

MANGALORE UNIVERSITY

Model Curriculum

Program Name	B.A	Total Credits for the Program	146 Credits
Core	Home Science	Starting year of implementation	2024-25

Program Outcomes: At the end of the program, the students should be able to:

(Refer to literature on outcome-based education (OBE) for details on Program Outcomes)

Programme outcomes

- PO-1-Deliver quality tertiary education through learning while doing.
- PO-2-Reflect universal and domain-specific values in Home Science.
- PO-3-Involve, communicate and engage key stakeholders.
- PO-4-Develop the ability to address the complexities and interface among self, societal and national priorities.
- PO-5-Generate multi-skilled leaders with a holistic perspective that cuts across disciplines.
- PO-6-Instill both generic and subject-specific skills to succeed in the employment market.
- PO-7-Foster a genre of responsible students with a passion for lifelong learning and entrepreneurship.
- PO-8-Develop sensitivity, resourcefulness and competence to render service to families, communities, and the nation at large.
- PO-9-Promote research, innovation and design (product) development favoring all the disciplines in Home Science.
- PO-10-Enhance digital literacy and apply them to engage in real time problem solving and ideation related to all fields of Home Science.
- PO-11-Appreciate and benefit from the symbiotic relationship among the five core disciplines of Home Science.

PAPER DESCRIPTION

SL.NO	SEMESTER	CODE NO. OF THE PAPER	TITLE OF THE PAPER
1	I		Principles of Food and Nutrition
			Principles of Food and Nutrition (Practical)
2	II		Fundamentals of Human Development
			Fundamentals of Human Development (Practical)
3	III		Introductory Textiles
			Introductory Textiles(Practical)
			Extension Education and Communication (Elective)
4	IV		Nutrition Through Life Cycle and Diet Therapy
			Nutrition Through Life Cycle and Diet Therapy (Practical)
			FashionDesigning (Elective)
			Teaching Materials for Early Childhood Education (Compulsory Paper)
5	V		EarlyChildhoodCareandEducation
			ResourceManagement
			Integrating Resource Management In ECCE Practices (Practical)
			Food Preservation (Compulsory Paper)
6	VI		HumanDevelopmentandFamilyDynamics
			InteriorDecoration
			Designing Interior Spaces for Enhancing Family Well-Being (Practical)
			Compulsory Paper: Internship Report

MANGALORE UNIVERSITY

Suggested programme structure for the Under Graduate Programmes Bachelor of Arts (B.A.) with one course with practical's

Semester	Course 1	Course 2	Course 3	Elective / Optional	Language	Compulsory	Total Credit	Total Working hours
I	5	5	5(3T+2P)		3+3	2	23	6+6+4+4+4+4+3=31
II	5	5	5(3T+2P)		3+3	2	23	6+6+4+4+4+4+3=31
III	5	5	5(3T+2P)	2	3+3		23	6+6+4+4+2+4+4=30
IV	5	5	5(3T+2P)	2	3+3	2	25	6+6+4+4+2+4+4+2=32
V	4+4	4+4	8[(2x3T)+2P]			2	26	5+5+5+5+4+4+4+2=34
VI	4+4	4+4	8[(2x3T)+2P]			2	26	5+5+5+5+4+4+4+2=34
						Total:	146	192

Semester	Major 1	Major 2	Major 3	Elective / Optional	Language (English + Hindi/ French)	Compulsory	Total Credit	Max. Marks		
								IA	Exam Mark	Total
I	5	5	5 (3T+2P) Principles of Food and Nutrition	-----	3+3	2	23	20	80	100
								(P) 10	40	50
II	5	5	5 (3T+2P) Fundamentals of Human Development	-----	3+3	2	23	20	80	100
								(P) 10	40	50
III	5	5	5 (3T+2P) Introductory Textiles	2	3+3		23	20	80	100
								(P) 10	40	50
								(E) 10	40	50
IV	5	5	5 (3T+2P) Nutrition Through Life Cycle And Diet Therapy	2	3+3	2	25	20	80	100
								(P) 10	40	50
								(E) 10	40	50

							(C)			
V	4+4	4+4	8((2x3T)+2P) 1. EarlyChildhoodCareand Education.			Food Preservation	26	10	40	50
			2. ResourceManagement					(C)10	40	50
			3. Integrating Resource Management in ECCE Practices. (Practical)					(P)10	40	50
VI	4+4	4+4	8((2x3T)+2P) 1. HumanDevelopmenta ndFamilyDynamics.			Internship report	26	20	80	100
			2. InteriorDecoration					(C)10	40	50
			3. Designing Interior Spaces for Enhancing Family Well-Being (Practical)					(P)10	40	50

Programmeobjectives

By learning Home Science, the students will be capable of

- To introduce the students to the field of Home Science.
- To produce comprehensive knowledge of each approaches.
- Put into practice decision making and problem solving skills to make informed choices, develop sensitivity towards the need of family and society.
- To help and execute need based, multidisciplinary action oriented activities for improving the quality of life.
- Develop lifelong ability to absorb knowledge and apply effectively to meet the challenges to ever changing life.
- promote entrepreneurship skill
- Develop the skills required to opt for higher education and career.

Programmeoutcomes

- PO-1-Deliver quality tertiary education through learning while doing.
- PO-2-Reflect universal and domain-specific values in HomeScience.
- PO-3-Involve communicate and engage keystakeholders.
- PO-4-Develop the ability to address the complexities and interface among of self, societal and national priorities.
- PO-5-Generate multi-skilled leaders with a holistic perspective that cuts across disciplines.
- PO-6-Instill both generic and subject-specific skills to succeed in the employment market.
- PO-7-Foster a genre of responsible students with a passion for lifelong learning and entrepreneurship.
- PO-8-Develop sensitivity, resourcefulness and competence to render service to families, communities, and the nation at large.
- PO-9-Promote research, innovation and design (product) development favoring all the disciplines in HomeScience.
- PO-10-Enhance digital literacy and apply them to engage in real time problem solving and ideation related to all fields of HomeScience.
- PO-11-Appreciate and benefit from the symbiotic relationship among the five core disciplines of Home Science.

