

## **HOME SCIENCE**

### **SYLLABUS FOR HIGHER SECONDARY FIRST YEAR COURSE**

Home Science as a discipline aims to empower learners by developing understanding of four different areas namely :

- (i) Food and Nutrition
- (ii) Human Development
- (iii) Community Resource Management and Extension
- (iv) Fabric and Apparel Science

The subject helps students to understand changing needs of Indian society, academic principles as well as develop professional skills.

This would make them competent to meet challenges of becoming a responsible citizen.

#### **Objectives :**

The Syllabus at senior secondary level develops in the learners an understanding that the knowledge and skills acquired through Home Science facilitates development of self, family and community. It endeavours to -

- ❖ acquaint learners with the basics of human development with specific reference to self and child .
- ❖ help to develop skills of judicious management of various resources .
- ❖ enable learners to become alert consumers .
- ❖ impart knowledge of nutrition and life styles to enable prevention and management of disease and also to inculcate healthy food habits .
- ❖ help to develop understanding of textiles for selection and care of clothes.

### **SYLLABUS FOR HIGHER SECONDARY FIRST YEAR COURSE**

**One Paper**

**Time : Three hours**

**Marks : 100**

#### **Unitwise Distribution of Marks & Periods :**

<b>Unit</b>	<b>Topics</b>	<b>Marks</b>	<b>Periods</b>
Unit-I	Concept of Home Science and its Scope	03	03
Unit-II	Know myself	17	35
Unit-III	Nutrition for self and Family	17	40
Unit-IV	Our Resources	17	37
Unit- V	Our Apparel	16	35
<b>Total :</b>		<b>70</b>	<b>150</b>

## **Unitwise Distribution of Course Contents:**

### **Unit -I : CONCEPT OF HOME SCIENCE AND ITS SCOPE**

**Home Science :** Definition, Objectives, Philosophy of Home Science, Different branches of Home Science and its scope.

### **Unit-II : KNOW MYSELF**

**Growth and Development :** Meaning, Principles, Factors affecting growth development, Different Stages of development, Adolescence, Meaning, early (12-15 years) and late (16-18 years) adolescence, Early and late matures characteristics of adolescence.

**Different aspects of Development during adolescence:** Physical Development: growth spurt, sexual development; Cognitive development, Transition from concrete to formal operation; Social and Emotional development; Different interest of adolescence, varied and changing interest, concern about future; adolescence a period of strain and stress.

**Important developmental tasks:** Developmental task in Adolescence- Accepting one's physique; achieving new and more matured relations with age mates of both sexes; achieving a masculine feminine social general role; achieving emotional independence from parent; preparing for career; reproductive health and prevention of anemia.

**Individual differences :** Difference between same sex, differences across the two sexes, early and late matures, role of heredity and environment (family, peers, school and neighbourhood).

**Interpersonal Skills :** Relation with the family, peers and members of the community.

**Special needs of adolescence :** Nutritional requirements: qualitative and quantitative; Exercise and entertainment; importance of physical activity in social development and prevention of obesity; Understanding from parents.

**Problems of adolescence :** Awkwardness due to growth spurt; freedom and control; depression; alcohol, drugs and smoking; delinquency; problem related to sex; ignorance and increased curiosity, Prevention of HIV / AIDS and other sexually transmitted diseases;

**Population Education :** Understand the term 'population Explosion', Effect of population explosion, Reasons of population explosion. Neglect of girl child; causes, prevention, legal and social laws, government incentives to improve status of girl child, desire for male child; small family norms.

Population education- meaning, objectives and importance of population education.

### **Unit-III: NUTRITION FOR SELF AND FAMILY**

**Definition and Relationship between food, nutrition, health :** Definition of health, Dimension of health, Health and Disease, Definition of Food, Nutrient, Nutrition and Nutritional status, Food and Health, Classification of Food- On the basis of functions and nutrients, Nutritional and calorie intake as a basis of poverty line.

**Functions of food :** Physiological function of food- Energy giving, Body-building, Protective and Regulatory, Psychological function of food, Sociological function of food, Signs of good Health, Physical status, psychological status, Mental ability morality and longevity.

**Selection of Foods for optimum nutrition and good health :** Basic knowledge of nutrients

(Source, Functions, Deficiency and Prevention)- Protein, Carbohydrate, Fat, Dietary Fiber, Vitamin- A, D, E, K, B<sub>1</sub>, B<sub>2</sub>, Niacin, Folic Acid, B<sub>12</sub> and Vitamin-C minerals- Calcium, Phosphorus, iron, iodine. Basic Food Groups and their contribution, Concept of Balanced diet, Food and Nutritional requirement for family (ICMR tables); factor influencing selection of food culture, family food practice, media, peers, easy availability of food.

