GUJARAT UNIVERSITY

HOME SCIENCE UNDERGRADUATE AND POSTGRADUATE PROGRAMMES FOR GENERAL HOME SCIENCE (COMPOSITE)

(FAMILY AND COMMUNITY SCIENCES)

CURRICULUM AS PER THE CHOICE BASED CREDIT SYSTEM

(Implemented from June 2011)

Choice is Yours

C. Food & Nutrition
B. Clothing & Textile
C. Human Resource Management
S. Human Development

Extension & Communication

PREFACE:

Home Science (Family and Community Science) is an interdisciplinary field of studies comprising of Food and Nutrition Science, Clothing and Textile Science, Human Resource Management, Human Development and Extension and Communication. Each of this area is multi-disciplinary in nature dealing with the ‘Art and Science of Living’. The individual, the family and the community are the foci of Home Science. The security and development of the family is so much part of the social fabric of individuals and communities which are reflected in the curriculum of Home Science, with due focus on gender neutral, career perspectives and region specific - urban as well as rural areas.

Home Science is a unique field of knowledge and its inter-disciplinary approach in synthesizing knowledge drawn from physical, Biological, Social Science, Arts and Humanities, Technology and Management has enriched its educational programme which prepare an individual in improving the standard of living, quality of life of individuals and communities, which contributes significantly to the economic and over all development of the individual, family and nation to meet the challenges in the global context. This is achieved through a blend of academics, research training and extension as well as industrial applications. The programme has considerable emphasis on integrated approach of combining theory and practical’s and fieldwork. Competency based courses have sound market value and would lead to social and economic empowerment. Field placement would be incorporated to allow for the Integration of skills in the learning processes with
transfer of knowledge from laboratory to classroom and from classroom to field.

The programme allows flexibility in the choice of thrust areas, which student can select, based on their career goals. It is envisaged that the current scenario at the regional and national level require trained professionals in areas such as clinical and therapeutic Nutrition, Extension Management, Apparel Design and Construction, Child and Human Rights, Nutrition for Health and Fitness, Fashion Design, Interior Decoration etc.

The curriculum integrating several elective courses, besides the core, has been formulated to provide professionally competent manpower for Academic and Research activities.

**Goals:** To develop an integrated programme for life and career for students and enable them to develop entrepreneurial skills.

**Objectives:**

1. To enable the students to acquire the knowledge and skills required for holistic understanding of the field of Home Science discipline.

2. To enable the students to acquire the knowledge and competence to practice Home Science in relevant setting.

**PROGRAMME DURATION:** Six Semesters  
**PROGRAMME STRUCTURE:** (Tentative)
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# B.A. HOME SCIENCE PROGRAMME
## COURSE STRUCTURE FOR C.B.C.S. (REVISED)

### SEM - II

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# B.A. HOME SCIENCE PROGRAMME  
## COURSE STRUCTURE FOR C.B.C.S.  
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## B.A. HOME SCIENCE PROGRAMME
### COURSE STRUCTURE FOR C.B.C.S.

#### SEM - IV

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## B.A. Home Science Programme
### SEM – V
### CURRICULUM AS PER THE CHOICE BASED CREDIT SYSTEM
### COURSE STRUCTURE FOR C.B.C.S.

(Implemented from June 2013)

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Total: 13 5 8 26 30
# B.A. Home Science Programme

**SEM – VI**

COURSE STRUCTURE FOR C.B.C.S.

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**B.A. HOME SCIENCE**
**SEM - I**

**CORE – 101 THEORY**

**INTRODUCTION TO FOODS AND NUTRITION**

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**Focus:**

This course builds upon the Fundamentals of Foods and Nutrition and provides further information regarding the role of macro and micro nutrients in human nutrition as well as basic information regarding Food Preparation and Serving.

**Objectives:**

This course will enable the students to

1. **Understand basic concept of Food, Nutrition, Nutrients, Health, Nutrition Status and role of Nutrition maintaining health.**

2. **Gain knowledge regarding Food groups, Food guide pyramid, balanced diet and nutritive value of various food groups.**

3. **Gain knowledge regarding RDA, functions, sources, deficiency and excess of energy, various Macro Nutrients and Micro Nutrients.**

4. **Get familiar with various cooking methods, the process improving the quality of food and retentions of nutrients.**

5. **Get familiar with basic concept of serving the food items.**
UNIT - I

Basic concept of Food and Nutrition

1. Definition of Food and Nutrition, Health, Nutrients, Nutritional Status, RDA and Balance Diet. Role of Nutrition in maintaining good health.
2. Functions of Food, Food Guide Pyramid, Basic five Food Groups & its nutritive value and their contribution to balanced diet.
3. Classification of Nutrients according need and functions - Macro and Micro, body building, protective and regulating nutrients, others - antioxidants, trace elements and phytochemicals. (In brief)

UNIT - II

Macro Nutrients

(1) Energy in Human Nutrition - RDA, Energy Balance.
(2) Macro Nutrients - functions, sources, RDA, Need, Deficiency and Excess - Protein, Fat, Carbohydrate & dietary fibers.
(3) Fat Soluble Vitamins - functions, sources, RDA, Need, Deficiency and Excess - A, D, E, K.

UNIT - III

Micro Nutrients

(1) Micro Nutrients - functions, sources, RDA, Need, Deficiency and Excess - Water Soluble Vitamins: Thiamine, Riboflavin, Niacin, Pyridoxine, Pantothenic acid, Vitamin B12, Folic Acid and Vitamin C.
(2) Minerals - functions, sources, RDA, Need, Deficiency and Excess - Calcium, Iron, Magnesium, Zink, Fluorine, Iodine, Selenium, Copper, Manganese.

UNIT - IV

Food Preparation and Serving

(1) Principles, need and methods of cooking - Dry Heat and Moist Heat - their advantages, disadvantages, effect on Nutritive value and Retention of Nutrients.
(2) Improving Nutritional quality of Food - Germination, Fermentation, Supplementation, Fortification and Enrichment, Substitution
Others: Use of -
(1) Use of Audio-Visual aid and Internet
(2) Assignment
(3) Demonstration
(4) Group Discussion

REFERENCES:

2. Swaminathan M., “Human Nutrition and Diet”, Bangalore Printing & Publishing Co...
3. Dr. L.C. Gupta, “Food and Nutrition”.
4. Swaminathan M., “Handbook of Food and Nutrition”.
8. jl pl xErl, Aahar iv)an.
B.A. HOME SCIENCE
SEM - I
CORE - 102
THEORY

INTRODUCTION TO CLOTHING AND LAUNDRY SCIENCE

<table>
<thead>
<tr>
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**Focus:**
This course builds upon the core course fundamentals of Clothing and Textiles and it provide further information regarding the role of Clothing and Laundry Science in human health care, with special focus on clothing constructions for children.

**Objectives:**
This course will enable students to
1. Understand basic concept of clothing and textiles, use of sewing machine and various sewing equipments.
2. Gets knowledge regarding children clothing.
3. Recognize basic skills required for clothing construction.
4. Acquaint with materials, equipments and the process involved in laundering.

**UNIT - I**

**INTRODUCTION TO CLOTHING**

1. Concept, Importance and Scope of Clothing and Textiles
2. Sewing Machine
   a) Parts and functions of sewing machine
      - Problems and remedies of sewing machine
      - Care of sewing machine
b) Tools
- Measuring Tools
- Marking Tools
- Cutting Tools
- Sewing Tools
- Miscellaneous Tools

5. Fabrics for Garment Making
- Handling of different types of fabrics
- Selection of fabrics for different garments

UNIT - II

CLOTHING CONSTRUCTION

1. General principles of Clothing Construction.
2. Drafting and paper patterns techniques.
3. Body Measurements
   - Importance and Types
   - Methods of taking body measurements for different garments
4. Laying out of patterns, Use of fabrics, design and colors in garment making for different age groups and occasions.

UNIT - III

CHILDREN CLOTHING

1. Essentials of children’s clothing
   - Importance of Clothing
   - Effect of clothes and child’s growth
   - Sociological and Psychological aspects of children’s clothing
2. Factors to be considered while selecting and making children’s garments.
3. Garments Making for Children
   - Garments for Infant Garments
   - The Creeping Age
   - Garments for the Preschooler
   - Garments for school-going child
4. Children Clothing Management according to seasons, special
needs, occasions and storage and care of children garments.

UNIT - IV

LAUNDRY SCIENCE

1. Introduction
   - Concept and importance of Laundry
   - Principles of Laundry - Hand Washing, Washing Machines

2. Equipments and Materials used in Laundry, Laundry Process and Types

3. Stain Removal
   - Classification of stains
   - Principles and Techniques of Removal
   - Types of stain removers

Others:

1. Market Survey
2. Demonstration
3. Assignment

References:
1. Durga Dealkar, “Fundamentals of Textiles and Its Care”.
2. peimla vmaR, "vSa iv)an Aev> pir2an"
3. vS5 iv)an ke mUl is@2a.t, Do jl pl xErI
4. inmR5a imS al, "ixv` magRdiaRka"
5. Aimta p3el, "beizk kloi2g AeND 3e93a[l"
6. babuwa[ pl. p3el, "ixv` magRdiaRka"
7. Sushila Dantyagi, “Laundry Science”.
9. Pandit and Tapdey, “Personal Grooming, selecting and care of clothes”.
10. Dr. Sushma Gupta, Nim Gard, “Textbooks of Clothing and Textile”.
B.A. HOME SCIENCE
SEM - I
Elective – 101

PRACTICAL- FOOD PREPARATION

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Focus:

This course is designed to provide the skills in preparing various food items. It will provide practical based on core Theory Course - 101 Introduction to Foods and Nutrition.

Objective:

This course will enable the students to
1. Be familiar with weights and measures of food items and evaluation of food product for their quality characteristics.
2. Develop skills in preparing various food items according to five food groups and some standardize recipes.
3. Learn proper handling, preparation and service of foods.
4. Develop skills in preparing recipes rich in various nutrients.
5. Develop skills in preparing recipes according to cooking methods.
6. Apply the knowledge in maintenance of good health for individual and the family.

(Total - 28 Practical)

UNIT - I

(1) Controlling Techniques - (6 Practical)
1. Weights and Measures - Standard and household measures for raw and cooked foods - (2 Practical)
2. Recipes and evaluation of the product - (2 Practical)
3. Food preparation according to five food groups and classifying recipes as good, moderate and poor source of specific nutrients - (2 Practical)

UNIT - II

1. Amount of ingredients to be used in standard recipes, vis - à - vis portion size
   (A) Beverage : Tea, Coffee, Cocoa, Fruit Juice, Milk and Milk Shakes - (1 Practical)
   (B) Cereal and flour mixes - basic preparations - (2 Practical)
      (a) Boiled rice and rice pulao
      (b) Chapatti, puri and paratha
      (c) Sandwiches
      (d) Pastas
      (e) Pancakes
      (f) Biscuits
      (g) Cookies
      (h) Cakes
   (C) Pulses and legumes preparation using whole, dehusked and sprouted vegetables - (1 Practical)
   (D) Milk preparation - (1 Practical)
      (a) Porridge - Dalia
      (b) Curd, Lassi, Srikhand
      (c) Paneer, Whey Water
      (d) Deserts, Pudding, Kheer, Ice cream
   (E) Vegetables and Fruits - 2 Practicals
      (a) Simple Salads
      (b) Dry Vegetables
      (c) Curries
      (d) Use of fresh and dried fruits
   (F) Nuts and Oil seeds - (1 Practical)
      (a) Chikki
      (b) Laddoo

UNIT - III (Total 7 Practical)

1. Preparation and evaluation of recipe rich in - (1 Practical)
   (a) Energy - (1 Practical)
   (b) Protein - Animal, Vegetable, increasing biological value of protein - (1 Practical)
   (c) Carbohydrate - (1 Practical)
   (d) Roughage - (1 Practical)
2. Low cost nutritional recipes by use of - (1 Practical)
   (a) Germination
   (b) Fermentation
   (c) Supplementation
   (d) Substitution and Enrichment

UNIT - IV (Total 7 Practical)

Use of Cooking Methods
1. Water as medium - (2 Practical)
   (a) Steaming
   (b) Boiling
2. Dry Heat as a medium - (2 Practical)
   (a) Roasting
   (b) Baking
3. Oil as a medium - (2 Practical)
   (a) Deep Frying
   (b) Shallow Frying

Others: Use of
1. Journals
2. Assignments
3. Group Discussion
4. Demonstration

References:

1. Gopalan; c. et.al., (1991), Nutritive Value of Indian Foods, Indian Council of Medical Research
4. Aar. raj(ml: p/yuKt po8’
5. Neelam Buddhdev & Vaid : Human Nutrition
6. Andrews Sudhir : Food and Beverage Service, Tata Mcgraw - Hill
Publishing Co.