HOME SCIENCE SEMESTER-I

Course Title: PRINCIPLES OF FOOD AND NUTRITION	
Paper Code:	Course Credits: 3
Total Contact Hours: 52Hrs	Duration of ESA/Exam: 3 Hrs

Course objectives:

- To know about nutrients and its functions in the body.
- To acquire knowledge about methods of cooking.
- To get the idea about meal planning.
- To gain ideas about food preservation.
- To built skills on food handling and storage.
- To understand the concepts of an adequate diet and the importance of meal planning
- To know the factors affecting the nutrient needs during the life cycle and RDA for various age groups.
- To acquire skill in planning. Preparing diets in health and disease
- To understand the Physiology of Pregnancy and Lactation and how these influence nutritional requirements.

Course Learning Outcomes (CO)

At the end of the course students will be able to

- CO1: Become a healthy mother/father, care taker and a good guide in bringing up children in healthy environment
- CO2: Exhibit the skills to work as diet planners and counselors in hospitals.
- CO3: Take up self-employment in various foods production units.
- CO4: Apply the knowledge to preserve food at household level.
- CO5: Reflect the knowledge on functions, requirements and effects of deficiency of various nutrients.
- CO6: Work as a manager in canteen, service staff, owner of a canteen, restaurant, cabin crew, assistant community health worker, a good care taker of the self, family and others.

SEMESTER I
PRINCIPLES OF FOOD AND NUTRITION

Paper code:	
Number of Theory Credits	Number of lecture hours/semester
3	52

CONTENT	52 Hrs.
Unit-1 Introduction to Nutrition	13 Hrs
1. Terminology – Nutrition, Health, Food, Nutrient, Malnutrition, RDA. 2. The relation of good nutrition to normal physical development and sound health 3. Classifications of nutrients. 4. Classification of food. 5. Improving nutritional quality of food – Germination, Fermentation Fortification 6. Food Preparation. a. Basic Terminology – Blanch, beat, blend, broil, caramelize, cream. b. Methods – Boiling, steam Cooking, Stewing, Frying, Baking, and Pressure Cooking.	
Unit – 2 Nutrients	13 Hrs
1. Energy-Definition, Gross and Physiological energy value of food using bomb calorie meter. 2. Basal metabolic rate – definition, factors affecting BMR. 3. Carbohydrates – Classification, function sources. 4. Protein – Classification, functions, sources, requirements, effects of deficiency. 5. Lipids – Classification, functions, sources.	
Unit – 3 Minerals	13 Hrs
1. Macro minerals – Functions, sources, requirements and effects of deficiency of Calcium, Potassium. 2. Micro minerals – Functions, sources, requirements and effects of deficiency of Iron, Iodine.	
Unit –4 Vitamins	13 Hrs
1. . Vitamins – Classification – Water soluble ‘B’ and ‘C’, Fat Soluble – A, D, E, K. – Functions, sources, requirements, effects of deficiency.	

Course Articulation Matrix: Mapping of Course Outcomes (COs) with Program Outcomes (POs 1-11)

Course Outcomes (COs)/Program Outcomes (POs)	Program Outcomes (POs)										
	1	2	3	4	5	6	7	8	9	10	11
Become a healthy mother/father, care taker and a good guide in bringing up children in healthy environment.				X		X	X	X			
Exhibit the skills to work as diet planners and counselors in hospitals.											
Take up self-employment in various foods production units.		X		X			X			X	
Apply the knowledge to preserve food at household level.											
Reflect the knowledge on functions, requirements and effects of deficiency of various nutrients.	X	X								X	
Work as a manager in canteen, service staff, owner of a canteen, restaurant, cabin crew, assistant community health worker, a good care taker of the self, family and others.											

Pedagogy-Theory:

Formative Assessment = 100 marks	
Assessment Occasion / type	Weightage in Marks
Assignment 1	5
Assignment 2	5
Project	10
Total	80 marks + 20 marks = 100 marks

Practical Course:

Paper Code:	
Total Contact Hours: 52 Hrs	Course Credits: 2
List of Experiments to be conducted	
Unit 1: a) Standardization of Weights and Measures. b) Illustrate Food pyramid.	
Unit 2: Demonstration of different methods of cooking. a) Boiling, steaming b) Pressure cooking, shallow and deep fat frying c) Dry heat - baking	
Unit 3: Identification of nutrient rich foods and preparation of any three nutrient rich foods.	
Unit 4: Food preservation by salt, sugar and dehydration methods.	

Pedagogy-Practical:

Formative Assessment = 50 marks	
Assessment Occasion / type	Weightage in Marks
Model Exam	5
Project	5
Total	40 marks + 10 marks = 50 marks

References:

Gopalan. C, RamaSastry B.V., and S.C. Balasubramanian (2009), Nutritive value of Indian Foods, NIN.ICM, Hyderabad.

Hugher C., Bennion M. (1970): Introductory Foods, 5th Edition., Macmillan Company

Mudambi S R and Rajagopal M V, (2008), Fundamentals of Foods, Nutrition & diet therapy by New Age International Publishers, NewDelhi.

Robinson C H Lawler M R., Chenoweth W L and Garwick A. E. (1986) Normal and
Therapeutic Nutrition, 17th Edition, Macmillan Publishing Co.

Srilakshmi B, (2007), Dietetics. New Age International publishers. NewDelhi

Srilakshmi B, (2002), Nutrition Science. New Age International publishers. NewDelhi

Swaminathan M. (2002), Advanced text book on food and Nutrition. Volume I.Bappco.

Swaminathan M S (1985) Essentials of food and nutrition fundamentals Aspects
VII:Applied Aspects Williams S. R. (1989), Nutrition and Diet Theory, 4h Edition
Mosley Co.

