

**GAUHATI UNIVERSITY**  
**THREE YEAR DEGREE COURSE**  
**(Semester Pattern)**  
**Subject:- Home Science**  
**(General course)**

**Course Structure.**  
**T.D.C. General**  
**Sub:- Home Science**

| <b>Year</b>                             | <b>Subject</b>  | <b>Marks</b> | <b>Classes per week</b> | <b>Credit</b> |
|---|---|--------------|-------------------------|---------------|
| First year<br>1 <sup>st</sup> semester  | E - 101<br>Human Development  | 75           | 6                       | 6             |
| Total Marks – 75, Credit -6             |   |              |                         |               |
| 2 <sup>nd</sup> Semester                | E – 201<br>Home Science extension education                                   | 75           | 6                       | 6             |
| Total Marks – 75, Credit -6             |   |              |                         |               |
| Second Year<br>3 <sup>rd</sup> Semester | E - 301 (Theory)<br>E – 302 (Practical)<br>Food and Nutrition                 | 50<br>50     | 4<br>4                  | 4<br>4        |
| Total Marks – 100, Credit -8            |   |              |                         |               |
| 4 <sup>th</sup> Semester                | E – 401 (Theory)<br>E – 402 (Practical)<br>Textile and Clothing               | 50<br>50     | 4<br>4                  | 4<br>4        |
| Total Marks – 100, Credit -8            |   |              |                         |               |
| Third Year<br>5 <sup>th</sup> Semester  | E – 501 (Theory)<br>E - 502 (Practical) Project<br>Family Resource Management | 100<br>100   | 6<br>6                  | 8<br>8        |
| Total Marks – 200, Credit -16           |   |              |                         |               |
| Sixth Semester                          | E - 601 (Theory)<br>E - 602 (Practical)<br>Entrepreneurship Development       | 100<br>100   | 6<br>6                  | 8<br>8        |
| Total Marks – 200, Credit -16           |   |              |                         |               |

TDC GENERAL COURSE IN HOME SCIENCE

First Year – Human Development

First Semester.

Paper :E101

Credit – 6

Marks -75

1. Orientation to growth and development. Mark - 10
  - a. Definition, meaning, principles of growth and development.
  - b. Development task.
  - c. Factors affecting growth and development.
  
2. Pre-natal Period :
  - a. Signs and symptoms of pregnancy.
  - b. Stages of development.
  - c. Factors affecting pre-natal development.
  - d. Common physical hazards.
  
3. Post-natal period and Babyhood. Mark - 10
  - a. Adjustment to birth – temperature, breathing, taking nourishment, eliminations.
  - b. Immunization.
  - c. Breast feeding and its importance.
  - d. Different aspects of development- physical, motor, social, emotional, cognitive and speech development
  
4. Early Childhood. Mark - 10
  - a. Development from 2½ to 6 years – physical, motor, social, emotional, cognitive and personality.
  - b. Common interest of early childhood.
  
5. Late childhood Period Mark - 15
  - a. Physical characteristics of 6-12 years.
  - b. Emotions & emotional expressions.
  - c. Social behavior.
  - d. Moral attitudes and behavior,

6. Puberty and Adolescence. Mark - 15
- a. Meaning of puberty, pubertal changes and its effects.
  - b. Definition and meaning of adolescence.
  - c. Changes during adolescence – physical, social, emotional.
  - d. Personality development and the factors affecting the development of self concept.
  - e. Difficulties during the transitional period.
7. Marriage and family. Mark - 15
- a. Meaning and types of marriage.
  - b. Changes in modes of selecting suitable partner, premarital association, premarital guidance and counseling.
  - c. Concept and functions of Indian families
  - d. Types of families – nuclear, extended, joint, patriarchal, matriarchal, single parent.
  - e. Laws related to marriage & family.

