



Dr. Bhimrao Ambedkar University, Agra

A State University of Uttar Pradesh (Paliwal Park, Agra -282004)

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A Documentary Support

for

Matric No. – 1.1.1

Programme Outcomes & Course Outcomes

under the

Criteria – I

(Curriculum Design and Development)

Key Indicator - 1.1

in

Matric No. – 1.1.1

BACHELOR OF SCIENCE HOME SCIENCE

2019


Registrar
Dr. B.R.A. University, Agra

NATIONAL EDUCATION POLICY, 2020

Bachelor of Science in Home Science

Institute of Home Science,

Dr. Bhimrao Ambedkar University, Agra

Course Code	Course Title: B.Sc. (Home Science) I Semester	Course Type	Marks		Total	Credit	Course Mapping		
			CIE	UE			EC	EPC	SDC
B-I	Family Finance and Consumer Education	Theory Major	25	75	100	6			
B-II	Fundamentals of Textiles and Care	Theory Major	25	75	100	6			
B-III	Elementary Physiology	Theory Major	25	75	100	4			
B-IV	Practical- Elementary Physiology	Practical Major	25	75	100	2			
B-V	Vocational Course -I Computer Application	Vocational Course	25	75	100	3			
B-VI	Co-curricular Course Environmental Studies	Co-curricular Course	25	75	100	Qualifying			
	Total		125	375	500	21			
Course Code	Course Title: B.Sc. (Home Science) II Semester	Course Type	Marks		Total	Credit	Course Mapping		
			CIE	UE			EC	EPC	SDC
B-VII	Concepts and Principles of Home Management	Theory Major	25	75	100	6			
B-VIII	Textile Design	Theory Major	25	75	100	6			
B-IX	Biochemistry	Theory Major	25	75	100	4			
B-X	Practical- Biochemistry	Practical Major	25	75	100	2			
B-XI	Minor (Elective) Chemistry	Chemistry	25	75	100	4			
B-XII	Vocational Course -II Tally Accounting	Vocational Course	25	75	100	3			
B-XIII	Co-curricular Course Horticulture and Gardening	Co-curricular Course	25	75	100	Qualifying			
	Total		150	450	600	25			

(Credits=46, Certificate in Faculty)

Course Code	Course Title B.Sc. (Home Science) III Semester	Course Type	Marks		Total	Credit	Course Mapping		
			CIE	UE			EC	EPC	SDC
B-XIV	Extension Education and Community Development	Theory Major	25	75	100	6			
B-XV	Family Housing	Theory Major	25	75	100	6			
B-XVI	Family Clothing	Theory Major	25	75	100	4			
B-XVII	Practical- Family Clothing	Practical Major	25	75	100	2			
B-XVIII	Psychology	Minor (Elective)	25	75	100	4			
B-XIX	Vocational Course -III Detection of Adulterants in Common Food	Vocational Course	25	75	100	3			
B-XX	Co-curricular Course English	Co-curricular Course	25	75	100	Qualifying			
	Total		150	450	600	25			
Course Code	Course Title B.Sc. (Home Science) IV Semester	Course Type	Marks		Total	Credit	Course Mapping		
			CIE	UE			EC	EPC	SDC
B-XXI	Human Development- I	Theory Major	25	75	100	6			
B-XXII	Fashion and Apparel Design	Theory Major	25	75	100	6			
B-XXIII	Interior Design and Decoration	Theory Major	25	75	100	4			
B-XXIV	Practical- Interior Design and Decoration	Practical Major	25	75	100	2			
B-XXV	Vocational Course -IV Food Processing	Vocational Course	25	75	100	3			
B-XXVI	Co-curricular Course First Aid and Health	Co-curricular Course	25	75	100	Qualifying			
	Total		125	375	500	21			

**(Credits=92, Diploma in
Faculty)**

Course Code	Course Title: B.Sc. (Home Science) V Semester	Course Type	Marks		Total	Credit	Course Mapping		
			CIE	UE			EC	EPC	SDC
B-XXVII	Group 'A'* Theory 1. Human Development-II 2. Early Childhood Care and Education	Theory Major	25	75	100	4			
B-XXVIII			25	75	100	4			
B-XXIX	Practical- Early Childhood Care and Education	Practical Major	25	75	100	2			
B-XXX	Group 'B'* Theory 1. Fundamentals of Nutrition and Food Science 2. Nutrition for Family	Theory Major	25	75	100	4			
B-XXXI			25	75	100	4			
B-XXXII	Practical- Nutrition for Family	Practical Major	25	75	100	2			
B-XXXIII	Group 'E'* Theory 1. Women Rights and Gender Empowerment 2. Teaching Methods and Media	Theory Major	25	75	100	4			
B-XXXIV			25	75	100	4			
B-XXXV	Practical- Teaching Methods and Media	Practical Major	25	75	100	2			
B-XXXVI	Fashion Sketching and Illustration	Co-curricular Course	25	75	100	Qualifying			
B-XXXVII	Research Project	Major	25	75	100	Qualifying			
	Total		150	450	600	20			
Course Code	Course Title: B.Sc. (Home Science) VI Semester	Course Type	Marks		Total	Credit	Course Mapping		
			CIE	UE			EC	EPC	SDC
B-XXXVIII	Group 'A'* Theory 1. Marriage and Family Dynamics 2. Children with Special Needs	Theory Major	25	75	100	4			
B-XXXIX			25	75	100	4			
B-XL	Practical- Children with Special Needs	Practical Major	25	75	100	2			
B-XLI	Group 'B'* Theory 1. Community Nutrition 2. Diet Therapy	Theory Major	25	75	100	4			
B-XLII			25	75	100	4			
B-XLIII	Practical- Diet Therapy	Practical Major	25	75	100	2			
B-XLIV	Group 'E'* Theory 1. Programme Planning for Rural Development 2. Communication Process and Adoption	Theory Major	25	75	100	4			
B-XLV			25	75	100	4			
B-XLVI	Practical- Communication Process and Adoption	Practical Major	25	75	100	2			
B-XLVII	Health and Microbiology	Co-curricular Course	25	75	100	Qualifying			

B- XLVIII	Research Project	Major	25	75	100	Qualifying			
	Total		150	450	600	20			

(Credits=132, Bachelor in Faculty)

Mapping of the course to Local/ Regional/National/Global need :

*Loc: Local Need *Reg: Regional Need *Nati : National Need *Glob: Global Need

Note=

* In III Year student will select theory papers from any two groups i.e. either (Group 'A' and Group 'B') or (Group 'A' and Group 'E') or (Group 'B' and Group 'E')

** In III Year student will select practical from selected groups i.e. either (Group 'A' and Group 'B') or (Group 'A' and Group 'E') or (Group 'B' and Group 'E')

[Group A= Human Development and Family Studies

Group B= Food and Nutrition

Group E = Extension Communication and management]

*** List of Vocational Courses are enclosed

Bachelor of Science in Home Science

Programme Educational Objectives (PEOs)

The Program Educational Objectives (PEOs) for the Bachelor of Science in Home Science describe accomplishments that graduates are expected to attain after graduation

PEO-1: Understand and appreciate the role of interdisciplinary sciences in the development and well-being of individuals, families and communities

PEO-2: To enable students to pursue research career in industry and academia by providing fundamental and practical knowledge in the field of Home Science.

PEO-2: To empower the students with creative skills, enable them to pursue skills an area of specialization and to nurture entrepreneurial endeavors.

PEO-3: To develop Home Scientist with professional ethics in order to address global and societal issues for sustainable development.

Programme Outcomes (POs)

The students of Bachelor of Science in Home Science will be able to:

PO-1: To understand the role of home science in the development of individual, families and communities.

PO-2: To learn about the sciences and technologies which enhance the quality of life of the people.

PO-3: To acquire professional and entrepreneurial skills for economic empowerment of students in particular and community in general.

PO-4: To develop and benefit from the symbiotic relationship among the core disciplines of Home Science- Food and nutrition, Textile and Apparel Design, Human development & family studies, extension communication and management, Family resource management.

PO-5: To take science from the laboratory to the people.

Programme Specific Outcome (PSOs)

After the successful completion of Bachelor of Science in Home Science, the students will be able to:

PSO-1: Students will be able to demonstrate comprehensive knowledge and understanding of major concepts of the five Home Science disciplines (Food & Nutrition, Human Development & Childhood Studies, Fabric & Apparel Science, Development Communication & Extension, Resource Management & Design Application) with support of subjects from allied fields

PSO-2: Students will develop a scientific temper and a sense of inquiry through various Home Science courses. They will develop capability to raise relevant questions

for research.

PSO-3: The students would develop the ability and motivation to empower people from the vulnerable groups and communities in society.

PSO-4: Develop entrepreneurial skills for self- and community-economic development

SEMESTER

I

B.Sc. (Home Science) I Semester
Family Finance and Consumer Education
PAPER NO: B-I

Course Type: Theory Major

UE – 75 Marks

Credits: 6

CIE – 25 Marks

Course Objectives

This course will enable the students:

- To learn about the concepts of finance and the standard of living.
- To make student aware about family income and budget in different phases of life.
- To understand the concept of consumer education and its importance in today's life.
- To learn the concept and types of market.

Unit – I: Family Finance

- (a) Meaning, Definition and importance of family finance.
- (b) Standard of Living: Meaning, Definition, types and factor determining.
- (c) Causes of low standard of living and remedial measures.

Unit – II: Family Income & Budget

- (a) Meaning, definition and sources of income.
- (b) Types of Income: Money income, Real income, Psychic income and their importance.
- (c) Budget – Meaning, Definition, Types, Characteristics, Advantages and Disadvantages.
- (d) Saving – Meaning, Importance and methods to save.

Unit – III: Consumer Education

- (a) Meaning, Definition, Objectives and need of consumer education in India.
- (b) Meaning, Definition and characteristics of consumer.
- (c) Consumer rights and responsibilities in today's world.

Unit – IV: Consumer and the Market

- (a) Basic concept of market and types of market.
- (b) Consumer choice: Factors influencing consumer decisions.
- (c) Problems of consumer.

Internal Assessment:

- a. Study on income and expenditure pattern of various income groups.
- b. Visit to Saving Institutes.
- c. Problems of consumer- small survey report.

Reference Books:

- a. Family Finance: H.F. Bigelow
- b. Elements of Modern Economics: Meyere
- c. Fundamentals of Economics: J.K. Mehta
- d. Modern Economics: M.L. Seth.
- e. The Economics of Consumption: L.J. Garelen.
- f. Management in Family living: Nickell and Dorsey
- g. Management for Modern Families: Gross and Crandall
- h. Paribaric Vitt: Saraswati Verma and Asha Pandey.
- i. Home management and family finance :- Dr. Maneesha Shukul and Prof. Veena Gandotra
- j. Consumer Economics :- Dr. Saxena And Saxena
- k. Premovthy seetharman and Mohini Seth - Consumerism strategies and practices.
- l. Satya Sundaram - "Consumer protection in india."
- m. Journals of Consumer education.
- n. Veena gonaotra & ami divatia - "Consumer education."

Course Outcomes

After completing this course, student is expected to learn the following:

CO1: Learn different types of income. Money income, Real income, Psychic income and their importance.

CO2: Understand the concepts of market.

CO3: Able to explain the Objectives and need of consumer education in India.

***Abbreviations:**

CIE: Continuous Internal Evaluation

UE: University Exam

Course Mapping:

	PO 1	PO 2	PO 3	PO 4	PO 5	PSO 1	PSO 2	PSO 3	PSO 4
CO1	1	2	3	3	1	2	3	2	2
CO2	1	2	3	3	1	2	2	3	3
CO3	3	3	2	1	1	1	2	3	1

Matching: '0to 30% = 1: '30% to 60% = 2: '60% to 100% = 3

B.Sc. (Home Science) I Semester
Fundamentals of Textiles and Care
PAPER NO: B-II

Course Type: Theory Major

UE – 75 Marks

Credits: 6

CIE – 25 Marks

Course Objective: To enable the students to know about textile fibers and their properties. To understand yarns and their structure. Weaving process, types of weaves. Classification of textile fibers – Physical and chemical properties of fibers and their uses- Cotton, Jute, Wool, Silk, Viscose, Nylon, Polyester, Acrylic, Polypropylene.

UNIT I: FIBER

(a) Fibers

- (i) Classification of textile fibers according to strength, source and composition.
- (ii) General Properties of textile fibers – primary and secondary properties with reference to their impact on fiber characteristics.
- (b) Raw material, Properties and Uses of -
 - (i) Cellulosic fiber-Cotton
 - (ii) Protein fibers- wool and silk
 - (iii) Regenerated fiber –Viscose Rayon
 - (iv) Synthetic fibers –Polyester, Acrylic and Nylon

UNIT II: YARN

- (a) Definition of yarn
- (b) Yarn properties (yarn twists and yarn number) and their effect on fabric performance
- (c) Types of spinning- Mechanical Spinning (Ring and Rotor) and Chemical Spinning
- (d) Types of Yarn – Simple Yarns and Novelty Yarns
- (e) Blends

UNIT III: FABRIC

- (a) Preliminary knowledge of various techniques of fabric construction – weaving, knitting (warp and weft), non –woven (felted, braiding, multi - component fabrics-bonded,)
- (b) Study of Hand loom – parts and their uses, basic steps of weaving.
- (c) Types of weaves –basic and decorative

(d) Fabric faults /defects as related to stages of manufacture and their classification.

UNIT IV: CARE OF TEXTILES

- (a) Stains – Definition, classification, identification, and general precautions observed during stain removal
- (b) Dry cleaning – Definition, principle, dry cleaning agent and their use, comparison with wet cleaning, advantages and disadvantages, spot cleaning.
- (c) Disinfecting the fabric
- (d) Storage of various clothing.

Internal Assessment:

1. Fiber Identification tests – Visual, burning, microscopic and chemical
2. Yarn Identification – Single, ply, cord, Novelty yarns and Collection and study of 15 samples of yarns.
3. Thread count and balance
4. Weaves- Identification, design interpretation on graph and Collection of different weaves-basic and decorative.
5. Knitting
6. Fabric analysis of light, medium & heavy weight fabrics for various end uses.
7. Collection of 5 fabric samples made with different techniques of fabric construction.

Reference Books:

1. Corbman, P.B., (1985) Textiles- Fiber to Fabric (6th Edition), Gregg Division/McGraw Hill Book Co., US.
2. Joseph, M.L., (1988) Essentials of Textiles (6th Edition), Holt, Rinehart and Winston Inc., Florida.

Course Outcomes :

After completing this course, student is expected to learn the following:

- CO 1: To understand yarns and their structure weaving process, types of weave.
- CO 2 Students will develop understanding about yarns and their creative use
- CO 3 Students will be able to care for their garments.
- CO 4 Students will gain practical understanding of different textile materials

***Abbreviations:**

CIE: Continuous Internal Evaluation

UE: University Exam

Course Mapping:

	PO 1	PO 2	PO 3	PO 4	PO 5	PSO 1	PSO 2	PSO 3	PSO 4
CO1	3	3	1	1	3	1	1	2	3
CO2	3	3	1	1	3	1	1	2	3
CO3	3	3	1	1	3	1	1	1	3
CO4	3	3	3	1	3	3	1	1	3

Matching: * 0 to 30% = 1; *30% to 60% = 2; * 60% to 100% =3

B.Sc. (Home Science) I Semester

Elementary Physiology

PAPER NO: B-III

Course Type: Theory Major

UE – 75 Marks

Credits: 4

CIE – 25 Marks

COURSE OBJECTIVES.

- Easy to understand the process of blood in the body.
- Get a knowledge of gastrointestinal system.
- Receive information of joints and their function.
- Learn the process of excretory system.
- Provide brief information related to nervous system.

Unit-I

Cell structure, components and their function. Elementary anatomy of various systems. Cardiovascular System, Blood and its composition, Blood groups, Coagulation of blood, Structure and function of heart, Heart rate, Cardiac output, Blood pressure and its regulation

Unit-II- Elementary knowledge of the Following:

Gastrointestinal System, Structure and functions of various organs of the G.I. tract, Digestion and absorption of food and role of enzymes and hormones. Reproductive System, Structure and function of Sex glands and organs including hormones, Menstrual Cycle, Physiology of pregnancy, parturition, lactation and menopause.

Unit-III

Muscular-Skeletal System, Types of joints and their functions, Skeletal System- formation of bone. Disorder in skeletal system. Respiratory System, Structure of lungs, Mechanism of respiration and its regulation, O₂ and CO₂ transport in blood

UNIT IV

Excretory System, Structure and function of kidney, bladder, formation of urine, role of kidney in homeostasis, Structure and function of skin, Regulation of body temperature

Nervous System, Functions of different parts of brain in brief, Nerve cell and impulse transmission, Sense organs and their functions.

