

## Sr. Secondary Course (Syllabus)

### HOME SCIENCE

#### 1. **RATIONALE**

Home Science is a Subject, which promotes understanding of each of the home with necessary scientific basis and provides essential knowledge to face the changing ways of life. An attempt has been made to develop a course by adopting an integrated approach towards the application of science, technology and humanities in areas like resource management, mind the fact that the Senior Secondary stage could be the terminal point of study for most learners this course not only better equips them to deal with problems on the home front but also offers information on advanced vocational streams for those who decide to pursue a career.

#### 2. **OBJECTIVES**

The comprehensive objectives of teaching Home Science at this level are to \_

- develop a scientific approach through application of science and technology in everyday living.
- promote awareness of ill-effects of environmental degradation on human lives;
- explain principles and techniques to handle problems in middle childhood and adolescence;
- impart advanced knowledge of textiles;
- explain the need and basis of therapeutic nutrition.

#### 3. **DISTRIBUTION OF MARKS**

<i>Module</i>	<i>Marks</i>
<b>THEORY</b>	
Resource Management	16
Development in Middle Childhood	16
Fabric Science	16
Food and Nutrition	16
Optional Module	16
	<b>80</b>
<b>PRACTICAL</b>	<b>20</b>
<b>Total</b>	<b>100</b>

#### 4. **COURSE DESCRIPTION:**

The course has been divided into two parts: the CORE modules and some OPTIONAL modules. The core modules comprise four in member and impart knowledge and information, which is essential for all learners. These are compulsory for all students of the course. There are three optional modules out of which the students have to choose and study any one module.

#### **CORE MODULES**

##### **4.1 RESOURCE MANAGEMENT**

This module is designed to familiarize the reader with the concept of conservation of energy, to create a sense of maintaining ethics at work, to develop skills in money management, and to show how the available space and time can be effectively used to maximize output.

#### **4.1.1 SCOPE OF HOME SCIENCE**

- need
- scope
- employment opportunities

#### **4.1.2 CONSUMER EDUCATION**

- Definition
- Problems faced
- Consumer Protection Act
- Consumer redressal

#### **4.1.3 WORK ETHICS**

- meaning and importance
- competence and work ethics

#### **4.1.4 INCOME MANAGEMENT**

- definition
- recording income and expenditure
- supplementing income.

#### **4.1.5 SAVINGS AND INVESTMENT**

- importance and methods of saving
- agencies of investment
- financing agencies

#### **4.1.6 WORK ORGANISATION**

- meaning and need
- principles of work simplification
- time and energy management

#### **4.1.7 SPACE ORGANISATION**

- meaning and need
- space of work simplification
- space organization and aesthetics

#### **4.1.8 ENERGY AND CONSERVATION**

- meaning and need
- areas where energy can be conserved
- at home and work place
- non conventional sources of energy

#### **4.1.9 ENVIRONMENT MANAGEMENT**

- environment degradation
- effects on man
- creating an eco-friendly environment

### **4.1 DEVELOPMENT IN MIDDLE CHILDHOOD**

This module gives information about the growth and development of children and adolescents and the factors influencing the same. It also sensitizes the student to the situation of the child in India.

#### **4.2.1 GROWTH AND DEVELOPMENT IN MIDDLE CHILDHOOD**

- characteristics of physical, motor, socio-emotional, cognitive and language development
- role of peers
- socialization at school

#### **4.2.2 ADOLESCENCE**

- characteristics of physical, motor, socio-emotional, cognitive and language development
- self concept
- developmental tasks
- sex education at school
- problems faced by adolescents

#### **4.2.3 SPECIAL ISSUES IN CHILD DEVELOPMENT 3**

- position and role of girl child
- juvenile delinquency
- child labour
- major physical disabilities
- socio-economic disadvantage children

### **4.2 FABRIC SCIENCE**

This module aims at familiarizing the reader with the basic properties of the various fabrics, yarn and fabrics available in the market today, how to select fabrics for various end uses, and how a variety of designs can be obtained through weaves, finishes, colours and dyes. Some essential information on care and maintenance of clothes has also been given in the modules.

#### **4.3.1 INTRODUCTION TO FABRIC SCIENCE**

- definition and scope
- fibre-definition and classification
- properties of fibers

#### **4.3.2 YARNS**

- definition, terminology
- yarn processing
- yarn types
- textured yarns

#### **4.3.3 FABRIC CONSTRUCTION**

- meaning
- techniques of fabric construction
- weaving – process and designing
- knitting
- weaving vs knitting

#### **4.3.4 TEXTILES FINISHES**

- definition, importance and classification of finish as routine and special.
- Finishing with colour
- Printing, tie and dye batik

#### **4.3.5 SELECTION OF TEXTILES AND CLOTHING**

- labels and marketing
- malpractices
- judging quality of textile products.
- Selection of fabrics for different end uses
- Selection of clothing for different age group

#### **4.3.6 CARE AND MAINTENANCES**

- need
- general principles
- storage of clothes

#### **4.3 FOOD AND NUTRITION**

This module gives useful information about foods, their functions, nutrients and their requirement. It equips one to plan and understand adequate meals and ways to combat them. Readers will also be able to modify diet to suit certain common diseased conditions.

