

SEMESTER - I
HSC -101- BASIC NUTRITION

Outcomes of the course

At the end of the course the student will be able to demonstrate the following:-

A) Remembers and explains in a systemic way

- Understanding the concepts of nutrition and food and its relation to health.
- Acquiring knowledge about macro and micro nutrients and their functions.
- Knowing the consequences of deficiency of taking nutrients.
- Understanding importance of non nutrients in human nutrition

B) Understands and Uses

- Planning recipes by selecting appropriate foods based on the macro and micro nutrient composition.
- Selection of foods based on the nutrient composition for healthy and disease people.

C) Critically explains, judges and solves

- Planning and calculating nutritive values for the foods and recipes.
- Identification of signs and symptoms of different nutrient disorders.
- Practical knowledge on availability of seasonal and other foods by doing market survey.
- Listing out the common foods and their names in scientific and local languages.

D) Working in out of prescribed area under a co-curricular activity

- Selection of foods based on seasonal availability and planning recipes on the nutrient composition to healthy and diseased conditions.

E) Practical skills

- Market survey on different foods available and learning local and scientific names.
- Learn to identify different food samples and to know their nutrient composition.
- Planning of recipes according to nutrient components.

SEMESTER - I
HSC -101- BASIC NUTRITION

Theory: 4Hours/week
Practicals: 2 Hours/week

THEORY

UNIT-I Introduction to Nutrition and Macro Nutrients

- Introduction and scope of Nutrition, definitions, relationship between Food, Nutrition, Health and Disease
- Macro Nutrients – Classification, functions, digestion, absorption, dietary sources, RDA, clinical manifestations of deficiency and excess and storage of the following in the body.
 - Carbohydrates
 - Lipids
 - Proteins

UNIT – II Micro nutrients- Vitamins

- Vitamins – Classification, functions, dietary sources, RDA, clinical manifestations of deficiency and excess of the following
 - Fat soluble vitamins – A, D, E and K
 - Water soluble vitamins – B Complex Vitamins - Thiamine, Riboflavin, Niacin, Pyridoxine, Folic acid, Cyanocobalamin and Vitamin C.

UNIT - III Minerals

- Minerals – classification, functions, dietary sources, RDA, clinical manifestations of deficiency and excess of the following
 - Macro minerals – Calcium, Phosphorous, Magnesium, Sodium and Potassium
 - Micro minerals or Trace elements – Iron, Iodine, Fluorine and Zinc

UNIT - IV Energy

- Energy value of foods – Determination of gross energy value of foods using Bomb calorimeter and Oxy calorimeter. Physiological energy value of foods.
- Basal Metabolism – Factors affecting Basal Metabolic Rate, Measurement of BMR by Direct and Indirect Calorimetry. Formulas for calculating BMR.
- Computing Total Energy Requirement of the body based on Basal metabolic rate, Physical activity and Thermic effect of food. RDA and sources of energy.

UNIT – V Water and Non Nutrient constituents of Food

- Water – Functions, sources, requirement and regulation of water balance, Effect of deficiency and excess – Dehydration and over hydration; Electrolyte balance.
- Non nutrient constituents of foods and their importance
 - Phytochemicals – Curcumin, Lycopene, Flavonoids
 - Antioxidants – Vitamin C, E and Carotenoids
 - Detoxifying agents – Anthocyanins, Chlorophylls
 - Beneficial effects of non- nutrient constituents of food on Health.

PRACTICALS

1. List out the common foods and to learn their names in Telugu, English, Hindi and Urdu.
2. Learn to identify the different food samples and to know their nutrient composition.
3. Market survey
4. Dietary sources, Recommended Dietary Allowances and planning of recipes of the following nutrients
 - Macronutrients
 - Carbohydrates
 - Proteins
 - Fats
 - Fiber
5. Micronutrients
 - Vitamins –
 - Vitamin A
 - Vitamin C
 - Minerals –
 - Calcium
 - Iron