TDC GENERAL COURSE IN HOME SCIENCE  
First Year – Extension Education  
2ND Semester  
Paper - E 201

Credit – 6  
Marks -75

**Home Science Education & Extension**

A. Extension Education.

Marks - 10

- i. Introduction & Extension Education.
  - a. Meaning, Definition, Objective & Philosophy of Ex. Education.
  - b. Diff principles of Extension Education.
  - c. Role & qualities of Extension Education.

(ii) Different Ex. Teaching Methods.

Marks - 10

- a. Farm & home visit.
- b. Farmer's calls.
- c. Group meetings, Group contacts.
- d. Demonstrations (Methods & results) campaigns.

B. (i) Introduction & Home Science

Marks - 10

- a. Meaning, Objectives & philosophy of Home Science.
- b. History of Home Science in India with special reference & Assam (H.Sc in Secondary, higher Secondary College & University level)
- c. Different components of Home Science

(ii) Scope of Home Science

Marks - 10

- a. Scope of Home Science
- b. Vocations within Home Science institution & outside institution.
- c. Status of Home Science in society.
- d. New avenues of Home Science.

(iii) Home Science Extension Education

Marks - 10

- a. Meaning, Definition, concept, Objective of Home Science Extension Education
- b. Philosophy & Characteristics of Home Science Extension Education.
- c. Different steps in Home Science Extension Teaching – Attention, interest, desire, conviction, action, satisfaction.

- (iv) a. Approaches used in Home Science extension (i) Individual. (ii) Group & (iii) Mass approaches.
  - b. Qualities of a Home Science extension worker personal, social & professional qualities.
5. Teaching aids used in Home Science Extension Education. Marks - 15
- a. Importance & principles of selection of teaching aids.
  - b. Advantages & disadvantages of using teaching aids.
  - c. Characteristic of teaching aids.
  - d. Audio Aids, Visual Aids, Audio-Visual Aids.
- C. Communication in Home Science Extension Marks - 10
- a. Definition & meaning of communications.
  - b. Functions of communication.
  - c. Types of communication. Interpersonal, Group & Mass communication
  - d. Communication Problems.

**Second Year  
Third Semester  
Paper – Food & Nutrition(301) (Theory)  
Marks – 50 (Theory)**

**Credits :4**

1. Food 10
  - a. Nutrition, Nutrients, functional classification of nutrients.
  - b. Macronutrients – Carbohydrates, proteins, fats- Classification, functions, deficiencies, sources.
  - c. Micronutrients – fat-soluble, water soluble vitamins –Vitamin A, Vitamin D thiamine, riboflavin, niacin, vitamin C, vitamin B<sub>12</sub> & folic acid – functions, deficiencies, dietary sources.
  - d. Minerals – Iron, calcium, Iodine, sodium, potassium, Zinc- Functions, deficiencies, dietary sources.
  
2. Study of Basic Five food groups & meal planning. 10
  - a. Balanced diet
  - b. Recommended dietary allowances for Indians
  - c. Factors to be considered for meal planning.
  - d. Meal planning for various age groups- preschool, school age, adolescent age, adult (Man & Woman) special conditions like pregnancy & lactation.
  
3. Digestion, absorption and Metabolism of food 10

Carbohydrates, proteins and fats.
  
4. Food preparation 10

Objectives, and Methods of food preparation - boiling, steaming, pressure cooking, baking, roasting, frying & microwave cooking.  
Retention of nutrients during preparation of food.
  
5. Community Nutrition 10
  - a. Meaning, concept, importance of Nutrition education
  - b. Prevalent beliefs & food fads.
  - c. Assessment of nutritional status, methods of diet survey

**Paper – Food & Nutrition 302 (Practical)**

**Credits-4  
Marks – 50**

1. Preparation of food from food groups 12
  - a. Cereals
  - b. Pulse
  - c. Vegetables
  - d. Milk based
  - e. Meat, fish, egg
  
2. Planning & preparation of low cost Nutrition's snacks / meal for children 12
  - a. Preschool
  - b. School going
  - c. Adolescent
  - d. Pregnant & lactating mother
  - & Calculation of calorie & protein content
  