B.A HOME SCIENCE
II SEMESTER

Course Title: FUNDAMENTALS OF HUMAN DEVELOPMENT	
Paper Code:	Course Credits: 3
Total Contact Hours: 52Hrs	Duration of ESA/Exam: 3 Hrs

Course Objectives:

- To gain insight into the evolution of the study of Human development.
- To understand the theoretical perspectives in Human development.
- To understand the methods of studying Human development.
- To gain knowledge on the developmental foundations.
- To understand the pre-natal period.
- To sensitize the students to the importance of early childhood years and preschool education.

Course Learning Outcomes (CO)

At the end of the course students will be able to:

CO1: Explain the need and the importance of studying human growth and development across lifespan.

CO2: Identify the biological and environmental factors affecting human development.

CO3: Describe the characteristics, needs and developmental tasks of different stages in the human lifecycle

CO4: Discuss the special features characteristic of each stage and its impact on the next stage

CO5: Explain the broad theoretical perspectives of different researchers.

FUNDAMENTALS OF HUMAN DEVELOPMENT

Paper Code :	
Number of Theory Credits	Number of lecturehours/semester
3	52

CONTENT	52 Hrs.
Unit-1	13 Hrs
Chapter No. 1 Human Development – Definition, needs, and Scope; Domains of Development: Chapter No. 2 Concept and principles of Growth and development; Factors influencing growth and development. ChapterNo. 3Methods of studying Human development, prenatal development ChapterNo. 4 Fertilization, Pregnancy–Signs, Symptoms, Complications, Discomforts; Stages of Prenatal Development Chapter No. 5 Child Birth - Process and types, Birth complications	
Unit – 2	13 Hrs
Chapter No. 6. Infancy - Definition, Significance, Developmental Tasks, and developmental milestones; Physical growth, reflexes and perceptual abilities, Immunization Schedule; Chapter No. 7. Early Childhood Years- Definition, Developmental tasks; physical, motor, intellectual, language, emotional, social developmental milestones. importance of preschool education and Significance of play for all-round development Chapter No. 8. Piaget’s cognitive Theory and Erik Erickson’s Personality Theory.	
Unit – 3	13 Hrs
Chapter No. 9 The Middle Childhood Years - Definition, Developmental tasks. Highlights of Physical, Social, Emotional, Intellectual development. Significance of school and functions; Importance of extra-curricular activities, Peers - Importance and Influence, Interestdevelopment.	
Unit –4	13 Hrs
Chapter No. 10 Role of Parents and Disciplinary Techniques; Role of siblings, peers and others in the development; Behaviorproblems	

Course Articulation Matrix: Mapping of Course Outcomes (COs) with Program Outcomes (POs 1-11)

Course Outcomes (COs)/Program Outcomes (POs)	Program Outcomes (POs)										
	1	2	3	4	5	6	7	8	9	10	11
Explain the need and the importance of studying human growth and development across lifespan.				X		X	X	X			
Identify the biological and environmental factors affecting human development.											
Describe the characteristics, needs and developmental tasks of different stages in the human lifecycle		X		X			X			X	
Discuss the special features characteristic of each stage and its impact on the next stage											
Explain the broad theoretical perspectives of different researchers.	X	X								X	

Pedagogy-Theory:

Formative Assessment = 100 marks	
Assessment Occasion / type	Weightage in Marks
Assignment 1	5
Assignment 2	5
Project	10
Total	80 marks + 20 marks = 100 marks

Practical Course:

Paper Code:	
Total Contact Hours: 52 Hrs	Course Credits: 2
List of Experiments to be conducted	
1. Prepare an album on the stages of prenatal development.	
2. Organize a lecture/workshop for parents on importance of the nutrition/ Needs of preschool children.	
3. Develop an activity to foster cognitive development in school children.	
4. Conduct creative Activities for children and prepare activity chart.	

Pedagogy-Practical:

Formative Assessment = 50 marks	
Assessment Occasion / type	Weightage in Marks
Model Exam	5
Project	5
Total	40 marks + 10 marks = 50 marks

References:

1.	Baradha G, (2007) “Basics of Human Development” Sarvodalaya Press, Avinashilingam Education Trust Institutions, Coimbatore.
2.	Berk, L.E. (2005). Child development (5th ed.). New Delhi: PrenticeHall.
3.	Bhangaokar, R.,&Kapadia, S. (in press). Human Development Research in India: A historical overview. In G. Misra (Ed.), Hundred years of Psychology in India. NewDelhi:Springer.
4.	Feldman, R., & Babu, N. (2009). Discovering the life span. New Delhi: Pearson
5.	Kakar, S. (1998). The inner world. Psychoanalytic study of childhood and society in India Delhi: Oxford UniversityPress.
6.	Kapadia, S. (2011). Psychology and human development in India. Country paper. International Society for the Study of Behavioral Development Bulletin Number 2, Serial No. 60,pp.37-42.
7.	Keenan, T., Evans, S., & Crowley, K. (2016). An introduction to child development. Sage publication.
8.	Lightfoot, C., Cole .M. & Cole, S. (2012). The development of children (7 th edition.).New York: WorthPublishers.

HOME SCIENCE SEMESTER-III

Course Title: INTRODUCTORY TEXTILES	
Paper Code:	Course Credits: 3
Total Contact Hours: 52Hrs	Duration of ESA/Exam: 3 Hrs

Course Objectives:

- To study the basics of textile.
- To understand the principles of printing & dyeing
- To assess the product properties and predict its performance during use.
- To study on laundering
- To develop skill in care of clothing
- To improve knowledge in manufacturing process of fabric.
- To access ideas on fabric finishes.
- To acquire skills in weaving.

Course Learning Outcomes (CO)

At the end of the course students will be able to:

- CO1: Understand the structure and production techniques of various natural and manmade fibers and their physical properties.
- CO2: Understand the various conventional and non-conventional techniques of yarn spinning.
- CO3: Demonstrate an understanding of various types of fabric forming methods.
- CO4: Gain understanding of quality parameters for fiber, yarn and fabrics.
- CO5: To introduce the basic scientific concepts related to processing and production of textiles.

