

Scheme of Programme (Bachelor of Science in Home Science)
(Scheme UG A4: Undergraduate Programmes (Interdisciplinary))

Semester 1

Course Code	Course Title	Course ID	L	T	P	L	T	P	Total Credits	MARKS				
			(Hrs)			Credits				TI	TE	PI	PE	Total
Core Course(s)														
CC-ID1	Family Resource Management	240/HS/CC101	3		2	3		1	4	25	50	05	20	100
CC-ID2	Introduction to Clothing and Textiles	240/HS/CC102	3		2	3		1	4	25	50	05	20	100
CC-ID3	Introduction to Human Development and Family Studies	240/HS/CC103	3		2	3		1	4	25	50	05	20	100
Minor/ Vocational Course(s)														
MIC-1	One from pool	240/HS/MI101	1		2	1		1	2	5	20	5	20	50
Multidisciplinary Course(s)														
MDC-1	One from pool	240/HS/MD101	2	1		2	1		3	25	50	-	-	75
Ability Enhancement Course(s)														
AEC-1	One from Pool								2	15	35	5ss	20	50
Skill Enhancement Course(s)														
SEC-1	One from pool	240/HS/SE101	2		2	2		1	3	15	35	5	20	75
Value-added Course(s)														
VAC-1	One from Pool								2					50
Total Credits									24					600

Signature
home...

Semester 2

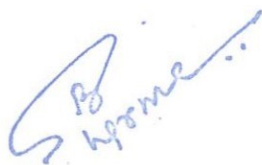
Course Code	Course Title	Course ID	L	T	P	L	T	P	Credits	MARKS				
			(Hrs)								TI	TE	PI	PE
Core Course(s)														
CC-ID4	Fundamentals of Nutrition	240/HS/CC201	3		2	3		1	4	25	50	05	20	100
CC-ID5	Extension Education & Communication	240/HS/CC202	3		2	3		1	4	25	50	05	20	100
CC-ID6	Personal Financial Management & Consumer Studies	240/HS/CC203	3		2	3		1	4	25	50	05	20	100
Minor/ Vocational Course(s)														
MIC-2	One from pool	240/HS/MI201	1		2	1		1	2	5	20	5	20	50
Multidisciplinary Course(s)														
MDC-2	One from pool	240/HS/MI201	2	1		2	1		3	25	50	-	-	75
Ability Enhancement Course(s)														
AEC-2	One from Pool								2					50
Skill Enhancement Course(s)														
SEC-2	One from pool	240/HS/SE201	2		2	2		1	3	15	35	5	20	75
Value-added Course(s)														
VAC-2	One from Pool								2					50
Total Credits									24					600

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

S. P. K. K. K.

Semester 3

Course Code	Course Title	Course ID	L	T	P	L	T	P	Credits	MARKS				
			(Hrs)			Credits				TI	TE	PI	PE	Total
Core Course(s)														
CC-ID7	Fundamentals of Clothing Construction and Apparel Science	240/HS/CC301	3		2	3		1	4	25	50	05	20	100
CC-ID8	Food Science	240/HS/CC302	3		2	3		1	4	25	50	05	20	100
CC-ID9	Life Span Development	240/HS/CC303	3		2	3		1	4	25	50	05	20	100
Minor/ Vocational Course(s)														
MIC-3	One from pool	240/HS/MI301	3	1		3	1		4	30	70	-	-	100
Multidisciplinary Course(s)														
MDC-3	One from pool	240/HS/MD301	2	1		2	1		3	25	50	-	-	75
Ability Enhancement Course(s)														
AEC-3	One from Pool								2					50
Total Credits									20					50



Semester 4

Course Code	Course Title	Course ID	L	T	P	L	T	P	Credits	MARKS				
			(Hrs)			Credits				TI	TE	PI	PE	Total
Core Course(s)														
CC-ID10	Family Dynamics and Counseling	240/HS/CC401	3	1		3	1		4	30	70	-	-	100
CC-ID11	Interior Designing	240/HS/CC402	3		2	3		1	4	25	50	05	20	100
CC-ID12	Apparel and Textile Designing	240/HS/CC403	3		2	3		1	4	25	50	05	20	100
Minor/ Vocational Course(s)														
MIC/VO C-1	One from pool	240/HS/VO401	2		4	2		2	4	15	35	15	35	100
Ability Enhancement Course(s)														
AEC-4	One from Pool								2					50
Value-added Course(s)														
VAC-3	One from Pool								2					50
Total Credits									20					500

The summer Internship of 4 credits of 4-6 weeks duration after 4th semester (If not done in 2nd semester)

Semester 5

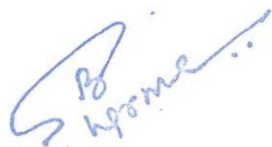
Course Code	Course Title	Course ID	L	T	P	L	T	P	Credits	MARKS				
			(Hrs)			Credits				TI	TE	PI	PE	Total
Core Course(s)														
CC-ID13	Dietetics and Therapeutic Nutrition	240/HS/CC501	3		2	3		1	4	25	50	05	20	100
CC-ID14	Traditional Textiles of India	240/HS/CC502	3		2	3		1	4	25	50	05	20	100
CC-ID15	Housing and Interior Space Design	240/HS/CC503	3		2	3		1	4	25	50	05	20	100
Minor/ Vocational Course(s)														
VOC-2	One from pool	240/HS/VO501	2		4	2		2	4	15	35	15	35	100
Skill Enhancement Course(s)														
Internship									4					100
Total Credits									20					

Signature

Semester 6

Course Code	Course Title	Course ID	L	T	P	L	T	P	Credits	MARKS				
			(Hrs)			Credits				TI	TE	PI	PE	Total
Core Course(s)														
CC-ID16	Nutritional Biochemistry	240/HS/CC601	3		2	3		1	4	25	50	05	20	100
CC-ID17	Fashion Marketing and Merchandising	240/HS/CC602	3		2	3		1	4	25	50	05	20	100
CC-ID18	Child Welfare	240/HS/CC603	3		2	3		1	4	25	50	05	20	100
Minor/ Vocational Course(s)														
MIC-6	One from pool	240/HS/MI601	3		2	3		1	4	25	50	05	20	100
MIC/VOC-3	One from pool	240/HS/VO601	2		4	2		2	4	15	35	15	35	100
Skill Enhancement Course(s)														
SEC-3	One from pool	240/HS/SE601	2		2	2		1	3	15	35	5	20	75
Total Credits									22					550

1. The curriculum of semester 7 and 8 will be provided in due course of time.



Multidisciplinary Course from the department for pool of the Courses in the University

(These courses are to be offered to students of different discipline/Subject)

Semester 1

Course Code	Course Title	Course ID	L	T	P	L	T	P	Credits	MARKS				
			(Hrs)			Credits				TI	TE	PI	PE	Total
MDC-1	Food Safety, Sanitation and Hygiene	240/HS/MD101	2	1		2	1		3	25	50	-	-	75

Semester 2

Course Code	Course Title	Course ID	L	T	P	L	T	P	Credits	MARKS				
			(Hrs)			Credits				TI	TE	PI	PE	Total
MDC-2	Care and well-being across Lifespan	240/HS/MD201	2	1		2	1		3	25	50	-	-	75

Semester 3

Course Code	Course Title	Course ID	L	T	P	L	T	P	Credits	MARKS				
			(Hrs)			Credits				TI	TE	PI	PE	Total
MDC-3	Basics of Art and Design	240/HS/MD301	2	1		2	1		3	25	50	-	-	75

S. B. Home

Minor Course from the department for pool of the Courses in the University

(These courses are offered by each department for students of other departments/same department to gain a broader understanding beyond the major discipline)

Semester 1

Course Code	Course Title	Course ID	L	T	P	L	T	P	Credits	MARKS				
			(Hrs)			Credits				TI	TE	PI	PE	Total
MIC-1	Human Physiology	240/HS/MI101	1		2	1		1	2	5	20	5	20	50

Semester 2

Course Code	Course Title	Course ID	L	T	P	L	T	P	Credits	MARKS				
			(Hrs)			Credits				TI	TE	PI	PE	Total
MIC-2	Community Nutrition	240/HS/MI201	1		2	1		1	2	5	20	5	20	50

Semester 3

Course Code	Course Title	Course ID	L	T	P	L	T	P	Credits	MARKS				
			(Hrs)			Credits				TI	TE	PI	PE	Total
MIC-3	Food Microbiology	240/HS/MI301	3	1		3	1		4	30	70	-	-	100

Semester 6

Course Code	Course Title	Course ID	L	T	P	L	T	P	Credits	MARKS				
			(Hrs)			Credits				TI	TE	PI	PE	Total
MIC-6	Diet and Nutrition Counseling	240/HS/MI601	3		2	3		1	4	25	50	05	20	100

Signature

Vocation Course from the department for pool of the Courses in the University

(These courses are offered by each department for students of other departments/same department and is focused on practical work, preparing students for a particular skilled profession.)

