

# **KURUKSHETRA UNIVERSITY KURUKSHETRA**



## **Scheme of Examinations and Syllabus for Under-Graduate Programme Bachelor of Home Science Interdisciplinary Scheme D**

### **Under Multiple Entry-Exit**

**Internship and CBCS-LOCF in accordance to NEP-2020**

**w.e.f. 2023-24 (in phased manner)**

**KURUKSHETRA UNIVERSITY KURUKSHETRA**  
**Scheme of Examinations For Under-Graduate Programme**  
**Under multiple Entry-Exit, Internship & CBCS-LOCF-CCF in accordance to NEP 2020**  
**w.e.f. 2023-24 (in phased manner)**  
**Bachelor of Home Science**

**SEMESTER-1**

Course	Paper(s)	Nomenclature of Paper	Credits	Hours / Week	Internal marks	External Marks	Total Marks	Exam Duration
<b>CC-A1</b> <b>4 credit</b>	B23-HSC-101	Home and Interior Decor'	3	3	20	50	70	3 hrs.
		Home and Interior Decor' Practical	1	2	10	20	30	4 hrs.
<b>CC-B1</b> <b>4 credit</b>	B23-HSC-102	Fundamentals of Clothing & Textiles	3	3	20	50	70	3 hrs.
		Fundamentals of Clothing & Textiles Practical	1	2	10	20	30	4 hrs.
<b>CC-C1</b> <b>4 credit</b>	B23-HSC-103	Introduction to Human Development	3	3	20	50	70	3 hrs.
		Introduction to Human Development Practical	1	2	10	20	30	4 hrs.
<b>CC-M1</b> <b>2 credit</b>	B23-HSC-104	Consumer Education	1	1	10	20	30	3hrs.
		Consumer Education Practical	1	2	5	15	20	4hrs.
<b>MDC-1</b> <b>3 credits</b>	From the courses offered by D/C/I							
<b>AEC-1</b> <b>2 credit</b>	From available AEC-1 pool list of two credit as per NEP							
<b>SEC-1</b> <b>3 credit</b>	From Available SEC-1 pool list of two credit as per NEP							
<b>VAC-1</b> <b>2 credit</b>	From Available VAC-1 pool list of two credit as per NEP							

## SEMESTER-2

Course	Paper(s)	Nomenclature of Paper	Credits	Hours / Week	Internal marks	External Marks	Total Marks	Exam Duration
<b>CC-A2 4 credit</b>	B23-HSC-201	Nutrition Science	3	3	20	50	70	3 hrs.
		Nutrition Science Practical	1	2	10	20	30	4 hrs.
<b>CC-B2 4 credit</b>	B23-HSC-202	Family Resource Management	3	3	20	50	70	3 hrs.
		Family Resource Management Practical	1	2	10	20	30	4 hrs.
<b>CC-C2 4 credit</b>	B23-HSC-203	Extension Education & Communication	3	3	20	50	70	3 hrs.
		Extension Education & Communication Practical	1	2	10	20	30	4 hrs.
<b>CC-M2 2 credit</b>	B23-HSC-204	Housing & Space Management	1	1	10	20	30	3hrs.
		Housing & Space Management Practical	1	2	5	15	20	4hrs.
<b>MDC-2 3 credits</b>	From the courses offered by D/C/I							
<b>AEC-2 2 credit</b>	From Available AEC-2 pool list of two credit as per NEP							
<b>SEC-2 3 credit</b>	From Available SEC-2 pool list of three credit as per NEP							
<b>VAC-2 2 credit</b>	From Available VAC-2 pool list of two credit as per NEP							

**Internship of 4 credits of 4-6 weeks duration after 2nd semester**

**Scheme of Examinations For Under-Graduate Programme**  
**Under multiple Entry-Exit, Internship & CBCS-LOCF-CCF in accordance to NEP 2020**  
**w.e.f. 2023-24 for IIHS,KUK (in phased manner)**  
**SEMESTER-3**

Course	Paper(s)	Nomenclature of Paper	Credits	Hours/Week	Internal marks	External Marks	Total Marks	Exam Duration
<b>CC-A3</b> <b>4 credit</b>	B23-HSC-301	Basics of clothing Construction & apparel designing	3	3	20	50	70	3 hrs.
		Basics of clothing Construction & apparel designing Practical	1	2	10	20	30	4 hrs.
<b>CC-B3</b> <b>4 credit</b>	B23-HSC-302	Food Science	3	3	20	50	70	3 hrs.
		Food Science Practical	1	2	10	20	30	4 hrs.
<b>CC-C3</b> <b>4 credit</b>	B23-HSC-303	Life Span Development-I	3	3	20	50	70	3 hrs.
		Life Span Development-I Practical	1	2	10	20	30	4 hrs.
<b>CC-M3</b> <b>4 credit</b>	B23-HSC-304	Hygiene & human physiology	3	3	20	50	70	3 hrs.
		Hygiene & human physiology Practical	1	2	10	20	30	4 hrs.
<b>MDC-3</b> <b>3 credits</b>	From the courses offered by D/C/I							
<b>AEC-3</b> <b>2 credit</b>	From Available AEC-3 pool list of three credit as per NEP							
<b>SEC-3</b> <b>3 credit</b>	From Available SEC-3 pool list of three credit as per NEP							

### SEMESTER-4

Course	Paper(s)	Nomenclature of Paper	Credits	Hours/Week	Internal marks	External Marks	Total Marks	Exam Duration
<b>CC-A4</b> <b>4 credit</b>	B23-HSC-401	Advanced apparel & textile designing	3	3	20	50	70	3 hrs.
		Advanced apparel & textile designing Practical	1	2	10	20	30	4 hrs.
<b>CC-B4</b> <b>4 credit</b>	B23-HSC-402	Early childhood education and special need children	3	3	20	50	70	3 hrs.
		Early childhood education and special need children Practical	1	2	10	20	30	4 hrs.
<b>CC-C4</b> <b>4 credit</b>	B23-HSC-403	Food microbiology & biochemistry	3	3	20	50	70	3 hrs.
		Food microbiology & biochemistry Practical	1	2	10	20	30	4 hrs.
<b>CC-M4(V)</b> <b>4 credit</b>	From Available CC-M4(V) pool list of four credit as per NEP							
<b>AEC-4</b> <b>2 credit</b>	From Available AEC-4 pool list of three credit as per NEP							
<b>VAC-3</b> <b>2 credit</b>	From Available VAC-4 pool list of two credit as per NEP							

**Internship of 4 credits of 4-6 weeks duration after 4<sup>th</sup> semester (If not done in 2<sup>nd</sup> Semester)**

## SEMESTER-5

Course	Paper(s)	Nomenclature of Paper	Credits	Hours / Week	Internal marks	External Marks	Total Marks	Exam Duration
<b>CC-A5</b> 4 credit	B23-HSC-501	Normal & therapeutic nutrition	3	3	20	50	70	3 hrs.
		Normal & therapeutic nutrition Practical	1	2	10	20	30	4 hrs.
<b>CC-B5</b> 4 credit	B23-HSC-502	Traditional textiles & embroideries of India	3	3	20	50	70	3 hrs.
		Traditional textiles & embroideries of India Practical	1	2	10	20	30	4 hrs.
<b>CC-C5</b> 4 credit	B23-HSC-503	Life Span Development-II	3	3	20	50	70	3 hrs.
		Life Span Development-II Practical	1	2	10	20	30	4 hrs.
<b>CC-M5(V)</b> 4 credit	From Available CC M5(V) pool list of four credit as per NEP							
<b>SEC</b>	Internship#							

#Four credits of internship, earned by a student during summer internship after 2<sup>nd</sup> or 4<sup>th</sup> semester, will be taken in to account in 5<sup>th</sup> semester of a student who pursue 3 year UG programmes without taking exit option .

## SEMESTER-6

Course	Paper(s)	Nomenclature of Paper	Credits	Hours / Week	Internal marks	External Marks	Total Marks	Exam Duration
<b>CC-A6 4 credit</b>	B23-HSC-601	Family dynamics & counseling	3	3	20	50	70	3 hrs.
		Family dynamics & counseling	1	2	10	20	30	4 hrs.
<b>CC-B6 4 credit</b>	B23-HSC-602	Fashion merchandising & entrepreneurship	3	3	20	50	70	3 hrs.
		Fashion merchandising & entrepreneurship Practical	1	2	10	20	30	4 hrs.
<b>CC-C6 4 credit</b>	B23-HSC-603	Advanced Therapeutic Nutrition	3	3	20	50	70	3 hrs.
		Advanced Therapeutic Nutrition Practical	1	2	10	20	30	4 hrs.
<b>CC-M6 4 credit</b>	B23-HSC-604	Entrepreneurial Trends & Techniques	3	3	20	50	70	3 hrs.
		Entrepreneurial Trends & Techniques Practical	1	2	10	20	30	4 hrs.
<b>CC-M7(V) 4 credit</b>	From Available CC-M7(V) pool list of four credit as per NEP							

**SEMESTER-7**  
**BACHELOR OF HOME SCIENCE (HONORS)**  
**SPECIALISATION IN (FOOD, NUTRITION & DIETETICS)**

Course	Paper(s)	Nomenclature of Paper	Credits	Hours/Week	Internal	External Marks	Total Marks	Exam Duration
CC-H1 4 credit	B23-HSC-701	Advanced Human Nutrition-I	4	4	30	70	100	3 hrs.
CC-H2 4 credit	B23-HSC-702	Advanced Nutritional Biochemistry-I	4	4	30	70	100	3 hrs.
CC-H3 4 credit	B23-HSC-703	Institutional Management I	4	4	30	70	100	3 hrs.
DSE-H1 4 credit Select one Option	B23-HSC-704	Food Science I	4	4	30	70	100	3 hrs.
	B23-HSC-705	Food Safety and Quality Control I	4	4	30	70	100	3 hrs.
PC-H1 4 credit	B23-HSC-706	Practical Based on B-23 HSC 701-705	4	8	30	70	100	6 hrs.
CC-HM1 4 credit	B23-HSC-707	Food Microbiology	3	3	20	50	70	3 hrs.
		Food Microbiology Practical	1	2	10	20	30	4 hrs.

**SEMESTER-8**  
**BACHELOR OF HOME SCIENCE (HONORS)**  
**SPECIALISATION IN (FOOD, NUTRITION & DIETETICS)**

Course	Paper(s)	Nomenclature of Paper	Credits	Hours/Week	Internal marks	External Marks	Total Marks	Exam Duration
CC-H4 4 credit	B23-HSC-801	Advanced Human Nutrition-II	4	4	30	70	100	3 hrs.
CC-H5 4 credit	B23-HSC -802	Advanced Nutritional Biochemistry-II	4	4	30	70	100	3 hrs.
CC-H3 4 credit	B23-HSC-803	Institutional Management II	4	4	30	70	100	3 hrs.
DSE-H1 4 credit Select one Option	B23-HSC-804	Food Science II	4	4	30	70	100	3 hrs.
	B23-HSC-805	Food Safety and Quality Control II	4	4	30	70	100	3 hrs.
PC-H2 4 credit	B23- HSC-806	Practical Based on B23-HSC-801 TO 804/805	4	8	30	70	100	6 hrs.
CC-HM2 4 credit	B23- HSC-807	Human physiology	4	4	30	70	100	3 hrs.



**OR**  
**SEMESTER-7**  
**BACHELOR OF HOME SCIENCE (HONORS WITH RESEARCH)**  
**SPECIALISATION IN (FOOD, NUTRITION & DIETETICS)**

Course	Paper(s)	Nomenclature of Paper	Credits	Hours/Week	Internal marks	External Marks	Total Marks	Exam Duration
<b>CC-H1</b> 4 credit	B23-HSC-701	Advanced Human Nutrition-I	4	4	30	70	100	3 hrs.
<b>CC-H2</b> 4 credit	B23-HSC-702	Advanced Nutritional Biochemistry-I	4	4	30	70	100	3 hrs.
<b>CC-H3</b> 4 credit	B23-HSC-703	Institutional Management I	4	4	30	70	100	3 hrs.
<b>DSE-H1</b> 4 credit Select one Option	B23-HSC-704	Food Science I	4	4	30	70	100	3 hrs.
	B23-HSC-705	Food Safety and Quality Control I	4	4	30	70	100	3 hrs.
<b>PC-H1</b> 4 credit	B23-HSC-706	Practical Based on B-23 HSC 701-705	4	8	30	70	100	6 hrs.
<b>CC-HM1</b> 4 credit	B23-HSC-707	Food Microbiology	3	3	20	50	70	3 hrs.
		Food Microbiology Practical	1	2	10	20	30	4 hrs.

**SEMESTER-8**  
**BACHELOR OF HOME SCIENCE (HONORS WITH RESEARCH)**  
**SPECIALISATION IN (FOOD, NUTRITION & DIETETICS)**

Course	Paper(s)	Nomenclature of Paper	Credits	Hours/Week	Internal marks	External Marks	Total Marks	Exam Duration
<b>CC-H4</b> 4 credit	B23-HSC-801	Advanced Human Nutrition-II	4	4	30	70	100	3 hrs.
<b>CC-H5</b> 4 credit	B23- HSC-802	Advanced Nutritional Biochemistry-II	4	4	30	70	100	3 hrs.
<b>CC-HM2</b> 4 credit	B23- HSC-807	Human physiology	4	4	30	70	100	3 hrs.
<b>Project/Dissertation</b> 12 credit	B23-HSC -808	Project/Dissertation	8+4	-	-	-	-	-

**SEMESTER-7**  
**BACHELOR OF HOME SCIENCE (HONORS)**  
**SPECIALISATION IN (HUMAN DEVELOPMENT)**

Course	Paper(s)	Nomenclature of Paper	Credits	Hours/Week	Internal marks	External Marks	Total Marks	Exam Duration
CC-H1 4 credit	B23-HSC-711	Theories of Human Development, psychology and Behaviour	4	4	30	70	100	3 hrs.
CC-H2 4 credit	B23- HSC-712	Methods and Techniques of Assessment in Human Development	4	4	30	70	100	3 hrs.
CC-H3 4 credit	B23- HSC-713	Early Childhood Development: Care and Education	4	4	30	70	100	3 hrs.
DSE-H1 4 credit Select one Option	B23- HSC-714	Cross-Cultural Perspectives in Family Studies	4	4	30	70	100	3 hrs.
	B23- HSC-715	Family Support Therapy	4	4	30	70	100	3 hrs.
PC-H1 4 credit	B23- HSC-716	Practical Based on B-23 HSC 701-705	4	8	30	70	100	6 hrs.
CC-HM1 4 credit	B23- HSC-717	Mental health	3	3	20	50	70	3 hrs.
		Mental health practical	1	2	10	20	30	4 hrs.

**SEMESTER-8**  
**BACHELOR OF HOME SCIENCE (HONORS)**  
**SPECIALISATION IN (HUMAN DEVELOPMENT)**

Course	Paper(s)	Nomenclature of Paper	Credits	Hours/Week	Internal marks	External Marks	Total Marks	Exam Duration
CC-H4 4 credit	B23- HSC 811	Fundamentals of Human Development	4	4	30	70	100	3 hrs.
CC-H5 4 credit	B23- HSC-812	Adolescence and adulthood: Development, Psychology and Challenges	4	4	30	70	100	3 hrs.
CC-H6 4 credit	B23- HSC-813	Management, Policies and Programmes for Women and Children	4	4	30	70	100	3 hrs.
DSE-H2 4 credit Select one option	B23- HSC-814	Population and Family: Dynamics, Psychology and Welfare	4	4	30	70	100	3 hrs.
	B23- HSC-815	Guiding young Children: Growth Behaviour and Development	4	4	30	70	100	3 hrs.
PC-H2 4 credit	B23- HSC-816	Practical Based on B23-HSC-801 TO 804/805	4	8	30	70	100	6 hrs.
CC-HM2 4 credit	B23- HSC-817	Care of elderly	3	3	20	50	70	3 hrs.
		Care of elderly practical	1	2	10	20	30	4 hrs.