SEMESTER III

INTRODUCTORY TEXTILES

Paper Code :	
Number of Theory Credits	Number of lecturehours/semester
3	52

Content	52Hrs
Unit-I-Textile, Yarn and Fabric Construction	16 Hrs
Chapter 1 -Meaning, Importance and Scope of Textiles, Classification of Natural and Manmade fiber.	
Chapter 2 -Manufacturing process and properties of Cotton, Silk, Wool, Nylon, Polyester, Classification of Yarns, Yarn Twists and Counts.	
Chapter 3 - Parts of a Basic Loom – Shuttle, Heddle, Reed, Warp beam & Cloth Beam Basic; Weaving operation – Shedding, Picking, Beating, taking in and Letting off.	
Chapter 4 - Basic Weaves–Plain Weave, Basket Weave, Rib, Twill, Satin, Fancy weaves–Leno, Pile and Jacquard.	
Unit-II-Finishing	12 Hrs
Chapter 5 : Objectives, Classification Finishes-Aesthetic Finishes (Singeing, Bleaching, Mercerization, Tenting, Shrinking, Weighting, Calendaring, Sizing, Embossing and Napping).	
Chapter 6 : Finishes for enhancing special character-(Fireproof, Waterproof, and Mildew proof.	
Unit-III Laundering	6 Hrs
Chapter 7 : Laundry Procedures, Materials, Stain Removal, Common Laundry Problems and Remedies.	
Chapter 8 : Dry Cleaning–Meaning, Methods and Advantages & Disadvantages.	
Unit-IV Processing of Fabric	18 Hrs
(a) Printing And Dyeing	
Chapter 9 : Introduction, Principles of dyeing, Methods of dyeing (dope, fiber, yarn, fabric and garment) Various methods of Printing, Difference between Dyeing and Printing.	

Chapter 10: Synthetic Dyes: (Direct, Azoic, Basic, Vat, Solubilized vat dyes, Sulphur, Acid, Mordant, Natural, Reactive and Disperse)

Natural Dyes: (Classification, their application and ecological concern)

Course Articulation Matrix: Mapping of Course Outcomes (COs) with Program Outcomes (POs 1-11)

Course Outcomes (COs)/Program Outcomes (POs)	Program Outcomes (POs)										
	1	2	3	4	5	6	7	8	9	10	11
Understand the structure and production techniques of various natural and manmade fibers and their physical properties.				X		X	X	X			
Understand the various conventional and non-conventional techniques of yarn spinning.											
Demonstrate an understanding of various types of fabric forming methods.		X		X			X			X	
Gain understanding of quality parameters for fiber, yarn and fabrics.											
To introduce the basic scientific concepts related to processing and production of textiles.	X	X								X	

Pedagogy-Theory

Formative Assessment = 100 marks	
Assessment Occasion / type	Weightage in Marks
Assignment 1	5
Assignment 2	5
Project	10
Total	80 marks + 20 marks = 100 marks

CourseTitle	INTRODUCTORY TEXTILES		PracticalCredits	2
Coursecode.		Contact hours	52hrs/13Sessions	
ListofExperimentstobeconducted				
1. FiberIdentificationTest- A) Visualtest. B) Burningtest and C) Microscopictest (Cotton,Silk,Wool,Rayon,Polyester&Nylonfibers)				
2. Use and care of sewing machine				
3. Basic Embroidery				
4. Weaving-Makingsamplesofthefollowing: A) Plain-BasketRibbed. B) Twill-EvenandUneven C) SateenWarpandWeftFace				
5. Dyeing&Printing–Block/spray/stencil/tie&dye/batik				
Visittospinning/weaving/dyeing/printing unit				

Pedagogy-Practical:

Formative Assessment = 50 marks	
Assessment Occasion / type	Weightage in Marks
Model Exam	5
Project	5
Total	40 marks + 10 marks = 50 marks

References

1	HollenandSaddlerJ(1995):TextileslatestEd.,MacMillanandCo.,NewYork.
2	MullickP.,(2012),“TextBookofHomeScience”KalyaniPublishers.NewDelhi.
3	PotterandCobman“FibertoFabric”.
4	DorothyBurhan“A Textile Terminology”
5	HertK.P.”Textilesfibersandtheiruse”, IBHPublishingco.
6	Durga.Denikar“HouseholdTextilesandLaundry”AbnaramLSons Delhi.
7	Corbman.B.P(2001):TextileFibertoFabric,McGrawHill,NewYork
8	Peter.R.Lord,(2003).HandbookofYarnProduction,WoodheadPublishingLtd, England.
9	Kothari,V.K,(2010).ProgressinTextileScience, VolI,IIandIII,IAFLPublications,NewDelhi.
10	SeemaSekhri,(2011).TextbookofFabricScience,Fundamentalstofinishing,PHILearningPrivate limited, New Delhi.
11	Dr.SushmaGuptha, neeruGarg, RenuSaini (2003)” Text Book of Clothing and Textiles” Kallyani publishers, ludhiyana, New Delhi.
12	Ziffzer – clothing construction practicals –prasara, Mysore University

HOME SCIENCE SEMESTER-III

Course Title: Extension Education and Communication	
Paper Code:	Course Credits: 2
Total Contact Hours:32 Hrs	Duration of ESA/Exam: 2 Hrs

Course objectives:

- To understand the basic concepts and philosophy of extension education.
- To explore the principles and methods of communication in the context of rural and community development.
- To develop skills for planning, implementing, and evaluating extension programmes.
- To understand the role of extension in disseminating scientific and developmental information.
- To build competencies in the use of modern and traditional communication tools for extension work.