Semester 4

Course Code	Course Title	Course ID	L	T	P	L	T	P	Credits	MARKS				
			(Hrs)			Credits				TI	TE	PI	PE	Total
VOC-1	Surface Ornamentation	240/HS/VO401	2		4	2		2	4	15	35	15	35	100

Semester 5

Course Code	Course Title	Course ID	L	T	P	L	T	P	Credits	MARKS				
			(Hrs)			Credits				TI	TE	PI	PE	Total
VOC-2	Baking techniques	240/HS/VO501	2		4	2		2	4	15	35	15	35	100

Semester 6

Course Code	Course Title	Course ID	L	T	P	L	T	P	Credits	MARKS				
			(Hrs)			Credits				TI	TE	PI	PE	Total
VOC-3	Pot painting and Decoration	240/HS/VO601	2		4	2		2	4	15	35	15	35	100

Signature

Skill Enhancement Course from the department for pool of the Courses in the University

(These courses are offered by each department for students of other departments/same department and is designed to provide value-based and/or skill-based knowledge and should contain both theory and lab/hands-on/training/field work.)

Semester 1

Course Code	Course Title	Course ID	L	T	P	L	T	P	Credits	MARKS				
			(Hrs)			Credits				TI	TE	PI	PE	Total
SEC-1	Food Preservation	240/HS/SE101	2		2	2		1	3	15	35	5	20	75

Semester 2

Course Code	Course Title	Course ID	L	T	P	L	T	P	Credits	MARKS				
			(Hrs)			Credits				TI	TE	PI	PE	Total
SEC-2	Techniques of Resist Dyeing and Printing	240/HS/SE201	2		2	2		1	3	15	35	5	20	75

Semester 6

Course Code	Course Title	Course ID	L	T	P	L	T	P	Credits	MARKS				
			(Hrs)			Credits				TI	TE	PI	PE	Total
SEC-3	Early Childhood Care and Education	240/HS/SE601	2		2	2		1	3	15	35	5	20	75

Semester 8

Course Code	Course Title	Course ID	L	T	P	L	T	P	Credits	MARKS				
			(Hrs)			Credits				TI	TE	PI	PE	Total
SEC-4/ Field Training	One from Pool/ Discipline specific course	240/HS/SE801							4					75

Signature

Ability Enhancement Course from the department for pool of the Courses in the University

(These courses are offered by department of Indian and Foreign Languages for students of other departments/same department and leads to enhancement in the ability of learn Regional and foreign languages)

Semester 1

Course Code	Course Title	Course ID	L	T	P	L	T	P	Credits	MARKS				
			(Hrs)			Credits				TI	TE	PI	PE	Total
AEC-1	English LanguageandCommunication:Level-1 OR हिंदीभाषाएव. सम्प्रेषण-1 OR संस्कृतभाषाएव. सम्प्रेषण-1								2					50

Semester 2

Course Code	Course Title	Course ID	L	T	P	L	T	P	Credits	MARKS				
			(Hrs)			Credits				TI	TE	PI	PE	Total
AEC-2	English LanguageandCommunication:Level-2 OR हिंदीभाषाएव. सम्प्रेषण-2 OR संस्कृतभाषाएव. सम्प्रेषण-2								2					50

S. B. Sharma

Semester 3

Course Code	Course Title	Course ID	L	T	P	L	T	P	Credits	MARKS				
			(Hrs)			Credits				TI	TE	PI	PE	Total
AEC-3	English LanguageandCommunication:3 OR हिंदीभाषाएव. सम्प्रेषण-3 OR संस्कृतभाषाएव. सम्प्रेषण-3								2					50

Semester 4

Course Code	Course Title	Course ID	L	T	P	L	T	P	Credits	MARKS				
			(Hrs)			Credits				TI	TE	PI	PE	Total
AEC-4	English LanguageandCommunication:Level-4 OR हिंदीभाषाएव. सम्प्रेषण-4 OR संस्कृतभाषाएव. सम्प्रेषण-4								2					50

Signature

Value Added Course from the department for pool of the Courses in the University

(All the departments will offer value added course for semester 3 for the students of same or different departments. In the first year, students will study (i) Human Values and Ethics and (ii) Environmental Studies as value added course)

Semester 1

Course Code	Course Title	Course ID	L	T	P	L	T	P	Credits	MARKS				
			(Hrs)			Credits				TI	TE	PI	PE	Total
VAC-1	Human Values andEthics OR EnvironmentalStudies								2					50

Semester 2

Course Code	Course Title	Course ID	L	T	P	L	T	P	Credits	MARKS				
			(Hrs)			Credits				TI	TE	PI	PE	Total
VAC-2	Human Values andEthics OR EnvironmentalStudies								2					50

Semester 3

Course Code	Course Title	Course ID	L	T	P	L	T	P	Credits	MARKS				
			(Hrs)			Credits				TI	TE	PI	PE	Total
VAC-3									2					50

S. D. Sharma

Nature of Work	Course Credits	Contact hours per week	Contact hours per semester (15 weeks)
Lecture	01	01	15
Tutorial per paper	01	01	15
Practical, Seminar, Internship, field practice/project, or community engagement, etc.	01	02	30

Note: Tutorial batch size (UG programme: 20-25, PG Programme: 12-15)

The distribution of credits among the lectures/tutorial/practicum will be as follows:

Courses	Total Credits	L (Credits)	T (Credits)	P (Credits)	MARKS			
					TI	TE	PI	PE
Only Theory	4	3 (3 hrs)	1	-	30	70	-	-
	3	2 (2 hrs)	1	-	25	50	-	-
	2	1	1	-	15	35	-	-
Theory and Practicum	4	3 (3 hrs)	-	1 (2 hrs)	25	50	5	20
	4 (Where pract. is dominant)	2 (2 hrs)	-	2 (4 hrs)	15	35	15	35
	3	2 (2 hrs)	-	1 (2 hrs)	15	35	5	20
	2	1	-	1 (2 hrs)	5	20	5	20
When Practicum is separate course	2	-	-	2 (4 hrs)	-	-	15	35
	3	-	-	3 (6 hrs)	-	-	25	50
	4	-	-	4 (8 hrs)	-	-	30	70
AEC/VAC	2	2 (2 hrs)			15	35	-	-
SEC	3	2 (2 hrs)		1 (2 hrs)	15	35	5	20
	2	1		1 (2 hrs)	5	20	5	20
DSEC	4	3 (3 hrs)		1 (2 hrs)	25	50	5	20
Minor/VOC	4	2 (2 hrs)		2 (4 hrs)	15	35	15	35
Internship	4	--	--	4 (8 hrs)			30	70