**OR**  
**SEMESTER-7**

**BACHELOR OF HOME SCIENCE (HONOURS WITH RESEARCH)**  
**SPECIALISATION IN (HUMAN DEVELOPMENT)**

Course	Paper(s)	Nomenclature of Paper	Credits	Hours/Week	Internal marks	External Marks	Total Marks	Exam Duration
<b>CC-H1</b> 4 credit	B23-HSC-711	Theories of Human Development, psychology and Behaviour	4	4	30	70	100	3 hrs.
<b>CC-H2</b> 4 credit	B23- HSC-712	Methods and Techniques of Assessment in Human Development	4	4	30	70	100	3 hrs.
<b>CC-H3</b> 4 credit	B23- HSC-713	Early Childhood Development: Care and Education	4	4	30	70	100	3 hrs.
<b>DSE-H1</b> 4 credit Select one Option	B23- HSC-714	Cross-Cultural Perspectives in Family Studies	4	4	30	70	100	3 hrs.
	B23- HSC-715	Family Support Therapy	4	4	30	70	100	3 hrs.
<b>PC-H1</b> 4 credit	B23- HSC-716	Practical Based on B-23 HSC 711-715	4	8	30	70	100	6 hrs.
<b>CC-HM1</b> 4 credit	B23- HSC-717	Mental health	3	3	20	50	70	3 hrs.
		Mental health practical	1	2	10	20	30	4 hrs.
<b>SEMESTER-8</b>								
<b>BACHELOR OF HOME SCIENCE (HONORS WITH REASEARCH)</b>								
<b>SPECIALISATION IN (HUMAN DEVELOPMENT)</b>								
Course	Paper(s)	Nomenclature of Paper	Credits	Hours/Week	Internal marks	External Marks	Total Marks	Exam Duration
<b>CC-H4</b> 4 credit	B23- HSC 811	Fundamentals of Human Development	4	4	30	70	100	3 hrs.
<b>CC-H5</b> 4 credit	B23- HSC-812	Adolescence and adulthood: Development, Psychology and Challenges	4	4	30	70	100	3 hrs.
<b>CC-HM2</b> 4 credit	B23- HSC-817	Care of elderly	3	3	20	50	70	3 hrs.
		Care of elderly practical	1	2	10	20	30	4 hrs.
<b>Project/Dissertation</b> 12 credit	B23-HSC -818	Project/Dissertation	8+4	-	-	-	-	-

**SEMESTER 7**  
**BACHELOR OF HOME SCIENCE (HONORS)**  
**SPECIALISATION IN (CLOTHING TEXTILE & FASHION DESIGNING)**

Course	Paper(s)	Nomenclature of Paper	Credits	Hours/Week	Internal marks	External Marks	Total Marks	Exam Duration
<b>CC-H1</b> <b>4 credit</b>	B23-HSC-721	Historic Textiles and Costumes	4	4	30	70	100	3 hrs.
<b>CC-H2</b> <b>4 credit</b>	B23-HSC-722	Advanced Apparel Construction	4	4	30	70	100	3 hrs.
<b>CC-H3</b> <b>4 credit</b>	B23-HSC-723	Dyeing & Printing in Textiles	4	4	30	70	100	3 hrs.
<b>DSE-H1</b> <b>4 credit</b> <b>Select one option</b>	B23-HSC-724	Textile chemistry	4	4	30	70	100	3 hrs.
	B23-HSC-725	Textile Industry in India	4	4	30	70	100	3 hrs.
<b>PC-H1</b> <b>4 credit</b>	B23-HSC-726	Apparel Construction and Designing Techniques	4	8	30	70	100	6 hrs.
<b>CC-HM1</b> <b>4 credit</b>	B23-HSC-727	Computer Application in Pattern Making	4	4	30	70	100	3 hrs.

**SEMESTER-8**  
**BACHELOR OF HOME SCIENCE (HONORS)**  
**SPECIALISATION IN (CLOTHING TEXTILE & FASHION DESIGNING)**

Course	Paper(s)	Nomenclature of Paper	Credits	Hours/Week	Internal marks	External Marks	Total Marks	Exam Duration
<b>CC-H1</b> <b>4 credit</b>	B23-HSC-821	Fabric construction and woven fabric analysis	4	4	30	70	100	3 hrs.
<b>CC-H2</b> <b>4 credit</b>	B23-HSC-822	Textile testing and quality control	4	4	30	70	100	3 hrs.
<b>CC-H3</b> <b>4 credit</b>	B23-HSC-823	Apparel and Textile designing	4	4	30	70	100	3 hrs.
<b>DSE-H1</b> <b>4 credit</b> <b>Select one option</b>	B23-HSC-824	Fashion retailing and branding	4	4	30	70	100	3 hrs.
	B23-HSC-825	Social and psychological aspects of clothing	4	4	30	70	100	3 hrs.
<b>PC-H1</b> <b>4 credit</b>	B23-HSC-826	Textile testing, designing and fashion illustration	4	8	30	70	100	6 hrs.
<b>CC-HM1</b> <b>4 credit</b>	B23-HSC-827	Entrepreneurship management	4	4	30	70	100	3 hrs.

**OR****SEMESTER 7****BACHELOR OF HOME SCIENCE (HONOURS WITH RESEARCH)  
SPECIALISATION IN (CLOTHING TEXTILE & FASHION DESIGNING)**

Course	Paper(s)	Nomenclature of Paper	Credits	Hours/Week	Internal marks	External Marks	Total Marks	Exam Duration
<b>CC-H1 4 credit</b>	B23-HSC-721	Historic Textiles and Costumes	4	4	30	70	100	3 hrs.
<b>CC-H2 4 credit</b>	B23-HSC-722	Advanced Apparel Construction	4	4	30	70	100	3 hrs.
<b>CC-H3 4 credit</b>	B23-HSC-723	Dyeing & Printing in Textiles	4	4	30	70	100	3 hrs.
<b>DSE-H1 4 credit Select one option</b>	B23-HSC-724	Textile chemistry	4	4	30	70	100	3 hrs.
	B23-HSC-725	Textile Industry in India	4	4	30	70	100	3 hrs.
<b>PC-H1 4 credit</b>	B23-HSC-726	Apparel Construction and Designing Techniques	4	8	30	70	100	6 hrs.
<b>CC-HM1 4 credit</b>	B23-HSC-727	Computer Application in Pattern Making	4	4	30	70	100	3 hrs.

**SEMESTER 8****BACHELOR OF HOME SCIENCE (HONOURS WITH RESEARCH)  
SPECIALISATION IN (CLOTHING TEXTILE & FASHION DESIGNING)**

Course	Paper(s)	Nomenclature of Paper	Credits	Hours/Week	Internal marks	External Marks	Total Marks	Exam Duration
<b>CC-H1 4 credit</b>	B23-HSC-821	Fabric construction and woven fabric analysis	4	4	30	70	100	3 hrs.
<b>CC-H2 4 credit</b>	B23-HSC-822	Textile testing and quality control	4	4	30	70	100	3 hrs.
<b>CC-HM2 4 credit</b>	B23-HSC-827	Entrepreneurship management	4	4	30	70	100	3 hrs.
<b>Project/Dissertation 12 credit</b>	B23-HS -828	Project/Dissertation	8+4	-	-	-	-	-

<b>Session: 2023-24</b>	
<b>Part A - Introduction</b>	
Subject	Bachelor of Home Science
Semester	I
Name of the Course	Home and Interior Decor
Course Code	B23-HSC- 101
Course Type: (CC/MCC/MDC/CC- M/DSEC/VOC/DSE/PC/AEC/VA C)	CC(Core Course)
Level of the course (As per Annexure-I)	100-199
Pre-requisite for the course (if any)	Senior Secondary (10+2)

Course Learning Outcomes(CLO):	<p>After completing this course, the learner will be able to:</p> <ol style="list-style-type: none"> <li>1.To encourage experimentation with traditional and contemporary materials, technical processes and methods</li> <li>2.To impart knowledge and skills for making different floor plans for different income groups.</li> <li>3.To develop skills, abilities &amp; knowledge that enable artistic production &amp; creative problem solving skills.</li> <li>4.To develop and apply concepts of art &amp; design to create aesthetically pleasing interiors.</li> </ol> <hr/> <p>5*.To acquire professional and entrepreneurial skills like interior decoration, use of waste material and decorative pieces for economic empowerment.</p>		
Credits	Theory	Practical	Total
	3	1	4
Contact Hours	3	2	5
<b>Max. Marks:100</b> <b>Internal Assessment Marks:20(T)+10(P)=30</b> <b>End Term Exam Marks: 50(T)+20(P)=70</b>		<b>Time:3hrs (T)</b> <b>4hrs(P)</b>	
<b>Part B- Contents of the Course</b>			
<p><b><u>Instructions for Paper- Setter:</u></b> The examiner will set nine questions in all, selecting four questions from each unit and one compulsory objective type question.</p> <p><b><u>Instructions for the candidate:</u></b> The candidates will attempt five questions in all, selecting atleast one question from each unit as well as compulsory questions.</p>			

<b>Unit</b>	<b>Topics</b>	<b>Contact Hours</b>
I	Objectives of interior decoration, importance of elements of art in interior decoration. <b>Types of design:</b> structural and decorative and its application. <b>Elements of art:</b> line, form, texture, light, pattern, colour, space and its application in interior decoration	10
II	<p><b>Principles of design:</b> Rhythm, balance, proportion, emphasis, harmony and its application in interior decoration</p> <p><b>Colour:</b> Properties of colour, psychological effect of colour, color schemes and its application in the interior of a house.</p> <p><b>Lighting:</b> a) Types and requirement for various activities b) Lighting fixtures in the home</p>	10
III	<p><b>Table setting and table manners:</b> Informal and formal table settings (buffet style, Indian style restaurant style, Cafe style)</p> <p><b>Furniture:</b> Types of furniture, furniture arrangement for different areas (bedroom, drawing room, dining room, kitchen and its types) Factors affecting the selection and purchase of furniture, care and maintenance of furniture.</p>	10
IV	<p><b>Flower arrangement:</b> a) Different types of Flower arrangement b) Accessories used and points to be considered for flower arrangement</p> <p>c) Flower decoration for different occasions <b>Furnishings:</b> a) Soft Furnishing (curtains, cushions, pillow and material for upholstered furniture) b) Wall treatment and its types c) Window treatment and decoration d) Types of floor coverings</p>	10





**Recommended Books/e-resources/LMS:**

- 1. Seetharaman P.(2019), Interior Design And Decoration,India:CBS.**
- 2. M.Pratap Rao (2020),Interior Design: Principles And Practice,India, Standard Publishers and Distributors Pvt Ltd**
- 3. Frida Ramstedt (2020), The Interior Design Handbook: Furnish, Decorate, and Style Your Space,Clarkson Potter publishing.**
- 4. Dr. Bhargava B. (2007), Principles of art,University Book House Pvt. Ltd.**
5. Lawrence M, (1987), Interior Decoration, New Jersey: Chartwell Books.
6. Riley &Bayen., (2003), The Elements of Design, Mitchell Beazley.
7. Rutt Anna Hong (1961): Home furnishing,Wiley Eastern Pvt.Ltd.
8. Bhat Pranav and Goenka Shanita (1990): The foundation of art and Design, Bombay: Lakhani Book Depot.

\*Applicable for courses having practical component.

<b>Session: 2023-24</b>			
<b>Part A - Introduction</b>			
Subject	Bachelor of Home Science		
Semester	I		
Name of the Course	Fundamentals of Clothing and Textiles		
Course Code	B-23 HSC-102		
Course Type: (CC/MCC/MDC/CC- M/DSEC/VOC/DSE/PC/AEC/VAC)	CC(Core Course)		
Level of the course (As per Annexure-I)	100-199		
Pre-requisite for the course (if any)	Senior secondary(10+2)		
Course Learning Outcomes(CLO):	<p>After completing this course, the learner will be able to:</p> <ol style="list-style-type: none"> <li>1. Students understand the scope of clothing &amp; textile and know various parts and the functioning of a basic sewing machine.</li> <li>2. Students get acquainted with the criteria of selection of clothing and factors affecting selection of clothing.</li> <li>3. Gain knowledge about the types, processings and properties of different textile fibres.</li> <li>4. Acquire the knowledge about principles, types, and manufacturing of yarns.</li> </ol> <hr style="width: 20%; margin-left: auto; margin-right: auto;"/> <ol style="list-style-type: none"> <li>5. Develop the skill of applying hand processes, machine processes and seam finishing.</li> </ol>		
Credits	Theory	Practical	Total

	3	1	4
Contact Hours	3	2	5
<b>Max. Marks:100</b> <b>Internal Assessment Marks:20(T)+10(P)=30</b> <b>End Term Exam Marks: 50(T)+20(P)=70</b>	<b>Time:3hrs (T)</b> <b>4hrs(P)</b>		
<b>Part B- Contents of the Course</b>			
<b><u>Instructions for Paper-Setter:</u></b> The examiner will set nine questions in all, selecting four questions from each unit and one compulsory objective type question.			
<b><u>Instructions for the candidate:</u></b> The candidates will attempt five questions in all,selecting atleast one question from each unit and the compulsory question as well.			
<b>Unit</b>	<b>Topics</b>		<b>Contact Hours</b>
I	Importance & scope of clothing & textile. Basic Terminology used for clothing and textile: <ul style="list-style-type: none"> <li>● Clothing: bias grainline, grain, dart, notches, gathers, fasteners, contours, interfacing, placket,seam allowance.</li> <li>● Textile: fiber, filament, yarn, yarn count, thread count, cord,twist,crimp,tensile strength etc</li> </ul> Parts of the basic sewing machine, its care, maintenance & functioning. Study of different types of sewing machines,their use in the garment industry.		9
II	Factors affecting selection of clothing: Environmental, social, psychological and Physiological. Clothing requirements of different age groups(infants, toddlers, preschoolers and elementary school children, Pregnant lady and Lactating mother) Comparison of tailor-made, readymade and homemade garments.		11
III	Textile Fiber: Definition & Classification of fiber Difference between natural & man made fibers		11

	Manufacturing & properties of following: Natural fiber: Cotton, wool, silk Man made: Nylon, rayon & polyester	
IV	Yarn: Definition and process of yarn making (s twist and z twist)  Basic principles of yarn making (mechanical, chemical, spinning: wet, dry & melt)  Classification and types; Simple, filament, spun, novelty, complex yarns.  Properties of yarn: Elasticity, plasticity, strength & elongation	9
V*	Demonstration, use and care of parts of sewing machine and other equipment used in clothing construction.  Identification of textile fibers: Microscopic, Burning and Chemical test (cotton, silk, linen, wool, nylon, rayon).  Prepare samples of basic hand processes: Visible and invisible hemming, tacking, overcasting, running stitch, backstitch, buttonhole and application of fasteners.  Prepare samples of basic machine processes: Tucks, Pleats, Gathers, Darts and Placket.  Prepare samples of different seams: plain seam, counter seam, run and fell seam, french seam and mantua maker.	30
<b>Suggested Evaluation Methods</b>		
<b>Internal Assessment:</b>  > <b>Theory</b> ● Class Participation: <b>05</b> ● Seminar/presentation/assignment/quiz/class test etc.: <b>05</b> ● Mid-Term Exam: <b>10</b>  > <b>Practicum</b> ● Class Participation: <b>00</b> ● Seminar/Demonstration/Viva-voce/Lab records etc.: <b>10</b> ● Mid-Term Exam: <b>NA</b>		<b>End Term Examination:</b>  <b>50</b>   <b>20</b>
<b>Part C-Learning Resources</b>		

**Recommended Books/e-resources/LMS:**

1. Sushma Gupta, Neeru Garg and Renu Saini, 2013. Text book of clothing, textiles and laundry Kalyani Pub.
2. Doongaji S., Deshpande R., 1989. Basic processes and clothing construction. 2nd ed. New raj book depot, New delhi. 292p
3. Corbman, B.P. (1985), Fibre to Fabric (6th edition), Mc Graw hill International.
4. Dantyagi, S. (1996). Fundamentals of Textiles and their Care. India: Orient Black swan Private Limited. D'Souza, N. (2014). Fabric Care. New Delhi: New Age International Publishers.
5. Joseph, M. (1992), Introductory Textile Science. Sixth edition, California: Harcourt College Publishers
6. Rastogi, D., & Chopra, S. (2017). Textile Science. India: Orient Blackswan Private Limited.
7. J.C. Flyer (2000). The Psychology of Clothing, Fontana Press, London
8. Susan B. Kaiser (2006). The Social Psychology of Clothing: Symbolic Appearances in Context. Fairchild books and Visuals

\*Applicable for courses having practical components.