Internal Assessment:

- Seminar/ Presentation on any topic of the above syllabus

- Test with multiple choice questions/ short and long answer questions

Reference Books :

1. Text book of Biology for 10+2 students (NCERT)
2. Randhawa, RK, Family Resource Management and Health Science, Pardeep Public.
3. Chatterjee, C.C., Human Physiology. Vols. I, II. Medical Allied Agency.
4. Guyton, A.C., Text Book of Medical Physiology. WB Saunders.
5. Mukherjee, K.L., Medical Laboratory Technology. Vol I. Tata McGraw Hill.
6. Wilson, KJW & Ross JS., Anatomy and Physiology in Health and Illness. 6th Ed. Churchill Livingstone.

Course Outcomes

After completing this course, student is expected to learn the following:

CO1: Learn the process of blood in the body.

CO2: Understand the concept of gastrointestinal system.

CO3: Able to explain the process of excretory system.

*Abbreviations:

CIE: Continuous Internal Evaluation

UE: University Exam

Course Mapping:

	PO	PO	PO	PO	PO	PSO	PSO	PSO	PSO
	1	2	3	4	5	1	2	3	4
CO1	1	2	1	1	3	2	2	1	1
CO2	2	2	2	2	2	1	1	2	2
CO3	1	1	2	2	2	2	2	1	2

Matching: * 0 to 30% = 1; *30% to 60% = 2; * 60% to 100% =3

B.Sc. (Home Science) I Semester

Elementary Physiology

PAPER NO: B-IV

Course Type: Practical Major

UE – 75 Marks

Credits: 2

CIE – 25 Marks

Course objectives:

1. To learn identification of blood groups
2. To learn measurement of blood pressure
3. To learn identification of different prepared slides of human organs

Practical:

1. Demonstrations and study of models of

- | | |
|--|------------------------|
| i) digestive, | vi) Skeletal system |
| ii) excretory | vii) Structure of cell |
| iii) female reproductive system | viii) Brain |
| iv) Human heart, eye and ear. | |
| v) Microscopic examination of prepared slides of different human body system as well as tissue of different body organs. | |

2. Experiments :

- i) Identification of blood Groups
- ii) Examination of Blood Pressure Measurement

Course Outcomes

This course will enable the students:

CO-1: To demonstrate and study of human biological systems.

CO-2: To study the microscopic examination of prepared slides of different human body system.

CO-3: To identify the blood groups.

CO-4: To examine the Blood Pressure Measurement.

***Abbreviations:**

CIE: Continuous Internal Evaluation

UE: University Exam

Course Mapping:

	PO	PO	PO	PO	PO	PSO	PSO	PSO	PSO
	1	2	3	4	5	1	2	3	4
CO1	1	2	1	1	3	2	2	1	1
CO2	2	2	2	2	2	1	1	2	2
CO3	1	1	2	2	2	2	2	1	2
CO4	2	2	2	2	2	1	1	2	2

Matching: * 0 to 30% = 1; *30% to 60% = 2; * 60% to 100% =3

B.Sc. (Home Science) I Semester

Computer Application

PAPER No– B-V

Course Type: Vocational Course - I

Credit- 3

UE- 75

CIE- 25

Course Objective: Make the students familiar with Windows operating system and provide comprehensive introduction about word processing system.

UNIT 1: WINDOWS OPERATING SYSTEM

Introduction, what is windows, windows XP, using mouse, windows features-basic concepts, working on desktop, opening and closing an Application, manipulating windows, saving your work, printing your work, start up, shut down and sleep.

My computer- opening your drive.

windows explorer- starting windows explorer, navigating drives and folders, science window, selecting files/folders, creating a folder, creating file, opening file global warming, coping files or folders, moving files or folders, changing the name of a file or folder, deleting files or folders, searching files or folders, switching between tasks, Windows keyboard shortcuts.

UNIT II WINDOWS APPLICATIONS:

Introduction, notepad, word pad, character map, clip board, calculator.

UNIT III WORD PROCESSING BASICS:

Introduction, types of word processors. Text editing- selecting text, selecting using click-anddrag method, selecting using double click and triple click method, selecting a block area, selection using select all menu option, keyboard commands for selecting text, inserting text, insert Vs. overtyping mode, deleting text, undo and repeat. using cut copy and paste- cut and paste text, copy and paste text, using drag and drop. Text formation- about font style, changing the font, typeface and size, using the formatting toolbar, changing text color, changing the font effects, using superscripts, subscripts and rotation, adding background color.

PARAGRAPH FORMATTING:

Paragraph alignment, indenting text, indenting with the ruler, defining paragraph spacing, tabs using ruler, using the ruler to change margin setting, setting tab using menu, using format paint brush, using drop caps. Using grammar and spell check- using spellcheck. Preview a page before printing- printing writer document.

UNIT IV MANAGING WRITER DOCUMENT:

Introduction, find and replace text, show/hide nonprinting characters. Page setup- adjusting page margins, using mirror margin, set the size and orientation of page, choosing your paper source. Header and footer- creating header, creating footer, header and footer using page setup, deleting header and footer. Footnotes and endnotes. Adding border and shadow. Numbering Pages, Page number in Header/Footer. Inserting Special Characters. Bullets and Numbering, Creating, removing and changing Bulleted list, Creating, removing and Changing Numbered list. Working With Columns, Defining the number of columns on a page, Changing the number of columns for existing text.

UNIT V TABLES AND GRAPHICS IN WRITER:

Introduction, Creating table-Inserting new table, entering text in MS office. Org table, Modifying table structure, changing column and cell widths, Adjusting the width of table cells, Adding borders and shading, using math in cell, Merging and Splitting cells, Table auto format, Convert text to table and table to text, Deleting a table. Inserting and sizing graphics, adding images to a document, Inserting An image from a file, Moving Graphics on the page, Text wrapping, Inserting a border around a graphic, Deleting Graphics from a document. Using Writer's Drawing Tools, Creating drawing objects, Inserting Fontwork gallery.

Practical:

Reference Books:

Course Outcomes:

On completion of the course the student will be able to:

CO-1: Basic ideas of Windows applications and Windows operating system

CO-2: Word processing basics

CO-3: Tables and graphics in writer

***Abbreviations:**

CIE: Continuous Internal Evaluation

UE: University Exam

Course Mapping:

	PO 1	PO 2	PO 3	PO 4	PO 5	PSO 1	PSO 2	PSO 3	PSO 4
CO1	1	3	3	1	2	2	1	2	2
CO2	1	3	3	1	2	2	1	2	2
CO3	1	3	3	1	2	2	1	2	2

Matching: * 0 to 30% = 1; *30% to 60% = 2; * 60% to 100% =3

B.Sc. (Home Science) I Semester

Environmental Studies

PAPER NO: B-VI

Course Type: Co-curricular Course

UE – 75 Marks

Credits: Qualifying

CIE – 25 Marks

COURSE OBJECTIVES.

- Get a knowledge of natural resources and their factors.
- Learn the different segments of population and their factors.
- To become aware about the different types of pollution.
- To learn the concept of an ecosystem.

UNIT I

The Multidisciplinary Nature of Environmental Studies: Definition, scope & its importance, Need for public awareness. Natural resources: Natural resources and associated problems.

UNIT II

Human Population and the Environment, Population growth, variation among nations, Population explosion-Family welfare programme, Environment and human health, Human rights

UNIT III

Environmental Pollution: Definition, Causes, effects and control measures of: a) Air Pollution b) Water Pollution c) Soil Pollution d) Marine Pollution e) Noise Pollution f) Thermal Pollution g) Nuclear Hazards

UNIT IV

Ecosystem: Concept of an ecosystem, Structure and function of an ecosystem, Producers, consumers and decomposers, Energy flow in the ecosystem, Ecological succession, Food chains, food webs and ecological pyramids. Introduction, types, characteristic features, structure and function of the ecosystems

Internal Assessment:

1. Visit to a local area to document environmental assets—river / forest / grassland / hill / mountain.
2. Visit to a local polluted site—Urban / Rural / Industrial / Agricultural. Study of different ecosystems.
3. Study of simple ecosystems—pond, river, hill slopes, etc.

4. Preparation of charts and models
5. Prepare assignment file
6. Seminar/ Presentation on any topic of the above syllabus
7. Test with multiple choice questions/ short and long answer questions

Reference Books:

1. Agarwal, K. C., Environmental Biology, Nidhi Publications Ltd. Bikaner.
2. Bharucha, E., Textbook of Environmental Studies, Universities Press, Hyderabad.
3. Bharucha, E., The Biodiversity of India, Mapin Publishing Pvt. Ltd. Ahmedabad.
4. Brunner, R. C., Hazardous Waste Incineration, McGraw Hill Inc. New York.
5. Hawkins, R. E., Encyclopaedia of Indian Natural History, Bombay Natural History Society.
6. Heywood, V. H & Watson, R. T., Global Biodiversity Assessment, Cambridge House, Delhi.

Course Outcomes

After completing this course, student is expected to learn the following:

CO1: Learn about the natural resources.

CO2: Understand the concepts of different types of pollution.

CO3: Able to explain the concept of an ecosystem.

***Abbreviations:**

CIE: Continuous Internal Evaluation

UE: University Exam

Course Mapping:

	PO	PO	PO	PO	PO	PSO	PSO	PSO	PSO
	1	2	3	4	5	1	2	3	4
CO1	3	2	2	1	3	2	2	1	1
CO2	2	2	2	2	2	1	1	2	2
CO3	2	2	2	2	2	2	2	2	2

Matching: * 0 to 30% = 1; *30% to 60% = 2; * 60% to 100% =3

SEMESTER

II

B.Sc. (Home Science) II Semester
Concepts and Principles of Home Management
PAPER NO: B-VII

Course Type: Theory Major

UE – 75 Marks

Credits: 6

CIE – 25 Marks

Course Objectives

This course will enable the students:

- To learn the concept of home management with management process and cycle.
- To explain the decision making process
- To understand the various motivational factors such as values, goals and standards.
- To understand the concept of family resources and its factors.

Unit – I: Introduction of Home Management

- (a) Definition, Philosophy and Concepts of Home Management.
- (b) Importance and factors affecting home management.
- (c) The management process – Planning, organizing, controlling and Evaluation.
- (d) Management cycle.

Unit – II: Systems approach to Management & Decision making Process

- (a) Meaning and Definition.
- (b) Managerial unit- The family and its environment as system.
- (c) Importance and role of decision making.
- (d) Classification of decisions and Factors affecting decision making.

Unit – III: Motivational Factors of Management

- (a) Values – Origin, Classification and Characteristics.
- (b) Goals – Types and Characteristics.
- (c) Standards – Types, Conventional of flexibility standard & Quantitative and Qualitative Std.
- (d) Interrelatedness of values, Goals & Standard.

Unit – IV: Family Resources

- (a) Family resources – Classification, Characteristics and Objectives of use of resources.
- (b) Factors affecting resources- Scarcity, utility, accessibility exchange, transferability, substitution, Manageability, Interchangeability.

Internal Assessment:

- a. Identification of values and goals.
- b. Identification of resources.

Reference Books:

- a. Home management for Indian families : M.K. Mann
- b. Management for modern families : Gross and Crandall
- c. Management in daily living : hoodyear and Khlor
- d. Management in family living : Nickell and Dorsey
- e. Home management and family finance : Maneesha Shukul and Gandotra

Course Outcomes

After completing this course, student is expected to learn the following:

CO1: Learn the concepts, importance and factors affecting home management.

CO2: Understand the Systems approach to Management & Decision making Process

CO3: Able to explain the Family resources – Classification, Characteristics and Objectives of use of resources.

***Abbreviations:**

CIE: Continuous Internal Evaluation

UE: University Exam

Course Mapping:

	PO 1	PO 2	PO 3	PO 4	PO 5	PSO 1	PSO 2	PSO 3	PSO 4
CO1	1	2	3	3	1	2	3	2	2
CO2	1	2	3	3	1	2	2	3	3
CO3	3	3	2	1	1	1	2	3	1

Matching: ‘0to 30% = 1: ‘30% to 60% = 2: ‘60% to 100% = 3

B.Sc. (Home Science) II Semester

Textile Design

PAPER NO: B-VIII

Course Type: Theory Major

UE – 75 Marks

Credits: 6

CIE – 25 Marks

Course Objective: They will acquire the ability to perform visual research for application of dyeing and printing in context of fashion.

UNIT I: FUNDAMENTALS AND TYPES OF DESIGN

- (a) Elements of Design as applied to Textiles and Apparel
- (b) Principles of Design as applied to Textiles and Apparel
- (c) Types of Design-Structural & Applied
- (d) Textile Design motifs and their features –Natural, Stylized, Geometric and Abstract.
- (e) Repeats and layouts.

UNIT II: DYEING

- (a) Dyes –
 - (i) Natural dyes – Sources
 - (ii) Synthetic dyes – Classification, types and uses of acid, basic, direct, azoic, sulphur, disperse, vat, Pigment.
- (b) Methods of dyeing – Solution, fiber, yarn, fabric and piece dyeing.

UNIT III: PRINTING

- (a) Methods of Printing –
 - (i) Automatic Printing: Roller, screen, duplex, discharge, photographic
 - (b) Styles of printing
 - (i) Direct Printing- Block, Screen, Stencil, Foil Printing, Inkjet & Bubble Printing
 - (ii) Transfer Printing
 - (iii) Discharge Printing
 - (v) Resist Printing – Batik and tie & dye

UNIT IV: TRADITIONAL TEXTILE

- (a) Fabrics with Traditional Embroidery of different states- Phulkari, Kantha, Kasuti, Kutch & Sindhi, Kasidakari, Chikankari and Zardozi.
- (b) Traditional woven fabrics- Brocades, Bluchers', Patola, Ikat, Pochampalli, Carpets and Shawls of Kashmir.

- (c) Traditional painted /printed and dyed fabrics- Sangneri, Bhagru, Kalamkari, Madhubani, and Bandhani

Internal Assessment:

1. Sketching of-different lines to see the effects produced by them.
2. Making of different Colour schemes and to study the effect produced by different colours and colour schemes.
3. Development of design- Motif, design, pattern, repeat- drop repeat (full drop, $\frac{1}{4}$, $\frac{1}{2}$, $\frac{2}{3}$, $\frac{3}{4}$ drop,), brick and mirror (vertical and horizontal) repeat
4. Sketching of designs with different motifs (Natural, Stylized, Geometric and abstract.)
5. Textile Design with thread-
 - a)Traditional Embroidery
 - b) Contemporary Embroidery
 - c) Lace making (crochet, tatting)
6. Textile Design through color application
 - (i) Dyeing- Tie and dye, Batik
 - (ii) Printing- Resist, Block, Screen, Stencil
 - (iii) Making one article using combination of any of the above methods of printing.
 7. a) Collection of different types of Stripes, Checks, plaids. Effects produced by each and by mixing of these.
 - b) Collection of different types of textures (Stretch fabrics, velvet, leather, fur and lace, non – woven). Effects produced by each and by mixing these textures.

Reference Books:

- 1 .Juracek, A. Judy,2000, Soft Surface, Thames & Hudson Ltd.
2. Milne D'Arcy Jean, 2006, Fabric Left Overs, Octopus Publishing Group Ltd.
3. Singer Margo,2007, Textile Surface Decoration-Silk & Velvet, A&C Black Ltd

Course Outcomes:

CO-1: Student are accredited with skills of drawing and uses of various art mediums.

CO-2: Competent to develop a good design through application of elements of design.

CO-3: Students are able to create compositions using various colour schemes.

CO-4: They will acquire the ability to perform visual research for application of dyeing and printing in context of fashion.

***Abbreviations:**

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Course Mapping:

	PO 1	PO 2	PO 3	PO 4	PO 5	PSO 1	PSO 2	PSO 3	PSO 4
CO1	3	3	1	1	3	1	1	2	3
CO2	3	3	1	1	3	1	1	2	3
CO3	3	3	1	1	3	1	1	1	3
CO4	3	3	3	1	3	3	1	1	3

Matching: * 0 to 30% = 1; *30% to 60% = 2; * 60% to 100% =3

B.Sc. (Home Science) II Semester

Biochemistry

PAPER NO: B-IX

Course Type: Theory Major

UE – 75 Marks

Credits: 4

CIE – 25 Marks

Course Objectives: This course aims to provide students with a strong foundation in the principles and applications of biochemistry, preparing them for further study or careers in research, healthcare, biotechnology, pharmaceuticals, agriculture, and other fields related to the life sciences.

UNIT-I

1..Introduction to biochemistry and interrelationship between biochemistry and other biological sciences.