3. Planning balanced diet for whole day for any two of the following age groups 14
  - a. Preschool
  - b. School going
  - c. Adolescence
  - d. Pregnant mother
  
4. Baking & confectionary – cakes, biscuits, buns & cookies 12

**Second Year  
Fourth Semester  
General Paper – 401 (Theory)  
Textile and Clothing**

**Credit – 4  
Marks - 50**

**Group – A**

| <b>Content:</b> | <b>Textiles</b>   | <b>Marks – 25</b> |
|-----------------|---|-------------------|
| 1.              | Introduction: definition, Textile fiber and its general properties, classification of fiber (Natural and Man-made), properties, uses and importance of fibers to consumers.   |                   |
| 2.              | Yarn: Definition, classification (Mechanical : Single, ply, cord, texturised, and blended yarn; characteristics of yarn and their use.  |                   |
| 3.              | Fabric Construction: Introduction; Methods of fabric Construction ( interlacing – weaving; interloping – knitting, tating, chrochetting; Interlocking – felting; Non-Woven – bonding, laminating, braiding, plaiding, tri-axial in brief) ; differences between Woven and non-woven fabric. |                   |
| 4.              | Factors considered in selection: problems in reference to climate, altitude and environment.  |                   |

**Group - B**

| <b>Content:</b> | <b>Clothing:</b>  | <b>Marks: -25</b> |
|-----------------|---|-------------------|
| 1.              | Garment Construction: Techniques of pattern making Principles involved in pattern making, pattern alteration, fabric preparation for garment construction. Rules for stitching. |                   |
| 2.              | Importance of clothing, clothing needs of the family, factors affecting clothing needs.   |                   |
| 3.              | Clothing budget, wardrobe planning for family. Members.   |                   |
| 4.              | Consumer behaviour and awareness.   |                   |
| 5.              | Care of clothes:- Methods and materials used for washing, storage of clothes.   |                   |

Second Year  
Fourth Semester  
Paper – 402 (Practical)  
Textile and Clothing.

Credit – 4  
Marks – 50

1. Identification of textile fiber (Cotton, Wool, Silk, Synthetic, by the methods of observation, microscopic and burning test) - 5
2. Identification and characterization of sample of yarn and fabric making samples of stitches, seam and fullness. - 20
3. Making paper pattern of either infant or toddler. - 15
4. Stain removal and washing of garment of any types. - 10

**Third Year**  
**Fifth Semester 501 (Theory)**  
**Family Resource Management**

**Credit-8**  
**Marks : 100**

**Housing and space management.** 20

- a. Housing and its importance.
- b. Factors affecting the housing needs of the family.
- c. Types of housing – independent house, part house, apartment.
- d. House planning – selection of site, aspect, prospect, privacy, grouping, roominess, sanitation – Lighting, Ventilation, Drainage, Water supply.
- e. Functional designing of work areas and storage / space management.

**Resource.** 15

- a. Definition, types of resource – human – time, energy non-human – money, community facilities – parks, schools, library, hospital, museum etc.
- b. Management – definition, importance, process of management – planning, controlling, evaluation. Decision making – types and steps
- c. Motivating factors – values, goals, standards of living (concept only).

**Human Resource Management.** 35

- b. Time and Energy management – definition, demand of energy & time for different family life cycle, time plan, time and energy cost, peak load, fatigue – types, techniques of reducing fatigue (work simplification)
- c. Equipments for reducing drudgery – Importance, types, selection, care and working principles of few household equipment (Heater, iron, pressure cooker, mixer grinder, refrigerator, washing machine)

**Family Finance Management and consumer Education.** 15

- a. Family finance – income – types, source, handling of family income
- b. Management of family finance – planning (budget), controlling (household account), evaluation (savings investment and credit)
- c. Consumer behavior – concept, rights and duties of a consumer.
- d. Problems of consumers (consumer exploitation)
- e. Consumer protection – laws, consumer guidance societies, organizations (ISI, FPO, AGMARK)
- f. Consumer education – role of Home Scientist in creating awareness amongst consumers about their rights and responsibilities.

