

FIRST YEAR
Semester-I
HSc-101 Basic Nutrition

Theory: 4hrs/week
Practicals: 2 hrs./week

THEORY

Objectives:

1. To know the functions of various nutrients in the body and the clinical manifestations of their deficiency.
2. To learn the RDA of various nutrients for different age groups.
3. To get knowledge on Macro and Micro Minerals
4. To study the principles of calorimetric, Energy metabolism.

Unit I Definition and introduction to nutrition and RDA

- Nutrition – definition, importance, Good nutrition and mal nutrition, visible symptoms of good health, Guidelines for good health
- RDA: Definition, Reference Man and Women, Factors affecting on RDA of individual, Uses of RDA

Unit II : A) Energy: Definition, dietary sources, RDA, deficiency.

- B) Determination of energy value of food by Bomb calorimeter. Basal metabolic rate - Definition, factors affecting on BMR, Thermic effect of food, Specific Dynamic Action of food.

Unit III : Macro Nutrients –

- **Carbohydrates** – Classification, functions, dietary sources, RDA, deficiency, role of fibre in human nutrition
- **Lipids** – Classification, functions, dietary sources, RDA, deficiency, recommended combinations of oils for optimal health benefits. Essential Fatty Acids – Functions, deficiency
- **Proteins** – Classification (Chemical and nutritional), functions, dietary sources, RDA, deficiency

Unit IV : VITAMINS

- **Fat soluble Vitamins-** Functions, Deficiency, RDA, Food sources of Vitamin A, Vitamin D, Vitamin E, Vitamin K
- **Water soluble** – Functions, Deficiency, RDA, Food sources of Thiamin (B₁), Riboflavin(B₂), Niacin (B₃), Pyridoxine (B₆), Folate, Vitamin B₁₂ and Vitamin-C

Unit V : MINERALS

- **Macro Minerals** – Functions, Deficiency, RDA, Food sources of Calcium, Potassium and Sodium

- **Micro Minerals** – Functions, Deficiency, RDA, Food sources of Iron, Iodine and Zinc.

Additional Inputs:

- High and Low Nutrients. E.g; Calories, Proteins, Carbohydrates, Fats, Fiber, Fat soluble & water soluble, Macro and Micro minerals.
- Nutrients – digestion and absorption

PRACTICALS

1. Standardization of weights and measures of various food items.
2. Consulting Nutritive value of Indian Foods, calculating the nutritive value of recipe
3. Identification of nutrient rich sources of foods, their seasonal availability and price.
4. Study of nutrition labelling on selected foods.
5. List out low cost nutrient rich foods.
6. List out nutrient foods for different income groups.
7. Preparation of Soups
8. Preparation of salads

REFERENCES

1. Bamji MS, Krishnaswamy K, Brahmam GNV (2009). Textbook of Human Nutrition, 3rd edition. Oxford and IBH Publishing Co. Pvt. Ltd.
2. Wardlaw MG, Insel PM (2004). Perspectives in Nutrition, Sixth Edition Mosby
3. Swaminadhan S, Advanced Text book on foods & nutrition,(1985) Vol. I&II (2nd revised and enlarge) Rappc.
4. Vijaya Khader, (2000)Food, nutrition & health, Kalyan Publishers,

FIRST YEAR
Semester- I
HSc-102 Biochemistry

Theory: 4hrs/week
Practicals: 2 hrs./week

Objectives:

- To help the students to understand the importance of Biochemistry as the base for Nutrition.
- To impart knowledge on role of enzymes and co-enzymes.
- To make them aware of the fundamentals of macronutrients and their reactions.

Unit-I

Chemistry of carbohydrates: Definition, classification, physical and chemical properties of carbohydrates, Isomerism (Stereo – Geometrical & optical isomerism), colour reactions of carbohydrates.

Unit II

Chemistry of lipids: Definition, Classification, physical and chemical properties of lipids. Colour reactions of lipids, saturated and unsaturated fatty acids.

Unit–III

Chemistry of proteins: Definition, classification, Classification of amino acids. Colour reactions of proteins.

Unit–IV

Enzymes: Definition, classification IUB, Inhibition. Factors affecting enzyme activity. List of Co enzymes.

Unit–V

Functions and structure of Nucleic acids

Functions and structure of Nucleotides.

Structure and types of RNA

Nucleoproteins

Additional Inputs:

DNA Prototyping

PRACTICALS

1. Qualitative analysis of carbohydrates-
2. Monosaccharides (Glucose, Fructose),
3. Disaccharides (Lactose, Maltose and Sucrose) and
4. Polysaccharides (Starch).
5. Stages in acid hydrolysis of starch
6. Qualitative analysis of amino acids (Tyrosine, Tryptophan and Arginine).
7. Qualitative analysis of Lipids

References:

1. A.V.S.S. Rama Rao, A Text book of Biochemistry, 6th edition, UBSPD publications.
2. J.L.Jain, Sunjay Jain, Nitin Jain, S.C.H and publications.
3. S.C.Rastogi, Biochemistry, TATA MC Graw Hill 2nd edition.
4. U.Satyanarayana, Biochemistry, Uppala Author publishers, 2nd edition.
5. BIOCHEMISTRY – Saras publications

Semester- I

HSc-103 Microbiology

Theory: 4hrs/week
Practical: 2 hrs./week

Objectives:

- To help the students to understand the importance of Microbiology in our lives.
- To impart knowledge classification of microbes and their characteristics.
- To make them aware of the role of microbes in different environments.

THEORY

Unit I: Classification of microorganisms-Based on plants/animals-based on cellularity,-based on nature of nuclear material-Five kingdom concept

Scope and importance of microbiology

1. Bacteria-General Characteristics, classification, morphology,
2. Bacterial physiology, nutrition, reproduction, growth curve, temperature, oxygen and PH

Unit II:

- a. Virus- Morphology-classification-reproduction-lab culture
- b. Fungi- morphology, physiology, lab culture, economic importance
- c. Sexually Transmitted Diseases-Syphilis, Gonorrhea, HIV/AIDS

Unit III:

a. Immunology:

Infection-organism and host related factors, Immunity (definition,-types-active-passive immunity), Resistance

b. Food contamination and spoilage: 1.Cereals, 2.Fruits, 3.Vegetables,4.Milk & Milk products, 5.Meat & Fish, 6.Eggs

UNIT IV:

Microbiology of special environments

Microbiology of soil -Nitrogen cycle, carbon cycle

Microbiology of water, Microbiology of sewage

UNIT V:

Causes, symptoms, mode of infection, diagnosis, treatment and control of the following diseases:

- a. Bacterial diseases (Cholera, Typhoid, Tuberculosis, Diphtheria, Pertusis, Tetanus)
- b. Viral (Measles, Rubella, Hepatitis)
- c. Protozoal: Diseases (Amoebiasis, Malaria)

Additional Input: Sterilization –Different methods

PRACTICALS

1. Study of Microscope and its parts
2. Simple staining method
3. Gram staining
4. Acid fast staining
5. Laboratory equipment
6. Observation of fixed slides

References:

1. Text book of Microbiology by P.D. Sharma.
2. General Microbiology by R.P. Singh.
3. General Microbiology by Pelczar.
4. College Microbiology by Sundar Rajan.
5. Microbiology by Saras Publications.

FIRST YEAR
Semester-II
HSc-201 Human Physiology

Theory: 4hrs/week
Practicals: 2 hrs./week

Objectives

To give knowledge about the structure and functioning of different systems of the human body.
To know about the diseases and disorders of endocrine glands.