B.A. HOME SCIENCE
SEM - I
Elective – 102

PRACTICAL- CLOTHING CONSTRUCTION

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<th>Lectures Per Week</th>
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Focus:

This course is designed to provide the skills in using sewing machine, sewing equipments, basic sewing techniques with special focus on construction skills in children clothes, based on core theory Course - 102 Introduction to Clothing and Laundry Science.

Objectives:

This course will enable students to:
1. Get skills in taking body measurement.
2. Get skills in using sewing machine, sewing equipments and machine sewing techniques.
3. Develop basic skills in children clothing construction
4. Develop entrepreneurship skill in children garment making

(Total 29 Practical)

UNIT - I
(Total 6 Practical)

1. Understanding the use of Sewing Machine - Figure, its parts and their functions, problems and their remedies (2 practical)
2. Understanding the use of Sewing Equipments - Figure and their usage. (1 Practical)
3. Taking body measurements on human body figure for different garments. (1 Practical)
4. Preparation child’s basic blocks, paper pattern, drafting and paper cutting and drafting of sleeve and collars suitable for children. (2 Practical)

**UNIT - II**  
(Total 5 Practical)

1. Market Survey for understanding children garments(1 Practical)
   - Fashion
   - Fabrics – merits and demerits
   - Pattern and Style
   - Budget
   - Estimation materials required
2. Five Basic Machine Sewing Techniques (2 Practical)
   - Plain Seam
   - French Seam
   - Run & Fell Seam
   - Gathers
   - Knife Pleats
3. Five Basic Machine Sewing Techniques (2 Practical)
   - Tacking Stitch
   - Hemming Stitch
   - Running Stitch
   - Hook and Eye
   - Snap Button and Button Hole

**UNIT – III**  
(Total 14 Practical)

Drawing Diagram, Brown-paper cutting and Stitching following garments: (Two Practical for each garment)

1. Apron
2. Infant garments
   - Nappies
   - Jhabhala
3. Garments for the Creeping age
   - Panty
   - Baby Frock
4. One Garment for the Pre Schooler
5. One Garment for School-going child

**UNIT – IV**  
(Total 4 Practical)
1. Sample Collection of Laundry material and understanding its usage – (1 Practical)
2. Use of Stain Removal Techniques – (1 Practical)
3. Laundering of cotton, rayon, silk, wool, synthetics etc. (1 Practical)
4. Bleaching, whitening and starching of clothes – (1 Practical)

**Others:** Use of
1. Market Survey
2. Journal
3. Assignment
4. Audio-Visual aid and Internet

**References:**

1. Durga Dealkar, “Fundamentals of Textiles and Its Care”.
2. peimla vmaR, "vSTa iv)an Aev> pir2an"
3. vSt iv)an ke mUl is@2at, Do jl pl xErI
4. inmR5a imS_al, "ixv` magRdixRka"
5. Aimta p3el, "beizk klo2>g AeND 3e93a[l"
6. babuwa[ pl. p3el, "ixv` magRdixRka"
9. Pandit and Tapdey, “Personal Grooming, selecting and care of clothes”.
10. Dr. Gupta Sushma, Nim Gard, “Textbooks of Clothing and Textile”.

21
INTRODUCTION TO FAMILY RESOURCE MANAGEMENT

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<th>Lectures per Week</th>
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**Focus:**

This course deals with the management of resources in the family with particular reference to mobilizing all the resources for achieving the family goals. It also deals with the factors motivating management and management applied to specific resources.

**Objectives**

1. This Course will enable the students to make about management in the family, as well as to other systems.
2. Recognize the importance of wise use of resources in order to achieve goals.
3. Help to learn Simple Finance Handling & Postal Saving Procedures.
4. Help to learn utilize resources effectively
5. Develop Competences in effective time & energy management
6. Make aware of different reaching of work-simplification
7. to understand roles, responsibilities and qualities of a good ‘Hone-Maker’

**Unit-1**

1. Introduction & importance of Resource Management.
   a) Meaning & definition, Purpose of Resource management as effective Management.
Resources in the Family:

a) Types (Human & Non-Human) Characteristic & Pressures

b) Factors affecting the use resources

(3) Family Characteristics influencing management

a) Life Style
b) Type of Family
c) Family Size
d) Stages of Family Life Cycle
E) Standard of Living
f) Income of the Family
g) Education of the Family
h) Occupation of the head of the house hold
i) Place of residence urban/rural

Unit-II

(1) Meaning & Steps of Management Process

(a) Planning – Importance, techniques & Types of Planes.
b) Supervision – delegate with proper guidance.
c) Organization – Organize the Plan in action
d) Controlling- control the Plan if necessary
e) Evaluation- Evaluate the whole process of management.

(2) Roles, responsibilities & qualities of good ‘Home-Maker’.
Roles, responsibilities & qualities of good ‘Home-Maker’.

Unit-III

(1) Time & energy management

(a) Time Plan
(b) Peak load
(c) Catch-up-Period
(d) Leisure Time-Importance of wise use of leisure time.

(3) Techniques to study method of workers, work Place and Work Simplification.

(a) Pathway Chart
(b) Process Chart
(c) Micro motion Chart

(4) Principals of Body mechanics
(5) Fatigue- Definition, types, methods to avoid fatigue

Unit-IV

(1) Motivating factors of Resource Management.

a) Values (i) Extrinsic (ii) Intrinsic
b) Goals (i) Intermediate (ii) Ultimate goal, (iii) Long term goals

(2) Standards- (a) Conventional & Non Conventional
(b) Qualitative & Quantitative
(c) Definitions, Characteristics, types etc.
(3) **Family Decision Making** -
Definition, characteristics & types etc. steps in Decision Making
(a) Individual decision,
(b) Group decision.

**Reference Books**

(1) Family resource management & Interior decoration – Bella Bhargav
(2) Home Management & Family Finance- Shukla Manish
(3) Essential of ergonomics- Veena Gandotra
(4) Home management & Family Finance – Leena Gandotra-
manish Shukla
(5) Home Management- Ogle, Verghese George,
(6) Elementary economics-Sundarain
(7) Gruh Sajja our Gruhavastha- Dr. Ashajain-Nilima Nalayans.

**Other**

(A) **Use of Assignment**
(1) Develop a time Plan Schedule for the coming week.
(2) Identify was to use your leisure time effectively
(3) Apply the Principles of body mechanics in a given situation.
(4) (a) Enlist five high order values in student’s life (b) Select
one person you know well and identify his/her values.
(5) List Five Short Term, Intermediate and long term goals.
Mention the time, money and other resources required to achieve
those goals.

(6) Drawing of a path way chart for a given activity to simplify
Work

(B) **Group Discussion**
(1) Role, responsibilities and qualities of a ‘Home-Maker’
(2) Resources in the Family and Community.
(3) Standards and values as motivating factors of
Resource Management.

(C) **Community Survey.**
## B.A. HOME SCIENCE PROGRAMME
### COURSE STRUCTURE FOR C.B.C.S. (REVISED)
#### SEM - II

<table>
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<tr>
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<td>Introduction to Household Equipments</td>
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<td>Applied Chemistry and Physics</td>
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INTRODUCTION TO HOUSEHOLD EQUIPMENTS

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**Focus:**

This Course intends to impart knowledge and understanding of construction of various household equipment, the Material used, selection, Criteria, their usage, operation and maintenance as well as to make them aware of good buymanship, consumer problems, consumer rights and responsibilities and consumer Laws.

**Objectives:**

This Course enables Students to –

1. Recognize base materials, finishes and insulating materials used in the construction of household equipment
2. Understand the Principles underlying the operation, use, care and storage of household equipments.
3. Understand the criteria for the selection and buying for appropriate equipment for home and suitable material for functionality.
4. Analyze various equipments with respect to design, cost and maintenance.
5. Understand to handle minor problem of repairs and maintenance.
(6) Aware of good buymanship and the factors affecting it.

(7) Understand consumer rights and responsibilities, as well as handling consumer problems with the help of consumer services and consumer law.

**UNIT-I**

**Materials used for household equipments**

(1) Importance of learning household equipment and new Trends in it.

(2) Material used for household equipments.
   a) Base materials: Aluminum, Iron, Steel, Copper, Brass, Glassware, Plastic & Potteries
   b) Finishes: Mechanical and Applied
   c) Insulating materials: Mica, Fiberglass, Puff, Mineral wool, Rock wool, Plastic, Foams, Rubber etc.

(3) Methods of forming and assembling equipments
   a) Structural designing of the equipment and different joints used in assembling parts of the equipments.
   b) Buying of household equipments with respect to their material, usage, time and energy saving devices and maintenance

**UNIT-II**

**Household Equipments - Non - electrical**

(1) Classification of household equipment in term of
   a) Portable and Non Portable
   b) Electrical-Motor driven and heating
   c) Food related-(cooking, cleaning, serving, preparation)
   d) Cleaning
   e) Laundry
   f) Non-Electrical
g) Personal Care

h) Recreation

i) Time and energy saving equipments.

(2) Selection use care and store of various Non-Electric household equipments used for kitchen, Laundry and cleaning.

**UNIT-III**

**Electrical Equipments**

(1) Selection, use, care and store of various Electric household equipment used for kitchen, Laundry, Cleaning and recreation.

(2) Common Problems of electrical and Non-electrical equipments and their household repairs.

**UNIT-IV**

**Consumer Education**

(1) Importance and art of good buymanship.

(2) Factors affecting buying behavior such as:
   i) Size & Type of Family
   ii) Income
   iii) Stages of family life cycle
   iv) Goals and values of family
   v) Market gullibility
   vi) Knowledge and post experience
   vii) Sex of a buyers
   viii) Place of residence

(3) Standardization for household equipment.
   a) Importance
   b) Procedure
c) Role of BIS

(4) Consumer’s rights and responsibilities

(5) Consumer’s Problems
   1) Choice and buying problems
   2) Faculty weights and measures
   3) Miss guide by faulty able information
      Advertisement and schemes

(6) Consumer Protective Services
   1) Indian Standard Institution (ISI)
   2) Consumer Guidance Society
   3) Consumer Education and Research center, Ahmadabad
   4) Consumer Co-Operatives

(7) Importance and types of consumer protection Law.

**Others:** USE of -
(1) Assignment

(2) Group discussion

(3) Audio-Visual aid and Internet

**REFERENCES**


2) J.K.Dehis, Improving household equipment, Punjab Agri. University 1178

3) Ogle, Varghese & George, Home Management, willing esteem, Co New Delhi 1984

4) Pramila Mehra, good house keeping

5) Dr. Asha Jani, Dr. Nirmal Nalaga, g<h sJ=, AOr g<h 3VyvS4a

6) AacayR Aem.Aes,g<h Jpkro’onl Ao5q pa>cmI Aav<it, dlp p/kaxn, vLlw ivi·angr, ÉÑÑÍ

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F.Y. B.A. HOME SCIENCE
SEM-II
(EC -1) Elective-111

PRACTICAL-HANDLING OF HOUSEHOLD EQUIPMENT

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**Focus:**
This course is basically designed of practicals based on Core-1 (111) introduction to Household Equipment and Consumer Education. It provides the basic skills of handling materials used for household equipments by applying the knowledge of principles of equipment. This course also focuses on developing skills in using, cleaning and maintaining of various electrical and non-electrical equipments.

**Objective :**
This course enables students to
1. Get skills in cleaning and maintaining various materials used for household equipments.
2. Develop skills in selecting, purchasing, using, maintaining and cleaning various electrical and non electrical equipments.
3. Develop skill to prepare food items by using various electrical and non-electrical equipments.
4. develop understanding regarding good by Man ship, buying behavior problems, consumer problems, consumer protective services, Consumer law by doing community survey and market survey.