Course Learning Outcomes (CO)

At the end of the course students will be able to:

- CO1: Gain knowledge of the structure and functions of extension systems in India.
- CO2: Acquire the ability to design and deliver effective communication strategies for rural and urban audiences.
- CO3: Analyze and apply various extension teaching methods, including group discussions, demonstrations, and campaigns.
- CO4: Develop awareness of community needs and participatory approaches in developmental work.
- CO5: Prepare students for careers in NGOs, development agencies, media communication, and community outreach programmes.

SEMESTER III
EXTENSION EDUCATION AND COMMUNICATION

Paper code:	
Number of Theory Credits	Number of lecturehours/semester
2	32 HOURS

CONTENT	32 Hrs.
Unit–1 Extension Education	08 Hrs
1.1 Extension Education Definition, meaning, objectives, principles, scope, and Qualities of an Extension facilitator. 1.2 Home science extension – Concept, definition, objectives, and philosophy, Contribution of Home Science Extension towards development of society.	
Unit – 2 Extension Teaching Methods & Media Communication	12 Hrs
2.1 Definition, Aims and objectives, classification. Each of the Extension methods merits and limitations. 2.2 Audio visual aids – definition, role of visual aids in teaching, important audio, visual and other extension methods for effective teaching. 2.3 Visual Media - it's preparation and usage for the following: - a. Electronic Media - i. Radio ii. Television iii. Films. Group Media and it's usage in Extension b. Print Media - i. News Paper ii. Magazines. Mass media and their uses for extension c. Folk Media - Meaning and Characteristics ii. Major Indian Folk forms iii. Importance of Folk forms.	
Unit – 3 Extension Training Methods	12 Hrs
3.1 Lecture, Group Discussion, Seminar, Panel discussion. 3.2 Symposium, workshop, case study, role play, simulated method, video conferencing. 3.3 Leader and leadership – types, styles, qualities, functions, advantages, and disadvantages of working with the leaders.	

Course Articulation Matrix: Mapping of Course Outcomes (COs) with Program Outcomes (POs 1-11)

Course Outcomes (COs)/Program Outcomes (POs)	Program Outcomes (POs)										
	1	2	3	4	5	6	7	8	9	10	11
Gain knowledge of the structure and functions of extension systems in India.				X		X	X	X			
Acquire the ability to design and deliver effective communication strategies for rural and urban audiences.											
Analyze and apply various extension teaching methods, including group discussions, demonstrations, and campaigns.		X		X			X			X	
Develop awareness of community needs and participatory approaches in developmental work.											
Prepare students for careers in NGOs, development agencies, media communication, and community outreach programmes.	X	X								X	

Pedagogy-Theory:

Formative Assessment = 50 marks	
Assessment Occasion / type	Weightage in Marks
Assignment 1	5
Assignment 2	5
Total	40 marks + 10 marks = 50 marks

References:

1.	Arvind Chandra, Anupam Shah and Uma Joshi (2010), Fundamentals of Teaching Home Science, International publishers.
2.	Lalit Kishore (2002) A textbook of Audio-Visual aids United publications.
3.	S.k. Waghmare (2007) Extension Education, New Age India publications.
4.	O.P Dahama and O.P Bhatnagar (2007), Education and Communication for Development, revised edition. New Age India publication.
5.	P.M Khan and L. L Somani (2010): Fundamentals of Extension Education. Agrotech publishing company.
6.	Wittch and Schuller (2002): Audio Visual Materials, Havper& Row publications.

HOME SCIENCE IV SEMESTER

Course Title: NUTRITION THROUGH LIFE CYCLE AND DIET THERAPY	
Paper Code:	Course Credits: 3
Total Contact Hours: 52 Hrs	Duration of ESA/Exam: 3 Hrs

Course objectives:

- To study the changing nutritional needs at different stages of life, from infancy to old age.
- To explore the principles of diet planning and therapeutic nutrition for health promotion and disease management.
- To examine the role of macronutrients and micronutrients in growth, development, and overall health.
- To recognize common nutritional deficiencies and their impact on health.
- To provide hands-on experience in diet counseling, nutritional assessment, and menu planning.
- To encourage evidence-based learning and application of research in dietetics and nutrition management.

Course Learning Outcomes (CO)

At the end of the course students will be able to:

- CO1: Explain the changing nutritional requirements from infancy to old age and their impact on health and development.
- CO2: Identify methods for evaluating the nutritional status of individuals at different life stages.
- CO3: Understand the principles of diet therapy and their application in preventing and managing diseases.
- CO4: Advocate for proper nutrition education and interventions to improve community health and well-being.
- CO5: Interpret and apply dietary guidelines and recommendations for individuals and populations.
- CO6: Gain hands-on experience in menu planning, diet counseling, and nutritional assessment.

SEMESTER IV

NUTRITION THROUGH LIFE CYCLE AND DIET THERAPY

Paper Code :	
Number of Theory Credits	Number of lecturehours/semester
3	52

Content	52Hrs
Unit-I-NUTRITION DURING CHANGED PHYSIOLOGICAL CONDITIONS	16 Hrs
Pregnancy RDA, RFA – Weight gain, dietary guideline supplementation. Pica during pregnancy. Common problems of pregnancy and their management –nausea, vomiting, food aversion, Toxemia, Obesity, Diabetes.	
Lactation –Nutritional requirements, Dietary managements, management of lactation failure, & Food Supplements.	
Unit-II-NUTRITION DURING INFANCY	12 Hrs
Breast feeding – duration, advantages, reasons for not giving breast milk, &importance of colostrums.	
Bottle feeding – advantages and disadvantages, care and sterilization of bottles. Weaning and introducing supplementary foods.	
Unit-III-NUTRITION DURING DIFFERENT AGE GROUP	6 Hrs
Nutrition during Pre School Age, adolescence.	
Nutrition during old age – Physiological and Psychological changes, dietary guidelines, requirements.	
Unit-IVDIET THERAPY	18 Hrs
Principles of diet therapy.	
Routine hospital diets – clear fluid, full fluid, soft and general.	
Causes, symptoms, dietary management of the following diseases a. Obesity b. Diabetes Mellitus – Types, Causes, Symptoms, Identification and Treatment.	

