIT ---1V [5 HRS]

3. Planning, preparation and service of diets for

a) Post operative conditions

b) Obesity

c) Diabetes Mellitus

d) Peptic Ulcer

e) Hypertension, Atherosclerosis

UNIT ---V [5 HRS]

f) Liver disorders - Cirrhosis

g) Renal disorders- Nephritis

h) Anaemia, Vitamin A deficiency disease

i) Kwashiokar, Marasmus

j) Cancer

III B.Sc HOME SCIENCE WITH FOOD BIO TECHNOLOGY

VI SEMESTER

100% Skill Development

FAMILY DYNAMICS N6ME3

(For those who joined in 2019 onwards)

HOURS/WEEK: 5 CREDIT: 5

COURSE DESCRIPTION

This course describes the dynamics of the family with reference to its structure, function, problems, and supportive programmes.

COURSE OBJECTIVES

- To acquaint the students with the problems associated with the marital life, • To orient the students with the current family problems specially on the disintegration of family and the solving methods.
- To give them thorough knowledge on reproductive health education.

COURSE OUTCOMES (CO)

The students will be able to

1. Describe the stages of adulthood.
2. Built knowledge on marriage and family.
3. Recognise and solve family crisis.
4. Summarize welfare programme for the aged and children with special needs
5. Restate in own words the significance of population education.

UNIT – I ADULTHOOD AND MARRIAGE [15 HRS]

Adulthood - early, middle and late adulthood characteristics and Psychological changes.

Marriage - definition, functions, types Monogamy, polygamy, and polyandry and group marriage

Marital adjustments and factors affecting marital life

Guidance and Counseling - need, method and Supportive Agencies.

UNIT – II FAMILY [15 HRS]

Family – Meaning, characteristics and functions -essential and non essential .

Types based on – structure, Authority and Marriage.

Family disintegration – reasons and remedial measures.

UNIT – III FAMILY CRISIS [15 HRS]

Crisis and crisis management – definition, Classification – usual and expected, unexpected.

Prolonged illness, Bereavement, unemployment suicide. Divorce, separation, Alcoholism and drug addiction -stress management.

UNIT – IV WELFARE OF THE AGED AND CHILDREN WITH SPECIAL NEEDS [15 HRS]

Welfare programme for the aged.

Welfare programme for the children with special needs – Institutions, Services, Programmes and concessions for children with special needs

UNIT – V POPULATION EDUCATION AND FAMILY WELFARE [15 HRS]

Population – Definition, Population growth and Population explosion, causes and effect of population explosion.

Population education, - definition, population education at various levels

Family planning methods- programmes, adolescent reproductive health education.

PRACTICALS

i. A study on family structure and family problems

ii. Visit to family counseling center

iii. Visit to Old Age Home.

REFERENCES

1.Devadas R.P &Jaya (1991) *Text Book of Child Development* Macmillan India Ltd, Madras. 2. Helen,B. (1995) *Developing Child* , Harpercolins Publishers,Newyork.

3. Hurlock E.B,(1981) *Developmental psychology : a life-span approach* Tata McGraw -Hill., New York.

4.Hurlock E.B, (2004) .*Child Development*, (6th ed). ,McGraw Hill Inc.,New York 5. SharmaR.N (1986). *Indian Social Problems*. Media Promoters and Publishers Pvt Ltd Mumbai,

6.Suria Kanthi A. (2004)*Child development- An introduction*. Kavitha Publications, Gandhigram, Tamil Nadu

EVALUATION COMPONENTS

T1	T2	TA	C1	C2	TOTAL
15	15	15	5	5	25

III B.Sc HOME SCIENCE WITH FOOD BIOTECHNOLOGY

VI SEMESTER

FOOD AND DAIRY PROCESSING -N6ME4

(For those who joined in 2019 onwards)

HOURS/WEEK : 5 CREDITS : 5

COURSE DESCRIPTION

This course enlighten the students to understand the various food processing operations in food industries.

COURSE OBJECTIVES

- To impart systemic knowledge of basic and applied aspects of food processing and technology.
- To understand the methods of heat and cold processing.