<b>Session: 2023-24</b>			
<b>Part A - Introduction</b>			
Subject	Bachelor of Home Science		
Semester	I		
Name of the Course	Introduction to Human Development		
Course Code	B-23 HSC-103		
Course Type: (CC/MCC/MDC/CC- M/DSEC/VOC/DSE/PC/AEC/VA C)	CC( Core Course)		
Level of the course (As per Annexure-I)	100-199		
Pre-requisite for the course (if any)	Senior Secondary (10+2)		
Course Learning Outcomes(CLO):	<p>After completing this course, the learner will be able to:</p> <ol style="list-style-type: none"> <li>1.To understand and identify key concepts in multiple areas of lifespan psychology including concepts, facts and theoretical perspectives</li> <li>2.To identify the basic research and evaluation methods used in lifespan psychology, including the strengths and weaknesses of each method.</li> <li>3.To have knowledge of and explain concepts related to human development.</li> <li>4.To apply development theory to the analysis of child observations, surveys, and interviews using investigative research methodologies.</li> </ol> <hr/> <p>5*.To learn methods of child study for analyzing and improving the quality of life.</p>		
Credits	Theory	Practical	Total
	3	1	4
Contact Hours	3	2	5

<b>Max. Marks:100</b> <b>Internal Assessment Marks:20(T)+10(P)=30</b> <b>End Term Exam Marks: 50(T)+20(P)=70</b>		<b>Time:3hrs (T)</b> <b>4hrs(P)</b>
<b>Part B- Contents of the Course</b>		
<b><u>Instructions for Paper- Setter:</u></b> The examiner will set nine questions in all, selecting four questions from each unit and one compulsory objective type question.		
<b><u>Instructions for the candidate:</u></b> The candidates will attempt five questions in all, selecting atleast one question from each unit as well as compulsory questions.		
Unit	Topics	Contact Hours
I	Human development: Importance, scope & multidisciplinary nature of Human Development. Understanding the meaning, concept and principles of Human Growth and Development. Factors influencing growth & development Differences between Growth & Development	9
II	Historical trends in human development, Theories of Development: Psychoanalytic theory of Sigmund Freud, Cognitive theory of Piaget and Psychosocial theory of Erik Erikson. Stages and domains of human development throughout life span.	11
III	Developmental tasks during life span including physical, motor, social, emotional, cognitive, language and moral development. Methods of Child Study and data collection - observation, interview, questionnaire, case study, cross-sectional, longitudinal methods.	10
IV	Learning: definition and concept, types, factors affecting learning process Intelligence: definition and concept, IQ, Measurement of intelligence, factors affecting intelligence.	8
V*	<ul style="list-style-type: none"> <li>● Implement the methods of child study in field setting:               <ol style="list-style-type: none"> <li>a) Interview: i) Identify and select a problem of child &amp; prepare a predetermined set of questions to collect data</li> </ol> </li> </ul>	30



	<p>regarding problem ii) Organize a structured interview &amp; prepare a report</p> <p>b) Observation:i) Prepare a checklist for different developmental domains of a child &amp; collect data from an adult (parent/teacher/caretaker) ii.Observe the child in natural/participatory settings &amp; prepare a report</p> <p>c) Case study: i) Justification for studying the child ii) Collect family background, health record, educational, psychological and social data &amp; prepare a report</p> <ul style="list-style-type: none"> <li>● Conduct activities for stimulation and creative expressions among young children like painting, printing, modeling, cutting and pasting,paper folding and beading by visiting nursery schools &amp; preparing a report.</li> </ul>	
<b>Suggested Evaluation Methods</b>		
<p><b>Internal Assessment:</b></p> <p>➤ <b>Theory</b></p> <ul style="list-style-type: none"> <li>● Class Participation: <b>05</b></li> <li>● Seminar/presentation/assignment/quiz/class test etc.:<b>05</b></li> <li>● Mid-Term Exam: <b>10</b></li> </ul> <p>➤ <b>Practicum</b></p> <ul style="list-style-type: none"> <li>● Class Participation: <b>00</b></li> <li>● Seminar/Demonstration/Viva-voce/Lab records etc.: <b>10</b></li> <li>● Mid-Term Exam: <b>NA</b></li> </ul>	<p><b>End Term Examination:</b></p> <p><b>50</b></p> <p><b>20</b></p>	
<b>Part C-Learning Resources</b>		
<p><b>Recommended Books/e-resources/LMS:</b></p> <ol style="list-style-type: none"> <li>1. Srivastava S., Rani K.S. (2014): Textbook of Human Development, S.Chand publication, New Delhi.</li> <li>2. Tara L. Kuther (2022).Lifespan Development: Lives in Context. A Topical Approach,Second Edition.Western Connecticut State University, USA.</li> <li>3. Srivastava S. (2019). Lifespan development. S.Chand publication, New Delhi.</li> <li>4. Hurlock, Elizabeth B. (2017). Developmental Psychology, A life-span approach. Fifth Edition. Tata McGraw Hill Publishing Company Ltd. New Delhi.</li> <li>5. Berk, Laura E (1999). Child Development. Prentice Hall of India, Private Ltd. New Delhi.</li> <li>6. Lerner Hultsch (1983): Human Development, A life span perspective, New</li> </ol>		

York, McGraw Hill Book, Co.

7. Saraswathi, T.S. & Kaur, B. (1993): The development of Children, New York: Scientific American Books.

\*Applicable for courses having practical component.

<b>Session: 2023-24</b>			
<b>Part A - Introduction</b>			
Subject	Bachelor of Home science		
Semester	I		
Name of the Course	Consumer Education		
Course Code	B23-HSC-104		
Course Type: (CC/MCC/MDC/CC- M/DSEC/VOC/DSE/PC/AEC/VA C)	CC-M ( Minor)		
Level of the course (As per Annexure-I	100-199		
Pre-requisite for the course (if any)	Senior Secondary (10+2)		
Course Learning Outcomes(CLO):	<p>After completing this course, the learner will be able to:</p> <ol style="list-style-type: none"> <li>1. To equip the students with proper care and storage of household equipment.</li> <li>2. To make aware about consumerism.</li> <li>3. To impart knowledge about consumer protection act</li> <li>4. To acquaint students with standardized marks and consumer protection agencies.</li> </ol> <hr style="width: 20%; margin: 10px auto;"/> <p>5*.To gain practical knowledge about household equipments and Standardized marks .</p>		
Credits	Theory	Practical	Total

	1	1	2
Contact Hours	1	2	3
<b>Max. Marks:50</b> <b>Internal Assessment Marks:10(T)+5(P)=15</b> <b>End Term Exam Marks: 20(T)+15(P)=35</b>		<b>Time: 3hrs</b>	
<b>Part B- Contents of the Course</b>			
<p><b><u>Instructions for Paper- Setter:</u></b>The examiner will set nine questions in all, selecting four questions from each unit and one compulsory objective type question.</p> <p><b><u>Instructions for the candidate:</u></b> The candidates will attempt five questions in all, selecting atleast one question from each unit as well as compulsory questions.</p>			
Unit	Topics		Contact Hours
I	Factors affecting requirement of household equipment. Precautions to be used while using major electrical equipment.		3
II	Consumer: Definition and role of consumer in market Consumer education : Meaning & importance Consumer Rights & consumer responsibilities		4
III	Problems of consumers Consumer Protection Act :Meaning and importance.		4

IV	Consumer protection Agencies: Consumer Education and Research Centre (CERC), Federation of consumer organization in Tamil Nadu (FEDCOT), Citizen consumer and civil action group, Consumer guidance society of India (CGSI), Consumer unity of trust society	3
V*	<ul style="list-style-type: none"> <li>● Make a file on use, care and storage of LPG gas stove, refrigerator, pressure cooker, mixer, electric iron, computer &amp; laptop, washing machine.</li> <li>● Make a flowchart of steps involved in filing a case in consumer forum.</li> <li>● Understanding Standardized and Quality control measures with illustrations: ISI, BIS, FPO, AGMARK, Eco mark, Wool mark, Silk mark, Cotton mark, Handloom mark.</li> </ul>	30
<b>Suggested Evaluation Methods</b>		
<b>Internal Assessment:</b> <ul style="list-style-type: none"> <li>➤ <b>Theory</b> <ul style="list-style-type: none"> <li>● Class Participation: <b>04</b></li> <li>● Seminar/presentation/assignment/quiz/class test etc.: -</li> <li>● Mid-Term Exam: <b>06</b></li> </ul> </li> <li>➤ <b>Practicum</b> <ul style="list-style-type: none"> <li>● Class Participation: -</li> <li>● Seminar/Demonstration/Viva-voce/Lab records etc.: <b>05</b></li> <li>● Mid-Term Exam: -</li> </ul> </li> </ul>		<b>End Term Examination:</b>  <b>20</b>  <b>15</b>
<b>Part C-Learning Resources</b>		

**Recommended Books/e-resources/LMS:**

1. Bela Bhargava (2005). Family Resource Management and Interior decoration. Apple Printer and V.R. Printers, Jaipur.
2. Home Management- A Textbook of Home Science for Senior Students. The Educational Planning Group, Arya Publishing House, Karol Bagh, New Delhi.
3. Varghese, M.N., Ogale, N.N. and Srinivasaan, K. (1992). Home Management. Wiley Eastern, New Delhi.
4. Premalatha Mullick (2011). Textbook of Home Science, Kalyani Publishers, New Delhi.
5. Sushma Gupta, Neeru Garg and Amita Aggarwal (1993). Home Management, Hygiene and Physiology. Kalyani Publishers, Ludhiana.
6. Mann, M.K. (2004). Home Management for Indian Families. Kalyani Publisher, Ludhiana.
7. Singh, S. (2007). Ergonomics Integration for Health and Productivity. Himanshu Publications,  
Udaipur and New Delhi.

\*Applicable for courses having practical component.

<b>Session: 2023-24</b>			
<b>Part A - Introduction</b>			
Subject	Bachelor of Home Science		
Semester	II		
Name of the Course	Nutrition Science		
Course Code	<b>B-23 HSC-201</b>		
Course Type: (CC/MCC/MDC/CC- M/DSEC/VOC/DSE/PC/AEC/VA C)	CC(Core Course)		
Level of the course (As per Annexure-I)	100-199		
Pre-requisite for the course (if any)	Senior Secondary(10+2)		
Course Learning Outcomes(CLO):	<p>After completing this course, the learner will be able to:</p> <ol style="list-style-type: none"> <li>1.To understand basic concepts of nutrition &amp; importance of water &amp; carbohydrates.</li> <li>2. To understand the functions, sources, requirements and effects of excess and deficiency of different nutrients.</li> <li>3 The students will be able to know the functions, sources, requirements and effects of excess and deficiency of different vitamins.</li> <li>4. To understand the functions, sources, requirements and effects of excess and deficiency of different minerals..</li> </ol> <hr/> <p>5*.To impart practical knowledge about preparation of nutrient rich and some other recipes</p>		
Credits	<b>Theory</b>	<b>Practical</b>	<b>Total</b>
	<b>3</b>	<b>1</b>	<b>4</b>
Contact Hours	<b>3</b>	<b>2</b>	<b>5</b>
<b>Max. Marks:100</b> <b>Internal Assessment Marks:20(T)+10(P)=30</b> <b>End Term Exam Marks: 50(T)+20(P)=70</b>		<b>Time:3hrs (T)</b> <b>4hrs(P)</b>	

## Part B- Contents of the Course

**Instructions for Paper- Setter :** The examiner will set nine questions in all, selecting two questions from each unit and one compulsory.

**Instructions for the Candidate:** The candidates will attempt five questions in all, selecting one question from each unit and the compulsory question as well.

Unit	Topics	Contact Hours
I	Definition of Nutrition, nutrients, recommended dietary allowance, balanced diet, health., reference man & reference woman and BMR-Definition and factors affecting BMR Water: Functions and sources of water for human body Carbohydrates: Classification, functions, sources & requirement, effects of deficiency and excess (in brief) Fibre -Types, functions, sources & requirement and health problems associated with excess and deficiency of fiber	10
II	Protein: Classification. functions, sources & requirement Fats/ Lipids: Classification, functions, sources and requirements and health problems associated with excess and deficiency of lipids. Vitamins: Definition and classification of vitamins, difference between fat soluble & water soluble vitamins Fat soluble vitamins: Functions, sources, recommended dietary allowances, effects of excess & deficiency (in brief) of: Vitamin A, D, E & K	11
III	Functions, sources, recommended dietary allowances, effects of excess & deficiency (in brief) of various water soluble vitamins : Vitamin C, Vitamin B1 (Thiamine), Vitamin B2, (Riboflavin), Vitamin B6 (Pyridoxine), Vitamin B12 (Cyanocobalamin), Niacin and Folic acid.	11



IV	<p>Definition and Classification of minerals</p> <p>Macro minerals: Functions, Sources, RDA, Effect of Excess and low intake of Calcium, Phosphorus, Magnesium, Sodium and Potassium</p> <p>Micro Minerals: Functions, sources and RDA, Effect of Excess and low intake of Iron, Iodine Fluorine &amp; Zinc</p>	10
V*	<ul style="list-style-type: none"> <li>● Controlling Techniques: Weights and measures, standard and household measures for raw and cooked foods.</li> <li>● Classify foods on the basis of nutrients: -Protein, Iron, Calcium, Vitamin A, Vitamin C</li> <li>● Planning, Calculation of nutritive value and Preparation of the following             <ol style="list-style-type: none"> <li>1. Paranthas/Poories – (simple &amp; stuffed)</li> <li>2. Sandwiches</li> <li>3. Soups</li> <li>4. Desserts</li> <li>5. Sponge Cake</li> <li>6. Main Course Dishes (any 2)</li> </ol> </li> <li>● Planning and preparing nutrient rich dishes: Protein, calcium, iron &amp; vitamin A</li> </ul>	28
<b>Suggested Evaluation Methods</b>		
<p><b>Internal Assessment:</b></p> <p>➤ <b>Theory</b></p> <ul style="list-style-type: none"> <li>● Class Participation: <b>05</b></li> <li>● Seminar/presentation/assignment/quiz/class test etc.: <b>05</b></li> <li>● Mid-Term Exam: <b>10</b></li> </ul> <p>➤ <b>Practicum</b></p> <ul style="list-style-type: none"> <li>● Class Participation: <b>00</b></li> <li>● Seminar/Demonstration/Viva-voce/Lab records etc.: <b>10</b></li> <li>● Mid-Term Exam: <b>NA</b></li> </ul>		<p><b>End Term Examination:</b></p> <p style="text-align: center;"><b>50</b></p> <p style="text-align: center;"><b>20</b></p>
<b>Part C-Learning Resources</b>		

**Recommended Books/e-resources/LMS:**

1. Srilakshmi, B. (2017). Nutrition Science. New Age International Limited, Publishers, New Delhi.
2. Agarwal,A. and Udipi, S. (2014). Text Book of Human Nutrition, Jaypee Medical Publication, New Delhi.
3. Bamiji, M.S.; Rao, N.P. and Reddy, V. (Editors) (1999). Textbook of Human Nutrition. New Delhi: Oxford and IBH Publishing Co. Pvt. Ltd.
4. ICMR (2010). Nutrient Requirements and Recommended Dietary Allowance for Indians. A Report of the Expert Group of ICMR. NIN, Hyderabad.
5. Maney S (2008). Foods, Facts and Principles, 3 rd Edition Published by Wiley Eastern, New Delhi.
6. Mahtab, S. Bamji, Kamala Krishnasamy, Brahmam G.N.V (2012) Text Book of Human Nutrition, Third Edition, Oxford and IBH Publishing Co. P. Ltd., New Delhi.
7. SunetraRoday (2017). Food Science and Nutrition, Oxford University Press, New Delhi.
8. Longvah, T, Ananthan, R., Bhaskarachary, K., Venkaiah, K (2017). Indian Food Composition Tables (IFCT), Indian Council of Medical Research, National Institute of Nutrition, Hyderabad.
9. Raina U, Kashyap S, Narula V, Thomas S Suvira, VirS, Chopra S (2010) Basic Food Preparation: A Complete Manual, 4th Edition, Orient Black Swan Ltd, Mumbai.