Theory

- UNIT- I : (a) **Circulatory system** : Blood- Composition, functions, clotting of blood, blood groups, R^h factor , anaemia.
- (b) **Cardiovascular system**: Anatomy of the heart, heart rate, Cardiac cycle, Blood Pressure, Factors maintaining blood pressure.
- UNIT-II : (a) **Digestive system**: Structure and functions-Liver and pancreas
- (b) **Respiration**: Structure of respiratory organs; Mechanism and Chemistry of respiration. Abnormal types of respiration- anoxia, hypoxia, asphyxia and Artificial respiration.
- UNIT-III : **Excretory system**: Structure and functions of Kidney, urine- composition volume, formation and micturition
- UNIT-IV : **Nervous system**: Structure of neuron, reflex action, spinal cord, brain and their membranes, autonomic nervous System. Central Nervous System
- UNIT-V : (a). **Endocrine glands** : Hormones, Secretion of hormones, and their influence on growth Metabolism & reproduction. Pituitary, thyroid, parathyroid and adrenal glands
- (b)**Physiology of Reproduction**: Anatomy of male and female reproductive system. Puberty changes

Additional Inputs: Survey on Usage of Tobacco,

Collection of information on Kidney diseases

Causes of Low Fertility Rate

PRACTICALS

I. Slides

- 1 .Types of epithelium -any three (columnar, ciliated, squamous,etc)
- 2 Types of muscle -any three (striated, non-striated, cardiac, etc.)
3. T..S of organs -any three (cartilage, bone, kidney, testes, ovary, etc.)

II. Experiments.

- 4 Identification of Blood groups & Rh factor
- 5 Preparation of Blood smear.
- 6 Observation and recording of body temperature and pulse rate before and after exercise.
- 7 Estimation of Hb -.Demonstration

References:

Telugu Academy Books – Volume I, II, III - Pineni Indira, P.K.Jayalakshmi.

2. Text Book of Medical Physiology. - Arthur C.Guyton.
3. Living Body – Best and Taylor.
4. Human Physiology – C.C. Chatterjee.
5. Medical Physiology – Ganong.
6. Human physiology – Dr. N.M. Muthayya.

**FIRST YEAR
Semester-II
HSc-202 Nutritional Biochemistry**

Theory: 4hrs/week
Practicals: 2 hrs./week

THEORY

Objectives:

- To enable the students to know the metabolism of macronutrients.
- To impart knowledge regarding inter-relationship among nutrients.
- To know the water and electrolyte balance .
- To enhance knowledge about nutrition and infection.

Unit I:

Metabolism of Carbohydrates: Introduction, anabolism, catabolism, metabolism.

Glycogenesis, Glycogenolysis, Glycolysis, Krebs's cycle, energy output, Homeostasis of blood sugar-role of hormones, Glucose Tolerance Test.

Unit II:

Metabolism of lipids:

Introduction, β -oxidation of fatty acids, Biosynthesis of fatty acids, Synthesis of triglycerides, Atherosclerosis (in brief)

Unit III:

Metabolism of proteins:

Dynamic equilibrium, nitrogen balance, Essential Amino Acids, glycogenic, ketogenic, and both glycogenic and ketogenic amino acids.

Oxidation of amino acids-(i) Transamination, (ii) Deamination- a.Oxidative, b. Non-oxidative, (iii) Decarboxylation.

Unit IV:

- (a). Importance of water– functions, sources, requirement – effect of deficiency.
- (b). Acid base balance.

Unit V:

- (a). Interrelationship between nutrients
- (b). Nutrition and Infection

Additional Input:

1. Nutraceuticals
2. Pharma foods

PRACTICAL:

1. Estimation of reducing sugar by Benedict's quantitative method
2. Estimation of ascorbic acid in limejuice
3. Estimation of iodine value of fat/ free fatty acid value (gingelly oil, groundnut oil, coconut oil)

Demonstrations:

Estimation of blood glucose (Glucose Tolerance Test)

Chromatographic separation of carbohydrates/ amino acids

Enzymes- ptyalin or salivary amylase action on boiled starch solution- spot plate testing with iodine.

References:

S No	Title	Author	Publisher
1	Text book of Biochemistry	Dr.A.V.S.S. Ramarao	L.K.&S.Publishing, S.M.V.R..M.Hospitals campus, Tanuku
2	Biochemistry for Medical Students	M.Swaminathan,	Geetha Book House, K.R.Circle, Mysore
3	Elements of Biochemistry	H.S.Srivasthava	Rasthogi Publishers, Meerut
4	Essentials of Biochemistry	Dr.M.C. Pant	Kedarnath, Ramnath and Co. Meerut, U.P.
5	Review of Physiological Chemistry	H.A Harper	Kothari Book Depot, Bombay
6	Hawk's practical Physiological Chemistry	P.L.Oser	Tata-McGraw Hill Publishing Company, NewDelhi
7	Text Book of Biochemistry	West and Todd	The MacMillan Co
8	Text Book of Biochemistry	Eric E. Conn	India Book House

**FIRST YEAR
Semester-II
HSc-203 General Psychology**

Theory: 4hrs/week
Practicals: 2 hrs./week

Objectives:

To understand the basic concepts and principles of Psychology
To develop knowledge and understanding about the theories of learning.

THEORY

Unit-I:

Introduction to Psychology: Definitions, Branches of psychology -1.Pure psychology 2.Applied psychology

Methods of psychology – Introspection, Naturalistic observational, experimental method, clinical method and Normative survey methods.

Unit-II:

(a)Perception: Definition, meaning- perceptual organization and its principles -perceptual constancies: shape, size, brightness, space, distance, direction, etc; perceptual organization and illusions

(b)Attention-definition- types – determinants of attention. Meaning of span of attention, shifting of attention, Division of attention, Distraction of attention

Unit-III:

Learning and Remembering:

(a)Learning- Definition – classical and operant conditioning- learning by imitation – cognitive learning.

(b)Memory – definition, Process of memorization, kinds of memory immediate, short term, and long term memory, the study of memory, Memorization techniques.

Forgetting- definition and types, nature of forgetting – improving memory.

Unit-IV:

(a)Motivation and Emotions: definitions – psychological basis –Needs and Drives- classification – physiological, psychological and social motives, unconscious motivation.

(b) Definition of emotion and feelings- development of emotions. Theories - Some examples of adaptive and disruptive emotion.

Unit –V:

(a)Definition of intelligence and its nature – classification of intelligence, gifted, slow learners, and retarded and their characteristics, concept of I.Q, tests of intelligence,-verbal and nonverbal, .

(b) Personality: Definition- personality theories in brief, Personality tests- assessment of personality

Additional Input: Happiness –how happy we are, what determines our happiness?

PRACTICALS

1. Muller lyre illusion – Perception.
2. Thurston's Interest Schedule – Vocational Interest.
3. Bells Adjustment Inventory – Personality.
4. Raven's progressive Matrices – Intelligence.
5. Memory tests – Memory.
6. Projective tests - Personality.
7. Interest record.

References:

- (1) Hilgard.F.R; Atkinson, R.C. and Atkinson R.L. – Introduction to Psychology, Oxford, IBM, 1975.
- (2) S.K. Mangal, General Psychology, Sterling Publishers
- (3) Baron, R.A. Psychology (2001) (5th edition), Pearson Education Inc., New Delhi.
- (4) Feldman, R.S. (1997), Essentials of understanding psychology (3rd Edition) Mc Graw- Hill Companies. Inc. New York
Parameswaran, E.G. and Beena, C. Invitation to psychology, Hyderabad: Neel Kamal Publications.

SECOND YEAR
Semester-III
HSc-301: Food Science

Theory: 4hrs/week
Practicals: 2 hrs./week

Objectives:

1. To impart basic knowledge about the composition of various food stuffs and their products.
2. To explore different methods of food preservation
3. To understand the advantages and disadvantages of various cooking methods.
4. To know the miscellaneous food products available in the market.

Unit I Introduction to food, nutrition and nutrients-

Definitions: Food, Food Science, Nutrition, Nutrients, Health, Malnutrition, Balanced diet.