REFERENCES

1. Bamji MS, Krishnaswamy K, Brahmam, (2016) Textbook of Human Nutrition, 4th edition. Oxford and IBH Publishing Co. Pvt. Ltd.
2. Longvah, T., Ananthan, R., Bhaskarachary, K. and Venkaiah, K. (2017). Indian Food Composition Tables, Published by NIN
3. Raheena Begum, (2013). Textbook of Food, Nutrition and Dietetics, 3rd edition, Sterling Publishers Pvt. Ltd.
4. RavinderChada and PulkitMathur, (2015). Nutrition – A Life Cycle Approach, 1st edition, Orient Black Swan Private Limited
5. Shubhangini A. Joshi, (2002). Nutrition and Dietetics, 2nd edition, Tata McGraw-Hill Publishing Company Ltd.
6. Srilakshmi, B., (2018). Nutrition Science, 6th edition, New Age International Publishers.
7. Swaminadhan S, (2005). Advanced Text book on foods & nutrition, Vol. I&II (2nd revised and enlarged) Bappco.
8. VijayaKhader, (2000). Food, nutrition & health, Kalyani Publishers.

CO-CURRICULAR ACTIVITIES

1. Student seminars on different nutrients.
2. Preparation of posters, charts, flashcards etc. related to different nutrients – Functions, RDA dietary sources, nutrient content of foods and deficiency symptoms.
3. Collections of food samples rich in particular vitamins and minerals like calcium, iron etc.
4. Visit to food stores, vegetable and fruit markets to study locally available foods.
5. Study projects to collect the data from people. Eg. Foods avoided or given in specific conditions.
6. Celebration of Important Days (National and International)
 - World's Breast Feeding Week(August 1st - 7th)
 - Nutrition Week – September 1st - 7th
 - Nutrition Month – September month
 - Hand Washing Day – October 15th
 - World Food Day – October 16th

SEMESTER - I

HSC-102 – GENERAL PSYCHOLOGY

Outcomes of the course

The students will be able to:

A) Remember and explain in a systematic way

- The concept of psychology and its branches of study.
- About basic psychological concepts like Attention, Perception, , Memory and Motivation

B) Understand and Use

- Understand the meaning of Personality
- Use theoretical perspectives of Psychology to understand human behaviour.

C) Critically explains, judges

- The determining factors of human personality.

D) Working in out of prescribed areas under co-curricular activity

- Observing different types of personalities based on type theory
- Identifying children with extremes of intelligence in local schools.

E) Practical skills

- Methods of study of children using different methods.
- Assessment of personality and intelligence using standard tests.

SEMESTER - I

HSC-102 – GENERAL PSYCHOLOGY

Theory: 4Hours/week
Practicals: 2 Hours /week

THEORY

UNIT I Introduction to Science of Behaviour

- Psychology as a Science of Behaviour: Definition, scope and Methods of Studying Human Behaviour – Observation method , Experimental Method, Case Study method , Survey Method , Cross sectional and Longitudinal Methods – Merits and Demerits.
- Branches of Psychology – Definition and basic concept of different branches- Developmental Psychology, Clinical, Counselling psychology, Abnormal, Educational, Industrial, Social and Sports Psychology.

UNIT II Basic Psychological Concepts

- Attention– Definition, Types -Voluntary and Involuntary; Determinants of attention.
- Perception – Definition, perceptual organization and perceptual Constancies and illusions.
- Memory – Definition, types and nature of memory. Methods of memorizing and factors influencing memory. Forgetting – types and causes. Ways of improving memory.
- Interests and Aptitude – Definition of the terms –factors affecting individual’s interest and attitude; Assessment of interests and attitudes using inventories and scales.

UNIT III Personality

- Personality: Definition, Concept and types of personality – Normal and abnormal personalities, Factors affecting development of personality
 - Assessment of personality – Projective Tests - Definition CAT, TAT, Rorschach inkblot test.
- Major Psychological Approaches – Psycho-dynamic, Behavioural, Humanistic, Cognitive, Socio-cultural and Trait perspectives.
- Psycho-dynamic Perspective: Freud’s Psycho-analytic theory – Understanding the structures of Id, ego and super ego and their interaction, Erickson’s Theory – Eight stages of development.

UNIT IV Major Psychological Approaches - I

- Behavioural Perspective: Learning – Definition, Steps in learning process, Learning laws, Theories of learning-Classical Conditioning, Operant conditioning and Watson’s Behaviourism.
- Humanistic Perspective: Motivation – Definition - Psychological basis – classification- Physiological, Psychological and social motives, unconscious, Abraham Maslow’s theory of motivation.