Course Articulation Matrix: Mapping of Course Outcomes (COs) with Program Outcomes (POs 1-11)

Course Outcomes (COs)/Program Outcomes (POs)	Program Outcomes (POs)										
	1	2	3	4	5	6	7	8	9	10	11
Explain the changing nutritional requirements from infancy to old age and their impact on health and development.				X		X	X	X			
Identify methods for evaluating the nutritional status of individuals at different life stages.											
Understand the principles of diet therapy and their application in preventing and managing diseases.		X		X			X			X	
Advocate for proper nutrition education and interventions to improve community health and well-being.											
Interpret and apply dietary guidelines and recommendations for individuals and populations.	X	X								X	
Gain hands-on experience in menu planning, diet counseling, and nutritional assessment.											

Pedagogy-Theory

Formative Assessment = 100 marks	
Assessment Occasion / type	Weightage in Marks
Assignment 1	5
Assignment 2	5
Project	10
Total	80 marks + 20 marks = 100 marks

CourseTitle	Nutrition Through Life Cycle and Diet Therapy		PracticalCredits	2
Coursecode.		Contact hours	52hrs/13Sessions	
ListofExperimentstobeconducted				
1. Preparation of weaning food.				
2. Plan and prepare diet for pregnant woman, preschooler, adolescent girl, and old-age.				

Pedagogy-Practical:

Formative Assessment = 50 marks	
Assessment Occasion / type	Weightage in Marks
Model Exam	5
Project	5
Total	40 marks + 10 marks = 50 marks

References	
1	Bamji MS, Krishnaswamy K, Brahman GNV (2016). Textbook of Human Nutrition, 4th edition. Oxford and IBH Publishing Co. Pvt. Ltd.
2	Krause M.V. and Mohan L.K.(1986) 'Food' Nutrition and Diet Therapy
3	M. Raheena Begum, Sterling Publications Pvt. Ltd., (1989) A Text Book of Food Nutrition and Dietetics
4	Mahan, L.K., Arlin, M.T. (2000): Krause's Food, Nutrition and Diet therapy, 11th edition, W.B.Saunders Company, London.
5	Robinson C H Lawler M R., Chenoweth W L and Garwick A. E. (1986) Normal and Therapeutic Nutrition, 17 th Edn., Macmillan Publishing Co.
6	Srilakshmi B (2014). Food Science, 6th Edition. New Age International Ltd., Delhi.
	Swaminathan, M., (1985) Essentials of food and nutrition, Vol I and II, Ganesh and Co, Madras Gopalan C (1991) Nutrition value of Indian foods, ICMR.
7	Williams S. R. (1989) : Nutrition and Diet Theory, 4 th Edn., Mosley Co.

HOME SCIENCE SEMESTER-IV

Course Title: FASHIONDESIGNING	
Paper Code:	Course Credits: 2
Total Contact Hours: 32Hrs	Duration of ESA/Exam: 2 Hrs

Course objectives:

- To know about fashion and fashion cycle.
- To enhance sketching and illustration skills.
- To learn the art of draping fabric on a dress form to create innovative designs.
- To Analyze and predict fashion trends, consumer behavior, and market demands.
- Understand the impact of fashion on the environment and explore sustainable design practices.
- Create a professional portfolio showcasing design skills and creative works for career opportunities.

Course Learning Outcomes (CO)

At the end of the course students will be able to:

- CO1: To obtain basic knowledge on Fashion and Fashion terminology
- CO2: To acquire conceptual knowledge of elements and principles of design.
- CO3: To enable students to gain knowledge of design, textile design and fashion.
- CO4: To understand the fashion design concept and process.
- CO5: To obtain knowledge on fashion designers

**SEMESTER IV
FASHION DESIGNING**

Paper code:	
Number of Theory Credits	Number of lecture hours/semester
2	32 HOURS

CONTENT	32 Hrs.
Unit–1 Introduction to Fashion and Clothing	8 Hrs
1.1 Fashion–Definition, Classification 1.2 Fashion cycle, Factor influencing the fashion trends, Fashion psychology and forecasting. 1.3 Clothing in relation to season, occasion, size and figure, figure problem and optical illusion.	
Unit – 2 Elements and Principles of Design	12 Hrs
2.1 Elements of Design and colour–Definition, Types, Elements, Principles and its application in dress design in dress design. 2.2 Color Theory 2.3 Textiles and Fabrics- Types of fibers, Fabric properties, Use of textiles in fashion design	
Unit – 3 Fashion Design	12 Hrs
3.1 Fashion illustration: - Definition, terminology, importance and theories, tools for fashion drawing, sketching principles, 3.2 Fashion Accessories bags, belts, shoes, jewelry, scarves, etc. 3.3 Illustration for apparels using the themes- Casual, formal, ethnic, and office wear, winter, summer, and spring. 3.4 Fashion Designer– meaning, classification, Male and Female Designers of national repute.	

Course Articulation Matrix: Mapping of Course Outcomes (COs) with Program Outcomes (POs 1-11)

Course Outcomes (COs)/Program Outcomes (POs)	Program Outcomes (POs)										
	1	2	3	4	5	6	7	8	9	10	11
To obtain basic knowledge on Fashion and Fashion terminology.				X		X	X	X			
To acquire conceptual knowledge of elements and principles of design.											
To enable students to gain knowledge of design, textile design and fashion.		X		X			X			X	
To understand the fashion design concept and process.											
To obtain knowledge on fashion designers	X	X								X	

Pedagogy-Theory:

Formative Assessment = 50 marks	
Assessment Occasion / type	Weightage in Marks
Assignment 1	5
Assignment 2	5
Total	40 marks + 10 marks = 50 marks

References:

Booth, J. E. (1996). Principles of Textile Testing. New Delhi: CBS Publishers & Distributors

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to Fashion
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HOME SCIENCE SEMESTER-IV

Course Title: TEACHING MATERIALS FOR EARLY CHILDHOOD EDUCATION	
Paper Code:	Course Credits: 2
Total Contact Hours: 32Hrs	Duration of ESA/Exam: 2 Hrs

Course Objectives:

- To understand the characteristics of children with special needs.
- To understand the need of teaching materials for children with special needs.
- To know the different methods and materials used for teaching young children.
- To know the importance of creativity.
- To develop teaching aids.
- To design and develop digital teaching materials.

