

HOME SCIENCE CURRICULUM

1. Rationale

At no time in history the demands of human beings have been so diverse as they are today. The individuals are constantly faced with problems of change. They have to make continuous adjustment to their life style that tests their decision making skills.

Home Science teaches an individual to develop knowledge and skills in order to interact better with their environment that includes the family, food, clothing and home. The basic aim of studying Home Science is to efficiently use the goods and services available for improving the quality of human life.

Home Science as a subject is of great social significance as it affects an individual's way of living, eating, raising young ones, etc., which in turn affects the welfare and stability of the family and the society at large. Besides grooming individuals for better living, the study of Home Science also opens up vistas of future vocational pursuits.

2. Objectives

The broad objectives of Home Science are to develop:

- skills that help in bringing a positive change in daily life style and Solving problems;
- creative thinking and a rational approach towards every day life;
- a scientific temper and a spirit of inquiry; and
- sensitivity to values of ethical living.

Therefore, the specific objectives of learning Home Science at Senior Secondary level will be to:

- secure the health and safety of the family;
- take care of nutritional needs of the family along with proper food handling and preparation techniques;
- judiciously utilize available resources through improved work culture and wise purchasing habits;

- understand the process of human development and use it for strengthening interpersonal relationships; and
- develop skills in the selection, care and maintenance off textile and clothing for domestic use.

3. Course Structure

The entire syllabus has been divided into two sections: the CORE MODULES and the OPTIONAL MODULES

The core modules comprise five modules that impart comprehensive knowledge about the different areas in Home Science. These modules are **The Art and Science of Managing a Home; Food and Nutrition; Resource Management; Human Development; and Textiles and Clothing**. It is compulsory for the learners to study all the five modules.

The second part is the optional modules comprising two modules namely **Housekeeping** and **Creative Hand Embroidery**. These modules are of immediate utility to the learner and point out the areas of potential employment. The learner has a choice of studying only 'ONE' of these optional modules.

4. Course Description

A. CORE MODULES

4.1 The Art and Science of Managing Home Approach

Home is a place, which provides comfort and meets an individual's need for safety, security, identity and a sense of belongingness. This module provides an understanding of designing and arranging the environment at home in such a manner that it promotes healthy physical and social development of individuals. It also creates awareness about the various vocational areas in the subject of Home Science.

4.1.1 Home Science

- concept
- scope
- employment opportunities

4.1.2 Family, Health and Security

- definitions
- types of family
- importance of health
- factors contributing to health
- methods of providing safety and security at home

4.1.3 Ethics in Daily Living

- definition and need
- problems faced
- code of ethics
- raising ethical standards

4.2 Food and Nutrition

Approach

Good health is dependent on the food that we eat. Our diet consists of a variety of food that can be prepared by applying simple knowledge of food and nutrition. This module covers important topics like food, nutrition, meal planning and preparation. This knowledge helps to alter food habits that can contribute to ensuring good health.

4.2.1 Food, Nutrition and Health

- definition and functions of food
- sources and requirements of nutrients, deficiency of nutrients
- relationship between food, nutrition and health

4.2.2 Meal Planning

- food groups
- balanced diet
- meal planning
- factors influencing meal planning
- planning balanced meals for the family
- definition, need and types of therapeutic diet
- diet in common diseases

4.2.3 Nutritional Status

- definition
- assessing nutritional status
- causes and prevention of malnutrition
- recognizing deficiency disorders: Vitamin A, Iron and Iodine
- causes and prevention of the above deficiency disorders

4.2.4 Purchase and Storage of Food

- selection of food
- food spoilage
- safe handling of food
- methods of storage

4.2.5 Preparation of food

- importance of pre-preparation and preparation of food
- methods of cooking
- conservation and enhancement of nutrients
- hygienic food handling in the kitchen

4.2.6 Food Preservation

- importance
- principles
- household methods of preservation

4.3 Resource Management

Approach

In these days of stress, home is a person's last refuge from the chaos of outside world. One can feel well adjusted if one possesses the knowledge of optimal use of all the resources in one's environment to achieve satisfaction. 'Doing things right' within the available resources is the aim of this module. This module aims at teaching a creative and systematic approach to an improved life.