UNIT V Major Psychological Approaches - II

- The Cognitive Perspective – Definition of terms - Cognition, Meta cognition, Intelligence, Intelligence Quotient (IQ) and Emotional Intelligence.
 - Assessment of Intelligence – Verbal and nonverbal tests, classification of children based on intelligence, extremities of intelligence - sub normal and the gifted.
- Gardner’s Multiple Intelligence theory.
- Trait Perspective – Type theory of Sheldon and Big Five Factor Theory.

PRACTICALS

1. Methods of studying child / Human Behaviour – Observation / Interview schedules
2. Assessment of Perception-Muller Iyer illusion Experiment
3. Memory Recognition Test
4. Assessment of Interest - Thurston’s Interest Schedule / Available tests
5. Assessment of Intelligence - Raven’s progressive Matrices test/ Alexander pass-along test/ Available test
6. Assessment of personality - Projective tests / Personality Inventory/ Available tests

REFERENCES

1. Baron, R.A. (2001), Psychology (5th edition), Pearson Education Inc., New Delhi.
2. Feldman, R.S. (1997), Essentials of understanding psychology (3rd Edition) Mc Graw-Hill Companies. Inc. New York.
3. Mangal, S.K. (2019). General Psychology, revised edition, 2019, Sterling Publishers Pvt. Ltd.
4. Parameswaran, E.G. and Beena, C. (2002). Invitation to psychology, 1st edition, Neel Kamal Publications.
5. Sreevani, R. (2013). Psychology for Nurses, 2nd edition, 2013, Jaypee Brothers Medical Publishers (P) Ltd.

CO-CURRICULAR ACTIVITIES

1. Assessment of students IQ using verbal and non-verbal tests
2. Identifying children with extremes of intelligence in local schools
3. Giving small tests to check the students’ memory, perception and Emotional intelligence
4. Assisting and guiding students to understand the concept of personality through lectures, small group seminars and workshops.
5. Observing different types of personalities based on type theory
6. Providing opportunity to interact with experts of different branches of Psychology like clinical psychologist, Counselling Psychology etc.,

SEMESTER - I
HSC-103–FUNDAMENTALS OF TEXTILES

Outcomes of the course

The students will be able to

A. Remember and explain in a systematic way:

- The importance of the textiles in human life and also the textile terminology and types of fibres.
- Use of Textile fibres in various fields.

B. Understands and Uses

- Identification of different fibres like plant fibres, animal fibres based on properties.
- Gains knowledge on manufacturing of different textile fibers.
- Understands the method of Spinning and process of yarn construction.

C. Critically explains, judges

- Critical differences between cellulose, protein and man-made fibres.
- Judge the differences between simple and novelty yarns.

D. Working in out of prescribed areas under co-curricular activity

- Collection of different fabrics and gain knowledge about their seasonal usage.

E. Practical Skills

- Identification of different textile fibres using microscopic, burning tests.
- Identification of yarns and their use in textiles.

SEMESTER - I

HSC-103–FUNDAMENTALS OF TEXTILES

Theory: 4 Hours/week
Practicals: 2Hours/week

THEORY

Unit-I Introduction to Textiles and Clothing

- Introduction to textiles and clothing - Importance of study of textiles.
- General properties of a Textile Fiber - Primary and Secondary.
- Classification of textile fibers – Natural and manmade; cellulose, protein, synthetic and mineral; staple and filament fibres

Unit-II Natural Fibers

- Cellulose fibres – Cotton and Linen - Production, properties, use and care
- Minor cellulose fibres
- Protein fibers – Silk and wool - Production, properties, use and care.

Unit-III Synthetic Fibers

- Nylon – Production, properties use and care
- Polyester – Production, properties use and care
- Acrylic fibres – Production, properties use and care

Unit – IV Mineral Fibers

- Mineral fibres – Fibre glass and Asbestos Production, properties and Uses
- Mixtures and Blends – Importance and advantages of Blending.
- Blends of Natural cellulose fibers, protein fibers and manmade fibers.