Functions of food

Classification of food, Basic five food groups (NIN), energy yielding, bodybuilding and protective foods; food guide pyramid

Unit II: Methods of cooking- Definition, advantages and disadvantages of cooking

a) Classification of cooking methods-

- i. *Wet methods-* Boiling, simmering, steaming (direct, indirect), cooking under pressure
 - ii. *Dry methods-* Baking, broiling or grilling, pan-broiling, parching.
 - iii. *Frying methods-* Deep fat frying, shallow fat frying
 - iv. *Microwave cooking, solar cooking.*
- Effect of cooking on food and nutrients.

b) Objectives of Cooking

Unit III: Study of food from vegetable origin:

- i. **Rice-** Structure, composition, nutritive value, parboiling, gelatinization, rice products (rice flakes, puffed rice).
- ii. **Wheat-** Structure, composition, nutritive value, wheat products (spaghetti, vermicelli, bread, noodles).
- iii. **Maize-** Structure, composition, nutritive value.
- iv. **Millets-** Ragi, jowar, bajra, oats; malting.
- b. **Legumes or pulses-** Composition, nutritive value, sprouting or germination, fermentation.
- c. **Nuts and oil seeds-** Groundnut, coconut, gingili seeds, soybean, etc., and their role in cookery.
- d. **Fruits and vegetables-** Classification, composition, nutritive value, pigments, ripening changes, browning reaction (enzymatic and non-enzymatic).
- e. **Spices and condiments-** Definition, uses, role in cookery, common spices and condiments used in India.

Unit IV: Study of food from animal origin:

- a. **Milk and milk products-** Importance, composition, nutritive value, and types of milk available in the market (non fermented, fermented, etc),
- b. **Eggs-** Structure, composition, nutritive value, role of eggs in cookery.
- c. **Flesh food-**
 - i. **Meat-** Composition, nutritive value, tenderness of meat, changes during cooking.

ii.Poultry- Classification, nutritive value.

iii.Sea foods- Fish : composition, nutritive value.

Unit V: Miscellaneous foods:

a.Beverages- Definition, classification, types of fruit beverages

b.Ready-to-eat or convenience foods- Advantages and disadvantages, types of convenience foods available in the market.

c. Food Labelling

Additional Inputs:

1. Dietary supplements
2. Non-nutritive sweeteners

PRACTICALS

1. Preparations with cereals and millets.
2. Preparations with legumes.
3. Preparations with fruits.
4. Preparations with vegetables.
5. Preparations with Milk
6. Preparations with Egg
7. Preparations with Flesh foods
8. Preparation of Beverages
9. Experimental cookery on:

Cereals, Pulses, Fruits, Vegetables, Green leafy vegetables, Milk , Eggs.

REFERENCES

1. Bamji MS, Krishnaswamy K, Brahmam GNV (2009). Textbook of Human Nutrition, 3rd edition. Oxford and IBH Publishing Co. Pvt. Ltd.
2. Srilakshmi (2010). Food Science, 5th Edition. New Age International Ltd.
3. Wardlaw MG, Insel PM (2004). Perspectives in Nutrition, Sixth Edition, Mosby.

SECOND YEAR
Semester-III
HSc-302 Textile Fibers

Theory: 4hrs/week
Practicals: 2 hrs./week

THEORY

Objectives:

- To understand about fiber- staple, filament
- Yarn-simple and compound
- Yarn formation- its importance and kinds of natural yarns.
- To know about various textile fibers

Unit I : Introduction to Textiles and Clothing:

a.Importance of study of textiles to the consumer:

Terminology-Staple, filament, tenacity, abrasion resistance, heat conductivity, absorbency, dye ability, dimensional stability, drapability, and wrinkle resistance

Properties: Physical, thermal and chemical properties.

Classification of textile fibers:

- (a) Based on length-Staple and filament
- (b) Based on source- Natural, manmade, synthetic

Unit II: Detailed study of production, properties, use and care of

- a. Natural vegetable fibers-Cotton
- b. Natural vegetable fibers-Linen

Unit III: Detailed study of production, properties, use and care of

- a. Natural protein fibers-Silk
- b. Natural protein fibers- Wool

Unit IV: Detailed study of production, properties, use and care of

Manmade fibers-Rayon, Nylon, Polyester and Acrylic fibers

Unit V: Yarn formation: Definition, steps in spinning- mechanical and chemical, yarn count (denier- used for manmade fibers), yarn twist, classification of yarns-simple, novelty, textured yarns

Mixtures and Blends of natural cellulose fibres, natural protein fibres and manmade fibres.

Additional Input:

Care and storage of clothing – Care of clothing, during wearing & taking off.

Care of different fabrics – cottons, woolens, silken, synthetic.

Storage of clothing – Steps to be considered.

PRACTICALS

1. Sewing machine description, use, care and simple repairs
2. Sewing kit, sewing equipment, measuring tools, marking tools and tools used during construction
3. **Basic hand stitches:** I) Decorative stitches-stem, chain, lazy-daisy, satin, buttonhole, feather, straight, French knot, bullion stitch, etc. (any 10 stitches)

II. constructive stitches- Temporary stitches : i. Even basting ii Uneven basting iii. Diagonal basting
iv. Slip basting

Permanent stitches: Running ii.Back stitch

4.Hem stitches: Ordinary hemming ii.Slip hemming (**Seams and seam finishes**)

4. i. Plain ii.French iii.Run and fell

5.Introducing fullness:Darts: i.Single ii.Double pointed :Pleats:i.Box ii.Knife

Tucks:Pin tucks

5. **Neckline finishes**: Preparation of bias strip, stay stitching, facing and binding.

6. **Plackets**:

i. Two way ii. Continuous

7. **Fasteners**:

i. Buttons and buttonholes

ii. Hooks and eyes

iii. Zipper

10.Textiles chemistry- identification of textile fibres- microscopic examination- burning test

REFERENCES:

S.No	Author	Title	Publisher	
1	Durga Deulkar	Household Textiles and laundry work	Atmaram &sons.	Text Books
2	Susheela Dantyagi	Fundamentals of Textiles and their care	Orient Longman	
3	Sushma Gupta, Neeru Garg, Renu Saini	Textbook of Clothing and Textiles	Kalyani Publishers, Hyderabad	
4	V. Nurjahan, R. Santha		Telugu Academy	
5	Katherine Paddock Hess	Textiles Fibers and their use.	Oxford &IBH, New Delhi	
6	Bernard P. Corbman	Textiles- Fiber to Fabric	Mc Graw International Edition	
7	Mc. Calls Sewing in Colour		Hamlyn House, London	Reference Books
8	Manmeeth Sing	Dress Designing	Kalyani Publishers	

SECOND YEAR
Semester-III
HSc-303 Housing for Better Family Living

THEORY

Theory: 4hrs/week
 Practicals: 2hrs/week

Objectives:

- To impart knowledge on housing, its importance and functions
- To educate the students on types of houses, components of housing and planning
- To orient the students on types of energy saving household equipment

Unit-I	<p>Housing</p> <ul style="list-style-type: none"> • Functions of a house • Housing needs in different stages of family life cycle. • Selection of site • Safety at Home: Pest Control, Prevention of accidents
Unit-II	<ul style="list-style-type: none"> • Orientation • Principles of planning- aspect, prospect, privacy, grouping, circulation, sanitation Language of drafts man • Advantages of owning and renting a house
Unit-III	<ul style="list-style-type: none"> • Planning for efficient work centers-Types of kitchens (differentiate L, U, Broken L, U, Single walled, peninsular shaped kitchen) • Planning for storage areas in the kitchen
Unit-IV	<ul style="list-style-type: none"> • Prefabrication of buildings, Laurie baker Housing • Components of a building • Organisations of Housing-HUDCO, AP State Housing Corporation, NBRI, NBO
Unit -V	<ul style="list-style-type: none"> • Household equipment- importance, classification, factors in selection of equipment • Construction, mechanism use and care of refrigerator vacuum cleaner, washing machine, geysers, microwave, mixer, pressure cooker, dish washer & induction stove. • Appropriate Technologies – smokeless chulah, gohar gas , solar cooker and rural refrigerator
Additional Inputs	<p>Elderly/Disabled friendly Housing Solar Energy-Applications Modular Kitchens</p>

PRACTICALS

1. House plan- symbols, site plan, floor plan
2. House Plans- 1 BHK,2 BHK
3. Kitchen plans- L shape, U shape, broken, L, U Shape, peninsular, one walled
4. Market study on building material- floor finishes- wall finishes- ceiling finishes
5. Study of house hold equipment with demonstration
6. Study of cost effective appliances with demonstration
7. Field visit to observe various types of kitchens

REFERENCES

Home management by Dr. varghese and Dr.Ogale

Build your own home by R.S.Desh pande

Mangement for Indian families by Mann K.M

House hold equipment by pert J.L and et al

Title: Housing and Interior Decoration

- Home furnishing by Rett
- Home management by Gross and Crandle
- Textbook of Homescience- Premlata Multick
- Household equipment- selection and management- Wilson

SECOND YEAR
SEMESTER IV
HSc- 401 Family Nutrition

Theory: 4hrs/week
Practicals: 2hrs/week

Objectives:

- To impart knowledge on physiological functions and nutritional requirements for different age groups
- To enlighten students on selection of food, effecting factors, food fads and fallacies
- To develop skill of meal planning

Unit-I. (a) Selection of food: Socio-economic and socio-cultural factors influencing family food choices with special emphasis on food fads and fallacies.