Course Learning Outcomes (CO)

At the end of the course students will be able to:

- CO1: Understand the importance of teaching.
- CO2: Students can invent different teaching methods & materials for early years.
- CO3: Understand the importance of special and inclusive education for children with special needs.
- CO4: To learn skills, behaviors, and knowledge that a child should demonstrate at

each age and stage of his or her development.

- CO5: Framework that outlines what children should know and do in five developmental domains from birth to 5 years old.
- CO6: A strong sense of wellbeing.
- CO7: Effective communicators.

B.A. HOME SCIENCE SEMESTER IV

TEACHING MATERIALS FOR EARLY CHILDHOOD EDUCATION

Course: Compulsory Elective	
Number of Theory Credits	Number of lecturehours/semester
2	32

CONTENT	32 Hrs
Unit-I - Concept & need for teaching learning materials	12 Hrs
Chapter No. 1- Objectives of Teaching-Learning Materials, Orientation on different methods and materials used for teaching young children and studying the techniques of different methods. • The oral communication methods: (Collect stories, songs, music) • Conversational methods (conversation, heuristic conversation, questioning on a special subject,etc.). • Exploratory learning methods: direct exploration of objects (small experiments, etc.) and indirect exploration (demonstration through pictures, films,etc.). • Methods based on the pupils' direct voluntary action (exercises, practical work, etc.) and simulated action (didactic games, learning through drama,etc.). • Use of natural materials (plants, shells, seeds, insects, rocks, sand, etc.) • Intuitive materials (clay models, puppets, blocks, puzzles, mazes, etc)	

• Figurative aids (pictures, photographs, atlas books, maps, albums, table games, etc.) • Printed teaching aids (children's books, workbooks, etc.). • Digital material (audio & video)	
Unit-II – Development of Materials for Early years	08Hrs
Chapter No. 2- Design and develop a developmentally appropriate play materials to foster all round development in children using indigenous materials, Chapter No. 3 - Developing stories/ songs with music/ rhythm appropriate for infancy through early childhood.	
Unit –III- Development of Materials for developmentally challenged children	12 Hrs
Chapter No. 4- Creating teaching learning materials for developmentally challenged children (Blind/Deaf & deaf/Learning disabilities/Speech disorders/Mentally retarded/Gifted children/Slow learners) Chapter No. 5 - Designing & developing digital play materials like videos, audio aids or audio-Visual aids.	

Course Articulation Matrix: Mapping of Course Outcomes (COs) with Program Outcomes (POs 1-12)

Course Outcomes (COs)/Program Outcomes (POs)	Program Outcomes (POs)										
	1	2	3	4	5	6	7	8	9	10	11
Understand the importance of teaching.											
Students can invent different teaching methods & materials for early years.		X		X			X			X	
Understand the importance of special and inclusive education for children with special needs.											
To learn skills, behaviors, and knowledge that a child should demonstrate at each age and stage of his or her development.	X	X								X	
Framework that outlines what children should know and do in five developmental domains from birth to 5 years old.											

Pedagogy-Theory:

Formative Assessment = 50 marks	
Assessment Occasion / type	Weightage in Marks
Assignment 1	5
Assignment 2	5
Total	40 marks + 10 marks = 50 marks

Reference:

1.	Contractor, M., (1984), Creative drama and puppetry in education, National book trust of India, Delhi.
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2.	Devadas P. Rajammal and N. Jaya (1996), "A Textbook on child development", Mac Millan India Ltd. NewDelhi.
3.	Nasim Siddiqi, Suman Bhatia and Suptika Biswas (2007) Early Childhood Care and Education –Book IV, DOABA HOUSE, NewDelhi.
4.	Sen Gupta, M. (2009). Early Childhood Care and Education. New Delhi: PHI Learning Pvt.Ltd.
5.	Soni, R., (2015), Theme based early childhood care and education programme- A Resource Book,NCERT.

**HOME SCIENCE
SEMESTER-V
PAPER-V**

Course Title: EARLYCHILDHOODCAREANDEDUCATION	
Paper Code:	Course Credits: 3
Total Contact Hours: 48Hrs	Duration of ESA/Exam: 3 Hrs

Course Objectives:

- Multiple interacting influences on children's development and learning.
- Creating environments that are healthy, respectful, supportive, and challenging for each child.
- Building family and community relationships.
- Develop research and communication.
- Contextualization of knowledge.

Course Learning Outcomes (CO)

At the end of the course students will be able to:

- CO1: Explain the importance of early childhood years and significance of intervention programs for earlychildhood development.
- CO2: Describe the historical developments – global and Indian including the current programs and policies in ECCE.
- CO3: Identify various indigenous (Indian) models of Early Childhood Education and apply it to understand the current early childhood research, theoretical trends, and issues.
- CO4: Analyzecurriculummodelsandpedagogicalapproachesinearlychildhood education.
- CO5: Createdevelopmentallyappropriateprogramsfor young children.