Unit – V Yarns

- Yarns – Types of Yarns - Staple and Filament
- Methods of spinning – Mechanical process
- Methods of spinning – Chemical process - Wet , Dry, Gel and Melt
- Classification of yarns – simple, novelty and textured yarns

PRACTICALS

1. Identification and collection of Textile Fibres
 - Plant Fibres – Cotton, Linen, Jute
 - Animal Fibres – Silk, Wool
 - Synthetic Fibres – Polyester, Nylon, Acrylic
2. Identification and collection of Yarns
 - Simple Yarns
 - Novelty Yarns
3. Tests to identify textile fibers
 - Texture
 - Microscopic examination and
 - Burning test.

REFERENCES

1. Deepali Rastogi and Sheetal Chopra (2017). Textile Science, 1st edition, Orient Black Swan Pvt. Ltd.
2. Kanwar Varinder Pal Singh. (2014). Introduction to Textiles, 1st edition, Kalyani Publishers.
3. Seema Sekhri. (2017). Text book of Fabric – Fundamentals to Finishing, 2nd edition, PHI Learning Pvt. Ltd.
4. Sushma Gupta, NeeruGarg, Renu Saini. (2018). Text book of clothing, textiles and laundry, 8th edition, Kalyani publishers.
5. Vastala, R. (2013) .Text book of Textiles and Clothing, 1st edition, Published by ICAR.

CO- CURRICULAR ACTIVITIES

1. Seminar/Assignment/Quiz/Group Discussion
2. Use of ICT in Class reports and Seminars.
3. Project Work
4. Construction of garments and their exhibition.
5. Visit to nearby weaving, dyeing units and printing Centres.

SEMESTER - II

HSC - 201 – INTRODUCTION TO FOOD SCIENCE

Outcomes of the course

At the end of this course, the students will be able to

A) Remember and explain in a systematic way of

- About different plant and animal foods, their selection, nutritive values, composition, and storage and processing.
- Explains the principles of food preservation and causes of spoilage.

B) Understanding and Uses

- Planning recipes of cereals and millets, pulses, Milk and Milk products, vegetables, fruits, nuts and oil seeds products
- Uses different foods in cookery.
- Understands application of different processing techniques in cookery.

C) Critically explain, judge and Solve

- Standardisation of weights and measures of various food items.
- Analyses different processing techniques to improve nutritive quality of foods by germination, fermentation, supplementation, fortification etc.

D) Creativity

- Planning and preparation of nutritious recipes by using different foods

E) Practical Skills

- Preparation of food without losing nutritive value
- Planning, preparing and calculating nutritive values of protein rich, Calcium rich, and Iron rich recipes.

SEMESTER - II

HSC-201 – INTRODUCTION TO FOOD SCIENCE

Theory: 4Hours/week

Practicals: 2Hours/week

THEORY

Unit-I Introduction to Food Science

- Foods – Definition and objectives in the study of foods-functions of foods, group classification and relation to nutrition
- Cooking – Objectives of cooking, Preliminary preparations and methods of cooking – Advantages and disadvantages of each method.
- Effect of cooking on different nutrients.

Unit-II Plant Foods

- Cereals and Millets – Structure, Composition and nutritive value, processing, selection, storage and use in cookery
- Pulses and Legumes – Composition and nutritive value, processing, selection, storage and use in cookery
- Vegetables and Fruits – Classification, Selection, Nutritional aspects, Pigments, Enzymatic and non-enzymatic browning.
- Nuts and oil seeds – Nutritive value , use in cookery

Unit-III Animal Foods

- Milk and milk Products - nutritive value, use in cookery
- Egg - structure, nutritive value, methods to assess quality of eggs, changes during storage and use in cookery
- Meat, Poultry, Fish – Nutritive value, use in cookery
- Spices and condiments – Nutritive value, use in cookery

Unit-IV Food Processing

- Food Preservation – Methods, principles and their applications - high temperature, low temperature, removal of moisture, irradiation and preservatives
- Food additives – Types and their role in food processing
- Nutrient Enrichment – Germination, fermentation, fortification etc.
- Multipurpose foods, Convenience and Ready to eat foods –Advantages and disadvantages

Unit - V Food Microbiology

- Food Spoilage – Microorganisms causing spoilage – Factors responsible for spoilage and changes brought about in food by microorganisms
- Microorganisms that bring about useful changes in food.
- Microbiology of different foods – Contamination and spoilage of milk, egg, meat, fish, vegetables and fruits

- Food Sanitation and Hygiene – Safe food practices during preparation, storage and serving of food.