(b) Principles of Meal Planning

Unit-II. Food and Nutritional requirements for

- a. Infancy (breast and bottle feeds, weaning and supplementary foods)
- b. Preschool children
- c. School going children –
- d. Packed lunch

Unit-III. Food and Nutritional requirements for

- a. Adolescent boys and girls
- b. Adults – Man and Women (Sedentary, Moderate, and Heavy work)

Unit IV: Food and Nutritional requirements for old age

- a. Nutrition related problems of old age,
- b. Modification of diet during old age
- c. Food and Nutritional requirements

UnitV: Food and Nutritional requirements for

- (a) **Expectant Mothers:** Physiological changes, General dietary problems, complications Food and Nutritional requirements
- (b) **Lactating Women:** Role of Hormones, Factors affecting the volume and composition of breast milk, Food and Nutritional requirements

Additional Input:

- 1. Nutritional needs for Industrial workers.
- 2. Nutritional needs Sports people

PRACTICALS

1. Planning and preparation of a balanced diet for pregnant women.
2. Planning and preparation of a balanced diet for a Nursing Mother.
3. Preparation of low cost weaning mixes
4. Planning and preparation of a balanced diet for a Pre School Child.
5. Planning and preparation of packed lunch for school going child
6. Planning and preparation of a balanced diet during Adolescence.
7. Planning and preparation of a balanced diet for adult man and woman doing different physical activities-sedentary, moderate, heavy worker.
8. Planning and preparation of a balanced diet for elderly.

REFERENCES

1. Srilakshmi, B., Dietetics, New Age International (P) Ltd., 2000.
2. Swaminadhan, M., 1988, Essentials of Food and Nutrition, Volume I and II, The Bangalore Printing and Publishing Co. Ltd., Bangalore.
3. Guthrie Helen A. and Mary Frances Picciano, 1999, Human Nutrition, WCB Mc. GrawHill, Boston.

SECOND YEAR
Semester-IV
HSc-402: Fabric Construction

Theory: 4hrs/week
Practicals: 2hrs/week

THEORY

Objectives:

- To develop the knowledge and understanding about the Textiles
- To understand the process of conversion of fiber in to fabric

Unit I: Fabric Construction:

- i. Weaving – Introduction, parts of a loom, essential weaving operations,.
- ii. Types of weaves – Basic-plain, basket, rib, twill, satin and sateen.
- iii. Thread count, selvage, grain, fabric balance.
- iv. Decorative weaves

Unit II: Non-Woven fabrics – Knitting: Felting, Braiding, Netting, Laces- crochet

Unit III: Finishes: Introduction, definition, classification.

Mechanical finishes – Beetling; Brushing and shearing: Calendaring, Sanforising, Crepe effect.

Embossing, Moireing, Glazing; Napping: Smooth finish: Tentering.

Unit IV: Chemical finishes; Sizing and Dressing; Mercerizing: Bleaching, weighting Crease resistant, Crêpe effect. Flame proof.

Special purpose finishes – Water repellency: Water proof; Absorbent finishes, Moth proof, mildew proof, slip resistance; Antiseptic and anti static finishes.

Unit V: Traditionsl Textiles of India-History of art of weaving in India, Ducca Muslins, and sarees, Chandery Muslins, Baluchar Buttedar, Paithanis and Pithambers, Patola, Banaras Brocades, Himrus and Amrus, Bandhanis.

Additional Input: Readymade clothing- selection and examination of garments for quality of cloth, shape of garments, fitting and price, comparison of readymade garments with homemade and tailor made-garments.

Consumer buying- budget, advertising, labeling and standards

Factors which control price fashion- advertising- production cost- world condition- availability of raw materials

PRACTICALS

1. Preparation of fabric for garment construction- straightening- shrinking- pressing-
2. **Preparation of fabric for cutting**-importance of grain, steps in preparing the fabric for cutting, laying the pattern on fabric, cutting, marking and stay stitching
3. **Taking body measurements**
4. **Construction of Sleeves:** Basic (plain) sleeve
- 4.**Weaving:**
 - a. Plain weave
 - b. Basket weave
 - c. Rib weave
 - d. Twill
 - e. Satin and sateen weave
 - f. Thread count
5. Field visit to textile mill.
6. Construction of a baby frock (5-6 years)

REFERENCE

S.No	Author	Title	Publisher	
1	Durga Deulkar	Household Textiles and laundry work	Atmaram & sons.	Text Books
2	Susheela Dantiyagi	Fundamentals of Textiles and their care	Orient Longman	
3	Sushma Gupta, Neeru Garg, Renu Saini	Textbook of Clothing and Textiles	Kalyani Publishers, Hyderabad	
4	V. Nurjahan, R. Santha		Telugu Academy Publication	
5	Katherine Paddock Hess	Textiles Fibers and their use.	Oxford & IBH, New Delhi	
6	Bernard P. Corbman	Textiles- Fiber to Fabric	Mc Graw International Edition	
7	Mc. Calls Sewing in Colour		Hamlyn House, London	Reference Books
8	Manmeeth Sing	Dress Designing	Kalyani Publishers	

SECOND YEAR
Semester-IV
HSc-403 Interior Decoration

THEORY

Theory: 4hrs/week
Practicals: 2hrs/week

Objectives:

- To educate the students on the elements and principles of design
- To develop knowledge on application of art principles in interior decoration
- To impart skills in flower arrangement, furniture arrangement and accessories

Unit I:	<ul style="list-style-type: none">• Interior Design Meaning and importance of interior design, objectives• Elements of Design-Line, Form, Shape, Texture, Value, Colour, Space,
Unit II:	<ul style="list-style-type: none">• Principles of Art- Harmony, Balance, Rhythm, Emphasis and Proportion• Colour- Prang colour chart, colour schemes, emotional effects of colours
Unit III:	<ul style="list-style-type: none">• Accessories –importance, classification types, use in interior decoration• Flower arrangement- traditional, modern, Japanese- Ikbana- Miniature and Demi miniature, Aids and accessories in Flower arrangement
Unit IV:	<ul style="list-style-type: none">• Furniture : types, selection arrangement• Table setting: requisites, western and Indian styles
Unit V:	<ul style="list-style-type: none">• Furnishings-Classification, Factors in selection, fabric selection

Additional Inputs:

Computer Aided Designing-Interiors, Furniture

Interior Decoration in relation to different cultures-Rajasthan, Kerala, Jammu & Kashmir, North East)

Practicals

Interior Design- A) Elements of Design, B) Types of Design- Natural, Decorative conventional, Geometric abstract drawing/ painting/ clipping using magazines.