4.3.1 Home Management

- definition, steps and motivating factors
- decision making

4.3.2 Family Resources

- Definition, sources and characteristics
- types of resources
- optimal use of resources

4.3.3 Time and Energy Management

- significance of making a time plan
- energy management and fatigue
- principles of work simplification
- methods of saving time and energy

4.3.4 Space Management

- meaning and need
- significance of work areas
- space organization for various activities

4.3.5 Income Management

- meaning of income, expenditure and investment
- expenditure plan
- income and expenditure record
- investing money wisely
- generating additional income

4.3.6 Energy Conservation (non-human)

- meaning and need
- methods of conserving energy
- alternative sources of energy

4.3.7 Environment Management

- meaning and need
- environmental degradation
- effect of environment on man
- role of individuals and government in creating an eco-friendly environment

4.3.8 Household Equipment

- selection and use
- care and maintenance

4.3.9 Consumer Education

- definition
- problems faced by consumers
- consumer protection laws and redressal
- role of standardization marks, labeling and packaging
- consumer rights and responsibilities

4.4 Human Development

Approach

Since every one is a product of environment, their well-being is affected by both external and internal factors. External factors constitute people around you and the housing, food, clothing equipment etc. Internal factors are physical, mental, emotional and psychological health. This module explains the role of a family that acts as a life support system and helps to adapt to the changes occurring within and around an individual.

4.4.1 Growth and Development (0-5 years)

- definition and principles of development
- development during infancy and child hood
- physical, motor, socio-emotional, cognitive and language development
- behaviour problems in children

4.4.2 Growth and Development (6-11 years)

- characteristics of physical, motor, socio-emotional, cognitive and language development

4.4.3 Growth and Development (Adolescence)

- definition and physical development
- sexual maturation and sex education
- characteristics of physical, motor, socio-emotional, cognitive and language development
- problems faced by adolescents

4.4.4 Concerns and Issues in Human Development

- position of the girl child in society
- juvenile delinquency
- child labour
- socio-economically disadvantaged children
- major physical disabilities
- mental retardation
- safe motherhood
- HIV/AIDS

4.5 Textiles and Clothing

Approach

“Clothes make a man” and help to create personal identity and build self-confidence. Using well-constructed garments from textiles that are composed of fibres, yarns and finishes enhance the personality and presentability of individuals.

This module aims to give an understanding of the properties of textiles. This knowledge is important for fabricating, constructing, selecting, using and caring for the textiles in daily use.

4.5.1 Introduction to Fabric Science

- meaning and scope of fabric science
- fibre-definition, classification and properties

4.5.2 Yarn and its Construction

- definition and yarn processing
- properties and types of yarns
- textured yarns

4.5.3 Fabric Construction

- techniques of fabric construction
- weaving
- knitting

4.5.4 Textile Finishes

- meaning and importance
- types of finishes and their properties
- dyeing and printing

4.5.5 Selection of Textiles and Clothing

- selection of textiles for different end use
- selection of clothing
- quality assurance - indicators and mal-practices

4.5.6 Care and Maintenance of Textiles

- need

- steps of laundering
- characteristics of auxiliaries -soaps, detergents, blues and starches
- identification and removal of stains
- suitable washing techniques
- dry cleaning
- storage of clothes

B. OPTIONAL MODULES

4.6A HOUSEKEEPING

Approach

Every individual enjoys living in a clean environment, which includes home, work place and community. The knowledge of housekeeping enables the individuals to promote and maintain cleanliness, and derive psychological satisfaction by promoting aesthetics at home and workplace. The module is aimed at imparting knowledge in housekeeping for everyday activities and also facilitates in taking up housekeeping related jobs.

4.6.1 Introduction to Housekeeping

- meaning
- importance
- areas of housekeeping
- functions of a housekeeper
- personal grooming of the housekeeper

4.6.2 Cleaning and cleaning materials

- cleaning material and equipment
- methods of cleaning
- types of cleaning

4.6.2 Maintenance of Premises

- maintenance of different surfaces
- common household repairs

4.6.4 Aesthetics at Home

- flower arrangement
- floor and wall decoration
- accessories

4.6B CREATIVE HAND EMBROIDERY

Approach

Hand embroidery is an ancient art of our country and in the present time embroidered clothes have become a fashion both among girls and boys. Embroidery enriches the clothes that you wear. This vocational module is aimed at providing knowledge and skill to venture into the area of creative hand embroidery for beautifying one's own clothing or to take up embroidery as a vocation.

4.6.1 Introduction to Creative Hand Embroidery

- historical perspective
- meaning
- materials and tools

4.6.2 Design

- types of design (natural, geometric, stylised, abstract)

- enlargement/reduction of design
- transfer of design
- placement of design

4.6.3 Colour

- Prang's colour wheel
- properties of colour
- colour schemes

4.6.4 Embroidery Stitches

- common hand embroidery stitches
- running stitch, stem stitch, chain stitch, cross stitch, herringbone stitch, blanket stitch, french knot, long and short stitch.