2.Carbohydrates-

- Introduction, classification, Digestion and absorption of carbohydrates in human body

3.Metabolism-Glycolysis and Kreb's Cycle

UNIT-II

1.Lipids-

- Composition, classification
- Digestion and absorption of lipids

2.Lipid metabolism

- Beta oxidation theory

UNIT-III

1. Proteins-

- Definition, composition,, classification, general properties- solubility, amphoteric nature, colloidal nature of proteins, denaturation of protein
- Classification of amino acids including essential amino acid and non essential amino acids

2. Digestion and absorption of proteins

3. **Protein metabolism-** Brief idea of Deamination, Transamination,

UNIT-IV

- 1. Vitamins-** definition, classification absorption, storage, functions and excretion of vitamin A, D, E, K, Thiamine, Riboflavin, Niacin, Ascorbic Acid
- 2. Minerals-** brief idea of calcium, phosphorous, iron, iodine, sodium, chlorine, potassium, their storage, absorption, function, and excretion
- 3. Enzymes-** definition, classification, general properties of enzyme, enzyme inhibition, factors affecting the rate of enzyme reaction. Clinical importance of enzymes

Internal Assessment:

- Seminar/ Presentation on any topic of the above syllabus
- Test with multiple choice questions/ short and long answer questions

Reference books-

1. General biochemistry by Frutton and Simmond.
2. Text book of Biochemistry by West and Todd.
3. Introduction to Modern Biochemistry by Karlson.
4. Principles of Biochemistry by White Handler and Smith.
5. Biochemistry by Kleiner and Orten.
6. Hawk's Physiological Chemistry by Oser.
7. Review of Physiological Chemistry by H.A. Harper.
8. Essentials of Food and Nutrition Vol. I and II by M. Swaminathan.
9. Biochemistry by S.K. Dasgupta. Vol. I, II, III.
10. Essentials of Biochemistry by Dr. M.C. Pant.
11. Biochemistry by Virendra Kumar Shukla.
12. A Text Book of Biochemistry by S.P. Singh.
13. Nutrition and diet therapy- Sheel Sharma, Pee,pee, publishers, New Delhi-2013
14. Experimental and techniques in Biochemistry 2007, galgotia Publishers, New Delhi.

Course Outcomes

This course will enable the students:

CO-1: To understand the principles of biochemistry.

CO-2: To acquire knowledge about the interrelationship between biochemistry and other biological sciences.

CO-3: To learn about the digestion and metabolism of carbohydrate, lipid and Protein.

CO-4: To understand about the vitamins, minerals and enzymes.

***Abbreviations:**

CIE: Continuous Internal Evaluation

UE: University Exam

Course Mapping:

	PO	PO	PO	PO	PO	PSO	PSO	PSO	PSO
	1	2	3	4	5	1	2	3	4
CO1	3	2	1	1	3	2	2	1	1
CO2	2	2	2	2	2	1	1	2	2
CO3	1	1	2	2	2	2	2	1	2
CO4	2	2	2	2	3	1	2	2	1

Matching: * 0 to 30% = 1; *30% to 60% = 2; * 60% to 100% =3

B.Sc. (Home Science) II Semester

Biochemistry

PAPER NO: B-X

Course Type: Practical Major

UE – 75 Marks

Credits: 2

CIE – 25 Marks

Course Objectives: Subject aim to prepare students for careers in research, healthcare, biotechnology, pharmaceuticals, and other fields related to the life sciences by providing them with essential laboratory skills, critical thinking abilities, and scientific knowledge necessary for success in the field of biochemistry.

Practical –

1. Simple test for glucose, fructose, galactose, sucrose, maltose, and lactose.
2. Simple test for protein- milk, egg. (Biuret test, Millons test, Xanthoproteic test).
3. Separation of water soluble and insoluble protein from egg proteins.
4. Separation of water soluble and insoluble protein from wheat and soybeans flour.
5. Estimation of reducing substances.

Course Outcomes

This course will enable the students:

CO-1: To understand the qualitative experiments are performed to identify the compounds of biochemical importance.

CO-2: To acquire knowledge about the nutritional biochemistry

CO-3: To study the qualitative experiments of macromolecules.

CO-4: To understand the estimation of proteins.

***Abbreviations:**

CIE: Continuous Internal Evaluation

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Course Mapping:

	PO	PO	PO	PO	PO	PSO	PSO	PSO	PSO
	1	2	3	4	5	1	2	3	4
CO1	3	2	1	1	3	2	2	1	1
CO2	2	2	2	2	2	1	1	2	2
CO3	2	1	2	2	2	2	2	1	2
CO4	2	2	2	2	1	1	2	2	1

Matching: * 0 to 30% = 1; *30% to 60% = 2; * 60% to 100% =3

B.Sc. (Home Science) II Semester

Chemistry

PAPER NO: B-XI

Course Type: Minor (Elective)

UE – 75 Marks

Credits: 4

CIE – 25 Marks

Course objectives: To give knowledge about basics of chemistry, matter, atomic structure, water properties, catalysis and radioactivity.

Unit – I

- (a) Introduction:- Definition, Branches of Chemistry and scope of Chemistry with General Information of the chemical industries.
- (b) Matter:- States of Matter, Physical and Chemical changes of matter, Element, compound, Mixture, Symbol and Chemical Equation.

Unit –II

Elementary Study of Atomic structure:- Dalton's atomic theory, Fundamental particles of Atom (Electron, Proton and Neutron) and the characteristics, Discovery of Electron, proton and neutron, Atomic mass, Atomic number, Thomson's model and its limitations. Rutherford's model and its limitations, Bohr's model and its limitations, concept of shells and subshells, dual nature of matter and light, de Broglie's relationship, Heisenberg uncertainty principle, concept of orbitals, quantum numbers, shapes of s, p and d orbitals, rules for filling electrons in orbitals - Aufbau principle, Pauli's exclusion principle and Hund's rule, electronic configuration of atoms, stability of half filled and completely filled orbitals.

Unit III

- (a) Ionization:- Arrhenius theory of Ionization, Idea of pH and buffer solution.
- (b) Elementary idea of Oxidation and Reduction.
- (c) Water:- Hard and Soft water, Hardness and their removal.

Unit - IV

- (a) Catalysis, types of Catalysis, characteristics, theory of catalysis and its application.
- (b) Elementary idea of Colloidal Solutions- Method of preparation, properties and application, Emulsions and Gels.
- (c) Radioactivity:- Definition study of α , β and γ rays, Artificial radioactivity, Concept of Isotopes, Isobars, Isotones.

Internal Assessment:

- 1. Salt analysis:- Detection of one acid and one basic radical.
- 2. Acid and Base titration:- Oxalic acid and Sodium hydroxide.

Reference books:

- 1. Physical and Inorganic chemistry of Bountra and Khanna.
- 2. Physical and Inorganic chemistry of Bochlas and Gupta.
- 3. Org. Chemistry By Dr. S.K. Wadhwa.
- 4. Org. Synthetic products by O.P. Agarwal.

Course outcomes

This course will enable the students:

CO-1: To understand the branches and scope of chemistry.

CO-2: To study the atomic structure.

CO-3: To understand the ionization, oxidation and reduction.

CO-4: To understand the elementary idea of Colloidal Solutions

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Course Mapping:

	PO	PO	PO	PO	PO	PSO	PSO	PSO	PSO
	1	2	3	4	5	1	2	3	4
CO1	2	2	1	1	2	2	2	1	1
CO2	2	2	2	2	2	1	1	2	2
CO3	1	1	2	2	2	2	2	1	2
CO4	2	1	1	2	2	1	2	2	1

Matching: * 0 to 30% = 1; *30% to 60% = 2; * 60% to 100%=3

B.Sc. (Home Science) II Semester

Vocational Course – II

Tally Accounting

PAPER NO: B-XII

Course Type: Vocational Course

UE – 75 Marks

Credits: 3

CIE – 25 Marks

Course Objective: To impart knowledge about basics of accounts, tally basics as well as advanced features, inventory Management, banking & finances, book/records keeping to students.

Format for syllabus development of Skill Development Course					
Title of course		Tally/Accounting			
Nodal Department of IIEI to run course		Service/Education			
Board Area/Sector		Computer Based			
Sub Sector		Progressive			
Nature of course - Independent / Progressive					
Name of suggestive Sector Skill Council		Level - 3			
Aliened NSQF level					
Expected fees of the course - Fees/Paid					
Stipend to Student expected from industry					
Number of Seats		Credits- 03 (1 Theory, 2 Practical)			
Course Code					
Max Marks.....100..... Minimum Marks.....					
Name of proposed skill Partner (Please specify, Name of Industry, company etc for Practical/ Training/ Internship/ OJT)		MNCs/Government Departments/Ministries			
Job prospects-Expected Fields of Occupation where student will be able to get job after completing this course in (Please specify name/type of industry, company etc.)					
Unit	Topics	General/Skill component	Theory/ Practical/ OJT/ Internship/ Training	No of theory hours (Total- 15 Hours=1 credit)	No of theory hours (Total- 60 Hours=2 credit)
I	Introduction of Basic of Accounts	Understanding Basics	2	3 +	2 =
II	Tally Basics	Uses	3	8 +	7 =
III	Tally Advanced Features	Operations	2	8 +	7 =
IV	Inventory Management	Operations	3	5 +	5 =
V	Banking & Finances	Operations	3	4 +	4 =
VI	Book/Records Keeping	Operations	2	4 +	3 =
Suggestive Readings: All Documents and study material will be provided during study session or online. Total Hours = 60					
Suggestive Digital platforms/web links for reading- Partner or Online					
Suggestive OJT/Internship/Training/Skill partner- MSVE/NSQF/NSQF					
Suggestive Continuous Evaluation Methods: GRADE					
Course Pre-requisites:					
* No pre-requisite required, open to all					
* To study this course, a student must have the subject in class/12th/certificate/dip					
* If progressive, to study this course a student must have passed previous courses of this series					
Suggestive equivalent online courses:					
Any remarks/Suggestions:					

Course Outcomes:

CO-1: The students will be able to learn about tally and accounts basics

CO-2: The students will be able to learn about inventory management

CO-3: The students will be able to learn about banking and finances

CO-4: The students will be able to learn about techniques of record keeping

*Abbreviations:

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UE: University Exam

Course Mapping:

	PO	PO	PO	PO	PO	PSO	PSO	PSO	PSO
	1	2	3	4	5	1	2	3	4
CO1	2	3	1	1	2	2	2	1	1
CO2	2	3	2	2	2	1	1	2	2
CO3	1	3	2	2	2	2	2	1	2
CO4	2	3	1	2	2	1	2	2	1

Matching: * 0 to 30% = 1; *30% to 60% = 2; * 60% to 100% =3

B.Sc. (Home Science) II Semester
Horticulture and Gardening
PAPER NO: B-XIII

Course Type: Co-curricular Course

UE – 75 Marks

Credits: Qualifying

CIE – 25 Marks

COURSE OBJECTIVES.

- Easy to learn the definition of gardening.
- Gain the information of vegetative propagation with their types.
- Provide brief description of care and cultivation of ornamental plants, seasonal flower and indoor plants.
- Learn the problems related to plant diseases

Unit-I

Gardening, Layout of a Garden, Soil preparation –digging, tillage and sterilisation. Drainage watering and weeding Manures and fertilizes

UNIT-II

Propagation of plants, Seed propagation, Vegetative propagation by natural and artificial methods (Bulbs Rhizomes Suckers Runners Tubers Budding and grafting)

Kitchen Garden - Principle of planning and cultivation of vegetables with reference to all seasonal vegetables.

UNIT-III

Lawn, Hedges and edges, Principle of planning of lawn and hedges. Brief description of care and cultivation of ornamental plants Care and cultivation of seasonal flowers Care and cultivations of common indoor plants.

UNIT-IV

Plant diseases, bacterial, fungal and viral. General characteristics, morphology and economic importance of algae, fungi and moulds

Internal Assessment:

- i) Seminar/ Presentation on any topic of the above syllabus
- ii) Test with multiple choice questions/ short and long answer questions
- iii) Study of garden tools and accessories.

- iv) Identification of different types of plants i.e. vegetable flowers, ferns and ornamental plants.
- v) Preparation of nursery.
- vi) Prepare and manuring a seed bed for raising seedlings.
- vii) Prepare a bed for sowing potatoes and cultivate them.
- viii) To prepare a plot for raising seedlings, ornamental/ Indore pot plants.
- ix) From seeds guiding rules for seed sowing.
- x) Vegetative propagation by cutting and grafting.
- xi) Maintenance of plants,
- xii) Prepare a plot and cultivate seasonal vegetable
- xiii) Use of pesticides and fungicides
- xiv) Plant propagation
- xv) Identification of slides of algae fungi and moulds.
- xvi) Prepare pot for repotting

Project: Prepare Herbarium file, Collection of specimen of ornamental plants flowers

Reference Books:

1. Gemmell Alam, Basic Gardening, Penguin books publication
2. Aruna Lundra, Four Seasons Gardening in India, Low Price Publications
3. Roman Kapoor, Home Gardening, UBS Publisher's Distributors

Course Outcomes

After completing this course, student is expected to learn the following:

CO1: Learn the process with types of gardening.

CO2: Understand the vegetative propagation with their types.

CO3: Able to explain the problems related to plant diseases.

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Course Mapping:

	PO 1	PO 2	PO 3	PO 4	PO 5	PSO 1	PSO 2	PSO 3	PSO 4
CO1	3	2	1	1	2	2	2	1	1
CO2	2	1	2	2	2	1	1	2	2
CO3	2	1	2	2	2	2	2	1	2

Matching: * 0 to 30% = 1; * 30% to 60% = 2; * 60% to 100% =3

SEMESTER

III

B.Sc. (Home Science) III Semester

Family Housing PAPER NO: B-XV

Course Type: Theory Major

UE – 75 Marks

Credits: 6

CIE – 25 Marks

Course Objectives

This course will enable the students:

- To learn the concept and importance of housing.
- To recognize how we select of site during the house plan.
- To know the different types of house plan.
- To get a knowledge about the several governmental housing schemes.

Unit – I: Housing

- (a) Housing needs and importance.
- (b) Housing scenario in India.
- (c) Causes of shortage of housing.
- (d) Renting and ownership housing: advantages and disadvantages.

Unit – II :House Planning

- (a) Selection of site: Natural features, neighborhood and social consideration, availability of external and utility services.
- (b) Principles underlying planning of house.
- (c) Vastu Shastra.
- (d) Planning units of the house: Private, Work, Recreational, Service area.

Unit – III: Types of House Plans, Construction and Building Material

- (a) Meaning and characteristics of: Site plan, Floor plan, Cross section plans, Elevation plans, Perspective plans.
- (b) Construction features of a house (brief description).
- (c) Building Materials

Unit – IV: Housing Legislation and Schemes

- a. Building Codes
- b. Bye-laws
- c. NBO (National building organization).
- d. Governmental housing schemes.

Internal Assessment:

- a. Making different floor plans for various Income levels.
- b. Visit and Observation of a residential building under constructions.
- c. Market survey of different building material.

Reference Books:

- a. Modern Ideal Home for Indians – R.S. Desh Pandey United Books Co. Poona.
- b. Cheap & Healthy Home for middle class – R.S. Desh Pandey, United Books Co. Poona.
- c. The House – its use and care – T. again, J.B.H. Publishing New Delhi.
- d. Home with Character - Craig and Rush.
- e. House Plans of different living – Veena Gandotra Sarjoo Patel, Dominant pub & Distributor, New Delhi.

Course Outcomes

After completing this course, student is expected to learn the following:

CO1: Knowledge and understand the Housing needs and importance in India.

CO2: Understand the Construction features of a house.

CO3: Able to explain the Governmental housing schemes in India.

***Abbreviations:**

CIE: Continuous Internal Evaluation

UE: University Exam

Course Mapping:

	PO 1	PO 2	PO 3	PO 4	PO 5	PSO 1	PSO 2	PSO 3	PSO 4
CO1	1	2	3	3	1	2	3	2	2
CO2	1	2	3	3	1	2	2	3	3
CO3	3	3	2	1	1	1	2	3	1

Matching: '0to 30% = 1: '30% to 60% = 2: '60% to 100% = 3

B.Sc. (Home Science) III Semester

Family Clothing

PAPER NO: B-XVI

Course Type: Theory Major

UE – 75 Marks

Credits: 4

CIE – 25 Marks

Course Objective: Developed the skills will help students to use basic pattern making principles to create design variations.

UNIT I: Origin and Psychology of Clothing

- (a) Origin and functions of clothing
- (b) Theories of origin clothing- theory of modesty, immodesty, protection, adornment, combined need theory.
- (c) Psychological and Sociological aspects of clothing.
- (d) Clothing needs of the family at its various stages.