( **Total 30 Practical** )

**UNIT- I**
(Total 04 Practical)
i) Metal cleaning (Cleaning of an Articles or surface) (03 Practical)
Aluminum, Steel, Brass, Copper, Iron, Tin, Bronze, Mina Kari, Gold, Silver, Glass, Plastic.

ii) Identify and make a list of Household equipments accordingly to various types (01 Practical)

iii) Do a market survey and identify and list down various base material used for household equipment and writes merits and demerits. (01 Practical) **OR**

iv) Do a Market survey and identify finishes used in household equipments. List down and write their importance and care. (01 Practical) **OR**

v) Do a Community survey and list down various household equipments used in terms of design, selection, cost, usage, care and maintenance, time and energy saving value, storage, quality and their brands or manufacturers. (01 Practical)

UNIT – II

(Total 10 Practical)

1) Understanding following commonly used non-electrical equipments in laboratory in terms of –
   a) material
   b) finishes
   c) use
   d) construction
   e) principle
   f) cleaning
   g) care and maintenance
   h) common problems and its repairs
   i) merits and demerits
   j) types (if any)

2) Understand and list down various equipments used for serving, cleaning and storage and write about their usage, cleaning and care. (01 Practical)

UNIT – III

(Total 10 Practical)

1) Understanding following commonly used electrical equipments in laboratory in terms of –
   a) material
   b) finishes
c) use
d) construction
e) principle
f) cleaning
g) care and maintenance
h) common problems and its repairs
i) merits and demerits
j) types (if any)
(i) Electric Cooker, (ii) Mixer, (iii) Hand Mixer, (iv) Refrigerator,
(v) Toaster, (vi) Microwave Oven, (vii) Ice-cream Maker, (viii) Roti
Maker, (ix) Electric Hot Plate, (x) Vacuum Cleaner, (xi) Washing
Machine, (xii) Iron

UNIT – IV

(Total 06 Practicals)

1. Serving - Plating, Garnishing, Trays, Food Presentation - Balance,
   Colours, Shapes, Textures, Flavours, Portion size, Temperature
   etc.
   (01 Practical)
2. Study the buying behavior of consumer regarding household
   equipment in the context of various affecting factors by doing
   consumer survey. (01 Practical) OR
3. Visit to CERC, Ahmedabad OR any Consumer organization and
   write the report on its functions (01 Practical) OR
4. Study the consumer’s problems by doing consumer survey and
   suggest effective outcomes. (01 Practical)
5. Table setting-Indian and Western (02 Practical)
6. Flower arrangement-fresh and dry (02 Practical)

References:
1) P. Kotlar, Principles and Practice of Marketing Management, 6th
2) AacayR Aem.Aes., g<h]pkr`onl Ao5q, pa>cml Aav<il, dlp
   p/kaxn, vLlw iv·angr, 1995
3) S.R. Sharma and Vishay Kaushik, Home Management and
   Housekeeping
4) Dr. Joshi, Market in India

Others: Use of
1) Demonstration
2) Journals
3) Project Work
4) Group Assignment
5) Survey
B.A HOME SCIENCE
SEM- II
THEORY
ELECTIVE-112

INTRODUCTION TO HUMAN DEVELOPMENT

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Focus:
This is an attempt to guide undergraduate student is in understanding of the field of human Development in a basic way. A Conscious deviation is taken from the stage-wise approach to the life span, So as to cover the major topics and to understand various aspects and factors important for growth and development it.

Objectives:
This Course enable Student to -
1) To Develop awareness of important aspect of growth and development during the whole life span
2) To become acquainted with developmental stages from prenatal period to old age
3) To sensitive the student to understand the issues faced and adjustments required at each stage across the life span.

UNIT-I
Orientation to growth and Development
1) Concept of Human development and need to study development through the life span.
2) Concept, General Principles and effective factors of growth and development
3) Influences of Heredity and Environment on growth and development
4) Individual difference in Human development and the influence and interaction of socio-cultural and environment factors on the stages of development.

**UNIT-II**

Dimension of development over the Life Span

1) Different Stages of Human development

2) Various aspects of development and inter-relationship among them (In short)
   a) Physical development
   b) Motor development
   c) Social development
   d) emotional development
   e) mental development
   f) personality development
   g) Cognitive development
   h) Cultural development

3) Growth and development during prenatal period and factors affecting on it.
4) Growth and development during infancy (0-2 Years) and factors affecting on it.
   a) Overall development
   b) Need and care during prenatal and infancy period
5) Problems and coming them during prenatal and infancy period.

**UNIT-III**

Growth and Development during children

1) Growth and Development during early Children (2 to 6 Years)
   a) Development tasks, Significance of this period
   b) Orientation to preschool education and significance need and care of pre-scholars.
2) Growth and Development during middle Children (6 to 12 Years)
   a) definition
   b) Developmental tasks and significance of this period
3) Role of School, Peer group, Care Taker, Parents, Play etc. in allover development of Children
4) Problems and coping with them during Childhood.
**UNIT-IV**

Growth and Development during Adolescence, Adulthood and Aging period
1) Definition and Significance of each stage
2) Developmental tasks of Adolescents, adult and old people
3) Need and care during each stage
4) Problems and coping with them during each stage.

**Others:**
(1) Use of Audio-Visual aid and Internet
(2) Group Discussion
(3) Assignment
(4) Project Work
(5) Visit and Report Writing

**Reference:**

3) Dr. K.C.Panda, Elements of child development
B.A HOME SCIENCE
THEORY
SEMESTER –II
Core-112
THEORY

APPLIED PHYSICS AND CHEMISTRY

<table>
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Focus:
This builds upon the core course Applied Physics and Chemistry and provides further information regarding organic and Inorganic Chemistry as well as biochemistry applied to human health care.

Objectives:
To course will enable the students-
(1) To create an awareness among the students about principles & Fundamentals of Physics & their application in day to day life activities.
(2) To recognize the importance of Chemistry, Chemical reactions & their uses.
(3) To develop Knowledge in the field of pesticides, fertilizers, fuels, chemicals in Medicines & healthcare.
PHYSICS

UNIT-I

I - Mechanics :
- State of matter-General & Specific Properties of matter (Solid, Liquid & Gas)
- Machines – Types – Simple & Complex.
- Lever-Types & their Functions.
- Pulleys-Types & Uses.
- Inclined plane, screw, jack screw.
- Force-Centripetal & Centrifugal Force.
- Friction- Types, Laws, advantages & disadvantages

UNIT-II

Light :
- Introduction to light, Propagation of Light.
- Reflection & Refraction of light – laws & Index
- Lens & Mirrors- Types
- Real Image & Virtual image.
- Image formed by concave lens & Concave Mirror
- Uses of lens & Spherical mirror.

CHEMISTRY

Unit-III

Inorganic Chemistry

I - Structure of inorganic Substance :
- Explanation of element, compound & Mixture
- Structure of atom (Only Rutherford model), Atomic weight, molecule, moleeular weight, Equivalent weight, Valence, symbol, Chemical Formula, equation, Physical & Chemical Change.

II- Acid & Base :

Acid- Definition, Strength, Properties, strong & weak acid, useful acids.

Base- Definition, Strength, Properties, strong & weak Base, useful bases.

PH- Scale, explanation, measurement, importance of PH. Neutralization, Stats

III- Water

Drinking Water, Physical & Chemical Properties of water, impurities in water & their effects on health, Types of water: Hard Water-Types & its disadvantages, methods of
removing hardness of water, Methods of purification of Water.

**UNIT-IV**

**Organic Chemistry**

I **Introduction to organic Chemistry**:
Sources of Organic Chemical, importance of organic compounds, classification of organic compounds with examples, homologues series, functional groups.

II **Pesticides**:

III **Chemicals in Medicines & Healthcare**:
Analgesics, Antiseptics & disinfectants, Anti biotic, sylph drugs, Drugs for common cold, influenza & other diseases, Hypnotic & Sedative drugs, Tranquillizer drugs, Hallucinogens, Laxatives, Antihelminthics.

Reference:

2. Test Book of Organic Chemistry – P.L.Soni,
3. Test Book of Biochemistry – west & Todd.
5. Chemical Technology – Chandrakant Mehta
6. rsay’xaSa Üg>h iv)anÝ – Ae. ke. kazl.
7. rsay’xaSa Üg>h iv)anÝ – Aan>d
10. 3eknIkl rsay’xaSa poll3eknlk ma3e – poPyulr

**Others:**

**Physics**

Heat:

- Effects of heat on matter- Solid, Liquid & gaseous Substances..
- Heat & temperature – measurement of temperature.
- Transfer or heat - conduction & Convection, uses of
- Heat transfer in daily life.
- Equipment-Thermometer, Thermo flask

**CHEMISTRY**

I  **Plastics**: Definition, types, properties & Uses.
II  **Fuels**: Definition, types, characters of ideal fuel, Composition & Uses of LPG, Coal Gas, Producer Gas, Water Gas, Gobar Gas,
III  **Fertilizers**: Plant Nutrients, symptoms of their deficiency.
    - Classification- Single, Mixed, Complete.
    - Types-Nitrogen, Phosphorus, Potassium. Fertilizers.

IV  **Formula & Uses of Following Compound**:
   I  **Inorganic Chemistry**:

      (1) Sodium Chloride  (2) Washing Soda  (3) Baking Soda
      (4) Bleaching Powder  (5) Alum

   II  **Organic Chemistry**:

      (1) Glucose  (2) Vinegar  (3) Ethel alcohol.
      (4) Citric acid
      (5) Phenol.

   * Use of Journals & Use of Assignment, Presentations & Group discussion.
Practical - Applied Physics & Chemistry

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**Focus:**
This is builds upon the core course Applied Physics and Chemistry and Provide further information regarding organic and Inorganic Chemistry as well as biochemistry applied to human health care

**Objectives:**
To course will enable the students-
(1) To Create an awareness among the students about principles & Fundamentals of Physics & their application in day today life activities.
(2) To recognize the importance of Chemistry, Chemical reactions & their uses.
(3) To develop Knowledge in the field of pesticides, fertilizers, fuels, chemicals in Medicines & healthcare.

**Unit-I**

**PHYSICS**

(1) To find the Focal length of centavo mirror.
(2) To find the focal length of convex lens.

**CHEMISTRY**

(3) Volumetric Analysis : (Involving one acid & one base)
(4) To determine the acid value in (Ghee/Oil)
(5) To determine PH of the given solution by using litmus paper & PH Paper.
(Washing Soda, Vinegar, Lemon Juice, Milk, Tomato Juice, Distilled Water)

**UNIT-II**  
(Total 10 Practical)

(6) Analysis of various constituents present in following vegetables & Fruits:  (1) Potato, (2) Tomato, (3) Carrot, (4) Lemon,  
(5) Orange, (6) Pineapple  
2. Test of acidic/base solution.  
3. Determine PH Value  
4. Test for Starch, Carbohydrate, protein, iron, Phosphate, Calcium, Magnesium, Sodium, and Potassium.

**UNIT-III**  
(Total 5 Practical)

(7) To Perform analysis of qualitative Compounds: 
(8) Positive Ions : Fe$^{+2}$, Fe$^{+3}$, Ba$^{+2}$, 
Ca$^{+2}$, Mg$^{+2}$, Na$^{+}$ Negative Ions : Cl$^{-}$, 
Co$^{2-}$, So$^{4-}$, No$^{3-}$

**UNIT-IV**  
(Total 8 Practical)

(9) Organic qualitative analysis of the following Compounds:  
(i) Benzoic acid (ii) Salicylic acid (iii) Acetic Acid 
(iv) Glucose  
(v) Urea (vi) Naphthalene

(10) Chemical Technology (Only Demonstration)  
(11) To Prepare Tooth Powder  
(12) To Prepare detergent Powder

**Others:**

(1) Group Discussion  
(2) Assignment and Journal  
(3) Project Work  
(4) Visit and Report Writing

**Reference:**

(2) Test Book of Organic Chemistry – P.L.Soni,  
(3) Test Book of Biochemistry – west & Todd.  
(4) Test-Book of Applied Chemistry-MMJ Jacob (1996)  
(5) Chemical Technology – Chandrakant Mehta  
(6) rsay`xaS a Üg>h iv)anÝ – Ae. ke. kazl.  
(7) rsay`xaS a Üg>h iv)anÝ – Aan>d  
# (Family and Community Sciences)
**Home Science Undergraduate Programme for General Home Science (Composite)**
Curriculum as per the choice based credit system (Implement from June 2012)

**B. A. HOME SCIENCE PROGRAMME COURSE STRUCTURE FOR C.B.C.S.**

## SEM – III

<table>
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BUA HOME SCINCE
SEM – III
CORE – 201

Meal Management
THEORY

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FOCUS:

This course builds upon the Fundamentals of Meal Management and provides further information regarding meal planning according to various age groups, activities, festivals etc. as well as information regarding various nutritional deficiency diseases, nutritional assessment and dietary treatment in various diseases.