5. SCHEME OF EVALUATION

The learner will be evaluated through public examination and comprehensive evaluation in the form of Tutor Marked Assignments (TMA's)

5.1 Distribution of Marks

CORE MODULES

Name of the Module	Name of the Unit	Study hours	Marks allotted
4.1 The Art and Science of Managing Home	4.1.1 Home Science	20	4
	4.1.2 Family, Health and Security		
	4.1.3 Ethics in Daily Living		
4.2 Food and Nutrition	4.2.1 Food, Nutrition and Health	45	16
	4.2.2 Meal Planning		
	4.2.3 Nutritional Status		
	4.2.4 Purchase and Storage of Food		
	4.2.5 Preparation of food		
	4.2.6 Food Preservation		
4.3 Resource Management	4.3.1 Home Management	45	16
	4.3.2 Family Resources		
	4.3.3 Time and Energy Management		
	4.3.4 Space Management		
	4.3.5 Income Management		
	4.3.6 Energy Conservation (non-human)		

	4.3.7	Environment Management		
	4.3.8	Household Equipment		
	4.3.9	Consumer Education		
4.4	Human Development	4.4.1	Growth and Development (0-5 years)	45
		4.4.2	Growth and Development (6-11 years)	16
		4.4.3	Growth and Development (Adolescence)	
		4.4.4	Concerns and Issues in Human Development	
4.5	Textiles and Clothing	4.5.1	Introduction to Fabric Sciences	45
		4.5.2	Yarn and its Construction	16
		4.5.3	Fabric Construction	
		4.5.4	Textile Finishes	
		4.5.5	Selection of Textiles and Clothing	
		4.5.6	Care and Maintenance	

OPTIONAL MODULES

4.6.A	Housekeeping	4.6.1	Introduction to Housekeeping	30	12
		4.6.2	Cleaning and Cleaning Material		
		4.6.3	Maintenance of Premises		
		4.6.4	Aesthetics at Home		
4.6.B	Creative Hand Embroidery	4.6.1	Introduction to Creative Hand Embroidery		
		4.6.2	Design		
		4.6.3	Colour		
		4.6.4	Embroidery Stitches		
	Practical			10	20

Total				240 hrs.	100
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6. Scheme of evaluation

6.1	Examination	Paper	Marks	Duration
	Theory	1	20	3 hrs.
	Practical	1	20	3hrs.

6.2 Practical Evaluation

Two activities from Modules	4 marks
One activities from Optional Modules	4 marks
Record Book	4 marks
Viva Voce	4 marks

PRACTICAL ACTIVITIES

1. To preserve seasonal foods. made by these two weaves.
2. To prepare and evaluate dishes using the following methods of food enrichment such as:
 - Combination
 - Fermentation
 - Germination
3. To collect different food items that are available at home and categorize them under various food groups.
4. To identify sources of pollution in one's area and to suggest remedial measures.
5. To take one's own family as an example and
 - List the household and related task performed by each member
 - Analyse the work patterns according to age and gender differences in responsibility
 - Comment on this division of tasks
6. (i) To record the expenditure for one's own family for a month
(ii) To evaluate the family's pattern of expenditure and on the basis of the evaluation prepare a budget for the family.
7. To observe children in the age group of 1yr 6 months – 3 yrs for their language achievements.
8. (i) To observe a child in the age group of 1 – 2 yrs and record how he/she expresses anger and fear.
(ii) To visit a nearby nursery school and observe any three children for their social behaviour.
9. To obtain a teenager's view about the physical changes and the social and emotional problems faced during adolescence.
10. (i) To weave plain and it will weaves using strips of paper
(ii) To collect six samples each of fabrics
11. To remove curry, blood, mud, ink and tea/ coffee stains from white cotton fabrics.
12. To launder the following materials:
 - Cotton – 'A' line frock/ pillow case / petticoat/ pyjama
 - Silk – blouse / scarf
 - Wool – cardigan/ cap/ scarf
 - Synthetic – shirt / saree/ pant

OPTIONAL MODULE

HOUSE KEEPING

1. To care for, maintain and clean wooden, floor, brass, aluminum, silver and plastic.
2. To use waste material for preparing useful household items.
3. To practice cleaning the following (to be done under adult supervision only)
 - An electric Fuse
 - 3 pin plug of an electric iron

CREATIVE HAND EMBROIDERY

1. To make a colour wheel
2. To prepare samples of various embroidery stitches
3. To do enlargement and reduction of motifs created.