\*Applicable for courses having practical component.

<b>Session: 2023-24</b>	
<b>Part A - Introduction</b>	
Subject	Bachelor of Home Science
Semester	II
Name of the Course	Family Resource Management
Course Code	B-23 HSC-202
Course Type: (CC/MCC/MDC/CC- M/DSEC/VOC/DSE/PC/AEC/VA C)	CC(Core Course)
Level of the course (As per Annexure-I)	100-199
Pre-requisite for the course (if any)	Senior Secondary (10+2)
Course Learning Outcomes(CLO):	<p>After completing this course, the learner will be able to:</p> <ol style="list-style-type: none"> <li>1.To understand the concept of human and non-human resources and its functions.</li> <li>2.To acquaint students with the skills of time management.</li> <li>3.To skill students about work simplification techniques and energy management.</li> <li>4.To impart knowledge about savings, investments, budget and energy management.</li> </ol> <hr style="width: 20%; margin-left: auto; margin-right: auto;"/> <p style="text-align: center;">5*To provide practical training of resources, time, money and energy management.</p>

Credits	Theory	Practical	Total
	3	1	4
Contact Hours	3	2	5
<b>Max. Marks:</b> <b>Internal Assessment Marks:20(T)+10(P)=30</b> <b>End Term Exam Marks: 50(T) +20(P) =70</b>		<b>Time:3hrs (T)</b> <b>4hrs(P)</b>	
<b>Part B- Contents of the Course</b>			
<p><b><u>Instructions for Paper- Setter</u></b>The examiner will set nine questions in all, selecting four questions from each section/unit and one compulsory objective type question.</p> <p><b><u>Instructions for the Candidate:</u></b>The candidate will attempt five questions in all, selecting at least one question from each unit as well as compulsory questions.</p>			
<b>Unit</b>	<b>Topics</b>		<b>Contact Hours</b>
I	1. Definition, concept and objectives of home management 2. Process of Management: Planning, organizing, controlling and evaluation 3. .Resources: Meaning, classification and characteristics		10

II	<p>4. Motivating factors of management:</p> <p>A. Values: Definition, classification and characteristics  B. Goals: Definition, classification and characteristics  C. Standards: Definition, classification and characteristics</p> <p>5. Decision making:</p> <p>a) Definition &amp; importance of decision making  b) Types of decision  c) Steps in decision making process</p>	10
III	<p>6. Time Management:</p> <p>a) Tools in Time management  b) Process of management of time</p> <p>7. Energy Management: Types of efforts, Types of fatigue and various ways to overcome fatigue.</p> <p>8. Work Simplification:</p> <p>Definition and Principles of body mechanics  Household methods of work simplification</p> <p>9. Ergonomics: Definition and principles of ergonomics</p>	10
IV	<p>10. Money Management:</p> <p>a) Sources of Money: Wages, Salary, Rent, Profits, Interests  b) Types of Income: i)Regular and Irregular income ii) Money income, Real income &amp; psychic income  c) Budget: Definition and types of budget  d) Savings and investments: Meaning, objectives and types (in brief)</p>	10

V*	<ol style="list-style-type: none"> <li>1. Preparation of Portfolio : Market survey to study the famous brands of Food, clothing, sports and kitchen equipments.</li> <li>2. Identification of CERTIFICATION MARKS issued for different products in India: BIS Hall mark, ISI mark, AGMARK, FPO mark , WOOLMARK, non polluting vehicle mark, organic mark, Ecomark, Hologram, Vegetarian &amp; non vegetarian mark.</li> <li>3. Event Organization: Application of management process to organize an event (social, cultural or educational etc.) keeping in mind planning, organizing and evaluation.</li> <li>4. Use,care &amp; maintenance of household &amp; recreational equipment( Cooking gas stove, induction, juicer, mixer and grinder, microwave oven, mobile phones, computer and laptop).</li> <li>5. Identification of immediate, short term and long-term goals of individual and families</li> <li>6. Listing out human, non-human and community resources.</li> </ol>	30
<b>Suggested Evaluation Methods</b>		

<p><b>Internal Assessment:</b></p> <ul style="list-style-type: none"> <li>➤ <b>Theory</b> <ul style="list-style-type: none"> <li>● Class Participation: <b>05</b></li> <li>● Seminar/presentation/assignment/quiz/class test etc.:<b>05</b></li> <li>● Mid-Term Exam: <b>10</b></li> </ul> </li> <li>➤ <b>Practicum</b> <ul style="list-style-type: none"> <li>● Class Participation: <b>00</b></li> <li>● Seminar/Demonstration/Viva-voce/Lab records etc.: <b>10</b></li> <li>● Mid-Term Exam: <b>NA</b></li> </ul> </li> </ul>	<p><b>End Term Examination:</b></p> <p style="text-align: center;"><b>50</b></p> <p style="text-align: center;"><b>20</b></p>
<p><b>Part C-Learning Resources</b></p>	
<p><b>Recommended Books/e-resources/LMS:</b></p> <ol style="list-style-type: none"> <li>1. Mann, M.K. (2004). Home Management for Indian Families. Kalyani Publisher, Ludhiana.</li> <li>2. Bela Bhargava (2005). Family Resource Management and Interior decoration. Apple Printer and V.R. Printers, Jaipur.</li> <li>3. Nickell, P. and Dorsey, J.M. (1970). Management of Family Living. Wiley Eastern, New Delhi</li> <li>4. Premalatha Mullick (2011). Textbook of Home Science, Kalyani Publishers, New Delhi.</li> <li>5. Sushma Gupta, Neeru Garg and Amita Aggarwal (1993). Home Management, Hygiene and Physiology. Kalyani Publishers, Ludhiana.</li> <li>6. Home Management- A Textbook of Home Science for Senior Students. The Educational Planning Group, Arya Publishing House, Karol Bagh, New Delhi.</li> </ol>	

\*Applicable for courses having practical component.

<b>Session: 2023-24</b>	
<b>Part A - Introduction</b>	
Subject	Bachelor of Home science
Semester	II
Name of the Course	Extension Education and Communication
Course Code	B-23 HSC-203
Course Type: (CC/MCC/MDC/CC- M/DSEC/VOC/DSE/PC/AEC/VA C)	CC (Core Course)
Level of the course (As per Annexure-I)	100-199
Pre-requisite for the course (if any)	Senior Secondary (10+2)



Course Learning Outcomes(CLO):	After completing this course, the learner will be able to: <ol style="list-style-type: none"> <li>1.To understand the concept of extension education and its importance</li> <li>2.To acquaint students with the types of extension teaching methods</li> <li>3.To impart knowledge about various rural development programs and various ongoing schemes by government and non-government organizations</li> <li>4.To gain knowledge about communication , it's importance and types.</li> </ol> <hr/> <ol style="list-style-type: none"> <li>5*.To acquit students with planning, organizing &amp; evaluating any event..</li> </ol>		
Credits	Theory	Practical	Total
	3	1	4
Contact Hours	3	2	5
<b>Max. Marks:100</b> <b>Internal Assessment Marks:20(T)+10(P)=30</b> <b>End Term Exam Marks: 50(T)+20(P)=70</b>		<b>Time:3hrs(T)</b> <b>4hrs(P)</b>	
<b>Part B- Contents of the Course</b>			
<p><b><u>Instructions for Paper- Setter:</u></b>The examiner will set nine questions in all, selecting four questions from each unit and one compulsory objective type question.</p> <p><b><u>Instructions for the candidate:</u></b> The candidates will attempt five questions in all, selecting atleast one question from each unit as well as compulsory questions.</p>			
<b>Unit</b>	<b>Topics</b>		<b>Contact Hours</b>

I	Extension education: Meaning, principles, objectives and scope of extension education. Role and qualities of an extension education worker. Difference between formal education and non formal education	8
II	<p><b>Extension teaching Methods: Its importance and types.</b></p> <p>Individual contact method: Farm &amp; home visit, telephone calls, personal letters,</p> <p>Group contact method: Demonstration, Group meeting and discussion, Conference, seminars and workshops, field trips and campaigns.</p> <p>Mass contact method: Print media, Electronic media, Internet based media and Exhibition.</p>	11
III	<p>Types of development programs and organizations (established year, objectives and beneficiaries) : DWCRA, TRYSEM, Mid Day Meal Programme, Beti Bachao Beti Padhao, PMRY, Skill India, ICDS, MGNREGA, DRDA.</p> <p>Role of National and International Organizations in Development : FAO, WHO, ICMR, UNICEF, UNESCO, ICAR, NIPCID &amp; NIN</p>	12
IV	<p>Communication: Concept, Importance, elements of Communication and barriers to communication.</p> <p>Types of Communication: ( Formal &amp; Informal).</p> <p>Role of Photography in communication</p>	9

V*	<ul style="list-style-type: none"> <li>● Preparation of Audio-Visual aids: charts/poster, pamphlets, flipbooks, leaflets.</li> <li>● Use of following software for making IEC material (presentations, flyer, cards): Word processor (Microsoft word / Google Docs), Presentation software (Microsoft PowerPoint / Google Slides, Canva)</li> <li>● Field visit to get the field experience of family status (with special reference to women living in rural/urban slum areas).</li> <li>● To plan and demonstrate the educational aid for uplifting the living standard of children in rural/urban slum areas.</li> </ul> <p style="text-align: center;">Or</p> <ul style="list-style-type: none"> <li>● Preparing a skit/role play on any social issue and making a short video to disseminate a message.</li> </ul>	30
<b>Suggested Evaluation Methods</b>		
<b>Internal Assessment:</b> <ul style="list-style-type: none"> <li>➤ <b>Theory</b> <ul style="list-style-type: none"> <li>● Class Participation: <b>05</b></li> <li>● Seminar/presentation/assignment/quiz/class test etc.:<b>05</b></li> <li>● Mid-Term Exam: <b>10</b></li> </ul> </li> <li>➤ <b>Practicum</b> <ul style="list-style-type: none"> <li>● Class Participation: <b>00</b></li> <li>● Seminar/Demonstration/Viva-voce/Lab records etc.: <b>10</b></li> <li>● Mid-Term Exam: <b>NA</b></li> </ul> </li> </ul>		<b>End Term Examination:</b> <p style="text-align: center;"><b>50</b></p> <p style="text-align: center;"><b>20</b></p>
<b>Part C-Learning Resources</b>		

**Recommended Books/e-resources/LMS:**

1. Bhalla, C.L.(2009). Audio Visual Aids in Education. Cornell University.
2. Chitambar, J.B. (2008). Introductory Rural Sociology. New Age International(P) Limited.
3. Dhamma, O.P and Bhatnagar, O.P (2003). Education and Communication for development. Oxfords IBH, New Delhi.
4. Golahait, S. B. (2010). Rural Development programmes in India: Problems and Prospects. Altar Publishing House.
5. Jain, M.(2011).Rural Development Programs in India. Deep and Deep Publications
6. Ray, G.L. (2004). Extension education and Management. Kalyani Publisher, New Delhi.
7. Reddy, A.A.(2001).Extension Education. Bapatla : Sri Lakshmi Press.
8. Sachdeva, D.R. and Bhushan, V. (2007). An Introduction to Sociology. Kitab Mahal Agency, Delhi.
9. Sehgal, S. and Raghuvanshi, R.S. (2007). Textbook of Community Nutrition. ICAR, New Delhi.

\*Applicable for courses having practical component.

<b>Session: 2023-24</b>	
<b>Part A - Introduction</b>	
Subject	Bachelor of Home Science
Semester	II
Name of the Course	Housing and Space Management
Course Code	B-23 HSC-204
Course Type: (CC/MCC/MDC/CC- M/DSEC/VOC/DSE/PC/AEC/VA C)	CC-M ( Minor)
Level of the course (As per Annexure-I	100-199
Pre-requisite for the course (if any)	Senior Secondary (10+2)

Course Learning Outcomes(CLO):	After completing this course, the learner will be able to: <ol style="list-style-type: none"> <li>1. To learn the relationships that characterize art and design practice in building a house.</li> <li>2. To enable the students to explore theories and modern methods of interior space planning and management .</li> <li>3. To encourage learning of traditional and contemporary housing materials, technical processes and methods of modern construction.</li> <li>4. To impart knowledge and skills for making different floor plans for different income groups.</li> </ol> <hr/> <ol style="list-style-type: none"> <li>5*. To gain practical knowledge of space planning in house, house plans and their signs and modern methods of house construction.</li> </ol>		
Credits	Theory	Practical	Total
	1	1	2
Contact Hours	1	2	3
<b>Max. Marks:50</b> <b>Internal Assessment Marks:10(T)+5(P)=15</b> <b>End Term Exam Marks: 20(T)+15(P)=35</b>		<b>Time: 3hrs</b>	
<b>Part B- Contents of the Course</b>			
<p><b><u>Instructions for Paper- Setter:</u></b>The examiner will set nine questions in all, selecting four questions from each unit and one compulsory objective type question.</p> <p><b><u>Instructions for the candidate:</u></b> The candidates will attempt five questions in all, selecting atleast one question from each unit as well as compulsory questions.</p>			

<b>Unit</b>	<b>Topics</b>	<b>Contact Hours</b>
I	<p>Concept and importance of housing, housing needs of family, advantage and disadvantage of owned and rented house.</p> <p>Choice of site for house and factors affecting site selection</p>	4
II	<p>Brief introduction of conventional and non- conventional building material for construction of a house.</p>	3
III	<p>Types of house plan: floor, elevation, structural, perspective and landscape.</p>	3
IV	<p>Principles of space planning: aspect, orientation, grouping, privacy, roominess, prospect, light, ventilation, flexibility, circulation and economy.</p>	4
V*	<p>Prepare graphs on space planning for different rooms: living room, dining room, bedroom and kitchen.</p> <p>Presentation of Signs used for reading house plans for LIG, MIG and HIG through illustration.</p> <p>Prepare a portfolio on modern methods of house construction: Precast Cladding Panels, Twin Wall Technology, Precast Concrete Foundation and modular kitchen.</p>	30
<b>Suggested Evaluation Methods</b>		

<p><b>Internal Assessment:</b></p> <p>➤ <b>Theory</b></p> <ul style="list-style-type: none"> <li>● Class Participation: <b>04</b></li> <li>● Seminar/presentation/assignment/quiz/class test etc.: -</li> <li>● Mid-Term Exam: <b>06</b></li> </ul> <p>➤ <b>Practicum</b></p> <ul style="list-style-type: none"> <li>● Class Participation: -</li> <li>● Seminar/Demonstration/Viva-voce/Lab records etc.: <b>05</b></li> <li>● Mid-Term Exam: -</li> </ul>	<p><b>End Term Examination:</b></p> <p><b>20</b></p> <p><b>15</b></p>
<p><b>Part C-Learning Resources</b></p>	
<p><b>Recommended Books/e-resources/LMS:</b></p> <ol style="list-style-type: none"> <li><b>1. Dr. N. Kumara Swamy &amp; A. Kameswara Rao (2019), Building Planning And Drawing, Charotar Publishing House Pvt. Ltd.</b></li> <li>2. Dr. Brinda Singh (2020), Grah prabandh Evam aantrik sajja (Home Management &amp; Interior Decoration), Panchsheel Prakashan.</li> <li><b>3. Dr. Bhargava B. (2007), Principles of art, University Book House Pvt. Ltd.</b></li> <li>4. Goldstein, H. and Goldstein, V (1967): Art in Everyday life; New Delhi: Oxford and IBH publishing company .</li> <li>5. Lawrence M, (1987), Interior Decoration, New Jersey: Chartwell Books.</li> <li>6. Adler, David. (2004), Metric Handbook planning &amp; Design, Architectural press.</li> <li>7. Kumar, Sushil (2008), Building Construction, Standard publisher.</li> </ol>	

\*Applicable for courses having practical component.