**Maximum nutritive value from food by proper selection, preparation, cooking and storage :** Selection and storage of foods-perishable, semi-perishable, non-perishable, convenience of food and their selection & storage. Reasons for spoilage- Food preservation-its importance, principles, methods of preservation, Dehydration, Refrigeration, Use of chemicals & household preservatives, Preparation of food, cooking- Reasons, principles, methods of cooking, Baking, grilling, Roasting, boiling, steaming, pressure cooking Frying- Deep fat frying, Sauteing. Effect of cooking on the nutritive value of food; Loss of nutrients during preparation and cooking of food and their minimization. Methods of enhancing nutritive value of food - germination, fermentation, fortification and food combination.

#### **Unit-IV: OUR RESOURCES**

**Resources :** Meaning and Types- (a) Human Resources - Knowledge, Skills, Time, Energy, Attitudes, (b) Non-Human Resources- Money, Goods, Property, (c) Community Facilities. Characteristics of Resource, Need to manage the resources; methods of conservation of Shared resources- fuel, electricity, water, public transport system, park, school and hospital, road.

**Management :** Meaning and need for management. Steps in management- Planning, Organizing Controlling, Implementing and Evaluation. Decision Making Steps in decision making, Role of decision making in Management.

**Time and Energy Management :** Concept of time and energy, need and procedure for managing time for occupation and leisure. Management of energy- Fatigue- Meaning and types, work simplification- meaning and method, role of different members of the family in efficient running of a home.

**Organization of space, work at home :** Importance of home, Activities in a home- allocation of space for different activities. Use of colours and accessories like- flower arrangement, picture hanging to make these centre attractive.

**Work ethics :** Meaning and importance : elements of work place, Discipline at workplace, Respect for the job undertaken, Observing punctuality and regularity towards the job, Stick to the job and seat during the work hours, Knowing the job, Using polite language etc. Code of work ethics.

#### **Unit-V: OUR APPAREL**

**Fibre Science :** Fibre and its characteristics, Types of Fibre and their properties, Natural Fibre-Cotton, Silk, Wool; Man Made- Nylon, Rayon, Polyester and Blend (Terry-cot, Terry-silk, Terry-wool) Fibre Identification- Methods- Physical Observation or Visual inspection, Burning Test, Microscopic, Solubility test.

**Fabric Construction :** Concept of yarn, Types of yarn, yarn making- (Spinning - Mechanical and Chemical)- Method of Fabric Construction- Weaving-plain, twill satin sateen, Knitting

and Non-woven Fabric; - Felting, Effect of weaving on appearance, durability, maintenance of garment.

**Finishing** : Meaning, Importance, classification of Finishing process, Basic Finishing, Cleaning, Bleaching, Stiffening, tantering. Special finishes- Mercerization Shrinkage control, water proofing; dyeing and printing, dyes and its type of Printing, methods of printing-Block printing; Roller printing, Discharge Resist, Screen and pigment printing.

### SYLLABUS FOR HOME SCIENCE PRACTICAL

**Time : Three hours**

**Marks : 30**

#### Unitwise Distribution of Marks & Periods :

Unit	Topics	Marks	Total Period:50
Unit-I	Concept of Home Science	-	
Unit-II	Know myself	-	
Unit-III	Nutrition for Self and Family	08	
Unit-IV	My Resources	08	
Unit- V	My Apparel	07	
	Record	05	
	Viva	02	
<b>Total :</b>		<b>30</b>	

#### Unitwise Distribution of Course contents:

##### Unit-I : Concept of Home Science:

**Activity:** Make a list of Higher Secondary Schools and Colleges of Assam where Home Science is offered as a subject.

##### Unit-II: Know Myself: issues related to adolescents

**Activity :** Observe and test your own strengths and weaknesses. Discuss about them in class with your teacher and fellow students; take a decision about maximum utilization of strength and improvement upon weakness, Activity: Report situations from your life to indicate your interaction within the family, with peers and with members of the community.

##### Unit-III: Nutrition for Self and Family

**Activity :** Look for signs of good health within your family.

**Activity :** Make a list of foods available in the local market according to food groups.

**Activity :** Observe how different food stuffs are stored at home and evaluate the effectiveness of the method; list out the steps, practices to preserve and optimize nutrients while preparing meals for your family.

**Practical :** Prepare any three items for meals (cereals, pulses or vegetables) and four for snacks items (2 from snacks and 2 from sweets).

#### **Unit-IV: Our Resources**

**Activity :** Observe and make a list of resources available at home and in neighbourhood, Make detailed study on available community resources and its management, suggest improvement.

**Activity :** Critically evaluate anyone activity centre of your house. Suggest improvements.

**Activity :** Suggest a work plan for yourself for a day and state where and why will you take help from others.

**Practical :** Make a colour wheel and show different colour schemes, make flower arrangement for different tables and decorate a floor with one method.

#### **Unit-V: Our Apparel**

**Activity :** Collect samples of fabrics and study characteristics for identification.

**Activity :** Collect samples of weaves and identify them.

**Practical :** Carry out burning test, microscopic test, solubility test.

**Practical :** Make a sample of dyeing and block print by using blocks available and make your own.

Prescribed Textbook : Home Science, Published by AHSEC.

গৃহ বিজ্ঞান, Published by AHSEC.