1. Application of principles of art in different rooms- a) Harmony b) Balance c) Rhythm, d) Emphasis and e) Proportion, Drawing/ painting/ clipping from magazine
.Colour- value chart, prang colour chart, six standard colours, application of colour harmonies in different rooms of the house.
2. Different types of flowers arrangement
3. Table setting- Indian and western styles
4. North Indian and south Indian meal laying
5. Buffet arrangement

REFERENCE

Art in Everyday life by Goldstein and Goldstein

Home furnishing by Rutt

Interior decoration by Mehta.p

Home management by varghese et.al

Management in family living by Nickell and Dorsey

THIRD YEAR
Semester-V
HSc-501: Human Development

THEORY

Theory: 3hrs/week
Practicals: 2hrs./week

Objectives

- To impart knowledge principles and factors affecting growth and development
- To educate students on the development patterns of different stages of life span
- To develop skills of conducting case studies

Unit-I	<ul style="list-style-type: none">• Growth and development- definitions of growth, development, maturity, learning, heredity, environment,• Principles of development• Factors affecting growth and development
Unit-II	<ul style="list-style-type: none">• Prenatal period- stages of pre natal development with its Hazards – factors influencing , Major and minor complications during pregnancy• Parturition-stages, types of birth
Unit-III	<ul style="list-style-type: none">• Neonate: APGAR test, Physical and physiological needs of neonate- characteristics of neonate, adjustments of neonate• Babyhood-characteristics- physical, motor, language, social, emotional and cognitive developments
Unit-IV	<ul style="list-style-type: none">• Early childhood -characteristics- physical, motor, language, social, moral, emotional and cognitive developments• Late childhood-characteristics- physical, motor, language, social, moral, emotional and cognitive developments
Unit-V	<ul style="list-style-type: none">• Puberty-characteristics - physical and physiological changes• Adolescence- characteristics physical, social, moral, emotional and cognitive developments, adjustment problems in the family

Additional Inputs:

Aberrations in development

PRACTICALS

- 1) Case study of a pregnant woman
- 2) Observation of characteristic of infant
- 3) Observation of characteristics of preschool child
- 4) Observation of characteristics of preschool
- 5) Observation of characteristic of late childhood
- 6) Visit to a Neonatal Unit
- 7) Case study of adolescent and adjustment problems

REFERENCES

- A textbook of child development- R.P. Devadas and Jaya (1983)
- Child Development –Elizabeth Hurlock
- Child welfare and Development Paul Chowdhary.D. Atmaram and Sons Delhi (1980)
- Child development- Suriyakanthi
- Telugu Academy Book N.V. Seshamma (1974)

THIRD YEAR
Semester-V
HSc-502 Management of Family Resources

Theory: 3hrs/week
Practicals: 2hrs./week

Objectives:

- To educate students on the management of different family resources
- To impart knowledge on decision making at household level
- To develop skill in efficient management of time and energy

THEORY

Unit-I	Resources- meaning, classification and characteristics, guidelines for use of resources
Unit-II	Management process- planning, organizing, controlling, delegating, guiding, coordinating, supervising and evaluating ,its importance in Home making – Qualities of a good homemaker-Ethics in Home Management
Unit III	Decision making: definitions- kinds of decision- habitual versus conscious decision making, individual and group decisions, steps in decision making- role of decision making
Unit IV	Management of time- nature and significance- different activities in the home – Preparation of Time Plans ,Techniques of Time Management-Work curve, Peak Load, Time Cost
Unit-V	Energy management in the home- meaning- principles of work simplification- Mundel’s classification of change/ Body mechanisms, fatigue- meaning- types of fatigue and methods of avoiding fatigue- peak loads

Additional Inputs:

- Theories of motivation
- Resource management with respect to environment

PRACTICALS

- 1) Work simplification techniques –Path way chart
- 2) Plan and arrange for a festival a) Sankranthi b) X-mas, c) Ramzan
- 3) Decision Making Tree
- 4) Identifying short term, long term goals of a family.
- 5) Time plans
 - a) Students on a working day and holiday
 - b) Time plan for house wife
 - c) Time plan for working woman on a working day and holiday

REFERENCES

- Management for Indian families- M.K. Mann
- Textbook of Home management- N. Ogale, Srinivasan and Vergheese
- Theory and practice of Home management- Dr. K. Kaur and Dr.C. Macheil

THIRD YEAR
Semester-V
HSc-503 Home Science Extension

Theory: 3hrs/week
Practicals: 2 hrs./week

THEORY

Objectives:

- To introduce the students to the concept and philosophy of extension education
- To acquaint them with the elements and scope of communication.
- To make them understand the principles of teaching and learning, different teaching aids.

Unit I : Nature and scope of Extension education–

- Definitions
- Meaning of Extension
- Concept of Extension Education Process (Dr.J.Paul Leagans)
- Need for Extension Education
- Distinguishing features of Extension Education
- Principles, Objectives and functions of extension
- Principles and Philosophy of Extension Education
- Principles underlying the philosophy of extension.
- Role and qualities of Extension worker/ agent

Unit II: Basic Principles of Teaching and Learning.

- Definition: Teaching, Learning, learning experiences, learning situation.
- Basic elements of learning situation and their characteristics.
- Principles of learning and their implications for teaching.
- Principles of Motivation in Extension, Classification of Motives
- Steps in Extension teaching.

Unit III: Communication- Introduction

- What is communication?- definition
- Types/ forms, and functions of communication.
- Key Elements of communication process (Leagan's model).
- Nature and importance of communication
- Components of communication process

Unit IV: Teaching aids

- Definition (Audio, Video and Audio-visual aids) and Purpose
- Classification of audio-visual aids
- Types of Audio Visual Aids (Cone of Experience by Edgar Dale)

- Effective use of Audio visual aids
- Purpose, Advantages and limitations of each aid.
 - Public address system, telephone
 - Models, mock-ups, specimens, objects
 - Exhibits, motion pictures, video, recordings
 - Still pictures (a) projected, (b) non-projected
 - Other visual aids- chalk board, bulletin board, flannel graph, flash cards, poster, charts- different types of charts.
 - Dust and mud sketching.
 - Dramatization, puppets, role play, harikatha, burrakatha, etc.
- Factors influencing the selection of Audio Visual Aids
- Criteria for Selection of Audio Visual Aids

Unit V: Role of Home Science in community Development

- Meaning and scope of Home Science
- Role of Home Science in Community Development
- Role of Home Science Extension

Additional Input:

1. Development of communication models for community
2. Crafts/preparation of teaching material-Aids

PRACTICALS

o Preparation of Teaching aids

- Model
- Poster
- Flash cards
- Flannel graph
- PPT/ OHP Slides
- Charts
 - Pull chart
 - Tree chart
 - Flip chart
 - Striptease chart
 - Overlay chart
- Puppets

2. Putting up display:

- Bulletin board
- Exhibition

REFERENCES

Author	Title of the book	Publisher	
Dr. A. Adivi Reddy	Extension Education	Sri Lakshmi Press, Bapatla	Text Books
Aravind Chandra	Fundamentals of Teaching Home Science		
R.R. Das, Binitha Ray	Teaching of Home Science		
Devadas. R.P.	Methods of Teaching Home Science	A.D.U. Coimbatore	
	Extension Education for Community Development	Directorate of Extension, Govt. of India	
S.V. Supe	Extension Education	Mohan Primlan for Oxford and IBH Publishing Co., New Delhi	
M. InduBala		Telugu Academy Publications	
Sadhu. A.S.	Extension Programme Planning	Oxford and IBH Publishing Co., New Delhi	
Ray. G.L.	Extension Communication and Management	NayaPrakash, New Delhi	
Helen A. Stores	Home Making Handbook		
O.P. Dahama	Extension and Rural Welfare		

THIRD YEAR
Semester-V
Elective I
HSc-504(a) Sociology

Theory: 3hrs/week
Practicals: 2 hrs./week

Objectives:

- To educate students on the different social institutions
- To create awareness on social problems

THEORY

- Unit-I Sociology- its relation to other social sciences, nature of society and culture
Society and individual, social interaction, socialization, agents of socialization,
social institutions- family, marriage, religion and educational institution
- Unit-II Social groups- primary- secondary groups, formal and non formal groups
Different types of family structure, changing village system in India.
- Unit-III Indian city- consequences of planned and unplanned industrialization, problems
of providing basic amenities
- Unit-IV Prevailing practices- current social problems Juvenile delinquency uncontrolled
population (poverty, beggary, human trafficking and domestic violence, child
marriage). Areas needing social change- social reforms and progress with special
reference to women.
- Unit-V Concept of welfare state- Directive principles of the Indian constitution.
Causes for growth of population, Consequences of population explosion,
Population Education
Additional Inputs: Case studies on social problems.