L= Lecture; T= Tutorial, P= Practicum; Ti= Theory Internal Assessment; TE= Theory End Semester Examination; PI= Practicum Internal; PE= Practicum End Semester examination

SYLLABUS SEMESTER UG A4 - 3& 4
Undergraduate Programmes
INTERDISCIPLINARY

Semester	III		
Name of the Course CC-ID7	Fundamentals of Clothing Construction and Apparel Science		
Course ID	240/HS/CC301		
Course Learning Outcomes (CLO): After completion of the course, the students will be able to: After completion of the course, the students will be able to: <ul style="list-style-type: none">Understand the weaving and other methods of fabric construction.Identify different textile fabrics based on their constructionExplain the concept of fashion, its terminology, sources and factors affecting it.Understand basic principles of clothing construction.skillfully handle various woven and knitted fabric structures based on their weaves and properties.Select fabrics for different end uses based on their regular and functional finishes Understand the importance of Care and Maintenance of fabrics <ul style="list-style-type: none">			
Credits	Theory	Practical	Total
	3	1	4
Contact Hours	3	2	5
Max. Marks:100 Internal Assessment Marks: 30 (25 TI + 05PI)	Time: 3hrs (Theory), 2hrs (Practical)		

S. S. hame

End Term Exam Marks: 70 (50 TE + 20 PE)	
Part B- Contents of the course	
Instructions for Paper-Setter: Nine questions will be set in all. Question No.1 comprising of objective/short answer type questions from the entire syllabus, will be compulsory. The remaining eight questions will be set taking two questions from each unit. The candidates will be required to attempt Q.No.1 & four others selecting one question from each unit. All questions carry equal marks.	
<p style="text-align: center;">UNIT I</p> <p>Basics of Apparel Construction</p> <p>1. A study of Anthropometric measurements, points to consider while taking body measurements. Importance of taking body measurements and Important body landmarks.</p> <p>2. Fabric grain – types and their importance in apparel construction, Preparation of fabric before cutting, pattern layout, pinning marking & cutting, and Calculation of the amount of fabric required for different garments.</p> <p>3. Methods of developing design/ pattern-Drafting, Paper pattern, Draping, advantages and disadvantages.</p> <p>4. Fit – Definition, Common fitting problems encountered, reasons for poor fitting and remedies for fitting defects.</p> <p style="text-align: center;">and Evaluation</p>	<p style="text-align: center;">CONTACT HOURS</p> <p style="text-align: center;">11</p>
<p style="text-align: center;">UNIT II</p> <p>Fabric Construction and Finishes</p> <p>1. Definition: fibre, yarn and fabric.</p> <p>2. Weaving: Basic loom - parts and operations</p> <p>3. Basic weaves– plain, twill, satin, sateen and their variations</p> <p>a) Fancy weaves- dobby, jacquard, pile, leno, swivel and lappet.</p> <p>3. Knitting: Basic Construction, Types of Knit, advantages & disadvantage</p> <p>4. Other construction methods – Knotting, netting, felting and non-woven, braiding</p> <p>5. Fabric Finishes- Aims and classification of Fabric finishes</p> <p>a) Basic/ Routine finishes - Scouring, Bleaching, De-sizing, Singeing,</p>	<p style="text-align: center;">12</p>

Sigme

<p> Mercerization, Tentering, Calendaring</p> <p>b) Functional finishes - Crease resistant, Wrinkle resistant, Water resistant & repellant, flame retardant.</p>	
<p style="text-align: center;">UNIT III</p> <p>Care and Maintenance of fabrics:</p> <p>1.Laundry and dry cleaning of fabrics and garments: Methods of Laundry and Dry cleaning, Agents of Laundry-Blues, Bleaches, Optical Brighteners, Stiffening agents, soaps and detergents etc.</p> <p>2.Stain removal and care of textile – Classification of stains, methods of Stain Removal, oxidizing bleaches and Reducing bleaches, Alkaline and Acidic reagents.</p>	11
<p style="text-align: center;">UNIT IV</p> <p>1.Concept, Importance and terminology {Fad, style, classic, silhouette vogue, haute couture, niche, brand}.</p> <p>2. Fashion cycle</p> <p>3. Sources of fashion</p> <p>4. Factors favoring and retarding fashion</p>	11
<p style="text-align: center;">Practical (30 Hours)</p> <ol style="list-style-type: none"> 1. . Preparation of samples of basic weaves through paper/ribbon weaving. 2. Prepare a sample of knitting (any two). 3. Prepare a sample consisting of ten basic embroidery stitches: Stem stitch, Chain stitch, Feather stitch, Herringbone, stitch, Satin stitch, Lazy daisy stitch, French knots, Bullion's stitch, Cross stitch, Long and short stitch. 4. Drafting of child's bodice block and sleeve block. 5. Drafting and construction of an A-Line frock or a gathered frock and Apron with patch pockets 6. 8. Prepare a sample of any one -Darning or mending (patching) or renovation. 	
Part C-Learning Resources	

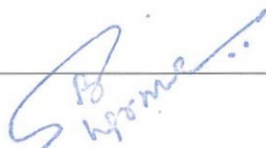
B
home

<ol style="list-style-type: none"> 1. Doongaji, Basic processes and clothing Construction, 6th ed., New Delhi, RaajPrakashan. 2. Gupta, S., Garg, N., Saini, R. (2005). Textbook of Clothing, Textiles and Laundry, India: Kalyani Publishers. 3. Doongaji, Basic process and clothing construction, 6ed. New Delhi, Raj Prakashan. DeulkarDurga (1988) Household Textiles and Laundry work, AtmaRam and Sons. Kashmiri Gate Delhi-6. 4. Dhantiyagi, S., Fundamentals of Textiles and their Care 4th ed. New Delhi, Orient Longmans, 1983. 5. Hollen N. & Saddler J. (1949), "Textiles" (2nd ed.). The Macmillan Company, New York. Collier-Macmillan Limited, London. 6. Nornia D'Souza, 1998. Fabric Care, New Age International Pvt. Ltd., New Delhi 7. G.J. Sumathi, 2022. Elements of fashion and apparel design, New Age International Publishers 2cc 8. Complete Book of Sewing- A Practical step-by-step Guide to Sewing Techniques, 1996, Dorling Kindersley Publishing Inc., London. 9. Thomas Anna Jacob, 'The Art of Sewing', UBS Publishers Distributors Ltd., New Delhi, 1994. 10. Gini Stephens Frings, Fashion (from concept to consumer), Sixth Edition, 1999, Prentice Hall International (UK) Limited, London 	
--	--

Semester	III			
Name of the Course CC-ID8	Food Science			
Course ID	240/HS/CC302			
Upon completion of this course, students will be able to:				
<ul style="list-style-type: none">• Students will be able to define food science and understand various applications of food science.• Students will be able to develop an understanding about nutritional composition and properties of various food groups and effect of cooking on food groups.• Students will be able to prepare dishes using principles of food science.				
Credits	Theory	Tutorial	Practical	Total

S. D. Sharma

	3	0	1	4
Contact Hours	3	0	2	5
Max. Marks:100 Internal Assessment Marks: 30 (25 TI + 05 PI) End Term Exam Marks: 70 (50 TE + 20 PE)	Time: 3hrs (Theory), 2hrs (Practical)			
Part B- Contents of the course				
Instructions for Paper-Setter				
Nine questions will be set in all. Question No.1 comprising of objective/short answer type questions from the entire syllabus, will be compulsory. The remaining eight questions will be set taking two questions from each unit. The candidates will be required to attempt Q.No.1 & four others selecting one question from each unit. All questions carry equal marks.				
UNIT I: Food Science and its application <ul style="list-style-type: none">Food science- Introduction and definitionFood technology and future foods. Biofortification ,Nutraceuticals, Organic foods, Space foods, Packaging of foods.			CONTACT HOURS 11	
UNIT II: Food Quality <ul style="list-style-type: none">Define Food QualityEvaluation of food quality – Sensory evaluation, types of tests (Difference test and Rating test) , objective evaluation (Physical methods) , instruments used for texture evaluation (percent sag, jelmeter, viscometer, consistometer)			12	
UNIT III: Food Groups I <p>Composition, Nutritive value, processing, properties, effect of cookery and use in different preparations of:</p> <ul style="list-style-type: none">Cereals and pulsesMilk and milk productsEggs			11	
UNIT IV: Food Groups II <p>Composition, Nutritive value, processing, effect of cookery and use in different preparations of:</p> <ul style="list-style-type: none">Vegetables and fruits			11	