#### **4.4.1 YOU AND YOUR FOOD**

- definition of food
- functions of food
- food group

#### **4.4.2 NUTRITION**

- definition
- nutrients-functions and source
- nutrient requirements –RDI based on household measures and food groups.

#### **4.4.3 ADEQUATE MEALS**

- balanced diet
- need for meal planning
- factors affecting meal planning
- meals for various age group
- modification of family meal
- hygienic foods handling

#### **4.4.4 NUTRITIONAL STATUS AND HEALTH**

- malnutrition
- assessing nutritional status
- height and weight
- diet and nutrient intake
- recognizing deficiency disorders: anemia, PEM, vitamin A and iodine
- on going governmental and non-governmental nutrition programs

#### **4.4.5 NUTRITIONAL CARE OF SICK IN FAMILY**

- need for special care
- diet modification
- diet in common diseases: diarrhea, constipation, fever jaundice high blood pressure & diabetes
- diet in nutrition related problems: PEM anemia, vitamin A deficiency and obesity.

#### **4.4.6 PURCHASE AND STORAGE OF FOOD**

- selection of food
- food spoilage
- methods of storage

#### **4.4.7 FOOD PRESERVATION**

- general principles of preservation
- preservation at home

#### **CONCLUSION**

The future of a country depends on the state of health of its population. One has to understand the significance of good health of a community with reference to national

development. This module will bring awareness of the common nutritional problems facing India and at the same time describe the various methods used to assess the ongoing nutritional programmes in the community. The modules will give sufficient knowledge on planning and conduction nutrition education programmes in a community.

#### **4.5.1 NATRITIONAL STATUS – ITS ASSESSMENT**

- methods of assessment
- anthropometry
- clinical
- diet survey

#### **4.5.2 NUTRITION EDUCATION METHODS**

#### **4.5.3 MAJOR NUTRITION PROBLEMS IN INDIA**

- extent of major nutrition problems observed in India – energy def. , PEM, anemia, deficiency of Vitamin A,B and iodine, fluoride toxicity and obesity
- Government programmes and policies.

#### **4.5.4 HOME**

**OBJECTIVE** This module will provide the essential knowledge for providing services to the under fives short periods, from the home itself. It will enable the reader to work efficiently at a day care centre / blawadi / home tutorial programme. It is also partly aimed at developing parenting skills in the young readers.

#### **4.5.1 MEANING, NEEDS, OBJECTIVES**

- meaning of home based care
- need-working parents / nuclear families
- objectives – safe Physical environment / stimulating activities / learning opportunities / preparation for school.

#### **4.5.2 REQUIREMENTS / ESSENTIALS**

- organizing and preparing available space
- equipment
- play materials
- safety / first aid

#### **4.5.3 ORGANIZING ACTIVITIES**

- creative activities
- preparing and using learning materials
- materials from environment

#### **4.5.4 NUTRITIOUS MEALS**

- creating nutritious snacks
- developing proper eating habits

#### **4.5.5 ACCOUNTS**

- setting up and starting the service
- records / costing / account knowledge

#### **4.5.6 LAUNDRY**

**OBJECTIVE** This module will equip the readers with the skill to launder various type of fabrics and use the appropriate procedures as required. Learners will be in a position to provide professional services and set up their own units if required.

#### **4.5.1 FABRICS AND LAUNDRY**

- properties related to care and maintenance of – cotton, silk , wool, synthetics.

#### **4.5.2 CLEAN EARS AND LAUNDRY AUXILIARIES**

- characteristics, function and uses of soaps, detergent, blues, starchiest.

#### **4.5.3 STAIN REMOVAL**

- identifying stains
- methods of removal

#### **4.5.4 WASHING AND FINISHING**

- washing of cotton, silk, wool, synthetics
- special treatment given to heavy, light, delicate fabrics
- dirty articles

#### **4.5.5 CLOTH MAINTENANCE**

- ironing
- pressing
- folding
- for collection, washing, drying, ironing and holding

#### **4.5.6 SETTING UP A UNIT**

- setting up and starting the service

#### **LIST OF PRACTICALS**

1. To prepare a label depicting each of the following marks of standardization: i) ISI ii) FPO iii) agmark.
2. To fill various forms at a bank: i) cheques ii) pay in slip iii) withdrawal form.
3. To study the resource use pattern of various family members at your home.
4. To list habits of members of your family and neighbors which degrade the environment and suggest ways to conserve it.
5. To identify the discriminations against a girl child (if any) in your family and find justifications for the same.
6. To identify a child labourer in your locality and develop a profile of the child.
7. To identify a child with special needs and study the family's efforts in his/her achieving independence.
8. To develop a questionnaire to study a family's efforts in helping an adolescent achieve the developmental tasks.
9. To identify various types of fibers using: i) burning test ii) visual inspection.
10. To find out the thread count of different types of fabrics.
11. To tie and dye a cotton fabric using various methods of typing.
12. To remove the following stains from white cotton fabrics: i) curry ii) blood iii) mud iv) ink v) tea/coffee.
13. To prepare simple dishes using the following methods of food enrichment i) combination ii) fermentation iii) germination.
14. To study the nutritional intake and its effect on the nutritional status of a family by maintaining a food diary.
15. To study the programme at a play center to determine the center's role in: i) socio-emotional development ii) physically motor development iii) cognitive development.