COURSE OUTCOMES (CO)

The students will be able to

1. Define the characteristics of food raw materials
2. Recall the preparative operations in food industries
3. Classify the methods of heat and cold processing
4. Choose the different processing methods adopted for plant and animal foods
5. Illustrate the processing & preparation of milk and milk products

UNIT – I FOOD PROCESSING OPERATION [15 HRS]

Characteristics of food raw materials – Geometric, physical, functional properties. Preparative Operations in food industry – Cleaning – objectives, Methods – Dry cleaning – Screening, Abrasion, Aspiration and Magnetic. Wet cleaning – Soaking, Spray washing, Flotation washing. Sorting – Methods – weight, size, shape and photometric.

Grading – grading factors, methods. An overall view of commonly used packaging materials.

UNIT – II PROCESSING BY HEAT AND COLD [15 HRS]

Heat – blanching, canning, pasteurization, sterilization.

Cold – Refrigeration, freezing – direct and indirect freezing.

Processing by Dry heat

Drying – Definition, purpose, methods – sun drying, drying by mechanical, freeze drying.

UNIT – III PROCESSING OF PLANT FOODS [15 HRS]

Cereals – Processing of wheat - milling.

Pulses – Processing –germination, decortication.

Fruits & Vegetables – Harvesting and storage, canning, drying, vegetable paste and powders.

UNIT – IV PROCESSING OF ANIMAL FOODS [15 HRS]

Meat – Post mortem changes in meat – ripening and tenderizing meat, Grades of meat, Changes produced during heat processing.

Poultry – Classification and Processing.

Fish- Classification, Processing – Canning, smoking, salting and drying.

UNIT – V DAIRY PROCESSING [15 HRS]

Milk-composition, nutritive value, processing-milk collection-transportation and grading of milk clarification,standardization,pasteurization,homogenization,packaging. Fermented milk products butter, cheese, curd, shrikhand-Non-fermented milk products-milk powder, sweetened condensed milk, skim milk and Ice-cream.

REFERENCES

1. Manay, S.N, Shadaksharaswamy, M. (2005). *Foods, facts and principles*, New age international publishers, New Delhi.
2. Sivasankar, B. (2008). *Food Processing and Preservation*, Prentice-Hall of India Pvt Limited, New Delhi.
3. Srilakshmi, B. (2008). *Food science*, New age international publishers, New Delhi.
4. Subbulakshmi, G, Udipi, S.A. (2006). *Food processing and preservation*, New age international publishers, New Delhi.
5. Sudeshjood, Khetarpaul, N. (2002). *Food preservation*, Agrotech publishing academy, Udaipur.

EVALUATION COMPONENTS

T1	T2	TA	C1	C2	TOTAL
15	15	15	5	5	25

100%ENTREPRENEURSHIP

III B.Sc HOME SCIENCE WITH FOOD BIOTECHNOLOGY

VI SEMESTER

WOMEN AND ENTREPRENEURSHIP DEVELOPMENT- N6ME5

(For those who joined in 2019 onwards)

HOURS/WEEK : 5 CREDIT : 5

COURSE DESCRIPTION

This course offers deep insight into the concepts of entrepreneurship and the institution for entrepreneurship development. It also deals with the preparation of project report and appraisal.

COURSE OBJECTIVES

- To enable students to understands the concepts of entrepreneurship
- To motivate them to start business
- To impart knowledge on the financial institution entrepreneurship development.
- To train them to prepare project report.

COURSE OUTCOMES (CO)

The students will be able to

1. Define the concept of entrepreneurship.
2. Describe the requisites to establish business.
3. List the institutions for entrepreneur development.
4. Plan and prepare the project report.
5. Recognize the components of project appraisal.

UNIT – I INTRODUCTION TO ENTREPRENEURSHIP [15 HRS]

Entrepreneurship ---- Meaning, Importance, Concept of women Entrepreneurship, Characteristics of Entrepreneur ,Function of women Entrepreneurship, Developing women Entrepreneur, Problems of women Entrepreneur,

UNIT – II TECHNIQUES TO START BUISNESS [15HRS]

How to start Business --- Product selection ----- form of ownership ------Sole proprietorship and partnership , Plant location ---- land , building , water and power --- raw materials ------ machinery ----- man power ---- other infrastructural facilities------ Licensing registration and bye laws.