<ul style="list-style-type: none"> • Meat, fish and poultry • Fats, oils and sugars 	
<p>Part C-Learning Resources</p> <ul style="list-style-type: none"> • Rekhi T and Yadav H (2014). <i>Fundamentals of Food and Nutrition</i>. Elite PublishingHouse Pvt Ltd., Delhi. • Srilakshmi B (2014). <i>Food Science, 6th Edition</i>. New Age International Ltd., Delhi. • Chadha R and Mathur P (eds)(2015). <i>Nutrition: A Lifecycle Approach</i>. Orient Blackswan, Hyderabad. <p>PRACTICAL CONTENT (30 hours)</p> <ul style="list-style-type: none"> • Preparation, serving and evaluation of any two recipes for- cereals, pulses, milk and milk products. • Preparation of jams, jellys , chutneys, pickles, , murabbas . 	

Semester	III
Name of the Course CC-ID 9	LIFE SPAN DEVELOPMENT
Course ID	240/HS/CC303
<p>Course Learning Outcomes (CLO):</p> <p>After completion of the course, the students will be able to:</p> <ul style="list-style-type: none"> • Understand the basic concepts and importance of life span development. • To study domains of human development and their tasks. • Analyze the relationship between life span, growth & development. • Stay informed about current issues and trends in life span development. • Understand the concept of retirement in detail. 	

S. B. Sharma

- Identify problems & crisis related to life span development.

Credits	Theory	Practical	Total
	3	1	4
Contact Hours	3	2	5
Max. Marks:100 Internal Assessment Marks: 30 (25 TI + 05PI) End Term Exam Marks: 70(50 TE + 20 PE)	Time: 3hrs (Theory), 2hrs (Practical)		

Part B- Contents of the course

Instructions for Paper-Setter:

Nine questions will be set in all. Question No.1 comprising of objective/short answer type questions from the entire syllabus, will be compulsory. The remaining eight questions will be set taking two questions from each unit. The candidates will be required to attempt Q.No.1 & four others selecting one question from each unit. All questions carry equal marks.

Unit 1	CONTACT HOURS
<p>Adolescence: Definition and characteristics;</p> <p>Physical and physiological changes; Cognitive development; Social, emotional and moral development</p> <p>Early adolescence (13 to 15 years): Puberty, early and late maturers; period of storm & stress; Parent child conflicts; identity.</p>	11
Unit 2	CONTACT HOURS
<p>Late adolescence (16-18 years): choosing a career and factors influencing it.</p> <p>Adolescence problems: -peer relationships, drug & alcohol abuse, physiological breakdown, AIDS, teenage pregnancy.</p> <p>Role of parents and teachers to overcome these problems.</p>	12
Unit 3	CONTACT HOURS
<p>Adulthood: - Developmental tasks of adulthood (Social; emotional & Cognitive development)</p> <p>Young Adulthood (19-40 years): -</p> <p>Relationships, marriage and parenting. Stress at family and workplace, job satisfaction.</p>	11

S. P. Home

<p style="text-align: center;">Unit 4</p> <p>Middle Adulthood (41-60 years) :-</p> <p>Physical and physiological changes (menopause & other disorders/ diseases); changes in roles and relationships.</p> <p>Late adulthood: - (above 60 years) and Aging (old age):- characteristics of old age, perspective on aging and death;</p> <p>Retirement: - Problems in old age and coping strategies.</p>	<p style="text-align: center;">11</p>
<p style="text-align: center;">Practical (30 Hours)</p> <ol style="list-style-type: none"> 1. Reviewing Interview, Observation, Questionnaire, Case study, Sociometry. 2. Case Study about adolescence/ young adulthood/ late adulthood by using above methods. 3. Depictions of adolescence and adulthood in media: audio visual aids/ posters/charts. 4. Make a checklist to study about adolescence/ old age. 5. Test to assess "self concept". 	
<p>Part C-Learning Resources</p> <p>Rice, F. P. (1998). Human Development: A lifespan approach. New Jersey: Prentice</p> <p>Berk, L. E. (2007). Development through the lifespan. Delhi: Pearson Education.</p> <p>Hall. 18 Rutter, M. and Rutter, M. (1992) Developing Minds.</p> <p>Challenge and continuity across the life span. London: Penguin.</p> <p>Santrock, J. W. (2007).</p> <p>A topical approach to life-span development. New Delhi: Tata McGraw-Hill.</p> <p>Singh, A. (Ed). 2015. Foundations of Human Development: A life span approach. New• Delhi: Orient BlackSwan. Tennant, M. and Pogson, P. (1995)</p> <p>Learning and Change in the Adult Year, San• Francisco: Jossey-Bass.</p>	

Signature

Semester	III
Name of the Course MIC-3	Food Microbiology
Course ID	240/HS/MI301

Upon completion of this course, students will be able to:

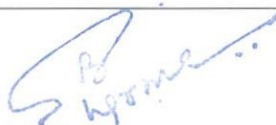
- Identify and characterize the traits of significant food pathogens and spoiling microbes.
- Recognize how inherent and external factors affect the development and reaction of food-borne microbes.
- Explain the advantages of using microbes in food processing and fermented foods.
- Learn about food microbiology and apply its ideas and concepts to real-world challenges and circumstances.

Credits	Theory	Tutorial	Practical	Total
	3	1	0	4
Contact Hours	3	1	0	4
Max. Marks:100 Internal Assessment Marks: 30 (Attendance-5, practical assignment-5, sessional examination-20) End Term Exam Marks: 70 (70 Theory)	Time: 3hrs (Theory), 1hrs (Tutorial)			

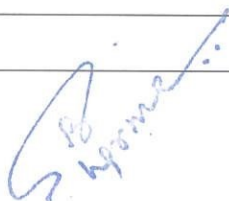
Part B- Contents of the course

Instructions for Paper-Setter

Nine questions will be set in all. Question No.1 comprising of objective/short answer type questions from the entire syllabus, will be compulsory. The remaining eight questions will be set taking two questions from each unit. The candidates will be required to attempt Q.No.1 & four others selecting one question from each unit. All questions carry equal marks.