Objectives:-

This course will enable the students to:

1) Understand basic concept of meal management, meal planning according various age groups, activities, festivals etc.
2) Get familiar with various nutritional deficiency diseases and dietary treatment it them.
3) Get familiar with meaning and various methods of nutritional Assessment.

Unit – 1

Use of Balanced diet in Meal Planning

1) Definition, meaning and importance of meal planning, use of basic food groups in meal planning.
2) Various factors affecting meal planning, nutritional requirement factors like socio-cultural, religious, geographic, economics Availability of time, material and resources physical & mental activities, special nutritional conditions / problems.
3) Basic meal patterns and number of servings: According to meal timing V/z – Breakfast, lunch, snacks, Dinner.
4) Serving-plating, Garnishing, Trays, Food Presentation – Balance, colors, shapes, Textures, Flavors Portion Size, Temperature etc.
Unit – II

Meal Planning for Different Age Groups
(Requirements, Nutritional Problems, food selection according to different activities & socio economics levels)
1) Infant feeding (Birth to one year)
   a) Breast feeding
   b) Bottle feeding
   c) Weaning food (Supplementary feeding.
   d) Nutrition for Infant (1 year old children)

2) Meal Planning for Children
   a) Preschoolers. (2 to 5 years)
   b) School children (6 to 12 years)
   c) School lunch and packed lunch for children.
3) Meal Planning for adolescent boy & girl.
4) Meal Planning for Adult men and women according to their work women according to their work. (Heavy, Moderate and sedentary works)

Unit – III

Meal Planning for some special Physiological needs and Activities
1) Meal planning during pregnancy (According to complication occurring in pregnancy)
2) Meal planning during lactation.
3) Meal planning for old age and menopause (According to complication occurs.
4) Meal planning for Athletes (According to energy expenditure)

Unit – V

Dietary Treatment and Nutritional Assessment
(A) Dietary treatment in various deficiency diseases.
   a) Patient – deficiency – diseases
   b) Fat and Carbohydrate deficiency diseases
   c) Vit. A, C, B – Complex, deficiency
   d) Iron – deficiency
   e) Calcium and phosphorus deficiency
(B)Menu planning for festivals like Diwali, Uttarayan, Holi
(C)Planning for some dishes like Punjabi, South, Indian, Chinese, Mexican dishes.
References:-

1) Dr. M. Swaminathan, “Human Nutrition and Diet”, The Bangalore Publisher, New Delhi.
4) Dr. Swaminathan, “Handbook of food and Nutrition”, The Bangalore Publisher, New Delhi.
5) ykh. hks+û(e, «ŒwÔîk Ākkv»ký, ŒwrLkšŠMkxe økútÚk rLk{koý çkkuko, økwshkik hkbpb, y{ÈkœkÈ-380 006.
7) zki. su. ze. ĀkkXf, Ākkv»ký rðæk, ŒwrLkšŠMkxe økútÚk rLk{koý çkkuko, økwshkik hkbpb, y{ÈkœkÈ-380 006.

B.A. HOME SCIENCE

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SEM – III

CORE - 202
THEORY

Applied Life Science

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FOCUS :-
This build upon the core course Applied Life Science. Provide further information regarding plant morphology, physiology, microbiology, human physiology & genetics.

Objectives :-
The course will enable the students:-
1) To understand the knowledge about origin & evolution of life & genetics.
2) To understand the application of botany & horticulture in agriculture & role of micro-organism.
3) To understand the relation between biology & human welfare.
4) To understand the physiology of human body & plant physiology.

UNIT – I

(I) History of life
1) Origin & evolution of life.
   a) Physico-chemical processes of early earth leading to origin of life.
      i) Operin theory
      ii) Miller’s experiment.
   b) Requirements for maintenance of life –
      i) Light
      ii) Temperature
      iii) Water
      iv) Air
   c) Characteristics of life :-
      i) Metabolism
      ii) Growth
      iii) Reproduction
   d) Evolution :-
i) Evidences of evolution (1) Fossils (2) Comparative Anatomy (3) Vestigial organs (4) Embryological Evidences.
ii) Theory of evolution :- (1) Lamarck (2) Darwin.

(II) Human Genetics :-
a) Heredity – Mendle’s monohybrid experiment & their principles.
b) Inheritance & sex determination.
c) The genetic basis of human diseases – Hemophilia, Color blindness.
d) Blood group – ABO System. - Rh System

UNIT – II

I-Plant Morphology
1) General Characters of monocot (maize) & dicot (Vinca rosea) plant.
2) External and internal characters of monocot seed (Maize) & dicot seed (Bean) & its germination stages.
3) Pollination –
   a) Definition, Agencies, Types.
   b) Characteristics of insect pollinated. (Hibiscus) & Wind pollinated (Maize) flowers.
4) Reproduction in plants :
   a) Vegetative propagation in plants.
   b) Sexual reproduction in flowering plants.

II – Plant Physiology
1) Osmosis – Definition, Types & its importance.
2) Transpiration – Definition, Types, Affecting factors & its importance.

UNIT – III

(I) Microbiology
1) General characteristics & classification of microorganisms – Bacteria & Virus.
2) Advantages & disadvantages of bacteria.
3) Entrance of bacteria in human body.
4) Common parasitic infection – malaria parasite life cycle.

(II) Biology & Human Welfare
Economically useful plants
   a) Food :-
      i) Cereal – Wheat, rice, maize
      ii) Pulses – Tuwer, Mung.
iii) Vegetables –
   1) Root – Carrot, Radish
   2) Stem – Potato, Amorphophallus
   3) Leaf – Spinach, Amaranthus
iv) Nuts – Cashewnut, Walnut
v) Fiber – Cotton, Jute.

1) Medicinal plants – Ajwain, clove, eucalyptus, penecillium, tulsi, 
   vasaka, Zinger.
2) Useful animals – rarth worm, fish, honey bee, Oyster, silk moth, 
   Snake.
3) Life history of silk moth.

UNIT – IV

Human Physiology
1) Gastro intestinal System :-
   a) Structure & functions of various organs of the GI tract.
   b) Digestion & absorption of carbohydrate protein, Lipid. The 
      role of Enzymes.
2) Respiratory System :-
   a) Structure of lungs
   b) Mechanism of respiration & its regulation.
3) Cardiovascular System :-
   a) Blood & its composition
   b) Structure & function of heart
   c) Circulation of blood
4) Excretory System :-
   a) Structure & functions of kidney
   b) Formation of urine & its filtration process
5) Nervous System :-
   a) Parts of brain & its function
   b) Reflex action
6) Sensory Organs :-
   a) Eye
   b) Ear

References :-
1) Dr. Garg P. K. – Biology (Sôrô¿kkLk)
2) Dutta A. C. – Tex book of Botany
3) Gupta P. K. – A text book of Cyfology, Genetics & Evolution
4) Jain V. K. – Fundamentals of Plant Physiology
6) Vidyarthi R.D.-A text book of Zoology

B.A. HOME SCIENCE
SEM – III

CORE - 203
THEORY

Family Dynamics

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FOCUS:
This course purports to create awareness and functions of marriage and family as basic institutions. The changing trends, the dynamics of adjustment and contemporary problems and issues are to be critically analyzed for developing better understanding of needs, adjustment areas and intervention strategies.

Objectives:
The student will
1. Acquire knowledge and insights about the dynamics of contemporary marriage and family Systems in India.
2. Become acquainted with the concept, goals and areas of adjustments in marital relationship and within the family.
3. Become aware of the Changing roles and relationships within the family.
4. Understand the dynamics of families in distress and crisis.

Unit – I

Family in India
1. Importance of Family as a social institution in India.
2. Definition, functions & characteristics of family.
3. Types of family.
   a. Characteristic of Family.
   b. Merits & Demerits of Joint of family.
   c. Merits & Demerits of Extended family.
   d. Merits & Demerits of Nuclear family.

Unit – II

Engagement & Wedding
1. Mate Selection :-
   a. Characteristics of an ideal life partner.
   b. Importance of certain essential once e.g. permanence, 
      fidelity, companionship, love happiness, ego support, 
      approved sexual expression.
   c. Understanding & achieving one’s own self.
   d. Achieving emotional maturity
2. An Engagement :-
   a. It’s Importance.
   b. The courtship period.
   c. The engagement period.
   d. Sex before marriage.
   e. Factors for breaking of engagement.
   f. The problems arise due to break of engagement.

UNIT – III

Concept of Happy marriage & Adjustment in marriage life
Concept of marriage
   1. Meaning, definition, function of marriage
   2. Types of marriage
      (A) Arrange marriage
      (B) Love marriage
B. Wedding Ceremonies.
   1. Types of ceremonies observed in different communities 
      in India.
   2. Importance of wedding ceremonies.
   3. Good & harmful ceremonies.
C. Happy marriage & adjustment in marriage life.
   1. Factors affecting happy marriage Sacrifices, economics 
      status, religious, sex emotion.
   2. Achieving adjustment in marriage life
      (A) Way of achieving adjustment
      (B) Sexual adjustment in marriage
      (C) Adjustment to parenthood.
   3. Changing role of women- adjustment in marriage

UNIT – IV

Social Act & family crisis
A) Social act :-
   1) Dowry prohibition act.
   2) Child marriage prohibition act.
   3) Female feticide act.
4) Sex Determination act.
5) Household fortune act.

B) Family Crisis- reasons, effect on family & remedies.
   1) Unmarried person.
   2) Old age & their problems.
   3) Illness & Death.
   4) Divorce.

C) Mechanisms for Solution of crisis.
   1) Planning for the future.
   2) Family counseling service.
   3) Legal remedies.

OTHERS :-
   1) Assignments.
   2) Group Discussion.
   3) Seminar.

References :-
1) Dampatya Jeevan Nu Anukoolan – Leelaben Shah.
2) Langa Ane Kautumbic Sambandho – Leelaben Shah.
3) Kutumb Kalyan – A. G. Shah
4) Bharat Ni Samajik Sansthao – University Granth Nirman Board.
   Patel Raval Prakashan, A. G. Shah & J. K. Dave (Anda Prakashan)
5) Lagna Kutum Ane Samayoajan – Dheeraj Dhakan.
6) Bhari me Parivan Vivah or Natedari Shobhna Jaine.
7) Mahila Bal Kalyan – Bipinchandra Vaishn.
8) Vyakti Samayoajan Vigyem – Dr. C. T. Bhopatkat
9) Vyakti Samayoajan Vigyem – Manovaigyanic Kadic.
11)Govt. of India Ministry of H.R.D. Department of Women and Child Development Annual Report.

B.A. HOME SCINCE
SEM – III

Elective – 201
Practical-Meal Planning and preparation

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**FOCUS:**
This course based on core course- 201. It is designed to provide the skills in preparing various food items according meal planning of carious age groups, activity, festivals etc. as well as daring nutritional deficiencies of nutrients.

**Objectives :-**
This course will enable the students to:
1) Be familiar with weights and measures of food items, raw food & cooked food.
2) Develop skill in planning a menu for various age groups & activities.
3) Develop skills in preparing food items according meal planning of various age groups & activities.
4) Develop skills in preparing and evaluating recipes according to various festivals and regions.
5) Develop skill in preparing and evaluating recipes according to nutritional deficiency disorders.