UNIT II:

- (a) Terminology
- (b) Fashion cycle
- (c) Sources of fashion
- (d) Factors favoring and retarding fashion

UNIT III:

- (a) The three techniques of making garments – drafting draping and pattern making.
- (b) Advantages, limitations and scope of each of the above.
- (c) Importance of taking body measurements – precautions, procedure, body levels and body marks.

UNIT IV:

- (a) Fabric grain
- (b) Preparatory steps- preshrinking, straightening and truing
- (c) Layouts for patterns- general guidelines, basic layouts- lengthwise, partial lengthwise, crosswise, double fold, open, combination fold
- (d) Pinning, marking and cutting
- (e) Layouts for fabrics- Unidirectional, bold and large prints, plaids, stripes and checks, various widths of fabrics

Internal Assessment:

- Seminar/ Presentation on any topic of the above syllabus
- Test with multiple choice questions/ short and long answer questions

Reference Books:

1. Helen J Armstrong, Pattern Making for fashion design, prentice Hall
2. Harold Carr & Barbara Latham, The technology of manufacture, Oxford pub. USA, 1994
3. Gerry Cooklin, Introduction to Clothing Manufacture, Blackwell Science, UK, 1991

Course Outcomes:

CO1 Students will develop understanding about ancient and contemporary costumes of India.

CO2 Students will learn about fabrics, techniques and drapes of different eras and will be able to introduce to today's fashion industry in a more creative way.

CO3 Students will get basic insight of psychological and sociological aspects of clothing and fashion.

CO4 Students will be able to describe their garments in a more professional manner by using the correct terminology.

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UE: University Exam

Course Mapping:

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CO1	3	3	1	1	3	1	1	2	3
CO2	3	3	1	1	3	1	1	2	3
CO3	3	3	1	1	3	1	1	1	3
CO4	3	3	3	1	3	3	1	1	3

Matching: * 0 to 30% = 1; *30% to 60% = 2; * 60% to 100% =3

B.Sc. (Home Science) III Semester

Family Clothing

PAPER NO: B-XVII

Course Type: Practical Major

UE – 75 Marks

Credits: 2

CIE – 25 Marks

Course Objective: With the acquired knowledge students will be able to identify different kind of fabrics constructions.

Practical:

1. Making (40) samples of basic stitches of clothing constructions -

(i) Basic stitches (5) – Basting (even and uneven), Hemming (visible and invisible),
Back stitch.

(ii) Seams (5) – Plain, lap, French, run and fell, counter seam

(iii) Seam Finishes (5) – Pinking, turn and machine, turn and baste, over casting and
blanket stitch.

(iv) Plackets (5) – Continuous, two piece, Kurta placket, frock/shirt placket, zip

(v) Fasteners (2) – of Overlap and under lap.

(vi) Neckline Finishes (7) – Piping (on square, round, V-shape neckline)

-Facing (square, round, V-shape and on fancy shaped neckline)

(vii) Fullness (8) – Darts (Single and double), Tucks (pin, broad, cross and shell),

Gathers and Shirring.

(ix) Patch (2) - plain and printed

(x) Darning (1)

2. (1) Drafting of child's basic bodice block and basic sleeve block

(A) Its adaptation to

a. (i) 'A' – line frock (ii) simple gathered frock

b. (i) 'A' – line romper (ii) romper with bib and bloomer

(B) Drafting and stitching instruction of all of the above and stitching of any one from

(a) and one from (b).

3. Drafting of petticoat – 4 paneled and 6-paneled

(b) Stitching of any one of these.

Course Outcomes:

CO-1: Basic stitching and creative skill will be developed which will help to construction their garments

CO-2: Students will be able to use correct placement and attachment of placket and zippers.

CO-3: Students will be able to convert fullness of garment with different techniques like dart, pleats, gathers.

CO-4: Students will be able to construct complete garment for children's.

***Abbreviations:**

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CO3	3	3	1	1	3	1	1	1	3
CO4	3	3	3	1	3	3	1	1	3

Matching: * 0 to 30% = 1; *30% to 60% = 2; * 60% to 100% =3

B.Sc. (Home Science) III Semester

Psychology

PAPER NO: B-XVIII

Course Type: Minor (Elective)

UE – 75 Marks

Credits: 4

CIE – 25 Marks

Course Objective: To understand behavior and mental processes and a profession that applies empirical knowledge to improve the lives of people. To introduce students to the basic concepts of the field of psychology with an emphasis on applications of psychology in everyday life.

Units I: Introduction to Psychology

- (a) Definition of Psychology. Psychology as a science its scope.
- (b) Branches of Psychology
 - i. Social
 - ii. Clinical
 - iii. Educational
 - iv. Abnormal

Units II: Methods of studying Human Behavior-

- (a) Introspection ----- (i) Merit (ii) demerit
 - (b) Observation ----- (i) Steps (ii) Merit (iii) Demerit
 - (c) Experimental ----- (i) Steps (ii) Merit (iii) Demerit
 - (d) Interview
 - (e) Case Study
- } In Brief

Units III: Personality, Motivation, Frustration and Conflicts

- (a) Concept of personality, definition, measurement of personality.
- (b) Definition and types of motivation (i) innate and acquired, needs, incentive and instincts.
- (c) Meaning of frustration, source of frustration.
- (d) Types of conflicts, methods of resolving conflicts.

Units IV: Learning, Memory and Forgetting, Interest and Attention

- 1. Meaning of learning, Learning laws, theories of learning. Learning curves, Learning and maturation.
- 2. Memory and forgetting

3. Definition of interest, forms of interest, differences between attention and interest.

Internal Assessment:

1. Administration of personality test on an adolescent.
2. Administration of frustration test on an adolescent.
3. Exposure to two psychology tests (i) Questionnaire (ii) Rating scale
4. Administration of an interest inventory on an adolescent

Reference Books:

1. Sharma M. Chandra S.S. (2003). General Psychology Volume- II Atlantic Publishers New Delhi. 27.
2. Srivastava D.N. Verma P. (2005). General Psychology Sahitya Prakashan, Agra.
3. Morgan, C.T., King, R.A., Weisz, J.R., & Schopler, J. (2008). Introduction to psychology (7th edition) Bombay: Tata-McGraw Hill.
4. Feldman, R.S. (2004). Understanding Psychology (6th Edition), New Delhi, Tata-McGraw Hill.
5. Baron, R. A. (2002). Psychology (5th Edition), New Delhi: Pearson Education.
6. Hilgard & Atkinson- Introduction to Psychology (2003) 14th Edition, Thomson Learning Inc.

Course Outcomes:

CO-1: Students will be able to identify how we become aware of ourselves, how we learn to interact with others, and how we influence others and how they influence us.

CO-2: Students will be able to identify how psychologists study human behaviour and how this knowledge can be used to explain, predict, and influence behaviour.

CO-3: The objective of this *course* is to study the key concepts, principles, approaches and themes in *psychology*.

CO-4: Student will develop a working knowledge of *Psychological* contents.

***Abbreviations:**

CIE: Continuous Internal Evaluation

UE: University Exam

Course Mapping:

	PO 1	PO 2	PO 3	PO 4	PO 5	PSO 1	PSO 2	PSO 3	PSO 4
CO1	3	2	2	2	3	2	2	2	1
CO2	3	2	2	2	3	2	2	2	1
CO3	3	2	2	2	3	2	2	2	1
CO4	3	2	2	2	3	2	2	2	1

Matching: * 0 to 30% = 1; *30% to 60% = 2; * 60% to 100% =3

B.Sc. (Home Science) III Semester
Vocational Course – III
Detection of Adulterants in Common Food
PAPER NO: B-XIX

Course Type: Vocational Course

UE – 75 Marks

Credits: 3

CIE – 25 Marks

Course Objectives: This course aims to introduce food safety and standardization act and quality control of foods to students.

UNIT	TOPICS	GENERAL/SKILL COMPONENT	THEORY/PRACTICAL	NO. OF THEORY HOURS (TOTAL-15 HOURS=1 CREDIT)
1.	General laboratory Rules	GENERAL	THEORY	02 Hours
2.	Milk and Milk Products	GENERAL	THEORY	02 Hours
3.	Edible oils and fats	SKILL	THEORY AND PRACTICAL	02 Hours
4.	Spices and Condiments	SKILL	THEORY AND PRACTICAL	02 Hours
5.	Detection of Adulterants in other foods	SKILL	THEORY AND PRACTICAL	02 Hours

Course Outcomes:

CO-1: The students will come to know about common food adulterants and their detection.

CO-2: The students will gain knowledge in the legislative aspects of adulteration.

CO-3: The students will come to know about standards and composition of foods and role of consumer.

***Abbreviations:**

CIE: Continuous Internal Evaluation

UE: University Exam

Course Mapping:

	PO 1	PO 2	PO 3	PO 4	PO 5	PSO 1	PSO 2	PSO 3	PSO 4
CO1	3	3	1	2	3	2	2	2	2
CO2	3	2	2	2	2	2	1	1	2
CO3	2	2	1	2	2	1	2	2	1

Matching: * 0 to 30% = 1; *30% to 60% = 2; * 60% to 100% =3

B.Sc. (Home Science) III Semester
English
PAPER NO: B-XX

Course Type: Co-curricular Course

UE – 75 Marks

Credits: Qualifying

CIE – 25 Marks

Course Objective: Enable the students to acquire the communication skills of listening, speaking, reading and writing through a learning-centred curriculum comprising skills of intensive reading, extensive reading, written communication and oral communication in English.

1. VOCABULARY BUILDING & PREPOSITIONS

- a) Word- Formation; synonyms, Antonyms, Homophones, Idiomatic Phrases
- b) Model verbs, Conditional sentence

2. TRANSFORMATION AND SYNTHESIS

3. PRECISE WRITING & EASSAY WRITING (5 topics to be discussed)

4. LETTER OF APPLICATION FOR JOB AND RESUME

Internal Assessment:

- 1. Based on Lectures
- 2. LANGUAGE WORK: the prescribed lessons having a bearing on the topics covered in lectures.
- 3. Identification of phonetic sounds and symbols
- 4. Stress and Intonation
- 5. Listening Comprehension
- 6. Speaking English

Reference books:

- 1. Jones, Daniel. Everyman's English Pronouncing Dictionary, University Book Stall, New Delhi. 1993.
- 2. Jones Daniel. An Outline of English Phonetics, Arnold, London, 1970.
- 3. George, H.V. Common Errors in English Learning, M/s Newbury House, London, 1970.
- 4. Sharma, S.D. A Textbook f Spoken and Written English, Vikas, Delhi, 1984.

Course outcomes

This course will enable the students:

CO-1: To learn about the vocabulary buildings.

CO-2: To understand the preposition, transformation and synthesis.

CO-3: To understand about the essay, application writing and letters.

CO-4: To develop the skills for preparation of resume.

***Abbreviations:**

CIE: Continuous Internal Evaluation

UE: University Exam

Course Mapping:

	PO 1	PO 2	PO 3	PO 4	PO 5	PSO 1	PSO 2	PSO 3	PSO 4
CO1	1	2	3	1	3	1	1	1	1
CO2	1	2	3	1	3	1	1	1	1
CO3	1	2	3	1	3	1	1	1	1
CO4	1	2	3	1	3	1	1	1	1

Matching: * 0 to 30% = 1; *30% to 60% = 2; * 60% to 100% =3

SEMESTER

IV

B.Sc. (Home Science) IV Semester

Human Development- I

PAPER NO: B-XXI

Course Type: Theory Major

UE – 75 Marks

Credits: 6

CIE – 25 Marks

Course Objectives:

- To Gain knowledge of variables that influence development throughout the life span and apply this knowledge to become more effective parent's professionals, and citizens of the global community.
- To apply critical thinking to analyze and problem solve the developmental concerns from birth to death.
- To Utilize knowledge of prenatal and child development, cognitive foundations of intelligence, and emotional development throughout the lifespan.

Units I: Meaning and principles of Human Development

- (a) Meaning, scope and principles of human development, Stages of human development
- (b) Stages of Prenatal development, factors affecting prenatal development
- (c) Menstrual cycle, fertilization, Signs and symptoms of pregnancy, Prenatal diagnostic tests, Calculation of expected Date of delivery (EDD), Types of birth, Care of the mother, Care of the newborn

Units II: Infancy (0 – 2 yrs)

- (a) Development tasks and characteristics
- (b) (i) Physical and motor development
(ii) Sensory and perceptual development
(iii) Cognitive development
(iv) Early language development

Units III: Early Childhood Period (2 - 6 yrs)

- (a) Development Tasks and characteristics of early childhood period
- (b) 1. Physical and motor development
2. Social emotional development
3. Cognitive development
4. Language development

Units IV: Childhood Period (7 – 11 Yrs)

- (a) Developmental tasks and characteristics of middle childhood period
- (b)
 - (i) Physical and motor development
 - (ii) Social emotional development
 - (iii) Cognitive development
 - (iv) Language development
 - (v) Personality development and Interest development
- (c) School and its influences

Internal Assessment:

1. Visit to maternity and well baby clinics.
2. Preparation of teaching aids.
3. Preparation of a toy for infants.
4. Planning and organization of competitive games for middle childhood.

Reference Books:

1. Berk, L. E. (1996). Child development. New Delhi:Prentice Hall.
2. Hurlock, E.B. (2007). Developmental psychology: A life – span approach. New Delhi : Tata McGraw – Hill.
3. Mussen, B. Conger,J.J., Kagan,J. and Huston, A. C. (1990). Child development and personality. New York : Harper and Row.
4. Papalia, D.E. , Olds, S.W. and Feldman, R.D. (2006). Human development.9th Ed. New Delhi: Tata McGraw- Hill.
5. Lifespan Development | 17th Edition (2021). John W. Santrock. McGraw Hill; 17th edition.

Course Outcomes:

CO-1: The course helps students to study the growth and developments at different stages of life from conception to childhood

CO-2: The students will be able to understand how human development is the product of social, psychological, and biological factors

CO-3: The students will be able to recognize the developmental tasks and problems at different stages of life from conception to childhood

***Abbreviations:**

CIE: Continuous Internal Evaluation

UE: University Exam

Course Mapping:

	PO 1	PO 2	PO 3	PO 4	PO 5	PSO 1	PSO 2	PSO 3	PSO 4
CO1	3	2	2	2	3	2	2	2	1
CO2	3	2	2	2	3	2	2	2	1
CO3	3	2	2	2	3	2	2	2	1

Matching: * 0 to 30% = 1; *30% to 60% = 2; * 60% to 100%=3

B.Sc. (Home Science) IV Semester

Fashion and Apparel Design

PAPER NO: B-XXII

Course Type: Theory Major

UE – 75 Marks

Credits: 6

CIE – 25 Marks

Course Objective: creating a cohesive brand identity, introducing new design elements, or addressing specific market trends.

UNIT I: DYNAMICS OF FASHION

- (a) Dimensions of fashion
- (b) Nature of fashion
- (c) Environment of fashion
- (d) Movement of fashion– fashion cycles, length of fashion cycles, factors influencing movement of fashion, predicting movement of fashion.

UNIT II: FASHION AND CONSUMER

- (a) Consumer groups and buying motives
- (b) Influences on fashion and consumer-social, political, economical, technological and seasonal.
- (c) Theories of fashion adoption
- (d) Individuality versus conformity.

UNIT III: FASHION MARKETING AND CAREER

- (a) Fashion markets-domestic, foreign(France, UK, Italy, America, Germany)
- (b) Distribution- brand name, building a brand name, channels of distribution
- (c) Career options in fashion industry.
- (d) Fashion designers of fame- Indian and International

UNIT IV: FASHION RETAILING

- (a) Location of retail store
- (b) Types of retail outlets-specialty stores, departmental stores, promotional stores, single- and multiple- unit stores.
- (c) Retail fashion sales promotion-fashion advertising, publicity, special events, discounts etc.

Internal Assessment:

(1) Drafting and stitching of various collars – Flat Peterpan collar, raised Peterpan collar, cape collar, baby collar shawl collar, T-shirt collar, Chinese band collar and sailors collar

(2) Drafting of adult's basic sleeve block and its adaptation to different sleeves-

(a) Set in sleeves: puff and its variations, gathered and its variations, long and short cap, flared, leg-o-mutton.

(b) Modified sleeves – loose and tight Magyar, loose and tight raglan, kimono, saddle sleeve

(c) Learning to stitch these sleeves.

(3) Drafting of - (i) Salwar and (ii) Churidar Pyjama and Stitching of any one of these.

(4) Development of adult's bodice and its adaptation to skirt top/ kurta for self,

Construction of any one garment with sleeves and collar.

(5) Learning to exhibit products of the current and previous semester.