REFERENCES

- RM. Sharma, Principles of Sociology Media Promoters and publishers Pvt. Ltd., Bombay 1982
- Vijaya Vize Bhushan Sachdeva, Introduction to Sociology, Kitab Mahal Allahabad, 1970
- G.R. Madam, Indian Social Problems Second Edition , Allied Publishers Pvt Ltd. 1973
- Vidyabhu shan sha, Text book of Sociology
- Local Government in India- Telugu Academy
- K.singh- Urban Sociology- Prakash and Kendra- Sivapur Road, Lucknow- 226020, 1992
- Smt. Rajeswari, Samajasastram, Telugu Academy Text book.

THIRD YEAR
Semester-V
Elective II
HSc-505(a)- Fabric Embellishment

Theory: 3hrs/week
Practicals: 2 hrs./week

THEORY

Objectives:

- To gain knowledge about Aesthetics involved in dress designing.
- To gain knowledge about different fabric embellishment techniques

Unit I: Dyes and Dyeing: Definition-dye, mordant, dyeing, fastness.

Classification of dyes:

Natural Dyes: Vegetable Animal, Mineral

Synthetic Dyes: Direct or substantive dyes, Vat dyes, Mordant or Chrome dyes, Acid, Basic, Sulphur, Disperse.

Methods of Dyeing: Preparation of material for dyeing and printing

Stock dyeing, Yarn dyeing, Piece dyeing, solution dyeing, Pigment or dope dyeing, garment dyeing.

Identifying dyeing defects:

Unit II: Printing: Introduction, definition.

Various methods of printing:

Direct-:Block, Stencil, Roller, Duplex, Discharge,

Resist- Screen, Transfer, Warp, Photo, Batik, Tie Dyeing and Flocking.

Unit III: Care of clothing:

- i. Laundry equipment – reagents uses and applications.
- ii. Principles of laundering-washing machines-brands available and types
- iii. Methods of laundering – Bleaching and finishing.
- iv. Stain removal
- v. Dry cleaning

Unit IV: Traditional Indian Textiles :

Traditional Embroideries – Kaseeda, Punjab Phulkari, Chamba Roomals, Kanthas of Bengal, Lucknow Work- Motifs, Stitches used and colours etc.

South Indian Textiles: Kanjeevaram, Mysore silk, Venkatagiri, Mangalagiri, Gadwal, Uppada, Narayanpet, Pochampalli, and Kalamkari (Machilipatnam, Kalahasthi) fabrics.

Unit V: Study of Traditional Indian Costumes and accessories- Introduction, definition of costume, accessory.

Traditional male and female costumes prevalent in different states of India- Andhra Pradesh, Tamilnadu, Kerala, Karnataka, Maharastra, Punjab,Jammu & Kashmir, Assam, Bengal, their importance in present scenario in textiles and apparel industry.

Different types of accessories

Additional Input:

Household textiles: introduction, definition, classification

Table linen: fabric count, size, finish, design suitability, serviceability, workmanship, use and care.

Towels and bathroom ensembles: size, fiber construction, dimensions of pile, absorption, strength, compactness of background, colour co-ordination, use and care.

Bed linen- types, brands, size, quality, attraction, fiber content, colour co-ordination, construction, weight, finish, warmth, comfort, workmanship, use and care.

PRACTICALS

1. **Laundering:** (a)Sorting, (b)Mending, darning, (c)Stain removal, (d)Laundering of cotton, wool, silk and synthetic fabrics, (e)Application of blue (direct and indirect method) (f)Application of starch, (g)Finishing /ironing

2. Dyeing and Printing

i) Direct dyeing/printing

(a) Stencil- with brush, spray techniques

(b) Block printing.

ii) Resist dyeing/printing

(a) Batik using cold dyes.

(b) Tie dyeing with naphthals and vats

3..Attaching sari fall

4. Picot

5 Renovating old garments

6. Drafting, pattern laying, cutting and Construction of

i. Pillow cover, ii. Sari petticoat, iii. Kameez/ kurthi, iv. Salvar/chudidar.

REFERENCES

S.No	Author	Title	Publisher	
1	Durga Deulkar	Household Textiles and laundry work	Atmaram & sons.	Text Books
2	Susheela Dantyagi	Fundamentals of Textiles and their care	Orient Longman	
3	Sushma Gupta, Neeru Garg, Renu Saini	Textbook of Clothing and Textiles	Kalyani Publishers, Hyderabad	
4	V. Nurjahan, R. Santha		Telugu Academy Publication	
5	Katherine Paddock Hess	Textiles Fibers and their use.	Oxford &IBH, New Delhi	
6	Bernard P. Corbman	Textiles- Fiber to Fabric	Mc Graw International Edition	
7	Mc. Calls Sewing in Colour		Hamlyn House, London	Reference Books
8	Manmeeth Sing	Dress Designing	Kalyani Publishers	
9	Mary Kefgen	Individuality in clothing		
10	Mary Mathews	Clothing Construction		
11	Biswas	Indian Costumes		

THIRD YEAR
Semester-V
Elective III
HSc-506(a)- COMMUNITY NUTRITION

Theory: 3hrs/week
Practicals: 2hrs/week

THEORY

Objectives

1. The course deals with the assessment of the nutritional status and common nutrition related problems of the community.
2. The students would learn the basic principles of diet therapy and therapeutic nutrition and understand the dietary management in common diseases/disorders commonly observed in the community.

Unit – I : a. Food adulteration -

- Adulterants in different foods, their harmful effects.
- Simple tests for detection of adulterants in food
- Prevention of Food Adulteration Act

b. Home Scale methods of Food Preservation – Introduction, preparation of Jam, Jellies and squash

Unit - II : Assessment of nutritional status of the community

Introduction, definition of Nutritional status, need of nutritional assessment.
Anthropometry- Age, Body weight, Height, , MUAC, Head Circumference, Chest Circumference, WHR

- a) Nutritional Assessment classification** - for children : weight for age, height for age and weight for height using WHO standards, for Adults: BMI (WHO Classification)
- b) Clinical Assessment** – Nutritional deficiency symptoms
- c) Biochemical Methods** – for assessing nutritional status need for biochemical tests (Urine, Blood and stools)

Unit - III : (a) Dietary Assessment - Food Balance sheet, Inventory or log book method, food weighing method, Expenditure pattern method, Oral Question method (24Hours Recall method). General guide lines for carrying out Diet surveys in the community.

(b) Vital Statistics: Infant mortality rate, Peri-natal Mortality Rate, Maternal Mortality Rate

Unit- IV : a. National Nutrition Policy – Direct and Indirect Interventions
b. National Nutritional Programmes - Direct Nutrition programmes

- Vit A prophylaxis programme
- Iron prophylaxis programme
- Universal Iodisation of salt

Indirect nutritional programmes

- ICDS
- Mid day meal programme

c. Role of National and international organizations in alleviating Malnutrition

- Unit -V** : a. **Nutritional problems prevalent in India** –Protein Energy Malnutrition, Anaemia, Vitamin-A, Iodine and B-complex deficiencies.
b. **Food Security** – Household level and National level
c. **Nutrition Education**: Importance and types

Additional Inputs:

Survey on implementation of Nutrition intervention programmes in Government and NON-Government Organizations

PRATICALS

1. Simple physical and chemical tests for detection of adulterants in food
1. Diet and Nutrition surveys
2. Identifying vulnerable, at risk groups
3. Breast feeding and weaning practices of specific groups.
4. Use of Anthropometric measurements in assessing the nutritional status.
5. Observation of mid day programme at Anganwadi Center.
6. Observation and Planning of School Lunch Programmes.