*(Total 29 practicals)*

**Unit – I  (6 Practicals)**

1. Standardization (1 Practical)
2. Serving – plating Garnishing frays, Food presentation – Balance, Colour, Shapes, Textures, flavors, potion, size temperature etc. (1 Practical)
3. Planning for infant including weaning foods (1 Practical)
4. Planning for pre-School (1to3 years) Children (1 Practical)
5. Planning for school children including packed lunch (3 to 5 years and 5 to 10 years) (2 Practical)
Unit – II  (8 Practical)

1. Planning for Adolescence girl and boy (2 Practical)
2. Planning for adult man/women (any one- heavy/ moderate and sedentary work) (2 Practical)
3. Planning for pregnant and lactating women (2 Practical)
4. Planning for old age (1 Practical)
5. Planning for Athlete (1 Practical)

Unit – III  (9 Practical)

1. Planning for festivals- Diwali, Holi, Uttarayan (3 Practical)
2. Planning for Gujarati dishes (1 Practical)
3. Planning for Punjabi dishes (1 Practical)
4. Planning for South Indian dishes (1 Practical)
5. Planning for Chinese dishes (1 Practical)
6. Planning for Mexican dishes (1 Practical)
7. Planning dishes for occasions- Birthday, Marriage (1 Practical)

Unit – IV  (7 Practical)

1. Planning for Protein-Calorie malnutrition (1 Practical)
2. Planning for Vitamin-A deficiency (1 Practical)
3. Planning for Iron deficiency (1 Practical)
4. Planning for Vitamin B1, B2, B7 deficiency. (1 Practical)
5. Planning for Vitamin C deficiency. (1 Practical)
6. Planning for Vitamin D deficiency. (1 Practical)
7. Planning for Calcium, Phosphorus deficiency. (1 Practical)

References :

5) zki. Su. Ze. ÅkkXf, Åkku»ky rðåk, þwrLkðŠMkxe økútÜk rLk{koý çkkuzo, økwshkik hktB, yf{EkðkE.
6) ykh. hks+ù{e, «Prōik Ākku»ký, ṭwrLkðŠMkxe økútÙk
rLk{koy çkkuzo, økwshkik hkB{, y{EkðkË.
7) yLkuhe – LkJLkk þkn, LkðLkeik ĀkÂç+fuþLMk.

B.A. HOME SCIENCE
SEM-III
Elective - 202
Practical - Application of Life Science

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FOCUS:

This is build upon the CORE-202 course Applied Life Science provide to guide the undergraduate student to understanding of the field of plant physiology, morphology, human physiology, genetics & evolution.

Objectives :-

This course will enable the students to:
1) To get familiar with cell structure, concepts & their important role in life processes.
2) To understands the different parts of plants & their uses in daily life.
3) To help to learn the identification of blood group & the role of enzymes in digestion in human being.
4) To recognize different of human body systems & their functions.

Unit – I

History of Life & Human Genetics – Total – 5
1) To study the Onion cell.
2) Study of Potato starch grain.
3) To study the hydrolysis of starch with Salivary enzyme ptyalin (Amylase)
4) To study the identification of Blood group through ABO method.
5) To study the identification of Blood group through Rh factor method.

Unit – II

Plant Morphology Total – 9
6) Study of various parts of flowering monocot ledonous (maize/wheat) plant.
7) Study of various parts of flowering dicotyledonous (Vinca rosea) plant.
8) Study of external & internal characteristics of monocot (maize) seed.
9) Study of growth & development in plants through germination stages of monocot (maize)
10) Study of external & internal characteristics of dicot (Bean) seed.
11) Study of growth & development in plants through germination stages of dicot (Bean) seed.
12) Study of insect pollinated (Hibiscus) & wind pollinated (maize/wheat)
13) To Study vegetative reproduction:
   i) Cell division – Paramecium (slide).
   ii) Fragmentations – Spirogyra (slide).
   iii) Adventitious buds – Potato, Zinger.
   iv) Runner – Grass.
   v) Offset – Pistia, Ichornea.
   vi) Stolon – Nephrolepis (fern).
14) To study sexual reproduction on flowering plants through slides:
   i) T. S. of anther
   ii) T. S. of Ovule.

Unit – III

Microbiology & Human Welfare :- Total – 4
15) To study of life history (Metamorphosis) of silk moth through preserved specimen.
16) Study the economically useful plants through (fresh/Preserved) Specimens (Based on theory).
17) To study the medicinal plants through fresh/preserved specimens (Based on theory).
18) To study the useful animals through specimens (Based on theory).

Unit – IV

Human Physiology & Plant Physiology. Total – 13
19) Study of Digestive organs of human body through Model/Chart.
20) Study of human Heart through Model/Chart.
21) Study of human Eye through Model/Chart.
22) Study of human Ear through Model/Chart.

Demonstration Practical
23) To study the process of Osmosis through Thistle funnel experiment.
24) To study the process of Osmosis through Potato Osmoscope experiment.
25) To study the process of Osmosis through Endosmosis.
26) To study the process of Osmosis through Exosmosis.
27) To study the process of Transpiration in plants through Belier experiment.
28) To study the process of Transpiration in plants through Ganong’s potometer experiment.
29) To study the process of Transpiration in plants through four leaf experiment.
30) To study the process of Transpiration in plants through Cobalt Chloride paper experiment.
31) To study the process of Transpiration showing the relation between Transpiration absorption experiment

Reference Books:
1) Dr. Garg P. K. Biology – (Sõ rô¿kkLk)
2) Trivedi J. J. & Dr. Vaidya R. M. – «k₃kur₃f sõhMkkb³y₃k†
3) Dr. Sukkawala V. M. & Dr. Vaidya B. S. – Practical in Biology.
4) Prof. Pandya M. H. & Trivedi – «k₃kur₃f ôLkM₃krik₃k† (S.Y. B>Sc.)
B.A. HOME SCIENCE
SEM – III

Soft Skill
Food and Nutrition

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FOCUS :-
This course builds upon the fundamentals of Foods and Nutrition and provides further information regarding the role of macro and micro nutrients in human nutrition as well as basic information regarding Food Preparation.

Objectives :-
1) Understand basic concept of Food, Nutrition, Nutrients, Health, Nutrition Status and role of Nutrition maintaining health.
2) Gain knowledge regarding Food groups, Food guide pyramid, balanced diet and nutritive value of various food groups.
3) Get familiar with nutritional contribution of various food groups.
4) Gain knowledge regarding recommended dietary and Nutritional requirements.

UNIT – I
Basic Concept of Food and Nutrition
1) Definition of Food and Nutrition, Health, Nutrients, Malnutrition, nutritional status, Factors affecting food and nutrition.
2) Role of food and nutrition in maintaining health and functions of food.
3) Classification and functions of Nutrients – Macro and Micro.

UNIT – II
Food Groups and their nutritional contribution
1) Eleven food groups – name and their selection
2) Nutritional contribution of eleven food groups.
   1. Cereals
2. Pulse  
3. Fruits  
4. Vegetables,  
5. Milk & Milk Products  
6. Nuts and Oilseeds  
7. Meet  
8. Fish and Poetry, Eggs  
9. Sugars  
10. Tea, Coffee, Cocoa, Chocolate and other beverages  
11. Condiments and spices.

Unit – III

**Recommended Dietary and Nutritional Requirements**

1) Minimal Nutritional requirements and RDA, reference man and woman, Use of RDA in planning a balanced diet.

2) Nutritional requirements (ICMR table) of energy, protein lipids, carbohydrate, vitamins, minerals and trace elements water and dietary fibers.

3) Dietary requirements of eleven food groups (ICMR Table).

Unit – IV

**Balanced Diet**

1) Meaning and importance of balanced diet to maintain human health factors affecting balanced diet.

2) Steps required for planning balanced diet.

3) Use of Food Exchange List and Food Guide Pyramid for planning a balance diet.

**References :-**


3) Dr. L.C.Gupta, “Food and Nutrition”.

4) Swaminathan M., “Handbook of Food and Nutrition”

5) Mudambi and Rajagopal, “Fundamentals of Food and Nutrition”
(Family and Community Sciences)
Home Science Undergraduate Programmes for
General Home Science (Composite)
Curriculum as per the choice based credit system
(Implement from June 2012)

B. A. HOME SCIENCE PROGRAMME
COURSE STRUCTURE FOR C.B.C.S.

**SEM - IV**

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B.A. HOME SCINCE
SEM – IV
Core – 211

THEORY

Indian Traditional Textile and Embroidery

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FOCUS :

This course builds upon the core course Indian Traditional Textile and it provides detail information. It gives some basic concept of embroidery.

Objectives :-

This course will enable the students to:
1) Understand basic concept of Indian Traditional Textile, use of machine and hand embroidery.
2) Get knowledge regarding different state Textile.
3) Basic skills required for embroidery.

Unit – I

Traditional Textile of India
1) Traditional Textile of India.
   - Kadamkari painted and block printed.
   - Patala – Rajkoti and Patan’s patola.
   - Pochampally of Andra Pradesh.
   - Bandhani – Gujarat.
2) Woven Textile of India.
- Brocades – its types like kinkhab. Ab-e-rava (Ahmadabad, Surat and Banaras
- Shawls of Kashmir
- Silk of Karnataka

3) Woven Saris of India
- Madhya Pradesh – Maheswari and Chanderi
- Maharashtra – Paithani and Narayan peth
- Bengal – Balushari and Mekhala, Tant
- Orissa – Sambalpuri (Ikkat)
- Uttar Pradesh – Banarasi Sari

Unit – II

Fundamentals of Embroidery
1) Meaning of Embroidery
2) Types of Embroidery
3) Suitability of Embroidery
4) Study of the types of various contemporary embroideries like – Shadow work, Cut work, Drawn Thread work, Smoking & Appliqué work.

Unit – III

Knitting and Khadi
1) Knitting
   - Technology
   - Types of knits and their use
   - Merits and demerits
2) Khadi
   - Requirement of Khadi for benefit of women begins.
   - Advantages of Khadi Production.
   - Different Handloom products of Khadi.
   - Khadibhandar.

Unit – IV

Colour and Design
1) Colour :-
   Colour wheel, Colour combination and its use in various embroidery
2) Design :-
   Principals and its Application on Embroidery
3) Types of Threads
4) Types of Needles, use on different fabric.
Reference Books :-
   1) Pramila Verma, “Vastra Vighnan evam Pridhan.”
   3) Amita Patel, Anita Patel “Kashida”
   4) Vrunda Singh, “Vastra evam tantu vigan.”
B.A. HOME SCINCE
SEM – IV

CORE – 212
THEORY

Women empowerment & Entrepreneurship

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FOCUS :

This course is designed to provide the skills in various articles and awokeners regarding personal grooming.

Objectives :-

1) To enable students for development of balanced personality & Stress management.
2) To enable students to achieve the goal of women empowerment & motivated for self-improvement.
3) To develop understanding for beauty care & maintaining physical fitness in scientific manner.
4) To enable students to take up entrepreneurship as a career.
5) To develop skill for production of various handicap articles leading to entrepreneurship.

Unit – 1

Personal Growth & Personality by Development
1) The challenges understanding & meaning oneself being aware of one’s strength & weakness.
2) Personality development & concept, factors & influences emotional & motivational aspects, assertion vs. aggression.
3) Conflicts & Stress, simple, coping strategies.
4) Keys to development of balanced personality.

Unit – II

Personal grooming & Etiquette.
1) Significance concept personal grooming.
2) Areas of personal grooming.
   ii) Yogasan & Physical Exercises
   iii) Healthy Habits.
3) Concept & significance of manners & etiquette.
4) Adoption of manners & etiquette at –
   i) Daily life.
   ii) Educational institutions
   iii) Work place
   iv) Party place
   v) Meal tables
   vi) Religious function & places
   vii) Telephone talk

   **Unit – III**

**Women empowerment**
1) Concept, need & importance of women-empowerment.
2) Women & development the personal, social & national perspectives.
3) Capacity building for women education decision making abilities & opportunities, awareness & information on legal & political issues, gender issues, and substance abuse.
4) Role of Home Science education for personal growth & professional development.

   **Unit – IV**

**Entrepreneurship development**
(A) (a) Definition, need, scope & characteristics of entrepreneurship; Types of industries.
   (b) Area of Entrepreneurship under Home-Science.
   (c) Contemporary government policies for entrepreneurship development.
(B) (a) Preliminary preparations to start small scale industry.
   (b) Steps for selecting of products.
      i) Market Survey
      ii) Visualizing the risks
      iii) Identification of the product
(C) Resource management & Budgeting
(D) Production & marketing
(E) Quality control & Taxation

**Reference books :**
(8) Singh R. N. – Sky is the limit _ Practical guide on – effective career planning Bombay – Bombay Schandra Publications.
B.A. HOME SCIENCE
SEM – IV

CORE – 213
THEORY

Introduction to Community Nutrition

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FOCUS :
This course is intended to student’s nutritional problems prevailing in the country, their causes and implication and the Government policies and programmes for control and/or prevention of the same.