Reference Books:

(a) Armstrong, H.J., 2009, Pattern Making for Fashion Design, Harper Collins Publishers Inc., New York.

(b) Stamper, A.A., S. H. Sharp and L.B. Donnell, 1986, Evaluating Apparel Quality, Fairchild Publications, America

(c) Liechty, E.G., Potterberg, D.N., Rasband, J.A., 2010, Fitting and Pattern Alteration: A Multimethod Approach, Fairchild Publications, New York.

Course Outcomes:

CO-1: Students will acquire knowledge about various design movements that will lead them to better understanding of movement of fashion in relation to other factors.

CO-2: Developed understanding about market and retail will help them to develop their career in the same.

CO-3: Students will understand uses of digital marketing.

CO-4: Exploring the knowledge related to different fashion components students will be able to create variety of patterns regard to sleeve and collars.

***Abbreviations:**

CIE: Continuous Internal Evaluation

UE: University Exam

Course Mapping:

	PO 1	PO 2	PO 3	PO 4	PO 5	PSO 1	PSO 2	PSO 3	PSO 4
CO1	3	3	1	1	3	1	1	2	3
CO2	3	3	1	1	3	1	1	2	3
CO3	3	3	1	1	3	1	1	1	3
CO4	3	3	3	1	3	3	1	1	3

Matching: * 0 to 30% = 1; *30% to 60% = 2; * 60% to 100% =3

B.Sc. (Home Science) IV Semester
Interior Design and Decoration
PAPER NO: B-XXIII

Course Type: Theory Major

UE – 75 Marks

Credits: 4

CIE – 25 Marks

Course Objectives

This course will enable the students:

- To get a proper knowledge about the interior design.
- To introduce phenomenon of colour with theory and system
- To understand the various types of furnishings.
- To learn about different equipment used in different types of flower arrangements.

Unit – I: Interior design and Home decoration

- a. Meaning of interior design and factors affecting interior design.
- b. Interior design: Traditional and modern overview.
- c. Objectives and types of design- Structural and Decorative.
- d. Elements of design- Line, Form, Texture, Space, Patter, Light and Colour.
- e. Principles of design- Proportion, Balance, Rhythm, Emphasis, Harmony

Unit – II: Colour

- a. Colour Theory – Chemist, Physicist and Psychologist.
- b. Colour System- Prang colour system and Munsell colour system.
- c. Dimensions of colours ; Hue, value and Chroma.
- d. Colour Wheel – Primary, Binary, Intermediate, Teritary and Quarternary colour, Warm and Cool colour and their effect.
- e. Colour Schemes – Similar and contrasting colour schemes, Planning of colour schemes for different areas in the house.

Unit – III: Furnishing

- a. Furnishings: Classification of furnishing–Curtain, Draperies, Upholstry, Carpet.
 - (i) Factors influencing the selection of furnishings for the home-family needs and preference, availability, climatic condition, income, home maker taste etc.
 - (ii) Window treatment.
- b. Light: Natural and artificial light, lighting in various rooms and for different activity centers.

Unit – IV: Flower arrangement

- a. Equipments used in Flower arrangement.
- b. Types of Flower arrangement using elements and principles of art and design.

Internal Assessment:

- Seminar/ Presentation on any topic of the above syllabus
- Test with multiple choice questions/ short and long answer questions
- Attendance

Reference Books:

- a. Art in everyday – Goldstein and Goldstein
- b. Home with characters – Craig and rush
- c. Home furnishing – A.H. Rull
Grah Vyavastha awam grah Kak G.P. Sherry.
- d. Grah Prabandh – Sharma and Verma
- e. Interior Architecture – J. Rosemary Riggs
- f. Colours in your home – Tera Eve Legh
- g. Colour Forecasting – Tracy Dianne

Course Outcomes

After completing this course, student is expected to learn the following:

CO1: Knowledge and understand the Meaning of interior design and factors affecting interior design.

CO2: Understand the Colour Wheel – Primary, Binary, Intermediate, Teritary and Quarternary colour, Warm and Cool colour and their effect.

CO3: Able to explain the Equipments used in Flower arrangement.

***Abbreviations:**

CIE: Continuous Internal Evaluation

UE: University Exam

Course Mapping:

	PO 1	PO 2	PO 3	PO 4	PO 5	PSO 1	PSO 2	PSO 3	PSO 4
CO1	1	2	3	3	1	2	3	2	2
CO2	1	2	3	3	1	2	2	3	3
CO3	3	3	2	1	1	1	2	3	1

Matching: '0to 30% = 1: '30% to 60% = 2: '60% to 100% = 3

B.Sc. (Home Science) IV Semester
Interior Design and Decoration
PAPER NO: B-XXIV

Course Type: Practical Major

UE – 75 Marks

Credits: 2

CIE – 25 Marks

Course Objectives

This course will enable the students:

- To make decorative article for the home
- To develop skill of floor decoration with different items
- To develop skill of artificial flower making and their arrangements

Practical:

- a. Making any one decorative article for the home i.e. bed cover, table net, cushion cover, lampshade etc.
- b. Floor decoration with flower, rice powder, chalk powder and poster colours. (Alpana, Mandana, Rangoli).
- c. Artificial flower making and their arrangements.

Course Outcomes :

After completing this course, student is expected to learn the following:

CO1 : To develop practical skills on decorative article for the home

CO2 : To gain knowledge of Floor decoration with flower, rice powder, chalk powder

CO3 : To develop skills for Artificial flower making.

***Abbreviations:**

CIE: Continuous Internal Evaluation

UE: University Exam

Course Mapping:

	PO 1	PO 2	PO 3	PO 4	PO 5	PSO 1	PSO 2	PSO 3	PSO 4
CO1	1	2	3	3	1	2	3	2	2
CO2	1	2	3	3	1	2	2	3	3
CO3	3	3	2	1	1	1	2	3	1

Matching: '0to 30% = 1: '30% to 60% = 2: '60% to 100% = 3

B.Sc. (Home Science) IV Semester
Vocational Course – IV
Integrated Food Processing
PAPER NO: B-XXV

Course Type: Vocational Course

UE – 75 Marks

Credits: 3

CIE – 25 Marks

Course Objectives:

This course deals with the techniques and principles involved in processing and preservation of food substances. It includes processing and preservation of fruits & vegetables, milk & milk products, meat, poultry & egg, sea foods through the different preservation techniques.

Duration of course - one Semester

Course Structure Theory 15hrs/Practical 60hrs

PART-TIME COURSES

The timings for part-time courses shall be decided according to the convenience of the administration.

Examination

The candidate shall have to appear in the examination to be conducted at the end of the course, both in theory and practical's. Only successful candidate shall be awarded candidates.

A successful candidate in the examination, who obtains at least 60 percent of the total marks will be placed in the first division.

45 percent of the total marks but less than 60 percent of the total marks in the aggregate shall be placed in 2nd division.

Marks

The maximum marks in theory paper are 50, and maximum marks in practical are 50 only.

Bakery & Confectionery

Theory

Functioning of ovens, raising agents, yeast fermentation, short crust, choux, flaky or puff pastries.

Different methods of cake making, different types of cake sun cake, pound cake, rock cake, marble cake, check cake, fatless sponge, short bread.

Chocolate cookies, afternoon tea biscuits, pies, Madeleine's. Different icings, savoury, biscuits, gum paste, butter sponge cake, presentation cake.

Practicals

Jam tarts or lemon-curd tarts , butter sponge cake, bread rolls or yeast dough-nuts, madeira or date and walnut or fruits cake, flaky pastry, Swiss-roll, marbel cake, pineapple pastry, bread, marble cookies, chocolate, nut rings, tricolour or melting moment.

Icings-royal, butter, glace, fondant, etc., cream horns or khara biscuit, patties, gum, paste, cake decoration.

Cookery

Theory:Introduction to science of cooking

Practical

Demonstration of following dishes:

Cream of tomato soup, consomme soup, Russian salad, caramel custard, pea panner curry, Chinese fried rice, decorative vegetable salad, bread-butter pudding, vegetable biryani or mutton, chhole bhatura, vegetable cutler, sandwich, fish curry, vegetable rolls, stuffed capsicum or other vegetables, hussaini curry or vegetable hussaini curry, korma, macraul augratin, nargist kofta, chicken tandoori,

masala dosa, sambhar, fried fish, chow-min, trifle pudding naan, paneer pasanda, malai kofta, tri-colour kofta, roganjosh, sheekh kabab, shami-kabab, butter chicken, vegetable au gratin, idali, sambhar.

Integrated Course (Part-Time)

Theory: Brief description of the practicals

Practical

Demonstrations (only one practical of each item) Canning,

Canning of fruits and vegetables

Beverages, Jam, Jelly or marmalade, tomato ketchup

pickle & chutney, murabba or candy, synthetic vinegar Canning of cereal or meat sweet.

Bakery and Confectionery

Pastries, short-crust, flaky and choux Cakes by creaming and Genoese methods Biscuits and cookies

Yeast raised-bread, buns, rolls, doughnuts, etc. Icings and cake decoration.

Cookery

Soups, pudding, salad dressings, pulao, Chinese fried rice, cutlets, choole- bhatura, roganjosh/korma, rasgulla/balushahi, shami kabab, malai kofta/vegetable kofta.

Community Canning & Fruit Preservation Centres

The Department of Horticulture and Food Processing has established these centres at the headquarters of every district in the State and even at several tehsil headquarter in some of the districts.

These centres provide training facilities to the public-both males and females in the art and science of fruits preservation. The duration of these training courses in 15 days.

Qualification required for Admission to these training session is a working knowledge of Hindustani and capacity to understand some technical terms.

Medium of instruction is Hindi.

Facilities are also provide to the public for preparing various fruits products and these centres in the session for home consumption only.

Nominal charges have to be paid for the services, fuel, etc. and also actual cost of the materials like essence, colour, chemical, cans, etc. which are not easily available in the market and are used in the manufacture of the products.

Course Outcomes

After completing this course, student is expected to learn the following:

CO1:To understand the principles and processes involved in food processing

CO2:To understand the technological innovations for various food stuffs.

Course Mapping:

	PO 1	PO 2	PO 3	PO 4	PO 5	PSO 1	PSO 2	PSO 3	PSO 4
CO1	3	2	2	2	2	2	2	2	2
CO2	2	2	1	2	2	1	1	2	2

B.Sc. (Home Science) IV Semester

First Aid and Health

PAPER NO: B-XXVI

Course Type: Co-curricular Course

UE – 75 Marks

Credits: Qualifying

CIE – 25 Marks

COURSE OBJECTIVES.

- To learn about the first aid and its importance in life.
- To become aware about the first-aid related problems of respiratory system, heart, blood and circulation.
- Evaluate the first-aid related problems in several phases such as- nervous system, gastro-intestinal tract and sense organs.
- To give knowledge about the basic sex education.
- To learn the process of mental health and psychological first aid

UNIT-I;

1. Basic First Aid

- a. Aims of first aid & First aid and the law.
- b. Dealing with an emergency, Resuscitation (basic CPR).
- c. Recovery position, Initial top to toe assessment.
- d. Hand washing and Hygiene
- e. Types and Content of a First aid Kit

2. First AID Technique

- a. Dressings and Bandages.
- b. Fast evacuation techniques (single rescuer).
- c. Transport techniques.

3. First aid related with respiratory system

- a. Basics of Respiration.
 - b. No breathing or difficult breathing, Drowning, Choking, Strangulation and hanging,
 - c. Swelling within the throat, Suffocation by smoke or gases and Asthma.
- 4. First aid related with Heart, Blood and Circulation**
- a. Basics of The heart and the blood circulation.
 - b. Chest discomfort, bleeding.
- 5. First aid related with Wounds and Injuries**
- a. Type of wounds, Small cuts and abrasions
 - b. Head, Chest, Abdominal injuries
 - c. Amputation, Crush injuries, Shock
- 6. First aid related with Bones, Joints Muscle related injuries**
- a. Basics of The skeleton, Joints and Muscles.
 - b. Fractures (injuries to bones).

Unit-II;

- I. First aid related with Nervous system and Unconsciousness**
- a. Basics of the nervous system.
 - b. Unconsciousness, Stroke, Fits – convulsions – seizures, Epilepsy.
- II. First aid related with Gastrointestinal Tract**
- a. Basics of The gastrointestinal system.
 - b. Diarrhea, Food poisoning.
- III. First aid related with Skin, Burns**
- a. Basics of The skin.
 - b. Burn wounds, Dry burns and scalds (burns from fire, heat and steam).
 - c. Electrical and Chemical burns, Sun burns, heat exhaustion and

heatstroke.

d. Frost bites (cold burns), Prevention of burns, Fever and Hypothermia.

IV. First aid related with Poisoning

a. Poisoning by swallowing, Gases, Injection, Skin

V. First aid related with Bites and Stings

a. Animal bites, Snake bites, Insect stings and bites

VI. First aid related with Sense organs

a. Basic of Sense organ.

b. Foreign objects in the eye, ear, nose or skin.

c. Swallowed foreign objects.

VII. Specific emergency satiation and disaster management

a. Emergencies at educational institutes and work

b. Road and traffic accidents.

c. Emergencies in rural areas.

d. Disasters and multiple casualty accidents.

e. Triage.

VIII. Emergency Child birth

UNIT-III;

I. Basic Sex Education

a. Overview, ground rules, and a pre-test

b. Basics of Urinary system and Reproductive system.

c. Male puberty — physical and emotional changes

d. Female puberty — physical and emotional changes

e. Male-female similarities and differences

f. Sexual intercourse, pregnancy, and childbirth

g. Facts, attitudes, and myths about LGBTQ+ issues and identities

- h. Birth control and abortion
- i. Sex without love — harassment, sexual abuse, and rape
- j. Prevention of sexually transmitted diseases.

UNIT-IV;

- I. Mental Health and Psychological First Aid
 - a. What is Mental Health First Aid?
 - b. Mental Health Problems in the India
 - c. The Mental Health First Aid Action Plan
 - d. Understanding Depression and Anxiety Disorders
 - e. Crisis First Aid for Suicidal Behavior & Depressive symptoms
 - f. What is Non-Suicidal Self-Injury?
 - g. Non-crisis First Aid for Depression and Anxiety
 - h. Crisis First Aid for Panic Attacks, Traumatic events
 - i. Understanding Disorders in Which Psychosis may Occur
 - j. Crisis First Aid for Acute Psychosis
 - k. Understanding Substance Use Disorder
 - l. Crisis First Aid for Overdose, Withdrawal
 - m. Using Mental Health First Aid

Suggested Readings:

- Indian First Aid Manual-<https://www.indianredcross.org/publications/FA-manual.pdf>
- Red Cross First Aid/CPR/AED Instructor Manual
- <https://mhfa.com.au/courses/public/types/youthedition4>
- Finkelhor, D. (2009). The prevention of childhood sexual abuse. Durham, NH: Crimes Against Children Research Center.

www.unh.edu/ccrc/pdf/CV192.pdf

- Kantor L. & Levitz N. (2017). Parents' views on sex education in schools: How much do Democrats and Republicans agree? PLoS ONE, 12 (7): e0180250.
- Orenstein, P. (2016). Girls and sex: Navigating the complicated new landscape. New York, NY: Harper.
- Schwiegershausen, E. (2015, May 28). The Cut.
www.thecut.com/2015/05/most-women-are-catcalled-before-they-turn-17.html
- Wiggins, G. & McTighe, J. (2008). Understanding by design. Alexandria, VA: ASCD.
- <https://marshallmemo.com/marshall-publications.php#8>

Suggested Continuous Evaluation Methods:

- Assignments, Presentation, Group Discussion, and MCQ

Suggested equivalent online courses:

- <https://www.redcross.org/take-a-class/first-aid/first-aid-training/first-aid-online>
- <https://www.firstaidforfree.com/>
- <https://www.coursera.org/learn/psychological-first-aid>
- <https://www.coursera.org/learn/mental-health>

Course Outcomes

After completing this course, student is expected to learn the following:

CO1: Learn the concepts of first aid and its importance in life.

CO2: Understand the first-aid related problems in several phases such as- nervous system, gastro-intestinal tract and sense organs.

CO3: Able to explain the basic sex education.