**Third Year  
Fifth Semester  
Paper 503 (Practical)  
Family Resource Management**

**Credit -8  
Marks – 100**

- |    |   |      |
|----|---|------|
| 1. | Project Work  | - 25 |
| 2. | Presentation of Seminar Paper   | - 15 |
| 3. | Make a time plan  | - 10 |
| 4. | Make a Family budget for Different Income group   | - 15 |
| 5. | Make a record of expenditure for fifteen days of personnel or family by using any one method. | - 15 |
| 6. | Analysis of label, brand of consumer product and standardised mark (common items)             | - 10 |
| 7. | Make House plan for different Income group (Use group paper)                                  | - 10 |

**Third Year**  
**Sixth Semester**  
**Paper – 601 (Theory)**  
**Entrepreneurship development through Home Science**

**Credit - 8**  
**Marks – 100**

- A. Introduction: 10 Marks
1. Meaning, definition, importance and scope of entrepreneurship, skill and abilities of an entrepreneur.
- B. Food Preservation: 20 Marks
- i. Importance of food preservation, principles of food preservation, Household and commercial methods of food preservation.
  - ii. Food Spoilage  
Causes of food spoilage, food borne diseases, food poisoning.
- C. Pre-school Management. 20 Marks
- i. Definition, objectives, concept, importance of pre-school education.
  - ii. History of pre-school education
  - iii. Types of pre-school
  - iv. Home school communication
  - v. Methods of pre-school education.
- D. Textile Designing and garment Designing 30 Marks
- i. Meaning, Definition, Importance of design types of design ) structural & applied design, Motifs-geometrical, natural, stylized and abstract.)
  - ii. Design – elements and principles of design, colour theory, importance of texture, space, light in design, Finishing with colours (dyeing, printing, and embroidery.
  - iii. Garment designing and making of garment for different age group (Infant, toddler, preschool, adolescent, and special condition)
- E. Interior Designing 20 Marks
1. Definition, importance elements and principles of art and their application.
  2. Treatment of walls, floors, windows – types methods, selection care and maintenance.
  3. flower arrangement – i). Picking, conditioning and care of flower and foliage, arrangement for different areas and occasions.
  4. Furniture and furniture arrangement.
    - ii. Selection and care of different types of furniture, arrangement of furniture for different areas.
  5. Cost estimation for furnishing a room. – Importance, factors to be considered for estimation of cost.

**Third Year**  
**Sixth Semester**  
**Paper – 602 (Practical)**  
**Entrepreneurship Development through Home Science**

**Credit – 8**  
**Marks – 100**

- A. Preservation of fruits and vegetables. Marks - 10  
i. Squash, jam, sauce, pickle.
- B. Visit to a preservation centre and submission of report. Marks - 10
- C. Curriculum planning for specified period. Mark - 15  
i. Topic selection (rhymes, story and informal talk)  
ii. Teaching aid – Preparing of teaching aid for school.  
iii. Preparation of activity plan.
- D. Participation in pre-school and submission of report. Marks - 10
- E. Preparation and designing of garments Marks - 25  
i. Development of designing for different fabric and for different garment, Dying / printing / painting / embroidery for different garment (any one)  
ii. Finishing with colours  
iii. Designing garment for infant, toddler, per-school, adolescent, adult special condition (pregnant woman, lactating woman, special children)  
iv. Making of garments (any two)  
Making paper pattern, cutting and stitching and furnishing of garment.
- F. Interior Designing Marks - 20  
i. Arrangement of flowers for different occasions and areas.  
ii. Bouquet and garland making.  
iii. Preparation of different occasions for interior enrichment (pottery, wall hangings, sketches and panting, sculpture, flower making from different materials)  
iv. Floor decoration (rangoli, alpana, flower carpet, kolam)
- G. Preparation of Articles – Charts, Poster, Mobile Greetings Card with Envelop, etc. Marks – 10