Objectives :-
This course will enable the students to:

a) Be familiar with the basic concept of community Nutrition and role of Home Science to import nutrition education in community.
b) Be familiar with the communal problems of the community, their causes, symptoms, treatment and prevention.
c) Be familiar with the schemes, programmes and policies of Government of India to combat Nutritional problem.
d) Be aware of importance and aims of Nutritional assessment.
e) Get exposed to the role of National and International agents in combating Nutritional problems, in India.

Unit – 1

Basic concept & scope of community Nutrition

(A) Definition, Concept & importance of community Nutrition, public Health, community programmes.
(B)Role of Home-Science in community Nutrition.
(C)Importance, aims and methods of Nutritional Assessment

a) Anthropometric methods
b) Clinical methods
c) Biochemical methods
d) Diet survey.
Unit – 2

Nutritional problems of community
(A) Common problems in India.
(B) Causes (Nutritional and Non-Nutritional)
(C) Incidence of Nutritional problems as signs and symptoms, treatment, prevention
(D) Mal Nutrition, PEM, Micro-Nutrient deficiencies (Vit. – A) Iron, Iodine, Fluoric.

Unit – 3

Notational Schemes and Programmes
(A) ICDS
(B) Midday Meal Programme
(C) Nutritional Anemia Control Programme
(D) Vitamin-A prophylaxis Programme
(E) National Iodine deficiency disorder.

Unit - 4

National and International agencies
(A) Role of National and International agencies in combating Nutritional problems in India.
(B) Nutrition policy in India & plan of action.

References:-
2) Shukla P. K., Nutritional Problems of India.
6) zki. su. ze. ĄkkXf, Ąkkųkų rōāk, ḃwrLkδŠMkxe źkútÜk rLk{koŷ çkkuzo, źkwshkïk hkBp, y{ĘkδkE-380 006.
7) zki. ĄkXu+ W{l, Ąkkųkų yLku yknkh, (MktĘ¼o fkub), çkk+ókkųδÉ «fkŁk, ókktAe{koko, y{ĘkδkE.

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B.A. HOME SCINCE
SEM – IV

Elective – 211
Practical -Apparel Making and Embroidery

FOCUS :

This course is designed to provide the skills in using embroidery, basic embroidery, techniques with special embroidery stitching in Hand and Machine embroidery to design party wear cloths.

Objectives :-
This course will enable the students to :
1) Get skills in embroiders.
2) Get skills in using sewing machine for embroidering.
3) Develop basic skills in children clothing.
4) Develop entrepreneurship skill in Hand and Machine embroidery.

Total : 29 Practicals

Unit – I

Design and colour – 8 practical

1) Preparation of colour wheels -1 practical
   - Basic
   - Primary
2) Application of design for different cloths – 1 practical
3) Methods of designing – 2 practical
   a) Tracing
   b) Block
   c) Use of carbon paper
   A) Hand Beg with Running Stitch – 1 Practical
   B) Pillow covers (2 piece) with Round stitch – 1 practical.
   C) Dining Table Mats (4 piece) with patch work – 2 practicals

Unit – II

Apparel Making - 6 Practicals
(1) Baby Frock with Smoking or Honeycomb – 2 practicals
(2) Half Pant for a boy (5 to 7 years) 2 practicals
(3) Shirt for a boy (5 to 7 years) – 2 practicals

70
Unit – III

8 practicals

Make one-one sample each of Hand Embroideries from North Zone.
1) Kashmiri  4) Shadow work
2) Phulkari    5) Kantha
3) Luckhanavi  6) Silver and fancy

Unit – IV

7 practicals

Make one-one sample each of Hand Embroideries from South Zone.
1) Rabari – Mirror  4) Gold
2) Kutchhi       5) Make any one sample by crochet
3) Dharwadi     6) Make any one sample by two niddle knitting

Reference Book

1) yuBckukuEzhe zUuMk rzpkELkøk – rLk{o+k Mke. {e†e
2) «u{e+k ð{kko, ð† rO¿kkLk yuØt ÁkrhÄkLk.
B.A. HOME SCIENCE
SEM – IV

Elective – 212
Practical - Personal Empowerment

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FOCUS :

This course is designed to provide the skills in various articles and awareness regarding personal grooming.

Objectives :-

This course will enable the students to :
1) To be Similar with various artistic articles.
2) To develops skill in preparing various decorative articles and gift articles.
3) Develop skills in preparing paper articles and candle making.
4) Develop skill in preparing artificial ornaments.
5) Develop skill to bring awareness regarding personal grooming.
6) To bring awareness regarding working procedure of Bank.

Unit – I

(29 Practicals)

1) Glass Painting on flat glass.
2) Frame work – (any one)
3) Pot Decoration
4) Fabric painting – Basic Techniques on handkerchiefs.
5) Fabric painting – Utility Garment (any one)

Unit – II

6) Gift packing with Paper & Cloth.
7) Molded Candle
8) Soft Toy – any one
9) Paper Bag – any one
10) Cards with envelops – Two

Unit – III

11) Bookmarks – Five
12) Traditional Ornament Set
13) Western type ornament set
14) Jute article
15) One article incorporating artificial flower.

Unit – IV

16) Project Proposal for entrepreneurship development (group work)
17) Producing any Product in group and writing report (group)
18) A visit to bank (group)
   a. To understand procedure of banks.
   b. To understand loan related points to Start small scale Industry.
19) Table-mats. (Either Embroidery / Fabric Painting)
20) Nail art (Basic)

Body and Beautician (Demonstration only)

1) Facial (Normal and Herbal)
2) Mahanadi (Simple)
3) Tattoo (Simple)
4) Threading
5) Waxing
6) Make-up (basic and bridal)
7) Meni cure
8) Pedicure
B.A. HOME SCIENCE
SEM – IV

Foundation-212

Dress Designing

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FOCUS :-
Systematized garment-making calls basic for knowledge skill in sewing techniques, development of designs, selection of suitable fabrics and supplies, effective colour combination, a minimum fabric consumption stitching and finishing. This course is designed to provide basic knowledge and understanding of dress designing.

Objective :-
1) To enable the students to improve the Skill in garment making.
2) To acquire Skills of preparation of drafts, sleeves, collars etc. used in garments.
3) To enable the students to equip them with the techniques of Body Measurement.
4) To develop and understand the Principles of pattern making though. Flat pattern and draping.

Unit – 1

Introduction to Dress Designing
1) Principles of figure drawing and sketching of body Features.
2) Elements and Principles of Design.
3) Body Measurements.
   1) Anthropometric measures.
   2) Methods of taking measurements for different garments.

Unit – 2

Fabrics and pattern for garment making
1) Techniques, Flat pattern, Draping, principles and application of Flat patterns for different styles.
2) Fabric :
   1) Handing of different types of fabrics.
   2) Estimation of material required for different garments.
   3) Selection of Fabrics for different garments.

**Unit – 3 :**

**Preparation of Garment**
1) Dart manipulation and dart concealment techniques.
2) Various types of basic stitches, fasteners, sleeves. Yolks Neck line and collars used in garments.

**Unit – 4 :**

**Fitting and Draping.**
1) Fitting :-
   1) Factors affecting good fit.
   2) Common problems, encountered and remedies for fitting defects.
2) Introduction to draping and silhouette of the individual – Dress form, Elements of Fabric – woven and knitted.

References :
1) Vastra Vigyan evm paridhan – Pramila Verma.
B.A. HOME SCIENCE  
SEM – IV  

Soft Skill  
HOSPITALITY  
Theory

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FOCUS :-
This course builds upon the fundamentals of Hospitality, Hospitality Management and Hospitality Resources Managements.

Objectives :-
(1) Understand basic concept of Hospitality and Hospitality Management  
(2) Gain knowledge regarding Hospitality Resources Managements.

UNIT – I  
Introduction to Hospitality
1. The Definition and importance of Hospitality and Hospitality Management.
2. Growing field of hospitality- hotels, restaurants, casinos, museums, airports, institutional dining services, conventions, conferences, amusement parks, weddings, Travel & Tourism, Restaurant & Fast – Food Industry, Contract Catering Industry, Hospitals etc.  
3. Factors Involved in Hospitality Managements- Customer Service, Team Leadership Skills, Multitasking Skills, Problem-Solving Skills, Financial Savvy, Creativity, Multi-tasking skills, Teamwork, Vision etc.

UNIT – II  
Resources Management
1. Finance Management - Budgets, Sources of Finance, Planning adequate cash flow, Cost Accounting / Analysis -Food cost analysis  
2. Space & Equipment Management - Step in planning layouts, Determining equipment, Maintenance of equipment, Layout analysis  
3. Material Management - Menu planning, Purchase, Storage, Gaunty Food production, Service and modes of delivery  
4. Time and Energy Management - Measures of utilization and conservation
UNIT – III
Human Resources Management

1. Manpower planning
2. Recruitment induction, training, Motivation and performance appraisal
3. Role And Responsibilities

UNIT – IV
Quality Assurance in Hospitality Industry

1. Food Quality
2. Total Quality management

References :-
   Food Service in Institutions 6th edition. Revised by Harger FV,  
   Shuggart SG & Palgne Placio JUNE MacMillan Publication  
4) Sethi Mohini (1993) Catering management An Intefrated approach  
   and Beverage Management . planning, operations, Hayden Book  
   company, New Jersey.
B.A. HOME SCIENCE

SEM-V

CORE-301

THEORY

FOOD PRESERVATION AND CONFECTIONERY

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**Focus:**

This course intends impart knowledge and importance of Food Preservation of various fruits, vegetables, cereals and pulses in various ways. It enables students with Preservation methods and Principles.

**Objectives:**

1. To know the importance of food processing and the various methods used.
2. To understand the basic principles and other procedures used in food processing.
3. To understand the chemistry of food & food systems.
4. To understand basic concept of confectionery.
5. To familiarize with confectionery process and operations.

**UNIT - I**

**Food Preservation**

(1) Introduction, Definition, Importance, Merits & Limitations of Food Preservation

(2) Sterilization of equip for Food Preservation

(3) Equip Used in Food Preservation.

(4) Canning & Botteling
UNIT-II

Methods Of Food Preservation And Micro Organisms

1. Different methods of food preservation
   (a) Dehydration or Drying
   (b) High Temperature
   (c) Low Temperature
   (d) Irradiation
   (e) Chemicals- Organic & Inorganic
   (f) Preservation by Gas

2. Study of Micro Organisms in connection with Food spoilage, causes and changes.
3. General characteristics, Classification of Yeast, Mold, Bacteria, Virus in detail.

UNIT-III

Preservation and Preparation of different Food Products.

(1) Preservation of Non perishable food stuff.
   A- Cereals- Wheat, Rice, Maize
   B- Pulses- Moong, Rajma, Bengal gram
   C- Oil seeds- Groundnut, Soybean

(2) Preservation of perishable food stuff.
   A- Vegetables-
      -Roots & Tubers
      -Green Leafy Vegetables
      -Other vegetables (Tomato)

   B- Fruits- Fresh fruit like Lemon, Apple, Alma, Grape, Orange, and Mango

(3) Products of Pectin substance and other preparation-
   A- Jelly
   B- Marmalade
   C- Jam
   D- Squash
   E- Syrup
   F- Pickles
   G- Murabba

(4) Milk & Milk Products like-
   A- Milk Powder
   B- Paneer
C- Khoya 
D- Curd 
E- Buttermilk. 

UNIT-IV 

Food Laws and Confectionary 

1  International, National and State level Food Laws. 
2  Confectionery-
   a-  Aims and Objectives 
   b-  Ingredients- Cereals. Wheat Flour, Sugar, Icing sugar, Cocoa, Chocolate, Butter, 
        Coconut, Essence, Food colors, Emulsifying agents. 
   c-  Chocolates, Candy and peals, Tuti-Fruity. 
   d-  Indian confectionery- Types, Role of sugar in its preparation. 
3  Food Packaging and Labels. 