PRACTICALS

1. Standardization of weights and measures of various food items.
2. Cereals, pulse and vegetable preparations and calculation of nutritive values of recipe .
3. Milk, meat, egg preparations and calculation of nutritive values of recipes.
4. Demonstration of Drying, Fermentation and germination processing techniques.

REFERENCES

1. Bamji MS, Krishnaswamy K, Brahmam GNV. (2016). Textbook of Human Nutrition, 4th edition, Oxford and IBH Publishing Co. Pvt. Ltd.
2. Manay N. Shakuntala & Shadakshara Swamy.(2008). Foods, Facts and Principles, 3rd edition, New Age International Publishers. .
3. Reddy,S.M.(2015). Basic Food Science & Technology, 1st edition, New Age InternationalPublishers.
4. 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.
5. Sumati R. Mudambi, M.V. Rajagopal. (2006). Food Science, 2nd edition, New AgeInternational Publishers.
6. Srilakshmi, B.(2018). Food Science, 7th edition, New Age International Publishers.
7. Wardlaw MG, Insel PM. (2004). Perspectives in Nutrition, Sixth Edition, Mosby Publishers.

CO- CURRICULAR ACTIVITIES

1. Student Seminars on different food groups
2. Collection of samples of different food products available in the market and study theirnutrient composition and use in cookery.
3. Field visits – Visit to food processing units.
4. Field study – Survey on Food Additives used in various food products/ processed foods.
5. Collection of different ready to eat foods and processed foods.
6. Celebration of Important Days (National and International)
 - World Nutrition day-May 28th
 - Nutrition week (Sep 1st 7th)
 - World food day - October16th

SEMESTER - II

HSC-202 - HOUSING FOR BETTER LIVING

Outcomes of the course

At the end of the course, the students will be able to learn

A) Remember and explain in a systematic way

- Importance of house for better living
- Requirements to purchase land, building materials protection and care of house

B) Understands and Uses

- Principles of planning a house with an emphasis on kitchen plans
- Types and properties of building materials

C) Critically explains, judges

- Planning of different rooms in a house.
- House plans for different income groups.
- Advantages and disadvantages of own and rented house.
- Protection of house from dampness, termites, fire etc.,
- Selection and purchase of equipment for the house.

D) Working in out of prescribed areas under co-curricular activity

- Study of building materials and equipment which are not included in the syllabus
- Visiting Places –Building sites/ Construction

E) Practical skills

- Drawing of floor plans of houses for different income groups using symbols.
- Drawing of different kitchen plans
- Study and identification of different building materials.
- Study of electrical and non-electrical equipment for the house, their operation and care.

SEMESTER - II

HSC – 202 - HOUSING FOR BETTER LIVING

Theory: 4 Hours/Week
Practicals: 2 Hours/Week

THEORY

Unit I: Housing

- Importance and functions of a house; Factors influencing the choice of house.
- Requirements for purchasing land for building a house - Selection of site, soil condition, locality, orientation, sanitary facilities, good neighbour-hood, legal characteristics etc.
- Principles of planning a house – aspect, prospect, privacy, flexibility, roominess, grouping, circulation, sanitation, practical considerations etc

Unit II: House Plans

- Planning of different rooms in the house – Veranda, living room, bed room, kitchen etc.
- Kitchen plans – Planning of efficient work centres (L shape, U shape, single walled, peninsular shaped kitchens) and storage facilities in kitchen and other rooms.
- House plans for different income groups – High income, Middle income and Low income.
- Advantages and disadvantages of owning and renting a house.

Unit III: Building Materials and Flooring Materials

- Types and properties of Building Materials – Stone; Clay products; Cement; Mortar; Concrete; Timber; Plywood & related products; Plastics & related products; Paints & related products; Ferrous & nonferrous metals; Gypsum & related products.
- Flooring – Factors in selection of flooring material and Types of flooring

Unit IV: Building Protection

- Dampness Protection – Reasons, Preventive and curative methods of dampness
- Termite Protection – Sources, preventive and curative methods of termite attack
- Fire Protection – Causes of fire, preventive measures and fire resisting construction
- Household cleaning and care – General principles to be followed for cleaning rooms and floors; Equipment and reagents for cleaning rooms and floors.