UNIT – III FINANCIAL INSTITUTION [15 HRS]

Institutional Arrangement for Entrepreneurship Development----------D.I.C .S.I.D.C.O , N.S.I.C. S.I.S.I. – Institutional Finance to Entrepreneurs – T.I.I.C. S.I.D,B.I. and role of commercial banks.

UNIT – IV REPORT PREPARATION [15 HRS]

Project Report ---- Meaning and importance ---- Contents of a project report -- Format of a report (as per requirements of financial institutions)

Project Appraisal ---- Meaning , market feasibility , technical feasibility – financial feasibility -- -- break even analysis.

UNIT – V RECENT TRENDS IN ENTERPRENEURSHIP [15HRS]

Rural Entrepreneurship – Meaning, need, opportunities and problems of women entrepreneur Agri – preneurship – Meaning, need, opportunities and challenges involved in developing agri – preneurship

REFERENCES:

1. Sundaram , S.S.M & Muthupandi , M. (2004). *Entrepreneurship Development* . Sri Ganapathy Publishers , Madurai.
2. Paul ,J ., Jajithkumar , N., & Mampilly T. (1996). *Entrepreneurship Development* , (3rd ed.). Himalaya publishing House , New Delhi .
3. Sekar , P.C. (1998). *Entrepreneurship and Management of small Business* , ENPEE Publication.
4. Khanka.S.S (2018). *Entrepreneurial Development,* S.Chandhan Company Ltd, New Delhi

EVALUATION COMPONENTS

T1	T2	TA	C1	C2	TOTAL
15	15	15	5	5	25

III B.Sc HOME SCIENCE WITH FOOD BIOTECHNOLOGY

VI SEMESTER

100%

NUTRITION FOR HEALTH AND FITNESS -N6ME6

(For those who joined in 2019 onwards)

HOURS/ WEEK: 5 CREDITS: 5

COURSE DESCRIPTION

To integrate and apply the principles of sound nutrition to help, assess and evaluate physical fitness, body composition and dietary pattern and their interrelationship.

COURSE OBJECTIVES

- Understand the components of health and fitness and the importance of nutrition in maintaining health
- Make nutritional, dietary and physical activity recommendations to achieve fitness and well being.
- Develop ability to evaluate fitness and well being.

COURSE OUTCOMES (CO)

The students will be able to

1. Define the terminologies related to nutrition and health
2. Describe the functions of food, food groups and food guide pyramid
3. Identify the symptoms of deficiency disease of macro nutrients
4. Classify micro nutrients and identify the impact on health
5. Choose the appropriate cooking methods to conserve the nutrients

UNIT – I HOLISTIC APPROACH TO FITNESS AND HEALTH [15 HRS]

Introduction to fitness and health; Classification of physical activity based on energy expenditure; Assessment of nutritional status.

UNIT – II ENERGY SYSTEMS [15 HRS]

Aerobic and anaerobic energy system, Energy input and output, Shifts in Carbohydrate and Fat metabolism, Mobilization of fat stores during exercise

UNIT – III NUTRITION IN SPORTS [15 HRS]

Fuels and nutrients to support physical activity, Diet manipulation, Pre and Post game meals, Water and electrolyte balance, Losses and their replenishments during exercise and sports events, Carbohydrate Loading, Effect of dehydration, Ergogenic aids and Sports Drinks

UNIT – IV PHYSICAL FITNESS AND HEALTH INTER-RELATIONSHIPS [15 HRS]

Significance of physical fitness and nutrition in the prevention and management of weight Obesity, Diabetes Mellitus, Cardio Vascular Diseases, Disorders of bone health and Cancer Sports anemia, Female Athlete Triad

UNIT – V ALTERNATIVE SYSTEMS OF HEAL WAND FITNESS [15 HRS]

Yoga, Meditation, Vegetarianism, Herbal Medicines

REFERENCES:

1. Gupta L. C. &. Kusium Gupta (1989).*Foods mid Nutrition, Facts and Figures*, Jayapahothas, New Delhi,
2. Swaminathan M. (1988) *Advanced textbook of Food and Nutrition,* Vol. I and II, the Bangalore Printing and Publishing Co., Ltd.
3. Gitanjali Chatterjee, ,(1999) *Handbook of Nutrition*, Rajat Publications.
4. Srilakshmi.B.(2007). *Food Science*, New age International Pvt.Ltd.,NewDelhi.