Others—( Any two) 

1.  Assignments 
2.  Survey 
3.  Seminar 
4.  Visit/ Field work 

REFERENCES 

4-  Deshpande, V.1984 - Entrepreneurship of small scale food industries,  Concept, Growth 
5-  Dr. VrundaSinh- Food Science 
6-  KamlamaniRao, Hina S. Raval; Food Preservation & Fancy cookery,Rajkot. 
7-  ShyamsundarShrivastav;Falparirakshanevamvidhiyan;Kitabmahal,Navidilhi. 
8-  Malik &Dhingara; K.C. Technology of Bakery Products;1981,Modern Bakery Industries, Small 
    Industry Research Institute, New Delhi, India. 
9-  Mats,S.A. 1989; Bakery Technology, Packaging,Nutrition product development and quality 
    assurance, Elsevier Science Publisher Ltd. New York,USA. Frazier;w.c. &westhuff D.C.-Food 
12- Deshpande, V.1984 - Entrepreneurship of small scale food industries,  Concept, Growth 
13- Dr. VrundaSinh- Food Science 
14- KamlamaniRao, Hina S. Raval; Food Preservation & Fancy cookery,Rajkot. 
15- ShyamsundarShrivastav;Falparirakshanevamvidhiyan;Kitabmahal,Navidilhi. 
    Industry Research Institute, New Delhi, India. 
17- Mats,S.A. 1989; Bakery Technology, Packaging,Nutrition product development and quality 
    assurance, Elsevier Science Publisher Ltd. New York,USA.
SEM-V
CORE-302
THEORY
Housing and Space Designing

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Focus:

This course intends to impart knowledge and importance of Housing and Space Designing. It provides basic knowledge of Furniture Design.

Objectives:

1. To understand importance of housing and its need.
2. Help students to learn blueprint of the plan.
3. Guide students to gather information on financial arrangements for house construction.
4. Learn home furnishing techniques and apply them in day-to-day life.
5. Learn the use, care and upkeep of various building materials used in home.

UNIT – I

Space Design

I. Colour ➔ Importance and need of colours in interiors. Classification of colours, qualities of colour, emotional effects of colour, colour harmonies and its use in the house.
II. Art Principles ➔ Harmony, Proportion, Balance, Rhythm, Emphasis.
III. Accessories - In the home to beautify the home.
IV. Types of Design-
   a. Selection and use in the home
UNIT – II

Planning of a House

I. Vastushastra – Meaning and importance of Vastushastra for House planning.
II. Planning for resistance to earthquake in building construction, its needs and importance.
III. High-rise buildings or multistory building, its needs today. Site selection for construction of a house.
IV. Types of sites and their suitability for house construction.

UNIT – III

Construction and Utility Services

I. Building materials, their use, care and upkeep.
   (i) Construction, Finishing and Decorative elements in the house.

II. Utility Services
   (i) Plumbing
   (ii) Lighting
      - Natural
      - Artificial
      - Glare
   (iii) Ventilation

III. Financial Consideration

   (i) Rough Cost Calculation
   (ii) Methods of Financing house safety, their merits and demerits
   (iii) Institution lending money for house construction
      - Government Agencies
      - Semi-Government Agencies
      - Private Organizations

IV. Selection of readymade house, Renting and owning a house-merits and demerits

UNIT – IV

Furniture Design

I. Selection of Furniture and Furnishing of home
   (i) Importance of Home furnishing and its objectives
   (ii) Styles of Furniture - Traditional, Contemporary and Modern
   (iii) Basics of Furniture Design - Selection of furniture for comfort, rest and relaxation for work, for storage.
II. Housing as an investment for Family and Nation and as mark of progress
   (i) Housing as an industry and employment opportunities
   (ii) Adjudging the housing needs for the family and factors affecting housing needs such as family size, composition, occupation, income, family activity pattern, family goals, values, family mobility, family life cycle.

III. Plant Decoration
     - Types of garden and indoor greenery

Others – (Any two)
   1. Assignments
   2. Survey
   3. Seminar
   4. Visit/Field work

REFERENCES
2. Faulkher&Faulkher, “Inside Today’s Home”.
3. Ashok Goyal, “Interior Decoration”.
8. A Ian "House its plan and use".

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SEM-V
CORE-303

THEORY

Family Health And Welfare

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Focus:
This course intends to impart knowledge of physiology of reproductive organs, Puberty Period, Menstrual ,Menopausal Period, pregnancy and Child Care and Family Health.

Objectives:

1. To guide a student for knowledge about physiology of reproductive organs.
2. To give guideline about Puberty, Menstrual and Menopausal Period.
3. To give knowledge about how to care during pregnancy.
4. To give knowledge about Prenatal Period, Neonatal Care, Care during Puerperium.
5. To guide about family welfare.

UNIT – I

Reproductive Organs

1. Physiology of female external and internal genital organs:
   Structure and Functions of the organs given below:
   a. Uterus
   b. Vagina
   c. Fallopian tubes
   d. Ovaries

2. Physiology of male external and internal genital organs:
   Structure and Functions of the organs given below:
   a. Testis
   b. Seminal Vesicles and Semen
   c. Vas deferens
   d. Epididymis
e. Prostate gland
f. Penis

3. Process of conception or fertilization, Determination of child sex and number (single or twin child)

UNIT – II

Puberty, menstrual and menopausal period

1. Puberty period:
   a. Introduction (Basic information about puberty period)
   b. Physical, mental and sexual changes (primary and secondary sex characteristics)

2. Menstrual period:
   a. Premenstrual changes
   b. Menstrual cycle
   c. Menstrual problems
      ♦ causes
      ♦ Different types (Amenorrhea, menorrhoea, Hypomenorrhea, Polymenorrhea)
      ♦ Overcome and care during menstrual problems

3. Menopausal period (In Brief):
   a) Physical and mental changes during Menopause
   b) Problems during menopause
   c) Special care in menopause
   d) Hormones Replacement Therapy (HRT)

UNIT – III

Mother Care

a. Signs and symptoms of pregnancy
b. Common discomforts during pregnancy and their treatment

c. Care of expectant mother
d. Complications of pregnancy and their treatment (premature birth, Toxemia, Anemia, miscarriage etc.)
e. Care during Puerperium (After delivery)
   ♦ Duration of Puerperium
   ♦ Change in uterus and vagina
   ♦ Lactation
   ♦ Health recovery
UNIT – IV

Child Care and Family Health

1. Prenatal Period
   a. Stages of prenatal development
   b. Development of Fetus
   c. Overview of birth process
      ♦ Symptoms of labour
      ♦ Stages of labour
      ♦ Types of delivery (normal and abnormal)

2. Neonatal Care
   a. Care of newborn and infant
   b. Infant feeding

   a. AIDS/HIV
   b. Syphilis
   c. Gonorrhoea

4. Family planning: Meaning, Importance and Methods of Family Planning

Others-
(1) Group Survey related to any area of this subject.
(2) Visit of any one Family Welfare Organization/Maternal Hospital/ Neonatal Care Hospital.
(3) Listing of Maternal and child welfare programmes/ abnormalities of female external and internal genital organs-
   i. Uterus
   ii. Vagina
   iii. Fallopian tubes
   iv. Ovaries

REFERENCES
ÜÉÝ Do. babalal n. prlj, sgwaRvS4a Ane tma½> ba5k, nvlnpBllkexn llml3eD

ÜlÝ Do. su*ma guPta, nl½ ggR, g<hVyvS4a, SvaS$yAnexairrlk iv)an

ÜíÝ Health Bethel, Sex – A man’s Guide
ÜíÝ Do.*. pl. xOrl mat<klaAevm\ ixxukLya`
ÜíÝ Guyton Saunders, Textbook of Medical Physiology

ÜĎÝ C B Fox, Human Physiology
ÜŇÝ Do. nltA Ag/val, mat<klaAev>ixxupaln
ÜÉÉÝ Do. HrklSnadasga>2I, xrlriv)an Ane mat<pd
SEM-V

CORE ELECTIVE -304

Practical

Food Preservation Techniques

Total practicals 31

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Focus:

This course is designed to provide the skills in various preparation of preserve food.

Objective: This course will enable the students to:

This course will enable the students to:

1. To prepare various preserve foods.
2. To Work with various preservatives and know about it.
3. To develop and understand the Principles of preservation.
4. To develop skill of entrepreneurship.

UNIT-I

1. Identification of different preservatives. (1 Practical)
2. Sterilization process. (1 Practical)
3. Preparation of each- (7 Practical)
   a) Syrup- synthetic (water syrup and milk syrup)
   b) Squashes – use of fresh fruits
   c) Jellies
   d) Marmalade
   e) Murabba
   f) Jam
UNIT-II

1. - Pickles- (3 Practical)
   a) Oil
   b) Lime
   c) Vinegar

2. - Ketchup preparation (2 Practical)

3. - Chutney preparation (2 Practical)
   a) Use of sugar
   b) Use of vinegar

UNIT-III

1.-Preparation by using drying methods. (3 Practical)
   a) Vegetable preparation
   b) Cereal preparation
   c) Fruit dehydration of Grapes & Chikoo

2. - Different food preparation by using freezing method. (2 Practical)
   a) Fruits
   b) Vegetables

3. - Bottling (2 Practical)
   a) Acidic foods
   b) Non acidic foods

UNIT-IV

1.-Chocolate making by using Milk & Cocoa power. (2 Practical)

2.-Tuti-Fruity making (1 Practical)

3.-Candy preparation – (3 Practical)
   a) Amla candy
   b) Pumpkin (white) candy
   c) Mango candy
4. - Microscopic observation of preserved products-Demonstration. (1 Practical)

5.- Visit to Canning industries or Food industries or Dairy or Confectionery unit.

(1 Practical)

REFERENCES

5. Dr. Vrunda Sinh- Food Science
7. Shyamsundar Shrivastav; Falparirakshanevamvidhiyan; Kitabmahal. Navidilhi.
13. Dr. Vrunda Sinh- Food Science
17. Mats, S.A. 1989; Bakery Technology, Packaging, Nutrition product development and quality assurance, Elsevier Science Publisher Ltd. New York, USA.
SEM-V
CORE ELECTIVE -305
PRACTICAL
House Planning

Total Practicals 23

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Focus:
This course intends to develop Practical skills in Planning of various Rooms and Houses

Objectives:

1. To understand importance of housing and its need.
2. Help students to understand the colour wheel and colour schemes
3. Listing of various furniture for different rooms.
4. Preparing plan and model of various rooms and houses in detail.

UNIT-I

House Planning

1. Preparation of colour wheel and colour schemes. (1 practical)
2. Sizes and listing of various furniture for different rooms. (1 practical)
3. All Kitchen plans with storage, wash yard etc. (any 3 practicals)
   i. ‘U’ shape Kitchen
   ii. ‘L’ shape Kitchen
   iii. ‘I’ shape or one wall kitchen
   iv. Parallel Kitchen
   v. Island Kitchen
4. Indian style Kitchen (1 practical)
UNIT - II

1. Dining room ((1 practical)
2. Dining with Kitchen (1 practical)
3. Dining with Living (1 practical)
4. Only Dining space with storage (1 practical)
5. Living rooms - Indian Style, Western Style (2 practicals)

UNIT-III

1. Bedrooms with bath, storage, study etc. and some with suit. (6 practicals)
   1. Bedroom for middle school children
   2. Bedroom for high school children
   3. Bedroom for college going boy
   4. Bedroom for college going girl
   5. Planning for master bedroom
   6. Bedroom plan for old age parents

UNIT-IV

1. Office room plan (1 practical)
2. Multipurpose room plan (1 practical)
3. House Plan
   (a) Small Flats / Row-House - 75 to 100 sq. yd. (1 practical)
   (b) Luxurious Apartments - 150 to 175 sq. yd. (1 practical)
   (c) Bungalows - More than 200 sq. yd. (1 practical)
REFERENCES

2. Faulkher&Faulkher, “Inside Today’s Home”.
3. Ashok Goyal, “Interior Decoration”.
8. A Ian “House its plan and use”.
12. mihN,a ke. wa`, wartlypirvarokellye g<hp/bN2, kLy`lpBl|xsR
13. su*ma guPta, nl½ ggR. g<hvvs4a, SvaS$yAevm\ xar|rik ivjan, kLy`lpBl|xsR
14. Do. AaxajEn, Do.nlllmamlEya. g<hsJ= AOOr g<hvvs4a
B.A. HOME SCIENCE
SEM-VI
CORE-311
THEORY
DIET THERAPY

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Focus:

This course intends impart knowledge and importance of diet in various diseases. It enables students with various diets require for various diseases.