UNIT I: Microorganisms in food <ul style="list-style-type: none"> • Introduction, history and scope of food microbiology. • Morphological and physiological features of bacteria, yeast, mold and virus. • Growth curve of bacteria. • Factors (Intrinsic and Extrinsic) affecting growth of microbes in foods. 	CONTACT HOURS 11
UNIT II: Microbial food spoilage Spoilage in <ul style="list-style-type: none"> • Milk • Meat • Cereals and its products (wheat flour, bread) • Fruits and vegetables • Canned foods • Fermented foods (Sauerkraut, Miso, Tempeh, Cheese, Yogurt, Kombucha, Natto, Kefir) 	12
UNIT III: Microbial food illness Food intoxication: Causes, incubation period, symptoms, prevention and treatment of <ul style="list-style-type: none"> • Botulism • Staphylococcus intoxication • Mycotoxins Food infection: Causes, incubation period, symptoms, prevention and treatment of <ul style="list-style-type: none"> • Salmonellosis • Gastroenteritis • Colitis 	11
UNIT IV: Food control and regulation <ul style="list-style-type: none"> • HACCP • International agencies (FAO, WHO, UNICEF) • Federal agencies (Food and drug administration, United State Department and Agriculture, National Marine Fishery Service) 	11
Part C-Learning Resources	



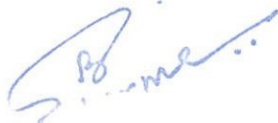
<ol style="list-style-type: none"> 1. Frazier William C and Westhoff, Dennis C. Food Microbiology, TMH, New Delhi, 2004 2. Jay, James M. Modern Food Microbiology, CBS Publication, New Delhi, 2000 3. Garbutt, John. Essentials of Food Microbiology, Arnold, London, 1997 4. Pelczar MJ, Chan E.C.S and Krieg, Noel R. Microbiology, 5th Ed., TMH, New Delhi, 1993 5. W. M. Foster (2020) Food Microbiology. CBS Publishers & Distributors Pvt Ltd. 6. Bibek Ray and Arun Bhunia. Fundamentals food microbiology, 5th Ed, CRC Press, 2014. 7. Roger Y. Stanier. General Microbiology, Macmillan, 1987. 	
---	--

Semester	III		
Name of the Course MDC-3	Basics of Art and Design		
Course ID	240/HS/MD301		
Course Learning Outcomes (CLO): To develop skills, abilities and knowledge that enable artistic production and creative skills. To develop and apply concepts of art and décor to create aesthetically pleasing interior.			
Credits	Theory	Tutorial	Total
	2	1	3
Contact Hours	2	1	3
Max. Marks: 75 Internal Assessment Marks: 25 (25 TI) End Term Exam Marks: 50 (50 TE)	Time: 3hrs (Theory), 1hrs (Tutorial)		
Part B- Contents of the course			
Instructions for Paper-Setter: Nine questions will be set in all. Question No.1 comprising of objective/short answer type questions from the entire syllabus, will be compulsory. The remaining eight questions will be set taking two questions from each unit. The candidates will be required to attempt Q.No.1 & four others selecting one question from each unit. All questions carry equal marks.			
UNIT I Art and Design : Introduction. Phases of design process. Types of Design(Structural & decorative) designs and its characteristics . Motifs : Natural, Geometrical, Stylized and abstract. Elements of Art : Elements of content: space, line, shape, form,			CONTACT HOURS 8

Signature

texture, light & colour Principles of Design: • Proportion & scale • Balance • Rhythm • Emphasis • Harmony and Evaluation	
UNIT II Windows & window treatment Interior Decoration : objectives Window terminology – Types of windows and window treatments. Importance, need and purpose of curtains/ Draperies Types and styles of Curtains Selecting a hanging system for curtains – rods, poles, rings and finials Curtain headings – Valances, cornices, swags and cascades	8
UNIT III Flower arrangement: Materials used, principles involved Types & Care of flower management. Precautions to be taken while arranging flowers	7
UNIT IV Accessories – Uses, Classification, Design, Selection & Arrangement Decoration in the selection/development of accessories and their placement.	7
Part C-Learning Resources 1) Babu, Bangalore Niranjana. Principles and Applications of Vastu Shastra. Lotus Press, 2020. 2) Mann, M.K. (2004). Home Management for Indian Families, Kalyani Publisher Ludhiana 3) Nickell, P. and Dorsey, J.M. (1970). Management of Family Living. Wiley Eastern, New Delhi 4) Saweera Ralhan, Resource (Home) Management, S.Dinesh & Co. 5) Subhash, V. Vastu Shastra Explained. 2020. 6) Premavathy, Seetharam. & Pannu, Parveen (2005). Interior Design and Decoration. CBS Publishers & Distributors, New Delhi. 7) Vargeese, M.N. Ogale, N.N. and Srinivasan, K. (1992). Home Management, Wiley Eastern, New Delhi.	

Semester	IV
Name of the Course CC-ID 10	FAMILY DYNAMICS & COUNSELLING



Course ID	240/HS/CC401		
Course Learning Outcomes (CLO): After completion of the course, the students will be able to: <ul style="list-style-type: none">• Understand the basic concepts of family.• Identify the major concerns, issues of family.• Recognize various family styles & types.• Analyze family relationships.• Stay informed about current issues and trends in counseling.• Identify cope up strategies for family issues & crisis.			
Credits	Theory	tutorial	Total
	3	1	4
Contact Hours	3	1	4
Max. Marks:100 Internal Assessment Marks: 30 (30 TI) End Term Exam Marks: 70 (70TE)	Time: 3hrs (Theory), 1hr (tutorial)		
Part B- Contents of the course			
Instructions for Paper-Setter: Nine questions will be set in all. Question No.1 comprising of objective/short answer type questions from the entire syllabus, will be compulsory. The remaining eight questions will be set taking two questions from each unit. The candidates will be required to attempt Q.No.1 & four others selecting one question from each unit. All questions carry equal marks.			
UNIT I			CONTACT HOURS
Family Family: - Definition, functions & types of family. Alternate family styles a. single parent family, b. DINK families (Double income no kid) c. latch key children d. families with adopted children.			11
UNIT II			
Marriage Marriage : As an institution, needs and goals, . Criteria for successful			12

Signature

marriage. Adjustments in marriage. Inter-caste and inter-religious marriage. Planned parenthood & factors affecting it. Changing trends in India due to westernization and modernization (family values, ideologies, family structure, and social change).	
<p style="text-align: center;">UNIT III</p> <p>Internal relations within the family</p> <p>a .Individual roles, rights and responsibilities within the family.</p> <p>b. Areas of adjustments within the family– parents, siblings, children.</p> <p>c .Crisis in a family– bereavement, divorce, long illness, birth of a handicapped child.</p>	11
<p style="text-align: center;">UNIT IV</p> <p>Counseling -</p> <p>Introduction, concept & scope, counseling therapies.</p> <p>Theories & Basic Counseling Skills (Observation & Questioning)</p> <p>Need & areas of counseling (counseling special groups like Socially and Economically Disadvantaged, Orphans, Delinquents, Drop-outs, Drug Addicts and Alcoholics, ill health patients.</p>	11
<p>Part C-Learning Resources</p> <p>1. Augustine, J.N (Ed) (1992); The family in Transition, New Delhi, Vikas Publishing House.</p> <p>2. Coleman, JC (1986); Intimate relationships, marriage and the family, Chicago, Macmillan Publishing Co.</p> <p>3. Corser, Rose (1975); The family; its structure and function, New York, Mac Publishing Co.</p> <p>4. Guppy, G R (1976); Family and Social Change in modern India, New Delhi, Vikas Publishing Co.</p> <p>5. Gore, MS (1978); Urbanization and family change in India, Bombay, Popular Prakashan.</p> <p>6. Hunter, Mark (1981); The changing family; comparative</p>	

S. K. S. K.

<p>perspectives, New York; Vikas Publications.</p> <p>7. Rao P. and Rao V N (1982); Marriage– The family and women in India, New Delhi, Vikas Publications.</p> <p>8. Ross, a (1973); Hindu family in urban setting, Delhi UAP.</p> <p>9. Srivastava, AK (1986); Social class and family life in India; Corey G. 2008 group counseling, new delhi: brooks/cole. ; Corey M.S. & ; Corey G.: process & PRACTICE; pacific grove , CA: : brooks/cole.</p>	
---	--

Semester	IV		
Name of the Course – CC ID - 11	Interior Designing		
Course ID	240/HS/CC402		
Course Learning Outcomes (CLO): Comprehend the methods of design with focus on interiors. Understand the usage of principles of design in interior designing. Proficiency in working and presentation drawings to be used as a design professional.			
Credits	Theory	Practical	Total
	3	1	4
Contact Hours	3	2	5
Max. Marks:100 Internal Assessment Marks: 30 (25 TI + 05PI) End Term Exam Marks: 70 (50 TE + 20 PE)	Time: 3hrs (Theory), 2hrs (Practical)		
Part B- Contents of the course			
Instructions for Paper-Setter: Nine questions will be set in all. Question No.1 comprising of objective/short answer type questions from the entire syllabus, will be compulsory. The remaining eight questions will be set taking two questions from each unit. The candidates will be required to attempt Q.No.1 & four others selecting one question from each unit. All questions carry equal marks.			
UNIT I Interior Designing : Objective, Introduction to scale and measurement. Phases of design process. Types of Design(Structural & decorative) designs and its characteristics . Motifs : Natural, Geometrical, Stylized and abstract. Elements of Art :			CONTACT HOURS 11

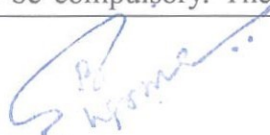
S. N. N. N.