EVALUATION COMPONENTS

T1	T2	TA	C1	C2	TOTAL
15	15	15	5	5	25

III B.Sc HOME SCIENCE WITH FOOD BIOTECHNOLOGY

VI SEMESTER

NUTRITION COUNSELLING - N6SB5

[ENTREPRENEURIAL SKILLS]

(For those who joined in 2019 onwards)

HOURS/ WEEK: 2 CREDITS : 2

COURSE DESCRIPTION

This course provides a strong ground in the strategies and techniques of nutrition counseling, nutrition education ,nutrition care plan, evaluation and documentation.

COURSE OBJECTIVES

- To acquire skills needed for effective counseling sessions related to the field of nutrition and dietetics
- To develop skills for group education and counselling

COURSE OUTCOMES (CO)

The students will be able to

1. Explain the counseling process.
2. Identify the appropriate counseling techniques.
3. Choose audiovisual aids for diet counseling.
4. Organize counseling camps for specific diseases.
5. Recall the principles of therapeutic diet.

UNIT – I [6 HRS]

Diet Counselling – Definition, Counselling process and its significance

UNIT – II [6 HRS]

Assessment - Assessment of needs of patients, Establishing rapport Communication process, Patient education

UNIT – III [6 HRS]

Case studies – Understanding Case Study - Clinical, Nutritional and Biochemical Profile, Therapeutic Modification of Diets, Report Writing.

UNIT – IV [6 HRS]

Counselling Center - Pre requisites and preparation for setting up a counselling center. Preparation of audio - visual aids for diet counselling.

UNIT – V [6 HRS]

Counselling Camps - Organizing counselling camps for specific diseases

REFERENCES:

1. Srilakshmi. B. (2002) .*Dietetics*, New Age International Publishers,
2. Skinner Paul (2000*), Development of a medical nutrition therapy protocol for female collegiate alhotetes*, J. AM. Diet ASS 101, 200.
3. Caroll, A. Lutz. (1997).*Nutrition for Diet Therapy*, Edition – 2, F. A. Davis Company, Philadelphia,

EVALUATION COMPONENTS

T1	T2	TA	C1	C2	TOTAL
15	15	15	5	5	25

III B.Sc HOME SCIENCE WITH FOOD BIO TECHNOLOGY

VI SEMESTER

INTERIOR DESIGN AND DECORATION- N6SB6

(For those who joined in 2019 onwards)

HOURS/WEEK: 2 **CREDITS: 2**

COURSE DESCRIPTION

This course offers deep insight on all the aspects of interior design and decoration.

COURSE OBJECTIVES

- Know the concept of interior design and decoration
- Draw perspective views and House plans, Vastuu application

COURSE OUTCOMES (CO)

The students will be able to

1. Construct floor plan for different income groups.
2. Classify the concept of interior design .
3. Describe the concepts of landscaping.
4. Identify the different types of windows treatments .
5. Explain the application of Vastu in interior

UNIT – I	**HOUSE PLAN**	**[10 HRS]**

Floor plan- low income plan-medium income plan-high income plan-double storied plan.

UNIT – II	**INTERIOR DESIGNING**	**[5 HRS]**

Clearance spaces- Living room-dinning room-Living cum Dinning room- bed room –Kitchen lay out-bath room

UNIT – III	**FLOOR COVERINGS**	**[5 HRS]**

Definition- Selection ,Types of floor coverings.

UNIT – IV	**WINDOW TREATMENTS**	**[5 HRS]**

Concept- Types of Windows – Types of Window Treatments.

UNIT – V	**VASTU IN INTERIORS**	**[5 HRS]**

Floor plan – Basics of Vastu- Feng Shui Application –Feng Shui Accessories

REFERENCES:

1. Barrie Evans & James Powell.(1992). *Changing Design*, John Wiley Publication, New York,

2. Drievex Mary & Stevenson Isabelle. (1996). *The Complete Book of Interior Decoration*, Greystone Press, New York,

3. Faulkner ray (1995). *Inside Today's Home*, Kind Port Press, Tenesee,

JOURNALS :

- Inside Outside
- Home Decors
- Interiors and Exteriors
- Kitchen and Bathrooms