Objectives:

1. To know the concept and principles of Diet Therapy
2. To understand the Modifications of Normal Diet for Therapeutic Purposes
3. To understand the role of the Dietician in Preventive, Promotive and Curative Healthcare of patients community
4. To understand causes, symptoms and dietary management in various disease conditions.
5. To develop ability for Diet Planning for different diseases.
6. To develop skills to prepare various modified diets.

UNIT – I

I. Introduction to Diet Therapy
   a. Concept and Importance of Diet Therapy
   b. Objectives and Principles of Therapeutic Nutrition
   c. Methods of Hospital Diet Feeding: Parental and External Feeding
II. Types of Hospital Diets:-
   a. Diet modification according to consistency:- Light, Soft and Liquid diets
   b. Diet modification according to amount of nutrients :- Diets (High and Low) in Calories, carbohydrate, Protein, Fat and Fiber
III. Team approach to healthcare of a patient And Role and responsibilities of Dietitian.
UNIT - II

I. Nutritional Care during Fever:- causes, symptoms and Dietary Management.
   a. Common Fever,
   b. Typhoid
   c. Tuberculosis

II. Nutritional Care in Gastro-intestinal Disorders:- Causes, Symptoms and Dietary Management
   a. Constipation
   b. Diarrhea
   c. Peptic Ulcer

UNIT – III

I. Nutritional Care in Liver Diseases:- Causes, Symptoms and Dietary Management
   a. Hepatitis
   b. Jaundice

II. Nutritional Care in Cardiovascular Diseases:- Causes, Symptoms and Dietary Management
   - Atherosclerosis

III. Hypertension Nutritional Care in Allergy:- Causes, Symptoms, Dietary Management in Allergy of milk and wheat

UNIT – IV

I. Nutritional Care in Cancer:- Causes, Symptoms, Dietary Management in
   a. Intestine
   b. Breast
   c. Uterus Cancer

II. Nutritional Care for Weight Management:-
   a. Obesity:- Identifying the overweight and obese: Causes, Complications, Symptoms and Dietary Management
   b. Underweight:- Causes, Symptoms and Dietary Management

III. Nutritional Care in Diabetes Mellitus:- Causes, Symptoms, and Dietary Management

IV. Others–( Any two)
   1. Assignments
   2. Survey/Preparation
   3. Seminar
   4. Visit/ Field work
REFERENCES

5. Reader’s Digest, “Fight Back with Food”, Reader’s Digest Association Inc. Pleasantville, New York, Montreal
B.A.HOME-SCIENCE

SEM-VI

CORE-312

THEORY

Textile Designing and Apparel Making

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Focus:

This course is designed to provide knowledge of Textile details, construction of cloths and methods of apparel making.

Objectives:-

This course will enable the students to:

1) To know about Yarns and Clothing construction.
2) To learn about Tie and Dye, Batik and Printing.
3) Basic Knowledge of Paper pattern and designing.
4) To enable the students to familiarize with the essentials of Apparel Making

UNIT – I

Textile Science

Textile Fibers and Yarns:

1 Classification of Textile Fibers.
2 General Properties of Textile fibers.
3 Types of Spinning and Processes involved in it.
   • Mechanical Spinning,(Cotton)
   • Chemical Spinning.
4 Types of Yarns:
   • Simple Yarns
   • Novelty Yarns.
UNIT – II
Clothing Construction

Structure of fabrics:

1. Various Types of Looms, Their parts and function.
2. Classification of Weaves
   a) Basic weaves with their variations.
      - Plain weaves
      - Twill weaves
      - Satin weaves
3. Complex or Decorative weaves.
   - Honey comb
   - Leno.
   - Dobby
   - Jacquard.
   - Pile
   - Huck-a-back.
   - Flat
   - Bonded.
   - Laminated.

UNIT – III
Methods of Dying Printing and Finishing

1. Dying:
   - Types of Dyes and Pigments
   - Methods of Dying.
2. Printing:
   Type of Printing:
   - Hand Printing-Block, Stencil and Screen.
   - Machine Printing-Roller and Their Types.
3. Types of Tie and Dye and Batik in brief.
4. Finishing:
   - Importance and Classification of finishing:
     o Physical process-Calendaring, Shrinking, Embossing, Weighting, Moiering
UNIT – IV

Consumer Problems and Apparel Making

1. Consumer problems in clothing and Textiles and Their Remedies.
2. Pattern Making:
   - Flat patterns.-Application, Merit and Demerits.
   - Draping.-Application ,Merits and Demerits.
3. Fitting Of Garments
   - Factors affecting good fit
   - Problems and remedies.

Others–( Any two)

1. Assignments
2. Survey/Preparation
3. Seminar
4. Visit/ Field work

REFERENCES

1. Pramila Verma, Vastra Vignan evam Paridhan, Bihar Grant Academy.
2. Dr. BelaBhargav, Vastra Vignan evam Dhulai, Udaipur.
3. David Potter, Tantu Se Vastra.
5. Vimala Sharma, Vastra Shilp Vignan.
7. Vina Samani, Hina Sanvat and Malini Pathak, Dress Designing
B.A.HOME-SCIENCE

SEM-VI

CORE-313

THEORY

Home Science Education and Extension

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Focus:

This course is designed to provide knowledge about needs and importance of home science discipline for society.

Objectives:

1. To create awareness about various aspects of H. Sc. as a discipline.
2. To develop understanding regarding type, setup and administration of H. Sc. Institutions.
3. To create understanding regarding significances, functions and characteristics of H. Sc. teacher.
4. To develop understanding regarding advantages, technique of effective use and limitations of various teaching methods employed in H. Sc.
5. To create awareness regarding benefits of teaching aids.
6. To develop understanding regarding benefits, techniques of effective use and limitations of various teaching aids.

UNIT – I

Understanding the discipline of Home Science

I. Meaning, Need and Philosophy of Home Science in modern times
II. Structure of H. Sc. Discipline and Areas of Home Science discipline
III. Broad Objectives of Home Science
IV. Specific objectives of each area of H. Sc.
V. Career opportunities available to the Home Scientists
UNIT – II
Home Science Department and Home Science Teacher

I. Setup of H. Sc. Department at college level
II. Effective administration of the H. Sc. Department
III. Functions of H. Sc. Teacher
IV. Characteristics of an ideal H. Sc. teacher
V. Concept, Principles and Need for Home Science Extension Education

UNIT – III
Educational Technology in Home Science

Concept, Classification and need of educational technology in Home Science.

I. Points to be considered while selecting teaching methods in Home Science.
II. Teaching methods with respect to advantages, technique for the effective use and their limitations.
   a. Lecture Method
   b. Discussion Method
   c. Demonstration Method
   d. Laboratory Method
   e. Workshop Method
   f. Fieldtrip Method
   g. Survey Method
   h. Exhibition as a teaching technique

UNIT – IV
Teaching Aids in Home Science

I. Concept, classification and need for teaching aids.
II. Points to be considered while selecting teaching aids.
III. Teaching aids with respect to advantages, technique for selection/preparation, presentation and limitations-
   a. Blackboard
   b. Bulletin board
   c. Magnet board
   d. Flannel board
   e. Model
   f. Chart
   g. Slides
   h. Poster
   i. Puppet
   j. Radio
   k. Transparency and OHP
   l. Flashcards
   m. Television and Film
   n. Pictures
   o. LCD
   p. Graph
   q. Computer
Others—( Any two)

1. Assignments
2. Survey/Preparation
3. Seminar
4. Visit/ Field work

REFERENCES

B.A. HOME-SCIENCE
SEM-VI
CORE ELECTIVE-314
PRACTICAL

Dietary Planning in Diseases

(Total Practicals 24)

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**Focus:**

This course intends impart knowledge and importance of diet in various diseases practically. It enables students with various diets require for various diseases.

**Objectives:**

1. To know the concept and principles of Diet Therapy
2. To understand the Modifications of Normal Diet for Therapeutic Purposes
3. To understand the role of the Dietician in Preventive, Promotive and Curative Healthcare of patients community
4. To understand causes, symptoms and dietary management in various disease conditions.
5. To develop ability for Diet Planning for different diseases.
6. To develop skills to prepare various modified diets.

**All practical should be planned according to the second stage disease.**

**UNIT – I**

(1) Modification of Diet (06 Practical)

- Liquid Diet – Full, Semi and Clear
- Soft Diet - with fibers and without fibers
- Light Diet
UNIT – II

(3) Diet for underweight and obesity (02 practical)
(4) Diet during Fever and Infection (03 practicals)
  • Common Fever
  • Typhoid
  • Tuberculosis

(2) Diet in Diabetes Mellitus (01 practical)
    For Obese Diabetic Patient

UNIT – III

(5) Diet in Liver Disorders (02 practical)
  • Jaundice
  • Hepatitis

(4) Diet in Gastrointestinal disorders (04 practicals)
  • Constipation
  • Diarrhea
  • Peptic Ulcer

UNIT – IV

(8) Diet in Heart Diseases (02 practicals)
  • Atherosclerosis
  • Hypertension
(9) Diet in Allergy (01 practical)
  • Milk Allergy
(10) Diet in Cancer (01 practical)
(11) Visit to Hospital to understand Team approach to healthcare of a patient.
    (Any one disease from two) (02 practicals)

1. Listing various functions of Heart, Liver, Gastro-intestinal track
2. Listing various Diagnostic Tests in Allergy, Cancer, Liver Disorders, Diabetes Mellitus, Heart Diseases.
REFERENCES

5. Reader’s Digest, “Fight Back with Food”, Reader’s Digest Association Inc. Pleasantville, New York, Montreal
B.A.HOME-SCIENCE

SEM-VI

CORE ELECTIVE - 315

PRACTICAL

Apparel Designing

Total Practicals 29

<table>
<thead>
<tr>
<th>Lectures Per Week</th>
<th>Total Credits</th>
<th>Mark Per Paper</th>
<th>Duration of Exam</th>
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**Focus:**

This course is designed to provide the skills to identify fibers and fabrics. Learn about cloth preparation process. With Special focus on finishing and coloring on fibers and fabrics. Awareness of purchasing clothes and garments. Also based on stitching and dying of various ladies garments.

**Objectives:**

This course will enable students to:

1. Get skills of drafting, layout and stitching of various Ladies garments,
2. Get skills to dye fabrics.
3. Develop basic skills of printing.

**UNIT – I**

1. Collect samples of various fibers and fabrics.(1 Practical)
2. Preparation of various sleeves: (2 Practical)
   - Magyar
   - Puff.
   - Legomatto
3. Prepare Simple Sari Blouse with Fancy sleeve.(3 Practical)
UNIT – II

1 Preparation of various collars: (2 Practical)
   - Chinese
   - Flat
   - Baby.
2 Prepare Kurti with Fancy Collar. (3 Practical)
3 Preparation of various Yokes: (2 Practical)
   - Round
   - Square
   - ‘V”Shape.
4 Prepare Punjabi kameez with fancy yoke.(3 Practical)

UNIT – IIII

1 Prepare Salwar or Chudidar (3 Practical)
2 Prepare Skirt (3 Practical)
3 Prepare Various Necklines (2 Practical)
   - Square
   - Pentagon
   - “V”Shape.

UNIT – IV

1 Prepare any one sample of Block printing (1 Practical)
   (Table cloth/Cushion cover)
2 Prepare any one sample of Tie and Dye ( 2 Practical)
   (Dupatta / yoke)
3 Prepare any one sample of Batik (1 Practical)
   (Wall piece / 4 hand kerchief)
4 Market survey and Computerized report on any one of these subjects(1 practical)
   - Woven fabrics.
   - Consumer problems.
   - Dyes and Pigments.
   - Fashion.
   - Fibers and yarns.

15
REFERENCES

1. Pramila Verma, Vastra Vignan evam Paridhan, Bihar Grant Academy.
2. Dr. Bela Bhargav, Vastra Vignan evam Dhulai, Udaipur.
3. David Potter, Tantu Se Vastra.
5. Vimala Sharma, Vastra Shilp Vignan.
7. Vina Samani, Hina Sanvat and Malini Pathak, Dress Designing