REFERENCES

1. Bamji MS, Krishnaswamy K, Brahmam GNV (2009). Textbook of Human Nutrition, 3rd edition. Oxford and IBH Publishing Co. Pvt. Ltd.
2. Wardlaw MG, Insel PM (2004). Perspectives in Nutrition, Sixth Edition, Mosby
3. Khanna K, Gupta S, Seth R, Mahna R, Rekhi T (2004). The Art and Science of Cooking: A Practical Manual, Revised Edition. Elite Publishing House Pvt Ltd.
4. 4.NIN, ICMR (1990). Nutritive Value of Indian Foods.
5. 5.Raina U, Kashyap S, Narula V, Thomas S, Suvira, Vir S, Chopra S (2010). Basic Food Preparation: A Complete Manual, Fourth Edition. Orient Black Swan Ltd.
6. Seth V, Singh K (2005). Diet planning through the Life Cycle: Part 1. Normal Nutrition. A Practical Manual, Fourth edition, Elite Publishing House Pvt Ltd.
7. Srilakahsmi, B., Dietetics, New Age International (P) Ltd., 2000.
8. Swaminadhan, M., 1988, Essentials of Food and Nutrition, Volume I and II, The Bangalore Printing and Publishing Co. Ltd., Bangalore.

THIRD YEAR

Semester-VI

HSc-601 Early Childhood Care and Education

THEORY

Theory: 3hrs/week

Practicals: 2hrs./week

Objectives:

To impart knowledge on the early childhood education, its importance and history

To develop knowledge on play and its importance in childhood

To inculcate the skill on planning and conducting preschool activities

- Unit-I
- History and significance of ECCE- Aims and Objectives,
 - Types of preschools- Nursery, Anganwadi, Montessori schools
- Unit-II
- Characteristics of preschool - site, location, space, equipment, facilities, qualities of preschool teachers, records and registers to be maintained.
- Unit-III
- Play behavior in children- stages of play behavior- values of plays- physical, social, educational psychological and therapeutic values.
 - Types of play- free play, dramatic, constructive etc.
- Unit-IV
- Preschool program- long term, short term planning. Daily program, model program- importance of each activity in a days program (Medical check up, outdoor and indoor play, snack, rest, story, rhyme, creative activity and science experience)
 - Importance of parent teacher meeting.
- Unit-V
- Needs of children
 - Rights of Child
 - Organization and programs for child welfare-International- UNICEF, WHO, UNESCO, FAO, CARE ,National- NIPCCD, ICDS, NCERT, SSA, SOS village, ICCW, IAPE etc

Additional Inputs:

Digital Transactions-Impact

Consumer Activism-Case Studies

PRACTICALS

1. Observation of preschool child - recording the all round developmental behavior of the child.
2. Observation of preschool teachers
3. Observation of preschool program
4. Visit to Anganwadi centre.
5. Planning a days program and participating in preschool
6. Preparation of any play equipment
7. Organizing - participating in parent teacher meeting

Additional Inputs:

Philosophers and Contributors of Preschool Education-India & Abroad

REFERENCES

Play and child development 1984. Sylvia. K et al National Institute of Public co-operation and child development.

- Telugu Academy Book N.V. Seshamma (1974)
- Systems of pre school education- R. Muralidharan, IAPE, New Delhi, 1965.
- The nursery school a human relationship laboratory read K.H. IBH, Calcutta- 1968.
- History and Philosophy of Preschool education by Agarwal
- Child Development-Elizabeth Hurlock

THIRD YEAR
Semester-VI
HSc-602 Therapeutic Nutrition

Theory: 3hrs/week

Practicals: 2hrs/week

Objectives

- To understand different types of feeding methods
- To get information on diets to be given for various diseases
- To impart the knowledge on various diseases and etiological factors and causes

THEORY

- Unit – I** : 1. **Dietician** – Definition, Role & responsibilities of dietician, Code of Ethics, Indian Dietetic Association (IDA), introduction- history, membership, registered dietitian, Diet Counseling - Importance
2. **Methods of Feeding** – Enteral and Parenteral
3. **Types of diets**- clear fluid, full fluid, soft and regular normal diet
- Unit - II** : a. **Diet in Fevers** – causes, Types and general dietary modifications
b. **Diet during Nutritional disorders**
1. **Under nutrition** - Aetiology, Food and Nutritional requirement, dietary requirement.
2. **Obesity** – Aetiology, Types, assessment, Dietary guidelines, nutritional requirements and suggested recipes.
- Unit - III** : a. **Diet in Diabetes Mellitus** – Aetiology, Types, Symptoms, Diagnosis, Management of Diabetes (Diet, Drugs, Physical activity and Awareness)
b. **Kidney diseases** – Diet during Glomerulonephritis and Nephrotic Syndrome
- Unit- IV** : a. **Cardiovascular diseases** – Dietary management during Atherosclerosis and role of fat. Dietary management in Hypertension
b. **Cancer** – Nutritional problems of cancer therapy and Dietary management
- Unit -V** : **Gastro intestinal tract diseases**
1. Dietary management in diarrhea, constipation and peptic ulcer.
2. Dietary management in liver diseases- Infective hepatitis, Cirrhosis of Liver, jaundice

Additional Inputs:

Modification of Nutrients in Therapeutic Diets

PRACTICALS

1. Modification of normal diet.
2. Planning and preparation of diets for the following conditions
 - a. Peptic ulcer and constipation
 - b. Diabetes Mellitus
 - c. Atherosclerosis
 - d. Nephritis
 - e. Obesity
 - f. Jaundice
3. Diet in Kwashiorkor, Marasmus
4. Planning a diet for typhoid patient
5. Planning a diet for common fever
6. Planning a diet for hypertension patient
7. Visit to dietary department

REFERENCES

1. Bamji MS, Krishnaswamy K, Brahmam GNV (2009). Textbook of Human Nutrition, 3rd edition. Oxford and IBH Publishing Co. Pvt. Ltd.
2. Srilakahsmi, B., Dietetics, New Age International (P) Ltd., 2000.
3. Wardlaw MG, Insel PM (2004). Perspectives in Nutrition, Sixth Edition, Mosby
4. Khanna K, Gupta S, Seth R, Mahna R, Rekhi T (2004). The Art and Science of Cooking: A Practical Manual, Revised Edition. Elite Publishing House Pvt Ltd.
5. NIN, ICMR (1990). Nutritive Value of Indian Foods.

THIRD YEAR
Semester-VI
HSc-603 Home Science Extension & Community Development

THEORY

Theory: 3hrs/week
Practicals: 2hrs/week

Objectives:

- To explore the students to different teaching methods.
- To introduce them to the basic elements of programme planning.
- To get them learn the lesson planning techniques.
- To acquaint them with the concept of non-governmental organizations.

UNIT I: Extension Programme Planning

- Extension Programme Planning - Definition
- Criteria for Good Programme Planning
- Principles of Programme planning
- Steps for making a programme
- Methods to find out felt and unfelt needs of the community.
- PRA (Participatory Rural Appraisal) methods
- Evaluation: Principles, methods of evaluating individual and group performances

UNIT II: Extension teaching methods:

- Introduction
- Definition
- Classification of Extension teaching methods 1. According to use 2. According to form
- **Individual contacts**
(i) Form and home visits (ii) Office calls (iii) Personal letters (iv) Result demonstration
- **Group contacts**
(i) Method demonstration (ii) General meetings (iii) Field trips
- **Mass contacts**
(i) Publications (ii) Circular letters (iii) News articles (iv) Radio (v) Television (vi) Campaign
- Strong and weak points of three categories of Extension methods
- Factors to be considered in the selection, combination and use of Extension methods.

UNIT III: Planning lessons for specific groups.

- Definition
- Introduction
- values and necessities of lesson plan
- components of lesson plan,
- Important aspects of good lesson plan, etc.