Unit V: Household Equipment

- Factors to be considered for the selection and purchase of household equipment.
- Construction principles and care of the following equipment
 - Small electrical appliances – mixers, toasters, beaters, iron etc.
 - Large electrical appliances – Refrigerator, washing machine, vacuum cleaner, dish washer, electric range etc.
 - Low cost non-electrical appliances for rural areas – hay box, low cost refrigerator, solar cooker etc.
- Points to be considered while operating electrical appliances and safety measures to avoid accidents

PRACTICALS

1. House plan - symbols, site plan, floor plan, elevation, landscape
2. House plans for different income levels - low income, middle income and high income.
3. Kitchen plans- L shape, U shape, broken L, U Shape, peninsular, one walled.
4. Market study on building materials & identification of – floor finishes, wall finishes and ceiling finishes.
5. Care and cleaning of metals and Non-metal items.
6. Care and cleaning of different types of floors and walls using suitable cleaning equipment and cleaning agents

REFERENCES

1. Premlata Mullick, (2016). Textbook of Home Science, 4th edition,, Kalyani Publishers
2. Varghese & Oagle (2005) Home Management, New Age International Publishers.
3. Subasini Mohapatra (2010).Home Management and Household Economics, Kalyani Publishers.
4. Premavathy Seetharaman, Parveen Pannu (2005), Interior Design and Decoration, 1st edition, CBS Publishers.
5. Sushma Gupta, Neeru Garg &Renu Saini (2018), Text book of Family Resource Management, Hygiene and Physiology, 11th edition, Kalyani Publishers.
6. Pratap Rao, M. (2012), Interior Design – Principles & Practice, 4th edition, Standard Publishers & Distributors.
7. Prof. Veena Gandotra, Dr. Sarjoo Patel (2006), Housing for Family Living, 1st edition, Dominant Publishers & Distributors

CO-CURRICULAR ACTIVITIES

1. Study of building materials and equipment which are not included in the syllabus
2. Visiting Places- Building sites/ Construction
3. Drawing layouts
4. Model making- clay, cardboard etc
5. Debates/Seminar/Group discussions/Quiz
6. Charts & Poster Presentations
8. Organizing exhibitions
9. Album making of Layouts, finishes. Household Equipment etc

SEMESTER - II

HSC- 203 –FUNDAMENTALS OF HOME SCIENCE EXTENSION

Outcomes of the course

The students will be able to:

A) Remember and explain in a systematic way

- Learn the meaning, scope and concept of Home Science Extension.
- Explain the importance of Extension Education in Home Science

B) Understand and Use

- Understand the role Extension worker in community
- Understand the Principles, steps in Teaching and Learning process

C) Critically explains, judges

- Qualities of an Extension Worker
- Different Teaching Methods and Teaching Aids in Communication Process.

D) Working in out of prescribed areas under co-curricular activity

- Know the importance of Teaching Methods and Teaching Aids in Communication Process.
- Know the barriers of communication and learn how to overcome them.

E) Practical skills

- Learn Practical skills in planning, preparation of Audio-Visual Aids
- Usage of bulletin board in extension education
- Use of different types of Teaching methods and Audio-Visual Aids for different target groups.

SEMESTER II

HSC- 203 –FUNDAMENTALS OF HOME SCIENCE EXTENSION

Theory: 4 Hours/week
Practicals: 2 Hours/week

THEORY

Unit-I Extension Education

- Meaning, Concept, Scope and objectives
- Formal and Non formal Education
- Philosophy and principles of Extension Education
- Role and Qualities of an Extension worker

Unit-II Teaching and Learning Process

- Teaching – Meaning, definition, steps in Teaching
- Learning – Meaning, definition, Elements of Learning
- Learning Situation – Definition, Elements of Learning Situation
- Principles of learning and their Implications for Teaching
- Motivation – Principles of Motivation in Extension
- Classification of motives

Unit-III Teaching Methods/Techniques

- Extension Teaching methods – Definition , Functions and Classification of Teaching methods – According to use and form
- Individual methods – Farm and home visits, Telephone calls, Personal letter, Result demonstrations.
- Group methods – Method demonstration, Group meetings/Discussions, Conferences, Field trips etc.
- Mass Methods – Print and electronic media , Internet and Exhibitions
- Factors to be considered in selection and combination of teaching methods

Unit-IV Audio - Visual Aids:

- Audio Visual Aids – Meaning and Classification
- Factors Influencing selection of Audio-Visual Aids
- Principles of Preparing in Planning, Presentation and evaluating in Audio-Visual Aids
- The cone of Experience

Unit-V Communication

- Communication – Meaning, Definition and scope of Communication
- Key Elements in the process of Communication – 1. Communicator 2. Messages, 3.Channel 4. Treatment of Messages 5. Audience 6. Audience Response.
- Types of Communication – Verbal, Non Verbal, Small group and Mass Communication.
- Barriers to communication.

