

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)

Sr. No.	Course Type	Name of Course	Credits / Week				Contact Hours
			Theory		Practical	Total	
			L	O			
1	Core 301	Food Preservation & Confectionery	3	1	-	4	4
2	Core 302	Housing & Space Designing	3	1	-	4	4
3	Core 303	Family Health & Welfare	3	1	-	4	4
4	Core Elective 304 Practical	Food Preservation Techniques	-	-	4	4	1½ 1 Cr (6 Hrs)
5	Core Elective 305 Practical	House Planning	-	-	4	4	1½ 1 Cr (6 Hrs)
6	Foundation 301	-	1	1	-	2	2
7	Soft Skill 301	-	1	1	-	2	2
8	Comp	English	2	-	-	2	2
			13	5	8	26	30

B.A. HOME SCIENCE

SEM-V

CORE-301

THEORY

FOOD PRESERVATION AND CONFECTIONERY

Lectures per week			Total Credits	Marks per paper				Duration of Exam	
Theory	Practical	Other		Internal		External		Hour	
3	-	1	4	Theory	Practical	Theory	Practical	3	-

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 & Bottling

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.
- 4 Food Poisoning- Botulism, Staphylococcus, Salmonella.

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

- 1- Frazier;w.c. &westhuff D.C.-Food Microbiology,1988, 4th edition, McGraw Hill Inc.
- 2- Microbiological applications, Fruits & Vegetables. CRS Press, Ohio.
- 3- Benson Harold J.- Microbiological application,1990, Wn.C. Brown Publishers,USA.
- 4- Deshpande, V.1984 - Entrepreneurship of small scale food industries, Concept, Growth & Management, Deep &Deep Publication-D-1/24. RajouriGarden, New Delhi.
- 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 Microbiology,1988, 4th edition, McGraw Hill Inc.
- 10- Microbiological applications, Fruits & Vegetables. CRS Press, Ohio.
- 11- Benson Harold J.- Microbiological application,1990, Wn.C. Brown Publishers,USA.
- 12- Deshpande, V.1984 - Entrepreneurship of small scale food industries, Concept, Growth & Management, Deep &Deep Publication-D-1/24. RajouriGarden, New Delhi.
- 13- Dr. VrundaSinh- Food Science
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- 15- ShyamsundarShrivastav;Falparirakshanevamvidhiyan;Kitabmahal.Navidilhi.
- 16- Malik &Dhingara; K.C. Technology of Bakery Products;1981,Modern Bakery Industries, Small 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

Lectures per week			Total Credits	Marks per paper				Duration of Exam	
Theory	Practical	Other		Internal		External		Hour	
3	-	1	4					3	-

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

1. Rutt, "Home Furnishing" Willey Eastern, New Delhi, 1978.
2. Faulkner&Faulkner, "Inside Today's Home".
3. Ashok Goyal, "Interior Decoration".
4. Bhatt Pranav, "Elementary of Arts & Design" Lakhani Brothers Bombay, 1986.
5. Gandotra&Acharya "Interior Decoration", Deep Prakashan V.V. Nagar, 1995.
6. R.S. Deshpande "Homes for middle class", 1986.
7. R.S. Deshpande "Modern Ideal Homes for India", 1988.
8. A Ian "House its plan and use".
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- ÉÊ. Axokgohel, homDekorexnga[D
13. Kamal Mehta "Easy Housekeeping" Surjeet Pub. 1976
14. Panekar D.D. Housing Problems in India, 1960.
15. Andrews Sudhir "Interior Decorations Manual", 1986.

SEM-V
CORE-303
THEORY

Family Health And Welfare

Lectures per week			Total Credits	Marks per paper				Duration of Exam Hour	
				Internal		External			
Theory	Practical	Other		Theory	Practical	Theory	Practical	Theory	Practical
3	-	1	4					3	-

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 (Amenorrhoea, menorrhoea, Hypomenorrhoea, Polymenorrhoea)
 - ♦ 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
3. Genital infectious diseases and their prevention.
 - 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

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ÜÍÝ Health Bethtel, Sex – A man's Guide

ÜÎÝ Do.+ pl. xOrl mat<klaAevm\ ixxukLya`

ÜÏÝ Guyton Saunders, Textbook of Medical Physiology

ÜÐÝ C B Fox, Human Physiology

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SEM-V

CORE ELECTIVE -304

Practical

Food Preservation Techniques

Total practicals 31

Lectures per week			Total Credits	Marks per paper				Duration of Exam	
Theory	Practical	Other		Internal		External		Hour	
-	4	-	4					-	4

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

1. Frazier;w.c. &westhuff D.C.-Food Microbiology,1988, 4th edition, McGraw Hill Inc.
2. Microbiological applications, Fruits & Vegetables. CRS Press, Ohio.
3. Benson Harold J.- Microbiological application,1990, Wn.C. Brown Publishers,USA.
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- 8.Malik &Dhingara; K.C. Technology of Bakery Products;1981,Modern Bakery Industries, Small Industry Research Institute, New Delhi, India.
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- 16.Malik &Dhingara; K.C. Technology of Bakery Products;1981,Modern Bakery Industries, Small 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 ELECTIVE -305

PRACTICAL

House Planning

Total Practicals 23

Lectures per week			Total Credits	Marks per paper				Duration of Exam	
Theory	Practical	Other		Internal		External		Hour	
-	4	-	4					-	4

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 Plannig

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

1. Rutt, "Home Furnishing" Willey Eastern, New Delhi, 1978.
2. Faulkher&Faulkher, "Inside Today's Home".
3. Ashok Goyal, "Interior Decoration".
4. Bhatt Pranav, "Elementary of Arts & Design" Lakhani Brothers Bombay, 1986.
5. Gandotra&Acharya "Interior Decoration", Deep Prakashan V.V. Nagar, 1995.
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7. R.S. Deshpande "Modern Ideal Homes for India", 1988.
8. A Ian "House its plan and use".
9. Kamal Mehta "Easy Housekeeping" Surjeet Pub. 1976
10. Panekar D.D. Housing Problems in India, 1960.
11. Andrews Sudhir "Interior Decorations Manual", 1986.
12. **mihN,a ke. wa`, wartlypirvarokellye g<hp/bN2, kLYa`lpBllxsR**
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14. **Do. AaxajEn, Do.nillmamiEya. g<hsJ= AOr g<hVyvS4a**