UNIT IV: Contribution of voluntary organizations in Extension

International- CARE- REDCROSS

National--DWACRA -TRYSEM - NREGA , NFSM, NIRD ICAR, CDP, KVK, MAHILA MANDAL, NES

UNIT V: (a): Three tier Panchayat raj system in India

- (b): Extension Administration and Supervision – Principles of Good Administration, Coordination – Definition, Importance of Coordination in the Community

Additional Inputs: Visit to progressive farmers/ Agricultural Research Station

PRACTICALS

1. Preparation of literature:
2. (Pamphlet/folders)
3. Survey in a community to find out needs and interests of people and resources available.
4. Planning lessons for the women based on their needs and interests.
5. Plan an activity to create awareness among women and children of community surveyed according to their needs and interest (Nutrition Education, Child care), (a)Lecture cum group discussion
 - a. Method demonstration
6. Conducting workshop to teach any craft.
7. Planning and conducting a field trip to any institute related to Extension work to get acquainted with the set-up.
8. . Extension programme planning- a model.
9. Visit to the Mandal office

REFERENCES

Author	Title of the book	Publisher	
Dr. A. Adivi Reddy	Extension Education	Sri Lakshmi Press, Bapatla	Text Books
Aravind Chandra	Fundamentals of Teaching Home Science		
R.R. Das, Binitha Ray	Teaching of Home Science		
Devadas. R.P.	Methods of Teaching Home Science	A.D.U. Coimbatore	
	Extension Education for Community Development	Directorate of Extension, Govt. of India	
S.V. Supe	Extension Education	Mohan Primlan for Oxford and IBH Publishing Co., New Delhi	
M. InduBala		Telugu Academy Publications	
Sadhu. A.S.	Extension Programme Planning	Oxford and IBH Publishing Co., New Delhi	Reference Books
Ray. G.L.	Extension Communication and Management	NayaPrakash, New Delhi	
Helen A. Stores	Home Making Handbook		
O.P. Dahama	Extension and Rural Welfare		

THIRD YEAR
Semester-VI
Elective I
HSc-604(a) Family dynamics

Theory: 3hrs/week
Practicals: 2hrs/week

Objectives:

To impart knowledge on marriage and family and their functions
To develop skill on

Unit-I (a) Marriage definition - goals of marriage, Criteria for mate selection- rituals followed in various marital ceremonies like Hindu, Muslim and Christian - practice of dowry and its present status, legal provisions related to marriage and family

Unit-II Areas of marital adjustment
Factors influencing marital adjustments. Pre marital and marital counseling, love and arranged marriage.

Unit-III Family definition - functions, types of families - nuclear and joint – characteristics of a family - changing trends in family system - values needed for better family relations. Importance of family life education

Unit-IV (a) Stages in family life cycle-
i. Family in the beginning
ii. Expanding family
iii. Maturing family
iv. Old age
(b) Preparation for parenthood - parenting styles (authoritarian, permissive and democratic styles) their impact on child development
(c). Structure and forms of a family

Unit-V Status of women in the modern world education, employment and marriage, economic responsibilities and privileges.
Additional Input: Legal provisions for women to ensure their safety.

Practicals:

1. Evaluation of matrimonial advertisements
2. Criteria for mate selection
3. Visit to family counseling centre
4. Visit to old age home
5. Role play on problems of the aged
6. Panel discussions on social problems of adults
7. Picture talks on problems of adolescents

References:

Indian social system by K.Singh

Urban sociology by K.Singh

Vivahamu kutumbha sambandhalu Telugu Academy book

Text book of sociology by Vidhyabhushan.

Marriage and family by Landis and Landis

THIRD YEAR
Semester-VI
Elective II
HSc-605(a) Family Attire and Consumer Education

THEORY

Unit-I Criteria of selection of fabrics for garment

- a. Characteristics and needs
- b. Characteristics of fabrics
- c. Thread count
- d. Shrinkage, labels, reliable brands
- e. Size of budget
- f. Selecting garments for different age groups

Unit-II Readymade clothing- selection and examination of garments for quality of cloth, shape of garments, fitting and price, comparison of readymade garments with homemade and tailor made-garments.

Unit-III Consumer buying- budget, advertising, labeling and standards

Factors which control price fashion- advertising- production cost- world condition- availability of raw materials

Unit-IV Wardrobe planning: Introduction, wardrobe-definition.

- a) Aims, personal analysis, inventory & clothing extenders
- b) Principles of wardrobe planning – budget, occasion, climate, occupation, interest, number of family members, age, figure, fashion, quality, accessories etc.
- c) Principles applied to general figure problems and use of colour, prints, lines and checks.
- d) Renovation of old garments.

Unit V Household textiles: introduction, definition, classification

Table linen: fabric count, size, finish, design suitability, serviceability, workmanship, use and care.

Towels and bathroom ensembles: size, fiber construction, dimensions of pile, absorption, strength, compactness of background, colour co-ordination, use and care.

Bed linen- types, brands, size, quality, attraction, fiber content, colour co-ordination, construction, weight, finish, warmth, comfort, workmanship, use and care.

PRACTICALS

1. Shrinkage Test/ dimensional stability
2. Colour fastness for sunlight.
- b. Making an inventory of one's own clothing.
- c. Planning wardrobe for two income groups.
2. Attaching sari fall
3. Picot
4. Renovating old garments
5. Drafting, pattern laying, cutting and Construction of
 - ii. Pillow cover
 - iii. Kameez/ kurthi
 - iv. Salvar/chudidar.

Textbooks and references

S.No	Author	Title	Publisher	
1	Durga Deulkar	Household Textiles and laundry work	Atmaram & sons.	Text Books
2	Susheela Dantyagi	Fundamentals of Textiles and their care	Orient Longman	
3	Sushma Gupta, Neeru Garg, Renu Saini	Textbook of Clothing and Textiles	Kalyani Publishers, Hyderabad	
4	V. Nurjahan, R. Santha		Telugu Academy Publication	
5	Katherine Paddock Hess	Textiles Fibers and their use.	Oxford & IBH, New Delhi	
6	Bernard P. Corbman	Textiles- Fiber to Fabric	Mc Graw International Edition	
7	Mc. Calls Sewing in Colour		Hamlyn House, London	Reference Books
8	Manmeeth Sing	Dress Designing	Kalyani Publishers	
9	Mary Kefgen	Individuality in clothing		
10	Mary Mathews	Clothing Construction		
11	Biswas	Indian Costumes		

**THIRD YEAR
Semester-VI
Elective III**

HSc-606(a) Household Economics

THEORY

Theory: 3hrs/week
Practicals: 2hrs./week

Objectives:

- To impart knowledge on household economics, laws of economics
- To inculcate knowledge on consumer education
- To develop the skill of budgeting for different income levels

- Unit-I
 - Basic terminology of economics, concept of household economics
 - Human wants- nature and classification,
 - Laws of consumption –Law of Demand, Law of equimarginal utility, Law of Diminishing marginal utility, consumer surplus
- Unit-II
 - Consumer education
 - purchasing methods- guidelines for wise purchase,-
 - Consumer rights
 - Consumer Protection Act
 - consumer problems
- Unit III
 - Values, goal, standards, and their inter-relationship
 - Standard of living- Definition factors influencing standard of living, ways of improving standard of living
- Unit-IV
 - Money management in the home
 - Budget- meaning, types and importance
 - Household financial records-Short term, Long term
 - Ways of Supplementing family income
- Unit –V
 - Meaning and importance of savings
 - Types of savings in post office LIC, Chit funds and saving schemes of banks
 - Family investments – Bonds, Stocks and Shares

Additional Inputs:

Digital Transactions-Impact

Consumer Activism-Case Studies

PRACTICALS

- 1) Budget plans for different incomes
 - Low income group
 - Middle income group
 - High income group
- 2) Interview any head of the family and collect the information about their savings
- 3) Prepare a check list of qualities of good home maker and evaluate your self
- 4) Prioritise your values and record the same
- 5) Residential stay/ home management cottage stay.

REFERENCES

- Family resource management: Principles- Deacon R. and Firebangh
- Management for living- Nickell P. and Dorney J.M