<p>Elements of content: space, line, shape, form, texture, light & colour</p> <p>Principles of Design: • Proportion & scale • Balance • Rhythm</p> <p>• Emphasis • Harmony and Evaluation</p>	
<p style="text-align: center;">UNIT II</p> <p>Colour : Application, Dimensions of colour, Importance of colour& its role in creation of the design. Colour systems: Color wheel and colour schemes. Properties of color – Hue, value and intensity. Physical and psychological effects of color. Visual tricks to play – space making, space shrinking, camouflage and disguise .</p> <p>Lighting : Physics of light – Physiology of vision ,Importance of lighting in interior, types, requirement for various activities .</p>	12
<p style="text-align: center;">UNIT III</p> <p>Furniture: Types of furniture, different material for 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>	11
<p style="text-align: center;">UNIT IV</p> <p>Kitchen & bathroom : Types and work triangle, Principal of kitchen planning – orientation and location, size and shape, ventilation, light, etc. Kitchen & bathroom Geometry - work heights and space dimensions for different areas and Material specifications</p>	11
<p>PART C: Learning Resources</p> <p>1) Agan Tessie M.S The house its plan & use Gulab primlani.</p> <p>2)Allen, P.S &Stimpson, M.F. (n.d.). Beginning of Interior Environment. New York: Macmillan College Publishing Company.</p> <p>3)Deshpande, R. S. (1975). Modern ideal homes for India. Pune: United book corporation</p> <p>4)Goldstein & Goldstein. (2013). Art in everyday life. New York: The Macmillan Company</p> <p>5) Mullick, Prem Lata. Textbook Of Home Science. 2007</p> <p>6) Randhawa, Rajwinder K family Resource Management and Health Science, Pardeep Publication</p> <p>7)Rutt. A. H. (1991). Home furnishing. Wiley Eastern Private Ltd.</p> <p>8) Gupta.S, Garg.N, Text Book of Family Resources Management Hygiene and Physiology. Kalyani Publishers, new Delhi.</p> <p>9)Premavathy, Seetharam. &Pannu, Parveen (2005). Interior Design and Decoration. CBS Publishers & Distributors, New Delhi.</p>	
<p>Practical (30 Hours)</p> <ul style="list-style-type: none"> • Learn design symbols – architectural, electrical, furniture symbols. 	

Signature

<ul style="list-style-type: none"> • Creating lines and textures i.e brick, grass, water, wood, stone. • Drawing color wheel, value scale and color schemes. • Draw different plans with furniture arrangement and space allowance. • Design drawings including plans, elevations, elevations • Preparation of catalogue comprising pictures denoting application of elements of art. • Drawing pictures to show creation of emphasis through - contrast, isolation & placement. • Creating different types of balance – Golden ratio. • Creating rhythm through different elements. 	
--	--

Semester	IV		
Name of the Course CC-ID12	Apparel and Textile Designing		
Course ID	240/HS/CC403		
Course Learning Outcomes (CLO): After completion of the course, the students will be able to: <ul style="list-style-type: none">• Apply the knowledge of elements and principles in design interpretation.• discuss the concepts of design recognize the elements that constitute design• Understand the application of design elements and principles for textile designing.• Work on various design compositions, repeats, layouts and colourways.• Design clothes for all figures and figures with variations• Apply basic textile and apparel design knowledge in various sectors of textile design.			
Credits	Theory	Practical	Total
	3	1	4
Contact Hours	3	2	5
Max. Marks:100 Internal Assessment Marks: 30 (25 TI + 05PI) End Term Exam Marks: 70 (50 TE + 20 PE)	Time: 3hrs (Theory), 2hrs (Practical)		
Part B- Contents of the course			
Instructions for Paper-Setter: Nine questions will be set in all. Question No.1 comprising of objective/short answer type questions from the entire syllabus, will be compulsory. The remaining eight questions will be set taking two			



questions from each unit. The candidates will be required to attempt Q.No.1 & four others selecting one question from each unit. All questions carry equal marks.

<p style="text-align: center;">UNIT I</p> <p>Design: Types and Its Aspects:</p> <ol style="list-style-type: none"> Design – definition and importance. Types of design- <ol style="list-style-type: none"> Structural design (in fabric production through variation in yarns, in weaves and by giving decorative finishes and in dress) Decorative /Applied design in fabrics through dyeing, printing and embroidery. Motif, Design and Pattern- Definition, Different types of motifs in textile design and fashion design. 	<p style="text-align: center;">CONTACT HOURS</p> <p style="text-align: center;">11</p>
<p style="text-align: center;">UNIT II</p> <p>Basic Elements and Principles:</p> <ol style="list-style-type: none"> Elements of design (with apparel illustrations)- Line, form and shape analysis and its appropriate use. <ol style="list-style-type: none"> Texture analysis (types of texture, Illusions created by Textures in Clothing) and its use in relation to size, figure, occasion and season. Colour– colour wheel, its dimensions (hue, value and intensity), Colour properties-warm and cool colours, chrome properties- tints, shades, toned and mutes, its use and relation to season, occasion, size, figure and occasion. Principles of design as applied to apparel design such as balance, harmony, rhythm, proportion and emphasis 	<p style="text-align: center;">12</p>
<p style="text-align: center;">UNIT III</p> <ol style="list-style-type: none"> Classification of dyes. <ol style="list-style-type: none"> Natural dyes. Direct, acid, basic, sulphur, vat, mordant and disperse dyes. Printing <ol style="list-style-type: none"> Styles of printing Direct, Discharge, Resist, Dyed. Methods of printing– Block printing, Roller printing, Stencil and 	<p style="text-align: center;">11</p>

S. Mone

screen printing.	
<p style="text-align: center;">UNIT IV</p> <p>a) Clothing style selection for various figure types.</p> <p>b) Designing clothes for following figures-----i) tall and stout. ii) short and stout iii) tall and thin iv) short and thin</p> <p>c) Designing clothes for figures with variations like----large hips, large bust, large upper arm, prominent abdomen etc</p> <p>c) Role of CAD in fashion and Apparel Industry.</p>	11
<p style="text-align: center;">Practical (30 Hours)</p> <p>1. Introduction to elements of design.</p> <p>a) Line and form</p> <p>b) Colour– Colour wheel, grey scale and value scale and colour harmonies.</p> <p>c) Development of motif: Geometrical, Natural, Stylized and Abstract</p> <p>d). Development of design through different placements: Straight repeat (all over), half drop and tile or brick.</p> <p>2. Making samples of the following: - a) Tie and Dye b) Block printing c) Stencil printing d) Batik</p> <p>3. Preparation of an article using any of the techniques or combination of techniques of applied design.</p>	
<p>Part C-Learning Resources</p> <ol style="list-style-type: none"> 1. Suinathi G.J., “Elements of Fashion and Apparel Design”, New Age Intl. Ltd. 2. Publisher, N. Delhi 3. Feltsted C.J., Design Fundamentals., pitman publishing corporation New York 4. Goldstein, Harriet and Velta., Art in everyday life., McGraw Hill Book Company 5. Marshal Sussane, Jackson Hazel., and et al, Individuality in 	