<b>Session: 2023-24</b>			
<b>Part A – Introduction</b>			
Subject	Bachelor of Home Science		
Semester	III		
Name of the Course	Basics of clothing construction and apparel designing		
Course Code	B-23 HSC- 301		
Course Type: (CC/MCC/MDC/CC- M/DSEC/VOC/DSE/PC/AEC/VA C)	CC(Core Course)		
Level of the course (As per Annexure-I)	100-199		
Pre-requisite for the course (if any)	Senior secondary (10+2)		
Course Learning Outcomes(CLO):	<p>After completing this course, the learner will be able to:</p> <ol style="list-style-type: none"> <li>1. Acquire the knowledge of application of elements of arts and principles of design in clothing construction and techniques of dress designing.</li> <li>2. Students get aware about the fabric construction techniques and Non woven fabrics.</li> <li>3. Gains information about the methods of developing design.</li> <li>4. Students understand the concept of fashion, figure types and fitting.</li> </ol> <hr/> <p>5*Students gain practical knowledge of drafting, cutting and stitching of basic children's garments.</p>		
Credits	Theory	Practical	Total
	3	1	4
Contact Hours	3	2	5

<b>Max. Marks:</b> <b>Internal Assessment Marks:20(T)+10(P)=30</b> <b>End Term Exam Marks: 50(T) +20(P) =70</b>		<b>Time:3hrs (T)</b> <b>4hrs(P)</b>
<b>Part B- Contents of the Course</b>		
<p><b><u>Instructions for Paper-Setter:</u></b>The examiner will set nine questions in all, selecting four questions from each unit and one compulsory objective type question.</p> <p><b><u>Instructions for the candidate:</u></b> The candidates will attempt five questions in all,selecting atleast one question from each unit and the compulsory question as well.</p>		
Unit	Topics	Contact Hours
I	Importance of apparel designing & its role in personality development. Application of elements of arts and principles of designs in clothing construction Types of designs: Structural & decorative . Wardrobe Planning:Principles,steps involved and Importance.	10
II	Fabric construction : <ul style="list-style-type: none"> <li>● Weaving : Parts and function of loom</li> <li>● Types of weaves(plain, twill and their variation, satin and sateen weave.)</li> </ul> Knitting : Types, characteristics, stitches used in knitting Non wovens fabrics: Felting, bonding, netting, braiding, laces	10

III	<p>Anthropometry: Definition, Importance and equipment required</p> <ul style="list-style-type: none"> <li>● Types of anthropometric measurements (vertical, horizontal, girth/round measurement)</li> <li>● Care to be taken while taking body measurement</li> </ul> <p>Methods of developing design/ pattern:</p> <ul style="list-style-type: none"> <li>● Drafting: Drafting tools, techniques, advantages and disadvantages of drafting.</li> <li>● Paper pattern: Types, principles, advantages and disadvantages of paper pattern.</li> <li>● Draping: Techniques of draping and advantages and disadvantages of draping.</li> </ul> <p>Preparation of fabric: Preshrinking, Straightening the grain, Pressing, Identify Face and back, Square up, Marking, Pinning, types of markings,</p> <p>Methods and Precautions for cutting, Sewing &amp; Finishing</p>	11
IV	<p>Fashion : Concept ,Importance and terminology { Fad ,style, classic ,silhouette vogue ,haute couture,niche ,brand}.</p> <p>Fashion cycle and fashion favoring and retarding factors.</p> <p>Figure Analysis and fitting: Figure types, Common fitting problems, reason for poor fitting and their remedies.</p>	9
V*	<p>Prepare samples of different types of weaves.</p> <p>Prepare a sample of knitting (any two).</p> <p>Prepare a sample consisting of ten basic embroidery stitches : Stem stitch, Chain stitch, Feather stitch, Herringbone, stitch,Satin stitch, Lazy daisy stitch, French knots, Bullions stitch, Cross stitch, Long and short stitch.</p> <p>Drafting of child’s bodice block.&amp; sleeves block.</p> <p>Cutting and stitching of napkins, bib, jhabla.</p>	30
<b>Suggested Evaluation Methods</b>		

<p><b>Internal Assessment:</b></p> <p>➤ <b>Theory</b></p> <ul style="list-style-type: none"> <li>● Class Participation: <b>05</b></li> <li>● Seminar/presentation/assignment/quiz/class test etc.:<b>05</b></li> <li>● Mid-Term Exam: <b>10</b></li> </ul> <p>➤ <b>Practicum</b></p> <ul style="list-style-type: none"> <li>● Class Participation: <b>00</b></li> <li>● Seminar/Demonstration/Viva-voce/Lab records etc.: <b>10</b></li> <li>● Mid-Term Exam: <b>NA</b></li> </ul>	<p><b>End Term Examination:</b></p> <p style="text-align: center;"><b>50</b></p> <p style="text-align: center;"><b>20</b></p>
<p><b>Part C-Learning Resources</b></p>	
<p><b>Recommended Books/e-resources/LMS:</b></p> <ol style="list-style-type: none"> <li>1. Sushma Gupta, Neeru Garg and Renu Saini Test book of clothing and textiles and laundry Kalyani Pub.</li> <li>2. Doongaji S., Deshpande R., 1989. Basic processes and clothing construction. 2nd ed. New raj book depot, New delhi.</li> <li>3. Nornia D'Souza, 1998. Fabric Care, New Age International Pvt. Ltd., New Delhi</li> <li>4. G.J. Sumathi, 2022. Elements of fashion and apparel design, New Age International Publishers2cc</li> <li>5. Ireland Patric, 1972. Basic Fashion Design ,London, B.T. Bastford Ltd.</li> <li>6. W.S. Murphy, 2003. Textile weaving and design, Abhishek Publication.</li> <li>7. Hideaka Chijiwa, Colour Harmony- A Guide to creative colour combination</li> <li>8. Dantiyagi, S. (1996). Fundamentals of Textiles and their Care. India: Orient Black swan Private Limited. D'Souza, N. (2014). Fabric Care. New Delhi: New Age International Publishers.</li> </ol>	

\*Applicable for courses having practical component.

<b>Session: 2023-24</b>	
<b>Part A – Introduction</b>	
Subject	Bachelor of Home Science
Semester	III
Name of the Course	Food Science
Course Code	B-23 HSC-302
Course Type: (CC/MCC/MDC/CC- M/DSEC/VOC/DSE/PC/AEC/VA C)	CC(Core Course)
Level of the course (As per Annexure-I)	100-199
Pre-requisite for the course (if any)	12th pass
Course Learning Outcomes(CLO):	<p>After completing this course, the learner will be able to:</p> <ol style="list-style-type: none"> <li>1. To acquire knowledge of various concepts of food science.</li> <li>2. To know the importance of various food groups.</li> <li>3. To equip with different cooking methods and techniques used while food preparation.</li> <li>4. To impart knowledge about improving nutritional quality of various foods.</li> </ol> <hr style="width: 20%; margin-left: auto; margin-right: auto;"/> <p>5*. To impart practical knowledge to students to prepare recipes using different cooking methods</p>

Credits	<b>Theory</b>	<b>Practical</b>	<b>Total</b>
	<b>3</b>	<b>1</b>	<b>4</b>
Contact Hours	<b>3</b>	<b>2</b>	<b>5</b>
<b>Max. Marks:</b> <b>Internal Assessment Marks:20(T)+10(P)=30</b> <b>End Term Exam Marks: 50(T) +20(P) =70</b>		<b>Time:3hrs (T)</b> <b>4hrs(P)</b>	

**Part B- Contents of the Course**

**Instructions for Paper- Setter :** The examiner will set nine questions in all, selecting two questions from each unit and one compulsory.

**Instructions for the Candidate:** The candidates will attempt five questions in all, selecting one question from each unit and the compulsory question as well.

<b>Unit</b>	<b>Topics</b>	<b>Contact Hours</b>
I	Food - definition & classification of food Functions of Food: Physiological, psychological, social & emotional Food Groups and food guide pyramid along with its importance. Basic food groups - composition and nutritional contributions of the following food groups: a) Cereals b)Pulses c)Fruits and Vegetables	10
II	Composition and nutritional contributions of the	10

	<p>following food groups:</p> <p>a) Milk and Milk Products</p> <p>b) Nuts and Oilseeds</p> <p>c) Meat, Fish, Poultry &amp; Egg</p> <p>d) Major spices of India &amp; Sugar and Jaggery</p>	
III	<p>Definition, objectives and principles of cooking of food.</p> <p>Different methods of cooking- their merits and demerits.</p> <p>A. Moist heat method: Boiling, simmering, stewing, pressure cooking, poaching &amp; blanching</p> <p>B. Dry heat method: Roasting, baking, toasting, steaming, grilling, frying</p> <p>C. Other methods of cooking: Microwave cooking &amp; solar cooking</p> <p>Effect on cooking and heat on nutritive values of foods.</p>	11
IV	<p>Improving nutritional quality of foods using methods:</p> <ul style="list-style-type: none"> <li>● Germination: Method, advantages &amp; disadvantages</li> <li>● Fermentation: Method, advantages &amp; disadvantages</li> <li>● Supplementation : Methods &amp; various supplementary foods</li> <li>● Fortification : Meaning &amp; importance</li> <li>● Enrichment</li> </ul>	09
V*	<ol style="list-style-type: none"> <li>1. Controlling Techniques: Weights and measures</li> <li>2. Common Cookery Terms and their uses in cooking</li> <li>3. Planning, Calculation of nutritive value and Preparation of the following <ol style="list-style-type: none"> <li>1. Rice - Pulao and sweet rice</li> <li>2. Snacks - Indian &amp; International using</li> </ol> </li> </ol>	30





Ltd.: New Delhi.

\*Applicable for courses having practical component.

<b>Session: 2023-24</b>			
<b>Part A - Introduction</b>			
Subject	Bachelor of Home Science		
Semester	III		
Name of the Course	Life Span Development-I		
Course Code	B-23HSC-303		
Course Type: (CC/MCC/MDC/CC- M/DSEC/VOC/DSE/PC/AEC/VA C)	CC(Core Course)		
Level of the course (As per Annexure-I)	100-199		
Pre-requisite for the course (if any)	Senior Secondary (10+2)		
Course Learning Outcomes(CLO):	<p>After completing this course, the learner will be able to:</p> <ol style="list-style-type: none"> <li>1. To analyze major developmental milestones for children from conception through early childhood. in the areas of physical, psychological, cognitive, and language development.</li> <li>2. To know about the stages of prenatal development and the significance of prenatal care.</li> <li>3. To examine and evaluate the role of mobile and television in early years of life.</li> <li>4. To Apply lifespan psychological concepts to the solutions of current issues and problems of prenatal development, infant and mother care.</li> </ol> <hr/> <p>5*. To acquire professional skills in the field of Human Development.</p>		
Credits	Theory	Practical	Total
	3	1	4

Contact Hours	3	2	5
<b>Max. Marks:</b> <b>Internal Assessment Marks:20(T)+10(P)=30</b> <b>End Term Exam Marks: 50(T) +20(P) =70</b>		<b>Time:3hrs (T)</b> <b>4hrs(P)</b>	
<b>Part B- Contents of the Course</b>			
<p><b><u>Instructions for Paper- Setter:</u></b>The examiner will set nine questions in all, selecting four questions from each unit and one compulsory objective type question.</p> <p><b><u>Instructions for the candidate:</u></b> The candidates will attempt five questions in all, selecting atleast one question from each unit as well as compulsory questions.</p>			
Unit	Topics	Contact Hours	
I	Life span development during prenatal stage:Conception, signs of pregnancy and discomforts during pregnancy. Teratology and hazards to prenatal development. Stages of prenatal development:Prenatal growth and activities in first, second and third trimesters of pregnancy.	9	
II	The birth process: Stages of delivery of baby and placenta. Types of birth or child delivery methods. Complications during delivery.	9	
III	Developmental milestones of infancy (0-2 years):Physical and motor development, social and emotional development, cognitive and language development. Physical Characteristics of the neonate, reflex actions, screening test for newborn (APGAR scale). Rearing and care of the infant-feeding, weaning, sleeping, bathing and toilet training. Common diseases and immunization during infancy. Types of parenting styles and family ecology	12	
IV	Developmental milestones of early childhood (3-6 years): Physical and motor development, social and emotional development, cognitive and language development. Role of family, peers and multimedia in socialization of a child. Advantages and disadvantages of mobile phones and television in a young child's life.	10	

V*	<ul style="list-style-type: none"> <li>● Observing children in various settings: a) Home setting (b) School setting (c) Outside of Home</li> <li>● Preparation of a questionnaire related to problems and complications during pregnancy and care of infants.</li> <li>● Visit a Gynecology Centre / Maternity Hospital, filling the questionnaire from pregnant women and mothers, report writing and presentation.</li> <li>● Visit to an Anganwadi: observing children and facilities available, plotting growth monitoring chart &amp; interpretation and report writing along with presentation.</li> </ul>	30
<b>Suggested Evaluation Methods</b>		
<b>Internal Assessment:</b> <ul style="list-style-type: none"> <li>➤ <b>Theory</b> <ul style="list-style-type: none"> <li>● Class Participation: <b>05</b></li> <li>● Seminar/presentation/assignment/quiz/class test etc.:<b>05</b></li> <li>● Mid-Term Exam: <b>10</b></li> </ul> </li> <li>➤ <b>Practicum</b> <ul style="list-style-type: none"> <li>● Class Participation: <b>00</b></li> <li>● Seminar/Demonstration/Viva-voce/Lab records etc.: <b>10</b></li> <li>● Mid-Term Exam: <b>NA</b></li> </ul> </li> </ul>		<b>End Term Examination:</b>  <b>50</b>  <b>20</b>
<b>Part C-Learning Resources</b>		
<b>Recommended Books/e-resources/LMS:</b> <ol style="list-style-type: none"> <li>1. Hurlock, Elizabeth B. (2017). Developmental Psychology, A life-span approach. Fifth Edition. Tata McGraw Hill Publishing Company Ltd. New Delhi.</li> <li>2. Srivastava S., Rani K.S. (2014): Textbook of Human Development, S.Chand publication, New Delhi.</li> <li>3. Hurlock, Elizabeth B. (2017). Child Development Sixth Edition. MC-Graw Hill Book Co. New Delhi.</li> <li>4. Berk, Laura E (2022). Child Development. 9th edition, Prentice Hall of India, Private Ltd. New Delhi.</li> <li>5. Lerner Hultsch (1983): Human Development a life span perspective, New York, McGraw Hill Book, Co.</li> </ol>		

\*Applicable for courses having practical component.

