HOME SCIENCE

Course Structure

Units	Topics	Marks
1	Concept of Home Science and its Scope	25
2	Human Development: Life Span Approach (Part I)	
3	Food, Nutrition, Health and Fitness	30
4	Family, Community and Resources	
5	Fabric and Apparel	15
6	Community Development and Extension (Part I)	
Total Theory Marks		**70**
Practical		**30**
Total		**100**

Course Syllabus

Unit I: Concept of Home Science and its Scope

- Evolution of the discipline of Home Science
- Five major areas
- Relevance in improving the quality of life

Unit II: Human development: life span approach (Part I)

- Introduction to different stages: infancy, early childhood, childhood, adolescence, adulthood and old age
    - Infancy (birth to 2 years): Physical - height, weight and body proportions; motor development during 0-3 months, 3-6 months, 6-9 months, 9-12 months and 1-2 years (milestones only); social and

emotional development; expression of emotions, socialization; cognitive and language development
    - Early childhood (3- 6 years): characteristics
    - Childhood (7 - 11 years): behavioural problems of children and suggestive measures
- Protection from preventable diseases:
    - Immunization - concept and types (natural and acquired), breast feeding (one of the ways to develop natural immunity); immunization chart
    - Symptoms, prevention, after care and incubation period of childhood diseases: tuberculosis, diphtheria, pertussis (whooping cough), tetanus, polio, measles, cholera, diarrhoea and chicken pox
- Substitute care at home and outside:
    - by Grandparents, creche/day care centres
    - Integrated Child Development Scheme (ICDS) - objectives and functions
- Special needs and care of disadvantaged and differently abled children:
    - socially disadvantaged
    - visually impaired (partial and complete)
    - hearing impaired
    - orthopedically impaired (affected/missing limb)
- Managing Emergencies
    - First aid to cuts, burns, fractures, bites (snake, dog and insects), poisoning, fainting, asthma, heart attack, drowning.

Unit III: Food, Nutrition, Health and Fitness

- Definition of food, nutrition, health (WHO) and fitness
- Functions of food:
    - Physiological (body building, energy giving, protective, regulatory)
    - Psychological
    - Social

- Selection of food for optimum nutrition and good health:
    - Nutrients: sources, functions and deficiency and its prevention; Proteins, Carbohydrates, Fats, Vitamins- Fat soluble (A, D, E, K) and water soluble (B1, B2, Niacin, Folic acid, B12 and Vitamin C), Minerals (Calcium, Iron, Zinc and Iodine)
- Maximising nutritive value of food by proper selection, preparation and storage:
- Selection of foods: Fruits, vegetables, egg, fish, poultry, meat, milk and milk products, spices, cereals and pulses and convenience food. Storage of foods: Perishable, semi perishable, non-perishable and convenience food.
- Food Processing:
    - Reasons of food spoilage of food
    - Food processing methods - Dehydration, Freezing, Use of preservatives: Natural and chemical.
- Preparation of food:
    - Principles
    - Methods: boiling, steaming, pressure cooking, deep and shallow frying, baking, sautéing, roasting, grilling, solar cooking and microwave cooking.
    - Loss of nutrients and steps to minimise nutrient loss during preparation.
    - Methods of enhancing nutrient availability germination, fermentation, fortification and food combination.

Unit IV: Family and Community Resources

- Concept of Family and Community resources
- Types, Management and Conservation of:
    - Human / Personal Resources: knowledge, skills, time, energy, aptitude
    - Non-human / material resources: money, goods, property
    - Community facilities / shared resources: Schools, parks, hospitals, roads, transport, water, electricity, library, fuel and fodder
- Management:

- Meaning and need for management
- Steps in management: planning, organizing, controlling, implementing and evaluation
- Decision making and its role in management

➢ Time, energy and space management:
- Need and procedure for managing time and energy
- Work simplifications: Techniques for time and energy management
- Need and ways of space management
- Elements of art and principles of design
- Use of colours, light and accessories in space management; Prang colour wheel, dimensions of colours, classes and colour schemes

Unit V: Fabric and Apparel

➢ Introduction to Fibre Science:
- Classifications of fibre
  - Natural: cotton, silk and wool
  - Manufactured: rayon, nylon and polyester
  - Blends: terry cot, terry silk, terry wool
- Characteristics of fibre
- Suitability for use

➢ Fabric Construction:
- Yarn making: Basic procedure of making yarn
  - Simple: Two Ply, Four Ply, Multiple and Cord
  - Novelty: Slub, Knot, Flock, Spiral
  - Blended yarns
- Weaving:
  - Basic mechanism
  - Concept of Looms
  - Types of weaves: plain (basket and rib), twill, sateen and satin weave. A brief mention of special weaves: pile and jacquard weaves
  - Effect of weaves on appearance, durability and maintenance of garment

- Other methods of fabric constructions: knitting, non-woven fabrics: felting and bonding

- Fabric Finishes:
  - Meaning and importance
  - Classification of finishes
    - Basic finishes: (cleaning scouring), singeing, bleaching, stiffening, calendaring and tentering
    - Functional Finishes: Water proofing, sanforization, mercerization, moth proofing
- Dyeing and Printing
  - Importance of dyeing and printing
  - Types and sources of Dyes-natural, synthetic
  - Methods of Dyeing and Printing: Plain Dyeing, tie and dye, Batik printing, Block printing

Unit VI: Community Development and Extension (Part I)

- Respect for girl child
- Media:
  - Concept
  - Classification
  - Function
- Communication:
  - Concept
  - Importance
  - Method
  - Types
  - Elements
  - Effective communicative skills
- Keeping community spaces clean

Practical Project