CO4: Remember the process of mental health

***Abbreviations:**

CIE: Continuous Internal Evaluation

UE: University Exam

Course Mapping:

	PO 1	PO 2	PO 3	PO 4	PO 5	PSO 1	PSO 2	PSO 3	PSO 4
CO1	3		3	2	2	2	2	2	2
CO2	2	2	2	2	2	1	1	2	2
CO3	2	1	2	2	2	2	2	2	3
CO4	2	2	2	2	2	1	1	2	2

Matching: * 0 to 30% = 1; *30% to 60% = 2; * 60% to 100% =3

SEMESTER

V

B.Sc. (Home Science) V Semester Group 'A'

Human Development- II

PAPER NO: B-XXVII

Course Type: Theory Major

UE – 75 Marks

Credits: 4

CIE – 25 Marks

Course Objectives:

This course will help students to–

1. Understand all round developmental changes and impact during adolescence
3. Analyze the sexuality issues
4. Compare the developmental changes during adulthood
5. Understand the hazards of adolescence and adulthood

Units	Topics
I	Puberty and Adolescence (11 to 20 years) (a) Development tasks and characteristics. Physical development: Puberty, growth spurts, primary and secondary sexual characteristics, secular trends. (b) Identity: Definition, Identity status, Factors influencing Identity development. (c) Social relationships and heterosexual relationship, Importance. (d) Adolescent's Emotions: - Meaning, Causes, expression, characteristics of emotional maturity. (e) Problems – Drug and Alcohol abuse, STD, HIV AIDS, Teenage pregnancy.
II	Young Adulthood (21 to 35 years) (a) Definition of an adult, its characteristics, Development task of a young adult.

	<p>(b) Responsibilities and adjustments-educational, occupational, marital and parenthood.</p> <p>(c) Choosing a Career - Stages, factors affecting selection for career.</p>
III	<p>Middle Adulthood (35 to 55 years)</p> <p>(a) Characteristics, Developmental tasks, physical changes.</p> <p>(b) Reproductive Changes- Menopauses, climacteric syndrome and associated health risks.</p> <p>(c) Stresses in middle age- family, workplace, occupation and coping strategies.</p> <p>(d) Preparation for retirement- physical, social, financial and occupational</p>
IV	<p>Late adulthood (55 and onwards)</p> <p>(a) Characteristics, developmental tasks, physiological changes and health problems, cognitive, memory and personality changes.</p> <p>(b) Retirement – effect of retirement (emotional, economic, self and family), changes in relationship with family.</p> <p>(c) National Policies and legal provisions for elderly.</p> <p>(d) Death – Preparation and coping strategies.</p>

Internal Assessment:

1. Case study of any one stage.
2. Visit to old age home/Widow Home.
3. Establishing one day camp for the aged to give them opportunity of association and submitting a report of the same.
4. Assessment of problems of any two stages.
5. An intervention to study middle crises and retirement blues and submitting its report.

Reference Books:

1. Berk, L. E. (1996). Child development. New Delhi:Prentice Hall.
2. Hurlock, E.B. (2007). Developmental psychology: A life – span approach. New Delhi : Tata McGraw – Hill.
3. Mussen, B. Conger,J.J., Kagan,J. and Huston, A. C. (1990). Child development and personality. New York : Harper and Row.
4. Papalia, D.E. , Olds, S.W. and Feldman, R.D. (2006). Human development.9th Ed. New Delhi: Tata McGraw- Hill.
5. Lifespan Development | 17th Edition (2021). John W. Santrock. McGraw Hill; 17th edition.

Course Outcomes:

The student at the completion of the course will be able to:

CO-1: Demonstrate understanding and knowledge of development during the human life-span, from adolescence to late adulthood.

CO-2: Explain the Physical & Psychological changes from adolescent to adulthood stage

CO-3: Identify the biological and environmental factors affecting personality

CO-4: Learn about the characteristics, needs and developmental tasks of Adolescent & Adulthood stage

***Abbreviations:**

CIE: Continuous Internal Evaluation

UE: University Exam

Course Mapping:

	PO 1	PO 2	PO 3	PO 4	PO 5	PSO 1	PSO 2	PSO 3	PSO 4
CO1	3	2	2	2	3	2	2	2	1
CO2	3	2	2	2	3	2	2	2	1
CO3	3	2	2	2	3	2	2	2	1
CO4	3	2	2	2	3	2	2	2	1

Matching: * 0 to 30% = 1; *30% to 60% = 2; * 60% to 100% =3

B.Sc. (Home Science) V Semester Group 'A'

Early Childhood Care and Education

PAPER NO: B-XXVIII

Course Type: Theory Major

UE – 75 Marks

Credits: 4

CIE – 25 Marks

Course Objective: Understand the early childhood care and development in India. Comprehend the model child development programs in the Indian context. Understand the planning and creating development and programmatic activities for children in the first six years of life.

Units	Topic
I	Introduction to ECCE A. Meaning and importance of early childhood education B. Curriculum for ECCE (i) Meaning of Curriculum (ii) Basic Principles of Curriculum Construction (iii) Formation of Curriculum (iv)Types of Curriculum
II	Play (a) Play as means of development and learning. (b) Theories of Play – Surplus energy theory, relaxation theory, Recapitulation theory (c) Types of play (d) Development stages of play (e) Teachers role in promoting and fostering play
III	Principles of Programme Planning a) Known to Unknown, Simple to complex and concrete to abstract b) Programme planning : goals and objectives c) Formal, non-formal and integrated learning approaches d) Role of teacher in guiding children's development and learning.

IV	<p>Learning Aids & Activities for Children</p> <p>a) Types of literature and criteria for selection</p> <p>b) Number and Alphabet books</p> <p>c) Creative activities :- (i) Painting (ii) Drawing (iii) Tearing cutting (iv) Pasting (v) Collage</p> <p>d) Science Experiences</p> <p>e) Activities to develop mathematical concept.</p> <p>f) Nature study and field Trips :- (i) Planning of field trips (ii) Preparation of field trips and its importance</p>
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Internal Assessment:

- Seminar/ Presentation on any topic of the above syllabus
- Test with multiple choice questions/ short and long answer questions
- Prepare activity file

Reference Books:

1. Jain K. 2003. Preschool Education, Mohit Publication, New Delhi.
2. Grewal J.S. 1984. Early Childhood Education, National Psychological Corporation, Agra.
3. Kaul, V. (1991). Early childhood education programme. New Delhi : NCERT. Units I and III
4. Early Childhood Care and Education, (2009). Sengupta M. Prentice Hall India Learning Private Limited
5. Early childhood education (2003). C K Pathak. Rajat Publications
6. Early Childhood Care And Education (2019). S. Gupta, J.C. Aggarwal. Shipra Publications
7. Early Childhood Care And Education; Principles And Practices (2017). Abhiram Kulshreshtha. Kanishka Publisher ,Distributors; First Edition

Course Outcomes:

CO-1: Students will gain the insight into early childhood development and factors influencing the developments

CO-2: Students will be able to identify the health, nutrition and educational needs during early childhood years.

CO-3: Students will be able to understand the concept and needs of early childhood education.

CO-4: Students will come to know about the programme planning for preschoolers.

***Abbreviations:**

CIE: Continuous Internal Evaluation

UE: University Exam

Course Mapping:

	PO 1	PO 2	PO 3	PO 4	PO 5	PSO 1	PSO 2	PSO 3	PSO 4
CO1	3	1	2	2	3	2	2	1	1
CO2	3	1	2	2	3	2	2	1	1
CO3	3	1	2	2	3	2	2	1	1
CO4	3	1	2	2	3	2	2	1	1

Matching: * 0 to 30% = 1; *30% to 60% = 2; * 60% to 100% =3

B.Sc. (Home Science) V Semester Group 'B'
Fundamentals of Nutrition and Food Science
PAPER NO: B-XXX

Course Type: Theory Major

UE – 75 Marks

Credits: 4

CIE – 25 Marks

Course objective: The course aims to provide students with a comprehensive understanding of the principles and practices underlying nutrition and food science, preparing them for further studies or careers in fields such as nutrition, dietetics, food science, food technology, culinary arts, and public health.

UNIT- I - Basic concepts in Food and Nutrition

1. Basic terms used in the study of Food and Nutrition.
2. Understanding relationship between food, nutrition and health
3. Functions of food – physiological, psychological and social.

UNIT –II- Nutrients

Functions, dietary source and Recommended Dietary allowances (RDA)

1. Carbohydrates, lipids, and proteins.
2. Fat soluble vitamins- A, D,E and K
3. Water soluble vitamins – thiamine, riboflavin, niacin, pyridoxine, folate, vitamin B12, and vitamin C.
4. Minerals- calcium, iron and iodine

UNIT –III- Food Groups

Selection, nutritional contribution and changes during cooking of the following food groups:-

1. Cereals
2. Pulses
3. Fruits and vegetables
4. Milk and milk product
5. Eggs
6. Meat, poultry and fish

7. Fats and oils

UNIT –IV Methods of Cooking and preventing nutrient losses

1. Dry, moist, frying and microwave cooking
2. Advantages, disadvantages and the effect of various method of cooking on nutrients
3. Minimizing nutrient losses
4. Nutrient losses in cooking and enhancing the nutritional quality of foods.
5. Food Preservation

Internal Assessment:

1. Working instructions. Weights and measures and table setting, preparing market order.
2. Identification of food sources for various nutrient
3. Food preparation, understanding the principles involved , nutritional quality and portion size
 - Beverages : Hot tea/coffee, milk shakes/lassi, fruit based beverages
 - Cereals: boiled rice, pulao, chapati, paratha, puri, pastas.
 - Pluses : Whole, dehusked
 - Vegetables: curries, dry preparations
 - Milk and milk products: Kheer, custard
 - Meat, fish and poultry preparations
 - Egg preparations: Boiled, poached, fried, scrambled, omelet, egg pudding
 - Soups: Broth, plain and cream soups
 - Baked Products : Biscuits, cookies, cream cakes, sponge cake preparations, tarts and pies.
 - Snacks: pakoras, cutlets, samosa, upma, poha, sandwiches
 - Salad: Salads and salad dressings
 - Preserved Foods

Reference Books:

- Bamji MS, Krishnaswany K, Brahma GNV(2009). Textbook of Human Nutrition, 3rd Edition.Oxford and IBH Publishing Co. Pvt.Ltd.
- Srilakshmi (2010). Food Science, 5th Edition. New Age International Ltd.

- Raina U, Kashyap S, Narula V ,Thomas S, Survira, Vir S, Chopra S (2010). Basic food preparation : A complete Manual, forth edition, Orient Black Swan ltd.
- Wardlaw and Insel MG, Insel PM (2004). Perspectives in Nutrition, Sixth Edition. Mosby.

Course Outcomes

This course will enable the students:

CO-1: To understand about the concepts of food and nutrition.

CO-2:To acquire knowledge about the function, dietary source and Recommended dietary allowances for macro and micro nutrients.

CO-3: To learn about the nutritive composition of food groups.

CO-4: To develop the knowledge about the nutrient losses in cooking and methods of enhancing the nutritional quality of foods.

*Abbreviations:

CIE: Continuous Internal Evaluation

UE: University Exam

Course Mapping:

	PO 1	PO 2	PO 3	PSO 4	PSO 5	PSO 1	PSO 2	PSO 3	PSO 4
CO1	2	2	1	2	2	1	2	2	2
CO2	2	2	2	2	2	2	3	1	2
CO3	2	1	2	2	2	2	2	2	3
CO4	2	2	2	2	2	2	3	1	2

Matching: * 0 to 30% = 1; *30% to 60% = 2; * 60% to 100% =3

B.Sc. (Home Science) V Semester Group 'B'

Nutrition for Family

PAPER NO: B-XXXI

Course Type: Theory Major

UE – 75 Marks

Credits: 4

CIE – 25 Marks

Course objective: The course aims to provide students with knowledge and skills necessary to promote optimal nutrition and health for individuals within the family context and empower students to educate families about the importance of nutrition, healthy eating practices, meal planning, and food preparation skills.

Unit I- Basic concepts of meal planning

1. Food groups and concept of Balanced Diet
2. Food exchange list
3. Concepts of Dietary reference intake
4. Factors affecting meal planning and food related behavior.
5. Dietary guidelines for Indians and food pyramid.

Unit II-Nutrient Requirements

1. Concepts of minimum nutrient requirements and Recommended Dietary Allowances and excess / deficiency of nutrients
2. Energy Metabolism-
 - Concepts of energy balance
 - Components of energy expenditure and factors affecting the same
 - Physiological fuel factors
 - Method of assessing energy needs

Unit III- Nutritional during the Adult Years

Physiological changes, RDA, Nutritional guidelines, nutritional concerns and healthy food choices in the following groups:

1. Adults – Male and Female

2. Pregnant Women- physiological changes in pregnancy, nutritional needs, effect of nutritional status on pregnancy outcome, optimal weight gain and its components, nutrition related problems in pregnancy.
3. Lactation- Physiology of lactation, nutritional needs of nursing mother, feeding the baby.
4. Elderly- life expectancy, physiological changes in elderly, nutritional and health concerns in old age and their management

Unit IV-Nutrition during Childhood and special Conditions

Growth and development, growth reference/standards, RDA, nutritional guidelines, nutritional concerns and healthy food choices in the following groups:

- Infants
- Preschool children
- School children
- Adolescents
- Nutrition for physical fitness and sports
- Feeding problems in children with special needs.

Internal Assessment:

- Seminar/ Presentation on any topic of the above syllabus
- Test with multiple choice questions/ short and long answer questions

Reference Books:

- Bamji MS, Krishnaswany K, Brahma GNV(2009). Textbook of Human Nutrition, 3rd Edition.
- Khanna K., Gupta S, Passi SJ, Seth R, Mahna R and Puri S (1997). Textbook of Nutrition & Dietetics. Phoenix Publishing House, New Delhi
- Stacy Nix (2009). William's Basic Nutrition and Diet Therapy, 13th Edition. Elsevier Mosby.

Course Outcomes

This course will enable the students:

CO-1: To learn about the concepts of meal planning recommended dietary guidelines

CO-2: To gain knowledge about the nutritive requirements for nutritional deficiencies and excess

CO-3: To understand the concept of energy metabolism.

CO-4: To acquire knowledge about the nutritional requirements for different age groups

***Abbreviations:**

CIE: Continuous Internal Evaluation

UE: University Exam

Course Mapping:

	PO 1	PO 2	PO 3	PO 4	PO 5	PSO 1	PSO 2	PSO 3	PSO 4
CO1	3	2	2	1	2	3	2	2	2
CO2	2	2	2	3	2	2	2	1	2
CO3	2	1	2	2	2	2	2	2	2
CO4	2	2	2	3	2	2	2	1	2

Matching: * 0 to 30% = 1; *30% to 60% = 2; * 60% to 100% =3

B.Sc. (Home Science) V Semester Group 'B'

Nutrition for Family

PAPER NO: B-XXXII

Course Type: Practical Major

UE – 75 Marks

Credits: 2

CIE – 25 Marks

Course objectives: The course aims to teach students how to plan balanced and nutritious meals for families, considering factors such as age, gender, activity level, cultural preferences, and dietary restrictions and provide practical experience in preparing and cooking a variety of healthy and culturally appropriate meals, snacks, and beverages for different family members.

Practical:

1. Identification of nutrient rich sources of foods, their seasonal availability and price, study of nutrition labeling on selected foods.
2. Use of food exchange list
3. Planning, preparation and evaluation of adequate diets using food exchange list to suit different socioeconomic groups for:
 - Young adult
 - Pregnant and lactating women
 - Preschool child
 - School age child and adolescents
 - Elderly
4. Planning Complementary food for infants

Course Outcomes

This course will enable the students:

CO-1: To identify the nutrient rich food sources and nutritional labeling.

CO-2: To understand the use of food exchange list.

CO-3: To plan, prepare and evaluate the adequate diets for different age groups.

***Abbreviations:**

CIE: Continuous Internal Evaluation

UE: University Exam

Course Mapping:

	PO 1	PO 2	PO 3	PO 4	PO 5	PSO 1	PSO 2	PSO 3	PSO 4
CO1	3	2	2	1	2	3	2	2	2
CO2	2	2	2	3	2	2	2	1	2
CO3	2	1	2	2	2	2	2	2	2

Matching: * 0 to 30% = 1; *30% to 60% = 2; * 60% to 100%=3

B.Sc. (Home Science) V Semester Group 'E'
Women Rights and Gender Empowerment
PAPER NO: B-XXXIII

Course Type: Theory Major

UE – 75 Marks

Credits: 4

CIE – 25 Marks

Course Objective :

Students will learn about the role of state, society, and family in promotion and protection of women

Unit I. Understanding Women Rights

1. Meaning of Women Rights and Convention on Women Rights
2. Demographic profile of the woman in India
3. The role of state, society, and family in promotion and protection of women

Unit II. Women Rights in India: Constitutional Rights and Legal Rights

1. Right to maintenance
2. Right against dowry
3. Right against domestic violence
4. Right at work place

Unit III. Conceptualizing Gender

1. Defining terms- sex, gender, masculinity, femininity
2. Socialisation for gender- gender roles, gender stereotypes
3. Patriarchy and social institutions
4. Perspectives on feminism

Unit IV. Gender Empowerment

1. Demographic profile
2. Issues and concerns related to girls and women in India
3. Media and gender
4. Policies and programmes for girls and women in India

Internal Assessment:

1. Understanding women rights and gender in diverse social groups through visits
2. Understanding gender realities in different social groups
3. Programme planning for women rights and gender

Reference Books:

1. Desai Neera & Usha Thakkar, “Women In Indian Society”.
2. Agrawal Meenu, “Women Empowerment And Gender Equality”.
3. Dr. Afkar Ahmad, “Women Rights In India Contemporary Issues & Challenges”.
4. Agnes F., “Law and Gender Inequality: The politics of Women’s Rights in India”.
5. Kishwar M., “Off the Beaten Track: Rethinking Gender Justice for Indian Women”.
6. Saikia N., “Indian women: A socio-legal perspective”.