<b>Session: 2023-24</b>			
<b>Part A - Introduction</b>			
Subject	Bachelor of Home science		
Semester	III		
Name of the Course	Hygiene & human physiology		
Course Code	B-23 HSC- 304		
Course Type: (CC/MCC/MDC/CC- M/DSEC/VOC/DSE/PC/AEC/VA C)	CC-M 3		
Level of the course (As per Annexure-I)	100 -199		
Prerequisite for the course (if any)	B.Sc. Home science Ist yr.		
Course Learning Outcomes(CLO):	<p>After completing this course, the learner will be able to:</p> <ol style="list-style-type: none"> <li>1. To gain knowledge about symptoms, prevention and treatment of various diseases.</li> <li>2. To understand the importance of hygiene and health.</li> <li>3. To learn about human anatomy.</li> <li>4. To understand the physiological functions of the human body.</li> </ol> <hr/> <p>5* To learn practical skills on preventing disease by creating awareness.</p>		
Credits	Theory	Practical	Total

	3	1	4
Contact Hours	3	2	5
<b>Max. Marks:100</b> <b>Internal Assessment Marks:20(T)+10(P)=30</b> <b>End Term Exam Marks: 50(T)+20(P)=70</b>	<b>Time:3hrs (T)</b> <b>4hrs(P)</b>		
<b>Part B- Contents of the Course</b>			
<b><u>Instructions for Paper- Setter</u></b>			
<b><u>Instructions for Paper- Setter:</u></b> The examiner will set nine questions in all, selecting four questions from each unit and one compulsory objective type question.			
<b><u>Instructions for the candidate:</u></b> The candidates will attempt five questions in all, selecting atleast one question from each unit as well as compulsory questions.			
<b>Unit</b>	<b>Topics</b>		<b>Contact Hours</b>
I	Definition of hygiene, Types of hygiene (Personal, environmental, domestic & food hygiene),  Physical health, Factors affecting health: Eating & drinking habits, Body posture, sleep, exercise & games, cleanliness of body and cleanliness of House;  Immunity - Definition and types of immunity, vaccination schedule		9
II	Causes, symptoms & prevention or control of following diseases: a) Diseases spread by insects: Malaria & Dengue; b) Diseases spread by ingestion: Typhoid, diarrhea & Dysentery c) Diseases spread by droplet infection: T. B. & Chickenpox d) sexually transmitted disease: AIDS		10

III	<p>Animal Cell : Structure &amp; functions of cell organelle; Cell division: Mitosis &amp; meiosis(in brief);</p> <p>Digestive System – Structure and functions of various parts of the alimentary canal;</p> <p>Digestive glands – Salivary Glands, liver, pancreas, gastric glands, intestinal glands.</p>	11
IV	<p>Circulatory system – Structure and functions of heart, functions of blood, blood composition &amp; blood groups</p> <p>Excretory system – Structure and functions of lungs, &amp; skin</p> <p>Endocrine system – Structure and functions of endocrine glands– pituitary, thyroid, Parathyroid &amp; adrenal glands</p>	10
V*	<ul style="list-style-type: none"> <li>● Prepare a leaflet on prevention of any disease (as mentioned above) for creating awareness.</li> <li>● Immunization schedule survey in PHC or local hospital and report writing.</li> <li>● Draw a well labelled diagram of : Digestive system, circulatory system, kidney, lungs &amp; skin</li> <li>● To organize a one day workshop on Health &amp; hygiene or any other related topic</li> <li>● To prepare a report of the workshop organized.</li> </ul>	29
<b>Suggested Evaluation Methods</b>		
<p><b>Internal Assessment:</b></p> <p>➤ <b>Theory</b></p> <ul style="list-style-type: none"> <li>● Class Participation: <b>05</b></li> <li>● Seminar/presentation/assignment/quiz/class test etc.: <b>05</b></li> <li>● Mid-Term Exam: <b>10</b></li> </ul> <p>➤ <b>Practicum</b></p> <ul style="list-style-type: none"> <li>● Class Participation: <b>00</b></li> <li>● Seminar/Demonstration/Viva-voce/Lab records etc.: <b>10</b></li> <li>● Mid-Term Exam: <b>NA</b></li> </ul>		<p><b>End Term Examination:</b></p> <p style="text-align: center;"><b>50</b></p> <p style="text-align: center;"><b>20</b></p>

## Part C-Learning Resources

### Recommended Books/e-resources/LMS:

1. Hygiene and preventive medicine 17th edition(2020) .Yashpal Bedi, CBS Publishers.
2. Home Management and Hygiene - Sweera Relhan, Dinesh Pub.
3. **Textbook of Physiology 7th edition (2017)- A.K Jain. Avichal Publishing Company.**
4. **Comprehensive Textbook Of Medical Physiology Second edition (2019). G.K Pal.Jaypee Brothers Medical Publishers.**
5. **Textbook of Medical Physiology 13th edition (2015).Guyton & Hall; Saunders publishers.**
6. **Textbook of human anatomy and physiology (2018). D.K Sharma & Sameer Rastogi; Mackingee publishers.**

\*Applicable for courses having practical component.



<b>Session: 2023-24</b>			
<b>Part A - Introduction</b>			
Subject	Bachelor of Home Science		
Semester	IV		
Name of the Course	Advance apparel and textile designing		
Course Code	B-23HSC-401		
Course Type: (CC/MCC/MDC/CC- M/DSEC/VOC/DSE/PC/AEC/VA C)	CC(Core Course)		
Level of the course (As per Annexure-I)	100-199		
Pre-requisite for the course (if any)	Senior secondary(10+2)		
Course Learning Outcomes(CLO):	<p>After completing this course, the learner will be able to:</p> <ol style="list-style-type: none"> <li>1. Gain knowledge about different types of finishes given to fabrics.</li> <li>2. Get acquainted with different types of dyes and methods of dyeing.</li> <li>3. Acquire the technique of different types of printing.</li> <li>4. Equipped with the knowledge of laundry process, soap making , stiffening and bluing agents.</li> </ol> <hr/> <p>5*Students become able to do the drafting of various sleeves,collars and implement the technique of tie\dye and printing on fabric ,and acquire knowledge of the process of stain removal.</p>		
Credits	<b>Theory</b>	<b>Practical</b>	<b>Total</b>
	<b>3</b>	<b>1</b>	<b>4</b>
Contact Hours	<b>3</b>	<b>2</b>	<b>5</b>

<b>Max. Marks:</b> <b>Internal Assessment Marks:20(T)+10(P)=30</b> <b>End Term Exam Marks: 50(T) +20(P) =70</b>	<b>Time:3hrs (T)</b> <b>4hrs(P)</b>
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**Part B- Contents of the Course**

**Instructions for Paper-Setter:**The examiner will set nine questions in all, selecting four questions from each unit and one compulsory objective type question.

**Instructions for the candidate:** The candidates will attempt five questions in all,selecting atleast one question from each unit and the compulsory question as well.

Unit	Topics	Contact Hours
I	Fabric finishes: Definition & objectives Classification of Finishes: a) Physical: Singeing, napping, brushing, shearing, sizing, tentering, and calendaring b) Chemical: Mercerising, durable finishes, c) Special-purpose finishes: Wrinkle resistant , water resistant, soil repellent, and flame repellent Bleaching & its Types.	10
II	Dyeing: Definition classification of dyes: (In brief): <ul style="list-style-type: none"> <li>● On the basis of source of dye:               <ul style="list-style-type: none"> <li>a) Natural: vegetable, animal &amp; mineral</li> <li>b) Synthetic dye: Basic, acidic &amp; neutral dye</li> </ul> </li> <li>● On the basis of method of dyeing: Sulphur dyes, direct dyes, Vat dyes, Mordant dyes &amp; developed dyes</li> <li>● On the basis of stages of dyeing: Raw stock dyeing, skein dyeing, cloth dyeing</li> </ul> Simple dyeing: Principles and methods of dyeing, faults in dyeing and remedies Resist dyeing: tie and dye, batik and screen	11
III	Printing: definition, classification.	10

	<p>Methods of printing:</p> <ul style="list-style-type: none"> <li>● Hand printing: block, stencil, screen</li> <li>● Machine printing: roller, screen, discharge, resist and printing.</li> </ul> <p>Care (Darning, mending &amp; renovation) and storage of fabrics.</p> <p>Dry cleaning: Principle, process (in brief) and advantages.</p>	
IV	<p>Laundry: Process of laundry, laundry equipment and their</p> <p>Stain removal:</p> <ul style="list-style-type: none"> <li>● Types of stains &amp; methods of removing stains( absorbent &amp; chemical methods)</li> <li>● Removal of different stains( tea, coffee, fruits, blood, oil/ ghee, turmeric, colour, egg, ink, iron rust, lipstick, nail paint, sweat, perfume &amp; stain of hot iron)</li> </ul> <p>Soaps and Detergents: Types and manufacture of soap and detergents.</p> <p>Stiffening agent and blueing agent.</p>	9
V*	<p>Drafting of sleeves: puff, umbrella, raglan, ruffle, kimono.</p> <p>Drafting of collars: baby collar, flat peter pan, raised peter-pan, chinese band and sailor's collar.</p> <p>Drafting and Construction of children's garment</p> <ul style="list-style-type: none"> <li>● Frock (any one ) – A line / gathered / party wear.</li> </ul> <p>Prepare samples and one article of tie &amp; dye.</p> <p>Prepare a sample of Batik.</p> <p>Prepare samples of Block, Stencil and Screen printing.</p> <p>Prepare samples of Darning, mending (patching) and renovation.</p> <p>Removal of different types of stains : Tea, coffee, oil/ ghee, curry, blood, ink, iron rust, lipstick, nail paint.</p>	30
<b>Suggested Evaluation Methods</b>		

<p><b>Internal Assessment:</b></p> <p>➤ <b>Theory</b></p> <ul style="list-style-type: none"> <li>● Class Participation: <b>05</b></li> <li>● Seminar/presentation/assignment/quiz/class test etc.:<b>05</b></li> <li>● Mid-Term Exam: <b>10</b></li> </ul> <p>➤ <b>Practicum</b></p> <ul style="list-style-type: none"> <li>● Class Participation: <b>00</b></li> <li>● Seminar/Demonstration/Viva-voce/Lab records etc.: <b>10</b></li> <li>● Mid-Term Exam: <b>NA</b></li> </ul>	<p><b>End Term Examination:</b></p> <p style="text-align: center;"><b>50</b></p> <p style="text-align: center;"><b>20</b></p>
<b>Part C-Learning Resources</b>	
<p><b>Recommended Books/e-resources/LMS:</b></p> <ol style="list-style-type: none"> <li>1. Sushma Gupta, Neeru Garg and Renu Saini Test book of clothing and textiles and laundry Kalyani Pub.</li> <li>2. Doongaji S., Deshpande R., 1989. Basic processes and clothing construction. 2nd ed. New raj book depot, New delhi.</li> <li>3. Nornia D'Souza, 1998. Fabric Care, New Age International Pvt. Ltd., New Delhi</li> <li>4. G.J. Sumathi, 2022. Elements of fashion and apparel design, New Age International Publishers 2cc</li> <li>5. Ireland Patric, 1972. Basic Fashion Design, London, B.T. Bastford Ltd.</li> <li>6. W.S. Murphy, 2003. Textile weaving and design, Abhishek Publication.</li> <li>7. Hideaka Chijiwa, Colour Harmony- A Guide to creative colour combination</li> <li>8. Dantiyagi, S. (1996). Fundamentals of Textiles and their Care. India: Orient Black swan Private Limited. D'Souza, N. (2014). Fabric Care. New Delhi: New Age International Publishers.</li> </ol>	

\*Applicable for courses having practical component.

<b>Session: 2023-24</b>			
<b>Part A - Introduction</b>			
Subject	Bachelor of Home Science		
Semester	IV		
Name of the Course	EARLY CHILDHOOD AND SPECIAL NEED CHILDREN		
Course Code	B-23HSC-402		
Course Type: (CC/MCC/MDC/CC- M/DSEC/VOC/DSE/PC/AEC/VAC)	CC (Core Course)		
Level of the course (As per Annexure-I)	100-199		
Pre-requisite for the course (if any)	Senior Secondary (10+2)		
Course Learning Outcomes(CLO):	<p>After completing this course, the learner will be able to:</p> <ol style="list-style-type: none"> <li>1. To sensitize the students to the special group of society whose needs are special in nature.</li> <li>2. To understand the needs, educational provisions and attitude of society toward mentally retard, physically challenged and gifted children.</li> <li>3. To get theoretical and practical knowledge about different types of early childhood education centers and their importance.</li> <li>4. To acquaint with skills of establishing preschools by learning principles of programme planning and historical development of early childhood education</li> </ol> <hr/> <p>5*. To learn methods of child study and acquire professional skills in the field of Human Development.</p>		
Credits	Theory	Practical	Total
	3	1	4

Contact Hours	3	2	5
<b>Max. Marks:100</b> <b>Internal Assessment Marks:20(T) +10(P) =30</b> <b>End Term Exam Marks: 50(T) +20(P) =70</b>	<b>Time:3 hrs(T)</b> <b>4 hrs(P)</b>		
<b>Part B- Contents of the Course</b>			
<b><u>Instructions for Paper- Setter:</u></b> The examiner will set nine questions in all, selecting four questions from each unit and one compulsory objective type question.			
<b><u>Instructions for the candidate:</u></b> The candidates will attempt five questions in all, selecting atleast one question from each unit as well as compulsory questions.			
Unit	Topics	Contact Hours	
I	Importance, objectives, scope of early childhood education Types of early childhood education centers (laboratory nursery school, Montessori school, Anganwadi) Preschool program: components of ECCE, importance of Curriculum, principles of preschool program planning, activities in preschool program.	10	
II	Importance of play in early childhood, types and functions of play and Selection of play equipment (outdoor and indoor) Meaning of Disability, impairment, handicapped and disorder with reference to special need children. Physical impairment ( locomotor, autism, speech, cerebral palsy);Classification,causes and identification.	9	
III	Sensory impairment (visual, hearing); Classification,causes and identification. Learning impairment (dyslexia);Classification, causes and symptoms.	9	
IV	Intellectual impairment (mental retardation, gifted children): Classification, causes, symptoms. Educational provision for children with various disabilities. Government schemes related to special needs children.	12	
V*	<ul style="list-style-type: none"> <li>● Report writing on working of preschool or nursery and case study of preschool children.</li> <li>● Report writing based on survey of welfare agencies working for special need children</li> <li>● Observation of disability in childhood (any one); observation and report writing in School, outdoor</li> </ul>	30	



<b>Session: 2023-24</b>	
<b>Part A - Introduction</b>	
Subject	Bachelor of Home science
Semester	IV
Name of the Course	Food microbiology & biochemistry
Course Code	B-23 HSC- 403
Course Type: (CC/MCC/MDC/CC- M/DSEC/VOC/DSE/PC/AEC/VA C)	CC (Core Course)
Level of the course (As per Annexure-I	100 -199
Pre-requisite for the course (if any)	B.Sc. Home science Ist yr.
Course Learning Outcomes(CLO):	<p>After completing this course, the learner will be able to:</p> <ol style="list-style-type: none"> <li>1. To understand various causes of food spoilage and knowledge about microorganisms, their beneficial and harmful effects on food.</li> <li>2. To equip with the principles of food preservation</li> <li>3. To impart knowledge about digestion ,absorption and metabolism of major nutrients.</li> <li>4. To gain knowledge about nucleic acids and enzymes.</li> </ol> <hr style="width: 20%; margin-left: 0;"/> <p>5*.To learn the skills of preserving food by using various processing techniques</p>



Credits	Theory	Practical	Total
	3	1	4
Contact Hours	3	2	5
<b>Max. Marks: 100</b> <b>Internal Assessment Marks: 20(T) +10(P) =30</b> <b>KuEnd Term Exam Marks: 50(T) +20(P) =70</b>		<b>Time: 3 hrs(T)</b> <b>4 hrs(P)</b>	
<b>Part B- Contents of the Course</b>			
<p><b><u>Instructions for Paper- Setter:</u></b> The examiner will set nine questions in all, selecting two questions from each unit and one compulsory.</p> <p><b><u>Instructions for the Candidate:</u></b> The candidates will attempt five questions in all, selecting one question from each unit and the compulsory question as well.</p>			
Unit	Topics	Contact Hours	
I	<ul style="list-style-type: none"> <li>● Classification of foods on the basis of shelf life</li> <li>● Food Spoilage, its causes and preventive measures</li> <li>● Microorganisms: Types, beneficial and harmful effects on food.</li> <li>● Food storage: Household &amp; commercial food storage</li> </ul>	10	
II	<ul style="list-style-type: none"> <li>● Principles of food preservation. Bactericidal and Bacteriostatic</li> <li>● Methods of Food preservation: a) by use of low temperature b) by use of high temperature c) by use of preservatives d) by use of moisture removing techniques</li> <li>● Food adulteration (in brief)</li> </ul>	10	
III	<ul style="list-style-type: none"> <li>● Digestion, absorption &amp; metabolism of carbohydrates</li> <li>● Digestion, absorption &amp; metabolism of Fat</li> <li>● Digestion, absorption &amp; metabolism of proteins</li> </ul>	10	