<p>Clothing Selection and Personal appearance, 5th edition, Prentice and Hall, 2000</p> <p>6. Skull john., Key terms in Art Craft and Design, elbrook Press, Australia, 1988.</p> <p>7. Prakash K., "Textile Design –Traditional & Floral", TienWah Press Ltd., Singapore.</p> <p>8. Clarke S., "Textile Design", Laurence King Publishing Ltd., London.</p> <p>9. Betta E. and Drudi K., "Fabric Textures & Patterns", The Pepin Press, Singapore.</p> <p>10. Sumathi, G.J. Elements of Fashion and Apparel Design. New Age International Publishers. 2002.</p> <p>11. Gioello and Berke, 1979 Figure types and size Fairchild publications, New york.</p> <p>12. Margolis, Adole P. 1971 Design your own Dress patterns, Doubleday and Co. Inc. New york.</p> <p>13. Armstrong, H.J. 1987, Pattern making for fashion Designs.</p>	
--	--

VOCATIONAL COURSE

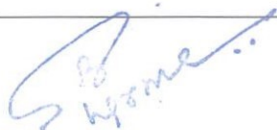
Semester	IV		
Name of the Course VOC-1	Surface Ornamentation		
Course ID	240/HS/VO401		
Course Learning Outcomes (CLO): After completion of the course, the students will be able to: <ul style="list-style-type: none">• Describe the various methods of fabric surface ornamentation.• Apply surface ornamentation techniques such as embroidery, dyeing and printing, fabric manipulation and embellishments in garment design projects• Understand the concepts relating to motif development for surface ornamentation• Learn traditional painting techniques and creative application of dyeing and printing.			
Credits	Theory	Practical	Total
	2	2	4
Contact Hours	2	4	6
Max. Marks:100 Internal Assessment Marks: 30 (15 TI + 15PI) End Term Exam Marks: 70 (35TE + 35 PE)	Time: 2hrs (Theory), 4hrs (Practical)		
Part B- Contents of the course			

Signature

Instructions for Paper-Setter:

Nine questions will be set in all. Question No.1 comprising of objective/short answer type questions from the entire syllabus, will be compulsory. The remaining eight questions will be set taking two questions from each unit. The candidates will be required to attempt Q.No.1 & four others selecting one question from each unit. All questions carry equal marks.

UNIT I Surface Ornamentation and Motif Development: 1. Surface ornamentation -Definition and significance in apparel design. 2. Structure development for apparel: Weaves, knits, Lace 3. Methods of applied surface ornamentation –embroidery, dyeing, printing, fabric manipulation, embellishments 4. Textile motifs - Classification, motif development, Design repeat and Evaluation	CONTACT HOURS 7
UNIT II Surface Design through embroidery: 1. Tracing materials and Methods 2. Tools and Materials – Fabrics, Needles, Threads, Scissors, Other materials 3. Hand Embroidery Stitches – Flat and Loop 4. Traditional embroidery: Metal thread embroidery with decorative material – Aari, Mukaish, Gota-Patti, Zardozi work, Appliquework, Phool Patti ka Kaam, Ralli	7
UNIT III Surface Design through Colouration: 1. Traditional and Crossover Fabric Hand painting – Patta-Chitra, Madhubani, Mandala, Warli, Rogan art, Gond 2. Design development through traditional and innovative dyeing (Tie and dye, Batik) and printing (block printing, stencil printing and screen-printing techniques with synthetic dyes and natural dyes and other colour mediums	8
UNIT IV Surface Design through Fabric manipulation and embellishments: 1. Creative Fabric manipulation – Bows, Pleats, Gathers, Ruffles, 3D textures, Shirring, Ruching, Quilting.	8



2. Creative embellishments – Trims, buttons, Quilting, Lace, Fraying, waste fabric, Bead & Sequin Work, mirror work, Ribbon Work and Crochet.	
<p style="text-align: center;">Practical (30 Hours)</p> <ol style="list-style-type: none"> 1. Motif enlargement and reduction. 2. Development of samples (at least 5 designs) using hand embroidery stitches in separate file learnt in the theory component. 3. Development of samples using the hand painting, dyeing (tie and dye, Batik) and printing (Block printing, stencil and Screen printing) techniques learnt in the theory component. 4. Product development (any apparel or household article) using one or more surface ornamentation techniques with value addition. 5. Workshop on any technique of surface ornamentation. 6. Visit to boutique to explore the surface ornamentation techniques. 	
<p>Part C-Learning Resources</p> <ul style="list-style-type: none"> ● Kimberly Irwin, (2015), Surface Design for Fabric, Fairchild Books ● Josephine Steed, Frances Stevenson, (2020), Sourcing Ideas for Textile Design: Researching Colour, Surface, Structure, Texture and Pattern (Basics Textile Design), Bloomsbury Visual Arts ● Juracek, A. Judy, (2000), Soft Surface, Themes & Hudson Ltd. ● Naik, Shailaja D., (2006), Surface Designing of Textile Fabric, New Age International (P) Ltd., Publishers ● Singer Margo, (2007), Textile Surface Decoration- Silk & Velvet, A & B Black Ltd <p>SUGGESTED READINGS</p> <ul style="list-style-type: none"> ● Campbell, J. & Bakewell, A., (2006), The Complete Guide to Embroidery Stitches, Reader's Digest Association. ● Colette Wolff, (1996), The Art of Manipulating Fabric, Interweave ● Milne D'Arcy Jean, (2006), Fabric Left Overs, Octopus Publishing Group Ltd. ● Singer, R., (2013), Fabric Manipulation, David & Charles Publishers 	

S. B. Home

PartA-Introduction				
Semester	I			
Name of the Course(MDC-1)	Food Safety, Sanitation and Hygiene.			
Course ID	240/HS/MD101			
Course Learning Outcomes(CLO):				
1. To learn about the basic concepts of food safety.				
2. To identify the causes and prevention procedures for foodborne illness, intoxication and infection.				
3. To be able to list out common food adulterants in foods and understand the need for consumer education				
4. Demonstrate good personal hygiene and safe food handling procedures.				
Credits	Theory	Tutorial	Practical	Total
	2	1	0	3
Contact Hours	2	1	0	3
Max. Marks: 75	Time: 2hrs (Theory), 1hrs (Tutorial)			
Internal Assessment Marks: 25 (Attendance-5, Assignment-5, Session Exam-15)				
End Term Exam Marks: 50 (50 Theory)				
PartB-Contents of the Course				
Instructions for Paper-Setter				
Nine questions will be set in all. Question No.1 comprising of objective/short answer type questions from the entire syllabus, will be compulsory. The remaining eight questions will be set taking two questions from each unit. The candidates will be required to attempt Q.No.1 & four others selecting one question from each unit. All questions carry equal marks.				
UNIT I			CONTACT HOURS	
1. Concept and meaning of Food Safety, definition of food poisoning, food infection and food quality.			12	
2. Food hazards (Physical, chemical and biological)				
3. Sources of contaminants: Physical, chemical and microbial hazards in different foods.				
UNIT II			10	
1. Basic principles of Food hygiene and Sanitation.				
2. Factors affecting food safety through supply chain.				
3. Safety of leftover foods.				
UNIT III			11	

- FPO (Fruit product order)
- HACCP (Hazard analysis critical control point)

PartC-LearningResources

1. Manay,S.andshadakSharamasamy,Food;Factsandprinciples,NewageInternational.(p)publishers,Newdelhi.
2. Mahtab,S,Bamji.S,KamalaKrishnaswamy,BrahmamG.N.V,TextbookofHumanNutrition,Thirdedition,Oxfordand IBH publishing co. private limited, NewDelhi.
3. Srilakshmi,B.,2002,FoodScience,2 edition,NewAge Internationalprivatelimited.,NewDelhi.
4. Swaminadhan,M.,AdvancedTextbookonFoodandNutrition,Vol.1,SecondEdition,Bangaloreprintingand publishing Co.Ltd,Banglore,2012
5. DietaryGuidelinesforIndians, ICMR,NationalInstituteof Nutrition
6. NormanMarriott(1999),PrinciplesofFoodSanitation,4thed.,SanitationinFoodProcessing,JohnA.Troller,1993, Academic press.