PRACTICALS

1. Visit to a community/ village to find out the socio economic needs of the people
2. Preparation of Survey Schedule
3. Preparation and display of teaching aids – Posters, charts, flash cards etc.
4. Display of bulletin board

REFERENCES

1. Adivi Reddy (1985). Extension Education, Sreelakshmi press, Bapla,
2. Dahama.O.P. (1981). Extension and Rural welfare, Ram Prasad and Sons Agra Bhopal.
3. Doshi, S.L. (2007). Rural Sociology. Delhi Rawat Publishers.
4. Dubey,V.K.. (2009). Extension Education & Communication, 1st edition New Age International Ltd
5. Indhubala (1980), Gruhavignasastravistarana , Telugu academy text book publications
6. Sanths Govind, G. Tamliselvi And J. Meenainbigai .(2011). Extension Education and Rural Development .Agroblos (India) Chopasani Road Jodhpur- 342002 (Raj.)
7. Shekar Serene & Santosh Ahlawat . (2013).Text book of Home Science Extension Education, 1st edition, Daya Publishing house.
8. Supe, S.V.(1983). An Introduction to Extension Education. Oxford& IBH publishing Co, New Delhi.

CO- CURRICULAR ACTIVITIES

1. Adoption of a village based on the socio-economic background.
2. Visit to an adopted village and conduct
 - Baseline survey regarding demographic, population, Educational and felt needs of the villagers.
 - Collection of data.
 - Pooling and Analyzing the data.
3. Preparation, use and evaluation of visual aids viz.,
 - Poster
 - Different types of charts.
 - Flash cards
 - Display of Bulletin Board.
4. Presentation of seminars in the class rooms.
5. Blackboard teaching for 15 minutes in the class room.
6. Promoting effective verbal and non- verbal communications among students.

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.

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

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, silks, 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

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

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	Housing <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	Elderly/Disabled friendly Housing Solar Energy-Applications Modular Kitchens

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

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

Theory

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.

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: Traditions Textiles of India-History of art of weaving in India, Ducca Muslins, and sarees, Chandery Muslins, Baluchar Buttadar, 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)

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:**
- Interior Design Meaning and importance of interior design, objectives
 - Elements of Design-Line, Form, Shape, Texture, Value, Colour, Space,
- Unit II:**
- Principles of Art- Harmony, Balance, Rhythm, Emphasis and Proportion
 - Colour- Prang colour chart, colour schemes , emotional effects of colours
- Unit III:**
- Accessories –importance, classification types, use in interior decoration
 - Flower arrangement- traditional, modern, Japanese- Ikbana- Miniature and Deminiature, Aids and accessories in Flower arrangement
- Unit IV:**
- Furniture : types, selection arrangement
 - Table setting: requisites, western and Indian styles
- Unit V:**
- 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

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
- Growth and development- definitions of growth, development, maturity, learning, heredity, environment,
 - Principles of development
 - Factors affecting growth and development
- Unit-II
- 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
- 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
- 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
- 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

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

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 mode3ls for community
2. Crafts/preparation of teaching material-Aids

PRACTICALS

○ 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

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.

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.

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 weighment 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
2. Diet and Nutrition surveys
3. Identifying vulnerable, at risk groups
4. Breast feeding and weaning practices of specific groups.
5. Use of Anthropometric measurements in assessing the nutritional status.
6. Observation of mid-day programme at Anganwadi Center.
7. Observation and Planning of School Lunch Programmes.

THIRD YEAR

Semester-VI

HSc-601 Early Childhood Care and Education

THEORY

3hrs/week

Theory:

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

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

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

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 awareness on family counselling

- 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 counselling 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

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

Semester-VI
Elective III
HSc-606(a) Household Economics

THEORY

3hrs/week

Theory:

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.