IV	<ul style="list-style-type: none"> <li>● Digestion, absorption &amp; metabolism of Nucleic acids</li> <li>● Enzymes: Definition, classification, chemical nature &amp; factors affecting enzyme activity</li> </ul>	10
V*	<p>1. Assessment of nutritional status of your own family by using dietary and anthropometric measurements.</p> <p>2. Preparation, calculation of nutritive value and end point test (wherever applicable) of following products</p> <ul style="list-style-type: none"> <li>● Jam</li> <li>● Jelly</li> <li>● Murabba</li> <li>● Pickle sour &amp; sweet</li> <li>● Tomato Ketchup</li> <li>● Drying of vegetables</li> <li>● Squash/ Sharbat</li> <li>● Fruit candy</li> </ul>	30
<b>Suggested Evaluation Methods</b>		
<p><b>Internal Assessment:</b></p> <p>➤ <b>Theory</b></p> <ul style="list-style-type: none"> <li>● Class Participation: <b>05</b></li> <li>● Seminar/presentation/assignment/quiz/class test etc.: <b>05</b></li> <li>● Mid-Term Exam: <b>10</b></li> </ul> <p>➤ <b>Practicum</b></p> <ul style="list-style-type: none"> <li>● Class Participation: <b>00</b></li> <li>● Seminar/Demonstration/Viva-voce/Lab records etc.: <b>10</b></li> <li>● Mid-Term Exam: <b>NA</b></li> </ul>		<p><b>End Term Examination:</b></p> <p style="text-align: center;"><b>50</b></p> <p style="text-align: center;"><b>20</b></p>
<b>Part C-Learning Resources</b>		
<p><b>Recommended Books/e-resources/LMS:</b></p> <ol style="list-style-type: none"> <li>1. Madigan MT, Martinko JM, Dunlap PV and Clark DP. (2014). Brock Biology of Microorganisms. 14th edition. Pearson International Edition</li> <li>2. Campbell, MK (2012) Biochemistry, 7th ed., Published by Cengage Learning</li> <li>3. Maria Parloa (2009), canned fruit, preserves and jellies: Household methods of preparation, US Department of Agriculture, Washington.</li> </ol>		

4. Shafiur, Rahman, M. (2007), Handbook of Food Preservation, 2 nd edition, CRC press, New Delhi
5. Nelson DL and Cox MM (2008) Lehninger Principles of Biochemistry, 5th Edition., W.H. Freeman and Company,
6. Khader, V.(2011) Text book on Food Storage & Preservation. Kalyani Publishers, New Delhi
7. Bamji MS, Krishnaswamy K and Brahmam GNV (Eds) (2009). Textbook of Human Nutrition, 3rd edition. Oxford and IBH Publishing Co. Pvt. Ltd. New Delhi.
8. Reddy SR and Reddy SM. (2005). Microbial Physiology. Scientific Publishers India
9. U. Satyanarayana and U. Chakrapani Biochemistry ,4th edition ,june 2013
10. Pant, M.C. (latest edition): Essentials of Biochemistry, Kedar Nath, Ram Nath & Co.
11. Outlines of Biochemistry, Wiley Eastern Pvt. Ltd.
12. Principles of Biochemistry by J.L. Jain

\*Applicable for courses having practical component.

# **Annexure**

<b>Session: 2023-24</b>			
<b>Part A - Introduction</b>			
Subject	Bachelor of Home Science		
Semester	I		
Name of the Course	Basics of Home science I		
Course Code	B-23 HSC-105		
Course Type: (CC/MCC/MDC/CC- M/DSEC/VOC/DSE/PC/AEC/VA C)	MDC-1		
Level of the course (As per Annexure-I)	100-199		
Pre-requisite for the course (if any)	Senior Secondary(10+2)		
Course Learning Outcomes(CLO):	<p>After completing this course, the learner will be able to:</p> <ol style="list-style-type: none"> <li>1. To acquire knowledge of various concepts of food &amp; nutrition science.</li> <li>2. To enable the students to have basic knowledge of textiles fibres, yarn and various stitches</li> <li>3. To have knowledge of and basic concepts related to human development</li> <li>4. To have knowledge of family resource Management and extension education</li> </ol> <p>5*.To impart practical training on various aspects of home science</p>		
Credits	Theory	Practical	Total
	2	1	3
Contact Hours	2	2	4
<b>Max. Marks: 75</b> <b>Internal Assessment Marks:15(T)+5(P)=20</b> <b>End Term Exam Marks: 35(T)+20(P)=55</b>		<b>Time:3hrs (T)</b> <b>4hrs(P)</b>	

## Part B- Contents of the Course

### Instructions for Paper- Setter

**Instructions for Paper- Setter:** The examiner will set nine questions in all, selecting four questions from each unit and one compulsory objective type question.

**Instructions for the candidate:** The candidates will attempt five questions in all, selecting atleast one question from each unit as well as compulsory questions.

Unit	Topics	Contact Hours
I	Introduction to Home science: Concept and its job opportunities <b>Basic terminology:</b> Food, nutrients, nutrition, health, balanced diet, malnutrition (over & undernutrition), Classification and Function of Food Carbohydrate, Protein, Fat: Source, Function & effect of deficiency	10
II	Definition and Classification and uses of Textile fibers: (Cotton, Jute, Wool, Silk, Rayon, Nylon and Polyester) . Yarn: Definition and classification( simple, novelty and complex). Sewing machine: Parts and Functions, Care and Maintenance	8
III	Human Growth and Development: Meaning and concept Factors influencing growth & development Developmental milestones of infancy (0-2 years) and early childhood (3-6 years): <ul style="list-style-type: none"><li>● Physical and motor development</li><li>● Social and emotional development</li><li>● Cognitive and language development</li></ul>	9
IV	Resource Management - Definition and Importance . Process of time, energy and money management. Extension education: meaning and importance Qualities of an extension worker	9

V*	<ul style="list-style-type: none"> <li>● Cooking terminology</li> <li>● Cooking of following recipes: Paratha, Pulao, Raita, Sandwich, manchurian, chocolates.</li> <li>● Basic stitches: Hemming, buttonhole stitch, blanket stitch, running stitch</li> <li>● Prepare a play material for infants/preschoolers</li> <li>● Prepare immunization chart for a child up to 5 years.</li> </ul>	28
<b>Suggested Evaluation Methods</b>		
<b>Internal Assessment:</b> <ul style="list-style-type: none"> <li>➤ <b>Theory</b> <ul style="list-style-type: none"> <li>● Class Participation: <b>4</b></li> <li>● Seminar/presentation/assignment/quiz/class test etc.: <b>4</b></li> <li>● Mid-Term Exam: <b>7</b></li> </ul> </li> <li>➤ <b>Practicum</b> <ul style="list-style-type: none"> <li>● Class Participation: --</li> <li>● Seminar/Demonstration/Viva-voce/Lab records etc.:<b>5</b></li> <li>● Mid-Term Exam: --</li> </ul> </li> </ul>		<b>End Term Examination:</b>  <b>35</b>   <b>20</b>
<b>Part C-Learning Resources</b>		

**Recommended Books/e-resources/LMS:**

- Srilakshmi, B. (2001) Food Science (2nd edition). New Age International Pvt. Ltd. Publishers: New Delhi.
- Mudambi, S.R. and Rao S. Fundamentals of Food & Nutrition. (2nd ed.) Wiley Eastern Ltd.: New Delhi.
- Bamiji, M.S.; Rao, N.P. and Reddy, V. (Editors) (1999). Textbook of Human Nutrition. New Delhi: Oxford and IBH Publishing Co. Pvt. Ltd.
- Saraswathi, T.S. & Kaur, B. (1993): The development of Children, New York: Scientific American Books.
- Srivastava S., Rani K.S. (2014): Textbook of Human Development, S.Chand publication, New Delhi.
- Tara L. Kuther (2022). Lifespan Development: Lives in Context. A Topical Approach, Second Edition. Western Connecticut State University, USA.
- Bela Bhargava (2005). Family Resource Management and Interior decoration. Apple Printer and V.R. Printers, Jaipur.
- Premalatha Mullick (2011). Textbook of Home Science, Kalyani Publishers, New Delhi.
- Sushma Gupta, Neeru Garg and Amita Aggarwal (1993). Home Management, Hygiene and Physiology. Kalyani Publishers, Ludhiana.
- Sushma Gupta, Neeru Garg and Renu Saini, 2013. Text book of clothing, textiles and laundry Kalyani Pub.
- Ray, G.L. (2004). Extension education and Management. Kalyani Publisher, New Delhi.
- Reddy, A.A.(2001). Extension Education. Bapatla : Sri Lakshmi Press.

\*Applicable for courses having practical component.



<b>Session: 2023-24</b>			
<b>Part A - Introduction</b>			
Subject	Bachelor of Home science		
Semester	II		
Name of the Course	Basics of Home science II		
Course Code	B-23 HSC-205		
Course Type: (CC/MCC/MDC/CC- M/DSEC/VOC/DSE/PC/AEC/VA C)	MDC-2		
Level of the course (As per Annexure-I)	100-199		
Pre-requisite for the course (if any)	Senior Secondary(10+2)		
Course Learning Outcomes(CLO):	<p>After completing this course, the learner will be able to:</p> <ul style="list-style-type: none"> <li>● To understand the functions, sources, requirements and effects of excess and deficiency of different nutrients</li> <li>● To gain knowledge about clothing &amp; fabric construction</li> <li>● To gain knowledge about development during childhood and adolescence.</li> <li>● To learn the relationships that characterize art and design practice and impart knowledge about consumer education</li> </ul> <p>5*.To impart practical training on various aspects of home science</p>		
Credits	<b>Theory</b>	<b>Practical</b>	<b>Total</b>
	<b>2</b>	<b>1</b>	<b>3</b>
Contact Hours	<b>2</b>	<b>2</b>	<b>4</b>
<b>Max. Marks: 75</b> <b>Internal Assessment Marks:15(T)+5(P)=20</b> <b>End Term Exam Marks: 35(T)+20(P)=55</b>		<b>Time:3hrs (T)</b> <b>4hrs(P)</b>	

## Part B- Contents of the Course

### Instructions for Paper- Setter

**Instructions for Paper- Setter:** The examiner will set nine questions in all, selecting four questions from each unit and one compulsory objective type question.

**Instructions for the candidate:** The candidates will attempt five questions in all, selecting atleast one question from each unit as well as compulsory questions.

Unit	Topics	Contact Hours
I	Micro Nutrients: Definition and Classification of Vitamin and Mineral, Source, Requirement and deficiency of Vitamin: A,D, E, K, B, C (in brief) Source, Requirement, Deficiency of Minerals: Calcium, Iron, Iodine, Sodium, Potassium	7
II	Factors affecting selection of clothing., weaving-definition and different types of weaves Meaning and Objectives of application of Finishes Different types of Finishes- Wrinkle resistant , water resistant, soil repellent, and flame repellent finishes	8
III	Major physical , motor, emotional and cognitive development milestones through middle school age. Role of the family and community in socialization of the child. Developmental changes during adolescence: social, emotional, cognitive and moral development.	6
IV	Importance of interior decoration, Elements of arts and principles of design. Consumer protection act & consumer rights, Standardized marks{ AGMARK, FPO, WOOL MARK, ECOMARK, ISI}	9
*V	<ul style="list-style-type: none"> <li>● Preparation of vitamin rich recipes and sponge cake</li> <li>● Prepare samples of basic weaves</li> <li>● Prepare a teaching aid for children</li> <li>● Prepare a color wheel</li> <li>● Make illustration of following Standardized marks: AGMARK, FPO, WOOL MARK, ECOMARK, ISI</li> </ul>	30

<b>Suggested Evaluation Methods</b>	
<p><b>Internal Assessment:</b></p> <p>➤ <b>Theory</b></p> <ul style="list-style-type: none"> <li>● Class Participation: <b>4</b></li> <li>● Seminar/presentation/assignment/quiz/class test etc.: <b>4</b></li> <li>● Mid-Term Exam: <b>7</b></li> </ul> <p>➤ <b>Practicum</b></p> <ul style="list-style-type: none"> <li>● Class Participation: <b>--</b></li> <li>● Seminar/Demonstration/Viva-voce/Lab records etc.: <b>5</b></li> <li>● Mid-Term Exam: <b>--</b></li> </ul>	<p><b>End Term Examination:</b></p>  <p><b>35</b></p>  <p><b>20</b></p>
<b>Part C-Learning Resources</b>	
<p><b>Recommended Books/e-resources/LMS:</b></p> <ul style="list-style-type: none"> <li>● Srilakshmi, B. (2002). Nutrition Science. New Age International Limited, Publishers, New Delhi.</li> <li>● Srilakshmi, B. (2001) Food Science (2nd edition). New Age International Pvt. Ltd. Publishers: New Delhi.</li> <li>● Khader, V.(2011) Text book on Food Storage &amp; Preservation. Kalyani Publishers, New Delhi</li> <li>● Rajalakshmi, R. (1990) Applied Nutrition (3rd ed.) Oxford and IBH Pub. Co. Pvt. Ltd.: New Delhi.</li> <li>● Swaminathan, M. (1988). Essentials of Food and Nutrition - An Advanced Text Book Vol. I and II. (2nd ed.) BAPPCO: Bangalore.</li> <li>● Srivastava S., Rani K.S. (2014): Textbook of Human Development, S.Chand publication, New Delhi</li> <li>● Kumar,K.(1993): Study of childhood and family. In T.S Saraswathi &amp; B. Kaur (Eds).Human development and family studies in India: An agenda for research and policy New Delhi:Sage.</li> <li>● Bela Bhargava (2005). Family Resource Management and Interior decoration. Apple Printer and V.R. Printers, Jaipur.</li> <li>● Home Management- A Textbook of Home Science for Senior Students. The Educational Planning Group, Arya Publishing House, Karol Bagh, New Delhi.</li> <li>● Sushma Gupta, Neeru Garg and Amita Aggarwal (1993). Home Management, Hygiene and Physiology. Kalyani Publishers, Ludhiana.</li> </ul>	

\*Applicable for courses having practical component.