Minor Course

PartA-Introduction			
Semester	I		
Nameof theCourse(MIC-1)	Human Physiology		
CourseID	240/HS/MI101		
CourseLearningOutcomes(CLO):			
1. Studentswillgaininsightsaboutphysiologicalfunctionsofthehumanbody.			
2. Studentswillget anunderstandingof howall ofthebody's organsystemsinteract and function normally.			
3. Understandtheknowledgeabout thestructuralorganizationofthehumanbody.			
Credits	Theory	Practical	Total
	1	1	2
Contact Hours	1	2	3
Max.Marks:50	Time:1hrs(Theory),2hrs(Practical)		
InternalAssessment Marks:10 (05 Theory+05 Practical)			
End TermExamMarks: 40(20 Theory+20Practical)			
PartB-Contentsofthe Course			
InstructionsforPaper-Setter			
Nine questions will be set in all. Question No.1 comprising of objective/short answer type questions from the entire syllabus, will be compulsory. Theremainingeightquestionswillbesettakingtwoquestionsfromeachunit. Thecandidateswillberequiredto attempt Q.No.1 & four others selecting one question from each unit. All questions carry equal marks.			
UNITI			CONTACTHOURS
1. Animalcellstructure			

Practical(30 Hours)

1. Draw a well-labelled diagram of: Animal cell, Digestive system, circulatory system, lungs & female reproductive organ.
2. Measurement of Blood pressure and its relevance.
3. Case study of Iron deficiency Anemia, investigations and diagnosis.
4. Preparation of a project on various contraceptive devices.
5. Prepare chart/model of Digestive system and circulatory system.
6. Determination of pulse rate, hemoglobin and blood group.

Part C-Learning Resources

1. Hygiene and preventive medicine 17th edition (2020). Yashpal Bedi, CBS Publishers.
2. Textbook of Physiology 7th edition (2017)-A.K Jain. Avichal Publishing Company.
3. Textbook of human anatomy and physiology (2018). D.K Sharma & Sameer Rastogi; Mackinjee publishers.
4. Marieb, E (2014). Human Anatomy and Physiology, 10th Edition, Addison-Wesley.
5. Practical Workbook of Human Physiology, K Sri Nageswari and Rajeev Sharma, 2nd Edition 2018 • Textbook of Practical Physiology, G K Pal and Pravati Pal 5th Edition (2020).

SKILL ENHANCEMENT COURSES

PartA-Introduction			
Semester	II		
Nameof theCourse(SEC-2)	Techniques ofResistDyeingandPrinting		
CourseID	240/HS/SE201		
CourseLearningOutcomes(CLO):			
Aftercompletingthiscourse, thelearnerwillbeable to:			
1. Developskillsandundertakeprojectsbatikdyeing,tieanddye andblock printing.			
2. Developmarketablearticlesvalueaddedwithbatikdyeing,tie anddyeandblockprinting.			
3. Describethebasicsofdyeing,printingandfinishing.			
4. Examinetheknowledgeofauxiliariesandchemicalsusedfordyeingandprinting.			
5. Explaintherelationbetweenthe dyes,pigmentsand fabrics.			
6. Recommendthefinishingfortextilesafterdyeingandprinting.			
Credits	Theory	Practical	Total
	2	1	3
Contact Hours	2	2	4

1. Definition and classification of fibers. Properties and uses of different fibers (cotton, wool, silk and nylon). 2. Definition of Motifs, Designs and Pattern, Types of motifs (i) Naturalistic (ii) Geometrical (iii) Stylized (iv) Abstract 3. Different types of Dyes and their affinity to different fibers	7
UNIT II Resist Dyeing: Batik Dyeing 1. Tools, equipment for Batik dying and Techniques of Batik Dyeing 2. Brief introduction to Batik Dyeing in traditional centers in India. 3. Preparation and process for Batik Printing. 4. Exercising precautions	7
UNIT III Resist Dyeing: Tie & Dye 1. Brief introduction to Tie and dye in traditional centers in India. 2. Preparation, process, tools and equipment for Tie and Dye, exercising precautions. 3. Treatment of fabric after tie and dye. 4. Tie and Dye with different tying materials and techniques.	7
UNIT IV Block Printing 1. Different Dyes for Block Printing. 2. Types of Block Printing. 3. Types and Care of Blocks. 4. Making designs for Block Printing; Understanding placements. 5. Preparation, process, tools and equipment for Block printing. 6. Treatment of fabric after printing. 7. Safety precautions.	9
Practical (30 Hours) 1. Prepare samples of block printing, tie and dye and batik with different Layouts-Central, Corner, Border and All over. 2. Demonstrate the use of different tools and equipment used for block printing 3. Demonstrating different tying techniques for tie and dye. 4. Preparing household/apparel articles of cotton fabric using Block printing and Tie and Dye techniques. 5. Dyeing of samples in single colour, two colours and multi colours. 6. Printing in single colour and two colours.	
Part C-Learning Resources 1. Simon-Alexander, S. (2013). Tie-Dye: Dye It, Wear It, Share It. Pottercraft. 2. Vejar, K. (2015). The Modern Natural Dyer: A Comprehensive Guide to Dyeing Silk, Wool, Linen, and Cotton at Home. STC craft/ A	

Note: External Practical(PE) will be conducted on Institutional Level by any of the teachers not teaching that paper. Teacher may be from same Department or 1

Semester	I		
Name of the Course CC-A1	Food Preservation		
Course ID	240/HS/SE101		
Course Learning Outcomes (CLO): After completion of the course, the students will be able to: <div><div>1. Students will understand the principles of preservation behind methods of preservation.</div><div>2. Students will be able to comprehend the stages of cookery in food preservation.</div><div>3. Students will gain hands on experience about preparation of various food preservation-based recipes.</div></div>			
Credits	Theory	Practical	Total
	2	1	3
Contact Hours	2	2	4
Max. Marks:75	Time: 2hrs (Theory), 2hrs (Practical)		
Internal Assessment Marks: 20 (15 TI + 05 PI)			
End Term Exam Marks: 55 (35 TE + 20 PE)			
Part B- Contents of the course			
Instructions for Paper-Setter Nine questions will be set in all. Question No.1 comprising of objective/short answer type questions from the entire syllabus, will be compulsory. The remaining eight questions will be set taking two questions from each unit. The candidates will be required to attempt Q.No.1 & four others selecting one question from each unit. All questions carry equal marks.			
UNIT I		CONTACT HOURS	
<div><div>1. Importance and principles of food preservation</div><div>2. Food spoilage by micro-organisms</div></div>		8	
UNIT II		7	
<div><div>1. Preservation by low temperature (freezing, refrigeration)</div><div>2. Preservation by dehydration</div></div>			
UNIT III		8	
<div><div>1. Natural Food preservatives – Use of salt, acid, sugar, oil etc. (role and examples)</div><div>2. Chemical Preservatives- definition, role, permitted preservatives and FSSAI guidelines.</div></div>			
UNIT IV		7	
<div><div>1. Preservation by high temperature (blanching, pasteurization, canning)</div></div>			

3. Raina U, Kashyap S, Narula V, Thomas S, Suvira V, Vir S, Chopra S (2010) Basic Food Preparation: A Complete Manual, 4th Edition, Orient Black Swan Ltd, Mumbai
4. Srivastava R.P. (2012), Fruit and vegetable preservation – Principles and Practices, International Book Distributing Co., (IBDC), New Delhi.

S. B. Home