Course Outcomes:

Students will learn about:

CO-1: Women Rights in India: Constitutional Rights and Legal Rights

CO-2: Issues and concerns related to girls and women in India

CO-3: Policies and programmes for girls and women in India

CO-4: The role of state, society, and family in promotion and protection of women

***Abbreviations:**

CIE: Continuous Internal Evaluation

UE: University Exam

Course Mapping

	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4
CO1	2	1	1	-	-	1	1	1	-
CO2	1	1	1	1	-	1	1	1	-
CO3	1	1	1	1	1	1	1	1	1
CO4	1	1	1	1	-	1	-	-	1

Matching: * 0 to 30% = 1; *30% to 60% = 2; * 60% to 100% =3

B.Sc. (Home Science) V Semester Group 'E'

Teaching Methods and Media

PAPER NO: B-XXXIV

Course Type: Theory Major

UE – 75 Marks

Credits: 4

CIE – 25 Marks

Course objective:

Students will learn about principles, characteristics, factors affecting teaching and learning.

Unit – I

Teaching Learning Process – meaning, principles, characteristics, factors affecting teaching and learning. Adult learning-Characteristics of adult learner and factors affecting adult learning.

Unit – II

1. Approaches in Extension Education: individual, group and mass.
2. Methods of Extension Education according to approaches – concept, use, importance, selection and limitations.

Unit-III

Audio-visual Aids for teaching learning process – meaning, importance, classification, criteria for selection and use of audio-visual aids.

Unit-IV

Media – concept, types and importance.

1. Folk media.
2. Print media.
3. Electronic media.

Internal Assessment:

- Seminar/ Presentation on any topic of the above syllabus
- Test with multiple choice questions/ short and long answer questions

Reference Books:

1. Directorate of Extension Education,
2. A. S. Sandhu, "Agricultural communication"
3. G. L. Ray, "Extension and Management Communication" Naya Prakash.
4. S. K. Wag mare, "Teaching Extension Education"
5. P. Dhama & O.P. Bhatnagar, "Education & Communication for Development" Oxford IBH Publishing Co. Pvt. Ltd, New Delhi.

Course outcome

CO-1: Students will learn about principles, characteristics, factors affecting teaching and learning.

CO-2: Meaning, principles, characteristics, factors affecting teaching and learning.

CO-3: Approaches and methods in extension education

CO-4: Audio-visual Aids for teaching learning process

***Abbreviations:**

CIE: Continuous Internal Evaluation

UE: University Exam

Course Mapping

	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4
CO1	2	1	1	1	1	1	1	1	2
CO2	1	1	1	1	2	1	1	1	2
CO3	1	1	1	1	1	1	1	1	1
CO4	1	1	1	1	1	1	1	1	1

Matching: * 0 to 30% = 1; *30% to 60% = 2; * 60% to 100% =3

B.Sc. (Home Science) V Semester Group 'E'

Teaching Methods and Media

PAPER NO: B-XXXV

Course Type: Practical Major

UE – 75 Marks

Credits: 2

CIE – 25 Marks

Course Objectives:

- Students will be able to learn about preparation, display, distribution and use of audio-visual aids.

Practical:

1. Preparation and use of audio-visual aids – display, distribution and use with teaching methods.
2. Preparation and presentation of any one media.

Course Outcomes:

CO-1: Students will be able to learn about preparation and use of audio-visual aids.

***Abbreviations:**

CIE: Continuous Internal Evaluation

UE: University Exam

Course Mapping:

	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4
CO1	2	1	1	2	1	2	1	1	2

Matching: * 0 to 30% = 1; *30% to 60% = 2; * 60% to 100% =3

B.Sc. (Home Science) V Semester
Fashion Sketching and Illustration
PAPER NO: B-XXXVI

Course Type: Co-curricular Course

UE – 75 Marks

Credits: Qualifying

CIE – 25 Marks

Course Objective: Students learn to draw different fashion postures in relation to the garment, They undertake independent design projects that make them responsible for developing their designing sensibilities in given resources.

UNIT I	1. Sketching of basic figures. (Based on the basic figures learnt earlier).
	2. Sketching of basic action croquet.
UNIT II	Garments and Garments Details.
	<ol style="list-style-type: none">1. Necklines and collars2. Sleeve details3. Skirt and pant4. Blouses, coats and jackets5. Drawstring and fastenings6. Tassels and tucks7. Frills fringes and gathers, cowls and cascades.8. Hemlines and insertions9. Laces10. Pleats11. Shirring, smocking and zips12. Yokes and underskirts
UNIT III	Sketching of accessories
	<ol style="list-style-type: none">13. Hats and head gears14. Footwear

	<p>15. Bags and purses</p> <p>16. Jewellery</p>
UNIT IV	<p>Basic Rendering Techniques</p> <p>17. Strips</p> <p>18. Checks, gingham and plaids</p> <p>19. Patterns and textures</p> <p>20. Reducing a print</p> <p>21. Shading</p> <p>Theme Rendering : developing a line of garments based on a theme (any one of the following)</p> <ol style="list-style-type: none"> 1. Swimwear 2. Casual wear 3. Sport wear 4. Night wear 5. Evening wear 6. Ramp wear 7. Formal wear 8. Traditional Indian Costume

Internal Assessment:

- Seminar/ Presentation on any topic of the above syllabus
- Test with multiple choice questions/ short and long answer questions

Reference Books:

1. AblingBina, Fashion sketchbook, Fairchild publishers, New York.
2. Mckelvey Kathryn, Illustrating Fashion Black well science munslowJamine.
3. Seaman Julian, Professional Fashion Illustration, B. T. Batsford Ltd. London.
4. Ireland, Patrick John, Fashion illustration B. T. Batsford Ltd. London.

5. Allen Anne Seaman Julian Fashion Drawing the Basic Principles, B. T. Batsford Ltd.
London.

Course Outcomes:

CO-1: Students will learn to draw fashion figure by understanding body proportion.

CO-2: They will be able to drape the desired idea of their design onto the fashion figure.

CO-3: They create stylized figures and innovative fabric textures that enhance their capability as an illustration.

CO-4: They undertake independent design projects that make them responsible for developing their designing sensibilities in given resources.

***Abbreviations:**

CIE: Continuous Internal Evaluation

UE: University Exam

Course Mapping:

	PO 1	PO 2	PO 3	PO 4	PO 5	PSO 1	PSO 2	PSO 3	PSO 4
CO1	3	3	1	1	3	1	1	2	3
CO2	3	3	1	1	3	1	1	2	3
CO3	3	3	1	1	3	1	1	1	3
CO4	3	3	3	1	3	3	1	1	3

Matching: * 0 to 30% = 1; *30% to 60% = 2; * 60% to 100% =3

B.Sc. (Home Science) V Semester

Research Project

PAPER NO: B-XXXVII

Course Type: Major

UE – 75 Marks

Credits: Qualifying

CIE – 25 Marks

Course Objective:

- Students will learn to communicate with community around
- Students will learn to prepare a survey/interview schedule

Course outcomes:

CO-1: This course will sensitize students to problems being faced in community

CO-2: This course will increase awareness of candidate.

CO-3: This course will give exposure about research basics

*Abbreviations:

CIE: Continuous Internal Evaluation

UE: University Exam

Course Mapping:

	PO 1	PO 2	PO 3	PO 4	PO 5	PSO 1	PSO 2	PSO 3	PSO 4
CO1	1	2	2	2	2	2	2	2	1
CO2	1	2	2	2	2	2	2	2	1
CO3	1	2	2	2	2	2	2	2	1

Matching: * 0 to 30% = 1; *30% to 60% = 2; * 60% to 100% =3

SEMESTER

VI

B.Sc. (Home Science) VI Semester Group 'A'

Marriage and Family Dynamics

PAPER NO: B-XXXVIII

Course Type: Theory Major

UE – 75 Marks

Credits: 4

CIE – 25 Marks

Course Objectives: This course enables students to understand different concepts related to marriage and to know the different forms of marriage. Students will be aware of marriage systems among different religions, know the areas, obstacles and techniques of marital adjustments, understand the changing trends in gender roles, know about alternative styles of marriages.

Units	Topics
I	Marriage in Indian Society (a) Meaning, goals, characteristics of marriage, prevalent forms of marriage restrictions on marriage (b) Readiness for marriage i) Psychological ii) Social iii) Physiological iv) Economical (c) Preparation for marriage - (i) Selecting a suitable partner, Theories on mate selection (ii) Premarital association (iii) Premarital guidance and Counseling (d) Presents trends in marriage
II	Marital Adjustment (a) Types of adjustment-physical, financial, in-laws and social (b) Marital adjustment at different stages of family life cycle and occupational cycle (c) Factors affecting marital adjustment
III	Legal laws related to marriage in India :-

	<p>(a) The Hindu Marriage Act</p> <p>(b) Special Marriage Act</p> <p>(c) The Dowry Prohibition Act</p> <p>(d) Christian Marriage Act</p> <p>(e) Muslim Marriage Act</p>
IV	<p>Family</p> <p>(a) Meaning, definition, structure (Joint family and nuclear family), functions of family.</p> <p>(b) Changes in family structure, factors responsible.</p> <p>(c) Modern trends in family - single parent families, childless families, dual earner families, nuclear families, DINK families, Live-in-relationship.</p> <p>(d) Dysfunctional families- Separation and divorce, Violence and Abused families</p> <p>(e) Family counseling- (i) Meaning, principles, importance and techniques of family counseling. (ii) Skills, competencies and role of counselor.</p>

Internal Assessment:

1. Term paper on any topic from the course.
2. Critical analysis of relevant news articles on marriage and family issue.
3. Identification of risk family and assessment of their needs.

Reference Books:

1. Rice F.P. Marriage and Parenthood. Allyn and Bacon Inc. Toronto.
2. Rice F.P. 1983. Contemporary Marriage. Allyn and Bacon Inc. Toronto.
3. Winch R.F. 1963. The modern Family Holt Rinehart and Winston.
4. Handbook of Marriage and the Family (2012). Gary W. Peterson (Editor), Kevin R. Bush (Editor). Springer; 3rd ed. 2013 edition
5. Marriage and Family In Diverse and Changing Scenario (2019). Amiteshwar Ratra
6. Family, Marriage and Kinship in India. (1996). Shobhita Jain
7. Marriage and Family in India (2018). Motilal Banarsidass Publishers Pvt. Ltd.

Course Outcomes:

By the end of the course the students will be able to

CO-1: Aware of different Laws related to marriage

CO-2: Know the need and importance of premarital, marital and family counseling

CO-3: Aware of the causes for marital dissolution, divorce and family under distress

CO-4: Understand the concept of family crisis, stress and coping

***Abbreviations:**

CIE: Continuous Internal Evaluation

UE: University Exam

Course Mapping:

	PO 1	PO 2	PO 3	PO 4	PO 5	PSO 1	PSO 2	PSO 3	PSO 4
CO1	3	1	2	2	3	3	2	3	1
CO2	3	1	2	2	3	3	2	3	1
CO3	3	1	2	2	3	3	2	3	1
CO4	3	1	2	2	3	3	2	3	1

Matching: * 0 to 30% = 1; *30% to 60% = 2; * 60% to 100% =3

B.Sc. (Home Science) VI Semester Group 'A'

Children with Special Needs

PAPER NO: B-XXXIX

Course Type: Theory Major

UE – 75 Marks

Credits: 4

CIE – 25 Marks

Course Objectives:

The course will enable participants to:

1. Compare and contrast growth and development of a typically developing child to that of a child with special needs
2. Know and understand the different categories of special needs
3. Describe different models of care available to children with special needs
4. Summarize national laws and policies relevant to children with special needs

Units	Topic
I	Introduction to Children with Special Needs Definition and Meaning of Children with Special Needs, prevalence and classification of children with special needs, National policy for these children
II	Sensory and Physical Disabilities (Definition, causes, education and rehabilitation) a) Auditory defects b) Visual defects c) Orthopaedic Impairment d) Communication defects
III	Emotional Disturbances and Learning Difficulties (Definition, causes, Management) 1. Bed Wetting, Tics, Thumb Sucking, Nail Biting 2. Dyslexia, ADHD
IV	Mentally Challenged Children (Definition, Classification, Special Education)

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Internal Assessment:

- Seminar/ Presentation on any topic of the above syllabus
- Test with multiple choice questions/ short and long answer questions

Reference Books:

1. A. Kirk Education Exceptional Children. Oxford and I.B.N. Published Co. Calcutta.
2. Kar C. Exceptional Children. Sterling publishers Private Limited, New Delhi.
3. Pal, B.K. 2003. Handicapped: their Psychology and Rehabilitation, Inter-India Publication, New Delhi.
4. Singh P.V. 2004. Educating Education Mentally handicapped Children Sarup & Sons. New Delhi.
5. Pillai G.M. 2000. Gifted Children: Identification and Development, Pointer Publishers, Jaipur.

Course Outcomes:

CO-1:It helps to acquire knowledge about facilities, benefits, policies and schemes available for special children.

CO-2:The focus of this course is to identify children with special needs, their rights, and the barriers which creates disabilities.

CO-3:It helps for acquire knowledge about training and management of children with special needs.

***Abbreviations:**

CIE: Continuous Internal Evaluation

UE: University Exam

Course Mapping:

	PO 1	PO 2	PO 3	PO 4	PO 5	PSO 1	PSO 2	PSO 3	PSO 4
CO1	3	2	2	2	3	2	2	2	1
CO2	3	2	2	2	3	2	2	2	1
CO3	3	2	2	2	3	2	2	2	1

Matching: * 0 to 30% = 1; *30% to 60% = 2; * 60% to 100% =3

B.Sc. (Home Science) VI Semester Group 'A'

Children with Special Needs

PAPER NO: B-XL

Course Type: Practical Major

UE – 75 Marks

Credits: 2

CIE – 25 Marks

Course Objectives: This course will enable students to critically analyze the need of the special child and learn ways to impart education to child with disability.

Practical work

1. Visit to a center serving for children with needs and prepare a file for the same.
2. Prepare a teaching aid for imparting education to child with disability.
3. Prepare a chart or poster on any topic of syllabus.
4. Conduct a case study on a child with disability in context with family background.
5. Critical analysis and presentation of articles related disabilities.

Course Outcomes:

CO-1: Acquire the skills of identification and management of children with special needs.

CO-2: Demonstrate the knowledge to provide intervention programmes for differently able children.

CO-3: Students will be able to develop teaching aids for children with special needs.

***Abbreviations:**

CIE: Continuous Internal Evaluation

UE: University Exam

Course Mapping:

	PO 1	PO 2	PO 3	PO 4	PO 5	PSO 1	PSO 2	PSO 3	PSO 4
CO1	3	2	2	2	3	2	2	2	1
CO2	3	2	2	2	3	2	2	2	1
CO3	3	2	2	2	3	2	2	2	1

Matching: * 0 to 30% = 1; *30% to 60% = 2; * 60% to 100% =3

B.Sc. (Home Science) VI Semester Group 'B'

Community Nutrition

PAPER NO: B-XLI

Course Type: Theory Major

UE – 75 Marks

Credits: 4

CIE – 25 Marks

Course objectives: The course aim to equip students with the knowledge, skills, and tools necessary to address nutritional issues and promote health within communities. This subject focuses on understanding the complex interactions between individuals, families, communities, and the broader socio-economic and environmental factors that influence dietary patterns, nutritional status, and health outcomes.

Unit I- Introduction to Community Nutrition

- Concept and Scope of community nutrition
- Food related behavior – factors affecting food habits, relation to knowledge, attitude, beliefs and practices in food behavior.