<b>Session: 2023-24</b>			
<b>Part A - Introduction</b>			
Subject	Bachelor of Home science		
Semester	III		
Name of the Course	Basics of Home Science III		
Course Code	B-23 HSC-305		
Course Type: (CC/MCC/MDC/CC- M/DSEC/VOC/DSE/PC/AEC/VA C)	MDC-3		
Level of the course (As per Annexure-I)	100-199		
Pre-requisite for the course (if any)	Senior Secondary(10+2)		
Course Learning Outcomes(CLO):	<p>After completing this course, the learner will be able to:</p> <ol style="list-style-type: none"> <li>1.To obtain knowledge about dietary management of diseases and modifications of normal diet for therapeutic purposes and preservation.</li> <li>2.To impart knowledge about traditional embroideries of India and stain removal</li> <li>3.To inculcate the skills of effective guidance &amp; counseling</li> <li>4.To impart knowledge about traditional embroideries of India and stain removal</li> </ol> <hr/> <p>5*.To impart practical training on various aspects of home science</p>		
Credits	Theory	Practical	Total
	2	1	3
Contact Hours	2	2	4

<b>Max. Marks: 75</b> <b>Internal Assessment Marks:15(T)+5(P)=20</b> <b>End Term Exam Marks: 35(T)+20(P)=55</b>		<b>Time:3hrs (T)</b> <b>4hrs(P)</b>
<b>Part B- Contents of the Course</b>		
<b><u>Instructions for Paper- Setter:</u></b> The examiner will set nine questions in all, selecting four questions from each unit and one compulsory objective type question.		
<b><u>Instructions for the candidate:</u></b> The candidates will attempt five questions in all, selecting atleast one question from each unit as well as compulsory questions.		
Unit	Topics	Contact Hours
I	Meal planning: its meaning & principles; Planning diet for school going children & adolescents; Food preservation; principles and home scale methods	8
II	Traditional embroideries of India: Chikankari, phulkari, kantha, chamba and kasuti. Soaps and Detergents, Starches, Blues and Bleaches Stain removal-Classification of Stains, Methods of Removing different types of Stain	7
III	Physical changes, health problems and adjustments in old age Guidance: meaning and its types Skills and characteristics of effective counseling	9
IV	Various color schemes and its application.Table etiquettes and Table setting – formal and informal Communication- meaning, importance and types .Major nutritional problems in India; PEM, IDD, Anemia	8
V*	<ul style="list-style-type: none"> <li>● Prepare a counseling aid for children</li> <li>● Preparation of chocolate cake &amp; pineapple cake</li> <li>● Make rangoli/alpana on floor</li> <li>● Prepare samples of embroidery stitches / tie &amp; dye</li> </ul>	30
<b>Suggested Evaluation Methods</b>		

<p><b>Internal Assessment:</b></p> <p>➤ <b>Theory</b></p> <ul style="list-style-type: none"> <li>● Class Participation: <b>4</b></li> <li>● Seminar/presentation/assignment/quiz/class test etc.: <b>4</b></li> <li>● Mid-Term Exam: <b>7</b></li> </ul> <p>➤ <b>Practicum</b></p> <ul style="list-style-type: none"> <li>● Class Participation: --</li> <li>● Seminar/Demonstration/Viva-voce/Lab records etc.:<b>5</b></li> <li>● Mid-Term Exam: --</li> </ul>	<p><b>End Term Examination:</b></p> <p><b>35</b></p> <p><b>20</b></p>
<p><b>Part C-Learning Resources</b></p>	
<p><b>Recommended Books/e-resources/LMS:</b></p> <ul style="list-style-type: none"> <li>● Srilakshmi, B. (2001) Food Science (2nd edition). New Age International Pvt. Ltd. Publishers: New Delhi.</li> <li>● Mudambi, S.R. and Rao S. Fundamentals of Food &amp; Nutrition. (2nd ed.) Wiley Eastern Ltd.: New Delhi.</li> <li>● Bamiji, M.S.; Rao, N.P. and Reddy, V. (Editors) (1999). Textbook of Human Nutrition. New Delhi: Oxford and IBH Publishing Co. Pvt. Ltd.</li> <li>● Saraswathi, T.S. &amp; Kaur, B. (1993): The development of Children, New York: Scientific American Books.</li> <li>● Srivastava S., Rani K.S. (2014): Textbook of Human Development, S.Chand publication, New Delhi.</li> <li>● Tara L. Kuther (2022).Lifespan Development: Lives in Context. A Topical Approach,Second Edition.Western Connecticut State University, USA.</li> <li>● Bela Bhargava (2005). Family Resource Management and Interior decoration. Apple Printer and V.R. Printers, Jaipur.</li> <li>● Premalatha Mullick (2011). Textbook of Home Science, Kalyani Publishers, New Delhi.</li> <li>● Sushma Gupta, Neeru Garg and Amita Aggarwal (1993). Home Management, Hygiene and Physiology. Kalyani Publishers, Ludhiana.</li> <li>● Sushma Gupta, Neeru Garg and Renu Saini, 2013. Text book of clothing,textiles and laundry Kalyani Pub.</li> <li>● Ray, G.L. (2004). Extension education and Management. Kalyani Publisher, New Delhi.</li> <li>● Reddy, A.A.(2001).Extension Education. Bapatla : Sri Lakshmi Press.</li> </ul>	

\*Applicable for courses having practical component.

<b>Session: 2023-24</b>			
<b>Part A - Introduction</b>			
Subject	Bachelor of Home science		
Semester	II		
Name of the Course	Frozen Food Technology		
Course Code	B23-SEC-204		
Course Type: (CC/MCC/MDC/CC- M/DSEC/VOC/DSE/PC/AEC/VA C)	SEC		
Level of the course (As per Annexure-I	100-199		
Pre-requisite for the course (if any)	Senior Secondary(10+2) or equivalent in any stream		
Course Learning Outcomes(CLO):	<p>After completing this course, the learner will be able to:</p> <ol style="list-style-type: none"> <li>1.To understand the concept and types of freezing</li> <li>2.To get knowledge about process of freezing and recent techniques</li> <li>3.To get knowledge about effect of freezing on various parameters of food quality</li> <li>4.To understand freezing and thawing of fruits &amp; vegetables</li> </ol> <hr/> <p>5*.To impart practical knowledge about preparation, storage and packaging of frozen foods.</p>		
Credits	Theory	Practical	Total

	2	1	3
Contact Hours	2	2	4
<b>Max. Marks:75</b> <b>Internal Assessment Marks:15(T) +5(P)=20</b> <b>End Term Exam Marks: 35(T) +20(P)=55</b>		<b>Time:3hrs</b>	
<b>Part B- Contents of the Course</b>			
<p><b><u>Instructions for Paper- Setter:</u></b>The examiner will set nine questions in all, selecting four questions from each unit and one compulsory objective type question.</p> <p><b><u>Instructions for the candidate:</u></b> The candidates will attempt five questions in all, selecting atleast one question from each unit as well as compulsory questions.</p>			
Unit	Topics		Contact Hours
I	Freezing: need and effectiveness of freezing as food preservation, advantages and limitations of Frozen Food  Quick and slow freezing, disadvantages of slow freezing  Points to be kept in mind while selecting freezing method		10
II	Pre- treatment prior to freezing: blanching, dehydro freezing and osmotic dehydration. Freezing Technology: a) air or Still freezing b) air blast freezing c) Fluidized bed freezing d) indirect contact freezing e) Immersion freezing f) cryogenic freezing g)Tunnel freezing		11
III	Physical changes in Frozen Food. Effect of Freezing on texture, colour and flavour of food. Effect of freezing on principal constituents of food: a) Water. b) Protein , lipids And carbohydrates. c) Vitamins And minerals.		11



IV	Method of freezing fruits and vegetables. Introduction to thawing, changes during thawing and its effect on food .Future trends in frozen food technology.	10
V*	<ol style="list-style-type: none"> <li>1. To study basic equipments used for freezing</li> <li>2. To learn the process of blanching :Boiling method &amp; steam method</li> <li>3. To freeze vegetables: Peas, corns, beans, carrot, tomato or any seasonal vegetables</li> <li>4. To freeze fruits: apples, strawberries, mango, pineapple or any seasonal fruits</li> <li>5. Storing in bags</li> <li>6. Preparation of ice cream</li> </ol>	30
<b>Suggested Evaluation Methods</b>		
<b>Internal Assessment:</b> <ul style="list-style-type: none"> <li>➤ <b>Theory</b> <ul style="list-style-type: none"> <li>● Class Participation: 04</li> <li>● Seminar/presentation/assignment/quiz/class test etc.: 04</li> <li>● Mid-Term Exam: 07</li> </ul> </li> <li>➤ <b>Practicum</b> <ul style="list-style-type: none"> <li>● Class Participation: Nil</li> <li>● Seminar/Demonstration/Viva-voce/Lab records etc.:05</li> <li>● Mid-Term Exam: NA</li> </ul> </li> </ul>		<b>End Term Examination:</b>  <b>35</b>  <b>20</b>
<b>Part C-Learning Resources</b>		

**Recommended Books/e-resources/LMS:**

- <http://practicalaction.org/evaporative-cooling-in-india>.
- [http://www.akamaiuniversity.us/PJST10\\_2\\_935.pdf](http://www.akamaiuniversity.us/PJST10_2_935.pdf)
- [http://www.fao.org/climatechange/17850-0c63507f250b5a65147b736\\_4492c4144d.pdf](http://www.fao.org/climatechange/17850-0c63507f250b5a65147b736_4492c4144d.pdf)
- Mudambi, S.V. and Rajagopal, M.V. 2001. Fundamentals of Foods & Nutrition. New Age International (P) Ltd. Publishers, New Delhi. 405p.
- Parker, R. 2003. Introduction to food science. Delmar Thomson Learning, New York. 636p.
- Roy, S.K. and Khardi, D.S. 1985. Zero Energy Cool Chamber. India Agricultural Research Institute, New Delhi, India. Research Bulletin No.43: 23-30.
- Tucker, G. and Featherstone, S. 2011. Essentials of thermal processing. John Wiley and Sons., Oxford. 288p

<b>Session: 2023-24</b>	
<b>Part A - Introduction</b>	
Subject	Bachelor of Home science
Semester	IV
Name of the Course	Indian Food Nutrition
Course Code	B23-VAC-327
Course Type: (CC/MCC/MDC/CC- M/DSEC/VOC/DSE/PC/AEC/V AC)	VAC
Level of the course (As per Annexure-I	100-199
Pre-requisite for the course (if any)	Senior Secondary(10+2) or equivalent in any stream

Course Learning Outcomes(CLO):	After completing this course, the learner will be able to: <ol style="list-style-type: none"> <li>1. To have knowledge about the food pyramid and benefits of traditional Indian foods.</li> <li>2. To know the importance of functional foods &amp; probiotics.</li> <li>3.To get knowledge about cereal and millet based convenience foods.</li> <li>4.Role of Indian spices, fruits &amp; vegetables in Indian diets</li> </ol> <hr/> 5*. NA		
Credits	Theory	Practical	Total
	<b>2</b>	-	<b>2</b>
Contact Hours	2	-	2
<b>Max. Marks:50</b> <b>Internal Assessment Marks:15(T)</b> <b>End Term Exam Marks: 35(T)</b>		<b>Time:3 hrs.</b>	
<b>Part B- Contents of the Course</b>			
<p><b><u>Instructions for Paper- Setter:</u></b>The examiner will set nine questions in all, selecting four questions from each unit and one compulsory objective type question.</p> <p><b><u>Instructions for the candidate:</u></b> The candidates will attempt five questions in all, selecting atleast one question from each unit as well as compulsory questions.</p>			
<b>Unit</b>	<b>Topics</b>		<b>Contact Hours</b>



**Recommended Books/e-resources/LMS:**

1. Srilakshmi, B. (2017) Food Science (2nd edition). New Age International Pvt. Ltd. Publishers: New Delhi.
2. Maney S (2008). Foods, Facts and Principles, 3 rd Edition Published by Wiley Eastern, New Delhi.
3. Usha Chandrasekhar (2002) Food Science and Application in Indian Cookery, Phoenix Publishing House P. Ltd., New Delhi.
4. SunetraRoday (2017). Food Science and Nutrition, Oxford University Press, New Delhi.
5. Longvah, T, Ananthan, R., Bhaskarachary, K., Venkaiah, K (2017). Indian Food Composition Tables (IFCT), Indian Council of Medical Research, National Institute of Nutrition, Hyderabad.
6. Raina U, Kashyap S, Narula V, Thomas S Suvira, VirS, Chopra S (2010) Basic Food Preparation: A Complete Manual, 4th Edition, Orient Black Swan Ltd, Mumbai.
7. Rajalakshmi, R. (1990) Applied Nutrition (3rd ed.) Oxford and IBH Pub. Co. Pvt. Ltd.: New Delhi.
8. Mudambi, S.R. and Rao S. Fundamentals of Food & Nutrition. (2nd ed.) Wiley Eastern Ltd.: New Delhi.

\*Applicable for courses having practical component.

<b>Session: 2023-24</b>	
<b>Part A – Introduction</b>	
Subject	Bachelor of Home science
Semester	IV
Name of the Course	Baking Techniques
Course Code	B23-VOC-103
Course Type: (CC/MCC/MDC/CC- M/DSEC/VOC/DSE/PC/AEC/VA C)	VOC
Level of the course (As per Annexure-I	100-199
Pre-requisite for the course (if any)	Senior Secondary(10+2) or equivalent in any stream

Course Learning Outcomes(CLO):	After completing this course, the learner will be able to: <ol style="list-style-type: none"> <li>1.To have knowledge of ingredients used in baking</li> <li>2.To know about role of leavening and Moistening agents</li> <li>3.To obtain knowledge about cake preparation, their faults and decoration ideas.</li> <li>4. To enable the students to have knowledge of breadmaking</li> </ol> <hr/> <ol style="list-style-type: none"> <li>5*.To have practical knowledge of baking and preparation of bakery items.</li> </ol>		
Credits	<b>Theory</b>	<b>Practical</b>	<b>Total</b>
	<b>2</b>	<b>2</b>	<b>4</b>
Contact Hours	<b>2</b>	<b>4</b>	<b>6</b>
<b>Max. Marks:100</b> <b>Internal Assessment Marks:15(T) +15(P)=30</b> <b>End Term Exam Marks: 35(T) +35(P)=70</b>		<b>Time:3hrs(T)</b> <b>4hrs(P)</b>	
<b>Part B- Contents of the Course</b>			
<p><b><u>Instructions for Paper- Setter:</u></b>The examiner will set nine questions in all, selecting four questions from each unit and one compulsory objective type question.</p> <p><b><u>Instructions for the candidate:</u></b> The candidates will attempt five questions in all, selecting atleast one question from each unit as well as compulsory questions.</p>			
<b>Unit</b>	<b>Topics</b>		<b>Contact Hours</b>



I	Introduction to Bakery, different bakery products, Bakery equipments. Basic Materials Used in Bakery and their role in baking. Flours And Flour Mixtures: Types of flours & suitability of flours for bakery products, flour selection, properties and specifications	07
II	Egg, Fats & oils: Types & functions of fats & oils in bakery products. Sweeteners: Types of sugars & functions. Leavening agents: Types; a) Biological leaveners b) Chemical leaveners c) Commonly used leavening agents .Moistening Agents	08
III	Cakes: Different types of cakes. Cake making techniques & General Precautions in cake preparation . Cake decoration and Cake faults & causes	07
IV	Some terms used in Process of Bread making: Fermentation, leavening, Pouching the dough, Fermentation of the sponge, Dividing & scaling, Rounding, Intermediate proofing, Moulding, Pan proofing, Baking the bread, Slicing & packaging. Essential and optional Ingredients used in bread .Bread quality: External and Internal Characteristics	08
V*	<ul style="list-style-type: none"> <li>● Study of various types of baking equipments;</li> <li>● Type of baking ingredients, flour, yeast, salt and their uses;</li> <li>● Preparation and cost calculation of different types of bakery products: Traveller's cake, Pineapple cake, Coffee walnut cake, Biscuit &amp; Nan khatai, Pizza, Pastry, Garlic Bread, Red velvet cake and Muffins</li> <li>● Cake decoration</li> </ul>	52
<b>Suggested Evaluation Methods</b>		

<p><b>Internal Assessment:</b></p> <p>➤ <b>Theory</b></p> <ul style="list-style-type: none"> <li>● Class Participation:<b>04</b></li> <li>● Seminar/presentation/assignment/quiz/class test etc.:<b>04</b></li> <li>● Mid-Term Exam:<b>07</b></li> </ul> <p>➤ <b>Practicum</b></p> <ul style="list-style-type: none"> <li>● Class Participation:<b>05</b></li> <li>● Seminar/Demonstration/Viva-voce/Lab records etc.:<b>10</b></li> <li>● Mid-Term Exam:<b>NA</b></li> </ul>	<p><b>End Term Examination:</b></p> <p><b>35</b></p> <p><b>35</b></p>
<p><b>Part C-Learning Resources</b></p>	
<p><b>Recommended Books/e-resources/LMS:</b></p> <ul style="list-style-type: none"> <li>● Dubey, S.C. (2017). Basic Baking, 5th Edition, ChanakyaMudrakPvt. Ltd., New Delhi.</li> <li>● Rainact, AL. (2013). Basic Food Preparation – Complete Manual, 3rd Edition, Orient Longman Pvt Ltd., Mumbai</li> <li>● Manay, S &amp;Shanaksharaswami, M. (2014).Foods : Facts and Principles, New Age Publishers, New Delhi</li> </ul>	

\*Applicable for courses having practical component.