Unit II-Assessment of Nutritional status

1. Direct methods – anthropometry, biochemical and clinical examination
2. Indirect methods- dietary surveys, vital statistics

Unit III- Nutritional problems and their implications

Etiology, prevalence, clinical features and preventive strategies of :-

1. Under nutrition- PEM, Nutritional anemia, Vitamin A deficiency, Iodine deficiency disorder
2. Fluorosis

Unit IV- Nutrition Education and Programmes

1. Objectives, principles and scopes of nutrition education
2. Methods and aids for imparting nutrition education
3. National nutrition Policy
4. Objectives, target group and intervention strategy of ICDS, Mid day meal programme, National programmes for prevention of anaemia, Vitamin A deficiency and Iodine deficiency disorder

Internal Assessment:

1. Planning and demonstration of low cost nutritious recipes for infants, preschoolers, pregnant/ lactating mothers.
2. Development of suitable aids for nutrition education programs.
3. Assessment of nutritional status-
 - a. Anthropometric measurements- weight, height and MUAC.
 - b. Plotting and interpretation of growth charts of children below 5 years
 - c. Identification of clinical signs of common nutritional disorders
 - d. Dietary assessment-24 hour recall
4. Planning and conducting a nutrition promotion activity

Reference Books:-

- Bamji MS, Krishnaswamy K, Brahma GNV(2009). Textbook of Human Nutrition, 3rd Edition.
- Park K (2009). Park textbook of Preventive and Social Medicine, 20th Edition. M/S Banarsidas, Bhanot Publishers, Jabalpur, India.
- Wadhwa A and Sharma S. (2003). Nutrition in the community – A textbook. Elite publishing House Pvt . Ltd. New Delhi

Course Outcomes**This course enables the students to:**

CO-1: To understand the concept and Scope of community nutrition.

CO-2: To know the assessment techniques applications for individuals and community.

CO-3: To gain knowledge about the nutritional problems in the community.

***Abbreviations:**

CIE: Continuous Internal Evaluation

UE: University Exam

Course Mapping:

	PO 1	PO 2	PO 3	PO 4	PO 5	PSO 1	PSO 2	PSO 3	PSO 4
CO1	3	2	3	2	2	2	2	2	2
CO2	2	2	2	2	2	2	2	1	2
CO3	3	2	2	2	2	1	2	2	2

Matching: * 0 to 30% = 1; *30% to 60% = 2; * 60% to 100%=3

B.Sc. (Home Science) VI Semester Group 'B'

Diet Therapy

PAPER NO: B-XLII

Course Type: Theory Major

UE – 75 Marks

Credits: 4

CIE – 25 Marks

Course objectives: The course aim to prepare students for the practice of medical nutrition therapy, empowering them to apply evidence-based nutrition principles and therapeutic interventions to improve the nutritional status, health outcomes, and quality of life of individuals with nutrition-related diseases and conditions.

Unit I-Principles of Diet therapy and Nutrition care process

1. Principles of diet therapy
2. Assessment of patients nutritional needs
3. Team approach in health care
4. Planning, implementation and evaluation of nutrition care
5. Dietary counselling in Nutrition care

Unit II- Therapeutic adaptation of normal diet

1. Qualitative and quantitative adaptation
2. Progressive diets- clear fluid, full fluid, soft and regular
3. Introduction to enteral and parenteral nutrition

Unit III- Weight Management

Etiology, clinical features, diagnosis, complications, nutritional and lifestyle modifications and dietary counseling in weight management

1. Overweight and obesity
2. Underweight
3. Eating disorders- Anorexia nervosa and bulimia

Unit IV- Nutritional management

Etiology, clinical features, diagnosis and nutritional management of the following :-

1. Infections and fevers- short term and long term (Typhoid, Tuberculoses and HIV/AIDS)

2. Stomach disorder- Gastritis and Ulcers
3. Small and large intestine disorders- Diarrhoea, Constipation, Lactose intolerance, Steatorrhoea, Celiac disease
4. Liver disease- infective hepatitis
5. Cardiovascular disorders- Hypertension, Hyperlipidemia and Atherosclerosis
6. Diabetes Mellitus- Type 1 and Type 2

Internal Assessment:

- Seminar/ Presentation on any topic of the above syllabus
- Test with multiple choice questions/ short and long answer questions

Reference Books:

- Bamji MS, Krishnaswamy K, Brahma GNV(2009). Textbook of Human Nutrition, 3rd Edition.
- Joshi SA. 2010. Nutrition and Dietetics. 3rd edition. Tata Mc. Graw-Hill Education Pvt ltd.
- Khanna K., Gupta S, Passi SJ, Seth R, Mahna R and Puri S (1997). Textbook of Nutrition & Dietetics. Phoenix Publishing House, New Delhi

Course Outcomes

This course will enable the students to:

CO-1: To understand the principles of diet therapy and nutrition care process

CO-2: To learn about the various types of therapeutic diets.

CO-3: To understand the symptoms, diagnosis, complication and treatment in diseases

***Abbreviations:**

CIE: Continuous Internal Evaluation

UE: University Exam

Course Mapping:

	PO	PO	PO	PO	PO	PSO	PSO	PSO	PSO
	1	2	3	4	5	1	2	3	4
CO1	2	2	1	2	2	2	2	2	3
CO2	2	2	2	1	2	2	2	2	2
CO3	2	2	2	2	2	1	2	2	2

Matching: * 0 to 30% = 1; *30% to 60% = 2; * 60% to 100% =3

B.Sc. (Home Science) VI Semester Group 'B'

Diet Therapy

PAPER NO: B-XLIII

Course Type: Practical Major

UE – 75 Marks

Credits: 2

CIE – 25 Marks

Course objectives: The course aim to enable students to develop personalized diet plans based on nutritional assessment findings, medical history, dietary preferences, cultural considerations, and therapeutic goals and instruct students in formulating nutritionally adequate and well-balanced diets that meet the specific nutrient requirements and dietary restrictions of clients.

Practical:-

1. Therapeutic diets

- i) Normal Diet with a 3 day cycle menu
- ii) Soft diet
- iii) Liquid diet- clear and full fluid

2. Planning, calculation, preparation, service and evaluation of diet for patients suffering from following disorder

- i) Diet in fever- acute & chronic
- 7. Diet in Diarrhoea, Constipation, Celiac disease
- ii) Diet in infective hepatitis
- iii) Diet in Overweight / Obesity and underweight
- iv) Type 1 diabetes & Type 2 diabetes
- v) Cardiovascular disorders- Hypertension, Atherosclerosis & Hyperlipidemia

3. Designing and preparation of a dietary counselling aid

Course Outcomes

This course will enable the students to:

CO-1: To understand the planning of therapeutic diets.

CO-2: To understand the meal planning, calculation, preparation of diets for various diseases.

CO-3: To learn the designing and preparation of a dietary counselling aid

***Abbreviations:**

CIE: Continuous Internal Evaluation

UE: University Exam

Course Mapping:

	PO 1	PO 2	PO 3	PO 4	PO 5	PSO 1	PSO 2	PSO 3	PSO 4
CO1	2	2	1	2	2	2	2	2	3
CO2	2	2	2	1	2	2	2	2	2
CO3	2	2	2	2	2	1	2	2	2

Matching: * 0 to 30% = 1; *30% to 60% = 2; * 60% to 100% =3

B.Sc. (Home Science) VI Semester Group 'E'
Programme Planning for Rural Development
PAPER NO: B-XLIV

Course Type: Theory Major

UE – 75 Marks

Credits: 4

CIE – 25 Marks

Unit I. Programme Planning:

1. Concept, Meaning and Objectives of Programme Planning.
2. Need of Programme Planning.
3. Principles of Programme Planning
4. Participatory planning- Concept, importance and approaches.

Unit II. Steps in Programme Planning:

- A. 1. Meaning and Importance of Plan of Work.
 2. Developing a Plan of Work
 3. Factors to be considered in preparing the Plan of Work
- B. Programme Execution-
 1. Aspects of execution.
 2. Steps of Programme Execution.
- C. Programme Evaluation:
 1. Concept, Importance, Criteria and types of Evaluation.
 2. Steps of Evaluation.

Unit III. Leaders and Leadership:

1. Meaning, qualities and role.
2. Types of leaders, identification and training of leaders.

Unit IV. 1. Rural Development Programmes under Five Year Plans.

- 2. Planning Commission of India in brief – role and importance.**

Internal Assessment:

- a. Visiting community to identify needs of community through PRA techniques.
- b. Development of need-based programmes – its implementation and evaluation.
- c. Writing report and its presentation.

Reference Books:

1. Anoop Singh Sandhu, “Extension program planning”
2. P. Dhama & O.P. Bhatnagar, “Education & Communication for Development” Oxford IBH Publishing Co. Pvt. Ltd, New Delhi.
3. Directorate of Extension Education, “Extension Education in community Development”
4. Dr. A. Adivi Reddy, “Extension Education”
5. Uham Kumar Singh, “Extension Education” G. L. Ray, “Extension and Management Communication” Naya Prakash.
6. S. K. Waghmare, “Teaching Extension Education”

Course Outcomes:

CO-1: Students will able to learn about concept, principles and objectives of Programme Planning.

CO-2: Students will understand meaning and importance of Plan of Work.

CO-3: Students will get an insight about steps of Programme Execution.

CO-4: Students will learn about types of leaders and about their qualities and role

***Abbreviations:**

CIE: Continuous Internal Evaluation

UE: University Exam

Course Mapping:

	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4
CO1	2	1	1	2	1	2	1	1	2
CO2	1	1	1	1	-	-	1	1	1
CO3	1	-	1	1	1	1	1	1	1
CO4	1	1	-	1	1	1	1	1	1

Matching: * 0 to 30% = 1; *30% to 60% = 2; * 60% to 100% =3

B.Sc. (Home Science) VI Semester Group 'E'

Communication Process and Adoption

PAPER NO: B-XLV

Course Type: Theory Major

UE – 75 Marks

Credits: 4

CIE – 25 Marks

Course Objective

- Students will be able to learn about importance of communication and concept of Innovation, Diffusion and Adoption

Unit I. Communication:

1. Meaning, nature and importance of communication.
2. Factors influencing effective communication.
3. Key elements in the communication process.
4. Models of communication.

Unit II.

1. **Types of Communication** – Upward-Downward; Interpersonal -Intrapersonal; One way- Two way; Individual- Group- Mass, Localite - Cosmopolite.
2. **Barriers** of communication and ways to overcome them.
3. **Development communication-** Nature, Definition, Role & significance.

Unit III. Innovation and Diffusion:

1. Concept of Innovation and Diffusion.
2. Characteristics of innovation and applicability of each characteristic to homestead technologies.
3. Consequences of innovation.

4. Innovation decision process.

5. Elements of diffusion-social agents, opinion leaders and change agents.

Unit IV. Adoption-concept, adoption stages, adopter categories, rate of adoption, discontinuance.

Internal Assessment:

- Seminar/ Presentation on any topic of the above syllabus
- Test with multiple choice questions/ short and long answer questions

Reference Books:

1. P. Dhama & O.P. Bhatnagar, "Education & Communication for Development" Oxford IBH Publishing Co. Pvt. Ltd, New Delhi.
2. Directorate of Extension Education, "Extension Education in community Development"
3. A. S. Sandhu, "Agricultural communication"
4. G. L. Ray, "Extension and Management Communication" Naya Prakash.
5. B. N. Ahuja, "Theory & Practice Journalism"
6. S. K. Waghmare, "Teaching Extension Education"
7. Lady Irwin College, "Studies of the Rural Community"
8. Larry L. Barker, "Communication"

Course Outcome:

CO-1: Students will be able to learn about importance of communication and factors influencing effective communication

CO-2: Students will develop an understanding about different Models of communication.

CO-3: Students will learn about barriers of communication and ways to overcome them.

CO-4: Students will learn about concept of Innovation, Diffusion and Adoption

***Abbreviations:**

CIE: Continuous Internal Evaluation

UE: University Exam

Course Mapping:

	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4
CO1	2	1	1	2	1	2	1	1	2
CO2	1	1	1	1	1	1	1	1	1
CO3	1	1	1	1	1	1	1	1	1
CO4	1	1	1	1	1	1	1	1	1

Matching: * 0 to 30% = 1; *30% to 60% = 2; * 60% to 100% =3

B.Sc. (Home Science) VI Semester Group 'E'
Communication Process and Adoption
PAPER NO: B-XLVI

Course Type: Practical Major

UE – 75 Marks

Credits: 2

CIE – 25 Marks

Course Objective

- Student will be able to develop development programmes.

Practical:

1. Formulating communication strategies for home science development programmes.
2. Development of Communication Skills using different Approaches.

Course Outcomes:

CO-1: Student will be able to formulate communication strategies for home science development programmes.

***Abbreviations:**

CIE: Continuous Internal Evaluation

UE: University Exam

Course Mapping:

	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4
CO1	2	1	1	2	1	2	1	1	2

Matching: * 0 to 30% = 1; *30% to 60% = 2; * 60% to 100% =3

B.Sc. (Home Science) VI Semester

Health and Microbiology

PAPER NO: B-XLVII

Course Type: Co-curricular Course

UE – 75 Marks

Credits: Qualifying

CIE – 25 Marks

COURSE OBJECTIVES.

- To learn the definition of health.
- Read the different methods of pasteurization.
- Learn the definition of antibiotics.
- To become aware about the food poisoning and its caused.

UNIT – I

1. (a) Structure of the bacterial cell.
(b) Definition of health and hygiene immunisation for a child.
2. Sources of water supply, water borne diseases (Typhoid, cholera, diarrhea, dysentery) purification of water on large scale, and home methods.

UNIT – II

1. **Pasterurisation:** Definition, methods of pasterurisation, efficiency test of pasterurisation.
2. Immunity, types of immunity

UNIT – III

Antibiotics: Definition, routes of Administration of antibiotics, combination of antibiotics with other drugs. Testing of antibiotics or sensitivity test of antibiotics.
Complication of antibiotics

1. Penicillin
2. Streptomycin

UNIT – IV

1. Food poisoning – caused due to micro organisms.

2. Common diseases produced by – micro organisms.
 - a. Water borne infection (diseases – typhoid, cholera).
 - b. Air borne infection (diseases) diphtheria, pulmonary tuberculosis, smallpox, chicken pox, measles

Internal Assessment:

1. Study of different stains.
2. Study of different culture medium used for culturing different microorganisms.
3. Demonstration and theory of water works mechanism.
4. Demonstration and theory of pasteurisation, milk borne diseases, efficiency test of pasteurisation.
5. Demonstration of models and charts of :
 - (i) Models of faces of small pox, chicken pox and measles.
 - (ii) Models of successful vaccination.
 - (iii) Models of spoiled vaccination.
 - (iv) Sessional paper on theory topics.

Reference Books:

1. Anna K. Joshua (Popular Books depot, Hathras Microbiology, 1979 IIInd Add.)
2. William G. Walkar – General Microbiology 1969 IIInd Ed.
3. Satydev Arya – Swasthy Vigyan (Hindi Medium) 1976 IIInd ed.
4. Micheal J. Peakzar, and Reid – Microbiology, 1965.
5. B.N. Ghosh Text Book of SPM.
6. J.N. Parks – Text Book of S.P.M.
7. Yash Pal Bedi (Atma Ram and Sons, New Delhi Hygiene and Public Health 1976).

Course Outcomes

After completing this course, student is expected to learn the following:

CO1: Learn the concepts about health and their importance.

CO2: Remember the definition of antibiotics.

CO3: Able to explain the food poisoning and its caused.

***Abbreviations:**

CIE: Continuous Internal Evaluation

UE: University Exam

Course Mapping:

	PO 1	PO 2	PO 3	PO 4	PO 5	PSO 1	PSO 2	PSO 3	PSO 4
CO1	3	2	1	2	3	2	2	2	3
CO2	1	2	2	1	1	2	2	2	2
CO3	2	2	2	2	2	1	2	2	3

Matching: * 0 to 30% = 1; *30% to 60% = 2; * 60% to 100%=3

B.Sc. (Home Science) VI Semester

Research Project

PAPER NO: B-XLVIII

Course Type: Major

UE – 75 Marks

Credits: Qualifying

CIE – 25 Marks

Course objectives:

- Students will learn to communicate with community around
- Students will become sensitive to needs of the society where she lives

Course Outcomes:

CO-1: Students will be able to try some intervention plan for problems faced in community
Improves

CO-2: This course will improve writing and presentation abilities of the candidate.

*Abbreviations

CIE: Continuous Internal Evaluation

UE: University Exam

Course Mapping:

	PO 1	PO 2	PO 3	PO 4	PO 5	PSO 1	PSO 2	PSO 3	PSO 4
CO1	1	2	2	2	3	2	2	2	1
CO2	1	2	2	2	3	2	2	2	1

Matching: * 0 to 30% = 1; *30% to 60% = 2; * 60% to 100% =3