SEMESTER V

EARLY CHILDHOOD CARE AND EDUCATION

Paper code:	
Number of Theory Credits	Number of lecture hours/semester
3	48

CONTENT	48 Hrs.
Unit-1 Early Childhood Care and Education	12 Hrs
1.1 Definition, scope, and significance of ECCE. 1.2 Objectives and importance of early education. 1.3 Types of ECCE programs – play school, nursery, Montessori, kindergarten, Anganwadi.	
Unit – 2 Organizational Setup and Material Management	12 Hrs
2.1 Organizational Setup and Material Management – Place/Building/Space – indoor and outdoor, amenities and facilities for indoor and outdoor, garden, playground, storage. 2.2 Equipments and Materials required for Play and Learning – Selection and Care of equipments; Equipments needed for Urban and Rural preschools. 2.3 Principles of curriculum planning, Components of a good ECCE curriculum, Planning daily and weekly schedules.	
Unit – 3 Activities for Young children in ECCE	12 Hrs
3.1 Activities for Young children in ECCE – Age/Developmentally appropriate activities, Art and creative activities, Music and Rhythmic Activities, Mathematic, Language and Communication activities. 3.2 Nature and Science Activities, Indoor and outdoor Play activities. 3.3 3 Rs – Reading readiness, writing readiness and readiness for arithmetic; Literature for Children.	
Unit – 4 Early Childhood Educator's Role	12 Hrs
4.1 Qualities and responsibilities of ECCE professionals.	

4.2 Child guidance techniques.

4.3. Parent Education– Needs and Importance, Methods, Planning, Implementing and Evaluation of parent education program.

Course Articulation Matrix: Mapping of Course Outcomes (COs) with Program Outcomes (POs 1-11)

Course Outcomes (COs)/Program Outcomes (POs)	Program Outcomes (POs)										
	1	2	3	4	5	6	7	8	9	10	11
Explain the importance of early childhood years and significance of intervention programs for early childhood development.				X		X	X	X			
Describe the historical developments – global and Indian including the current programs and policies in ECCE.											
Identify various indigenous (Indian) models of Early Childhood Education and apply it to understand the current early childhood research, theoretical trends, and issues.		X		X			X			X	
Analyze curriculum models and pedagogical approaches in early childhood education.											
Create developmentally appropriate programs for young children.	X	X								X	

Pedagogy-Theory

Formative Assessment = 100 marks	
Assessment Occasion / type	Weightage in Marks
Assignment 1	5
Assignment 2	5
Project	10
Total	80 marks + 20 marks = 100 marks

References	
1	Agarwal,J.C.(2007).Earlychildhoodcareandeducation:principlesandpractices.NewDelhi: Shipra
2	Agarwal,S.P.andUsmani,M.(2000).Children'seducationinIndia:fromVedictimestotwentyfirst century New Delhi: Shipra.
3	OECD.(2004).Curriculaandpedagogiesinearlychildhoodeducationandcare.Retrievedfrom http://www.oecd.org/education/school/31672150.pdf
4	Burtonwood, N. (2002). Anthropology, Sociology and the Preparation of Teachers for a culturally Plural Society. Pedagogy, Culture and Society. 10(3), 367-387.
5	Clarke,P.(2001).Teaching&learning:thecultureofpedagogy.NewYork:Sage
6	Kress, J.S., Norris, J. A., Schoenholz, D. A., Elias, M.J., and Seigle, P. (Nov., 2004). Bringing TogetherEducationalStandardsandSocialandEmotionalLearning:MakingtheCaseforEducators. American Journal of Education, 111 (1), pp 66-89
7	Moyles,J.&Hargreaves,L.(1998).Theprimarycurriculum.Learningfrominternational perspectives. London: Routledge
8	Nationalassociationfortheeducationofyoungchildren,July1998.LearningtoreadandWrite: developmentally appropriate practices for young children. 53 (4), 30-46.
9	NCERT(2007).Handbookofartsineducation
10	Neuman,S.,Dwyer,J.& Koh,S.(2007).Child/Homeearlylanguageandliteracyobservation. Baltimore: Brookes Publishing House.

SEMESTER-V
PAPER-VI

Course Title: RESOURCEMANAGEMENT	
Paper Code:	Course Credits: 3
Total Contact Hours: 48Hrs	Duration of ESA/Exam: 3 Hrs

Course Objectives:

- To know the classification of resources.
- To understand the importance of management of time, energy, and money.
- To acquire knowledge on budget making at household level.
- To gain insight in to the human resource development.
- To know about the process of selection and its barriers.
- To develop an understanding of challenges of IHRM.

Course Learning Outcomes (CO)

At the end of the course students will be able to:

- CO1: Understandtheavailableresourcesanddeveloptheabilitytoevaluatethemanagerial efficiencyandeffectivenessin thefamilyandotherorganization.
- CO2: Acquireanunderstandingofreal-worldchallengesinHRMandidentifymeasurestoensureastablework environment efficiently through proper coordination, employee empowerment and trainingpractices.
- CO3: Criticalthinkingskillsbydevelopingadata-drivenapproachtimprovebusinessproductivityandperformance.
- CO4: UnderstandInternationalHumanResourceManagement.

SEMESTER V
RESOURCEMANAGEMENT

Paper code:	
RESOURCEMANAGEMENT	
Number of Theory Credits	Number of lecturehours/semester
3	48

CONTENT	48 Hours
Unit-1 IntroductiontoResourceManagement	12Hrs
1.1 Resources: Definition and Classification – Human and Non-Human Resources. 1.2 Renewable and Non-Renewable resources, Energy conservation and sustainability. 1.3 Management:Definition,Motivatingfactors,ManagerialProcess,DecisionmakingandProblemSolving.	
Unit-2 Time Management	12 Hrs
2.1 Time as a resource-Time demand during different stages of family lifecycle-Beginning family, Expanding family, Contracting family. 2.2 Time management- Meaning, importance, factor influencing time management. 2.3 Tools used in time management-work unit, peak load, work curve, rest period and time norms for household tasks. 2.4 Time schedule-factors to be considered in time plan and activity plan, steps in making time plans, control of time plans and evaluating time plans.	
Unit-3 Energy Management	12 Hrs
3.1 Energy-Energy as a resource, Importance, demand in different stages of family life cycle, factors affecting energy consumption and ways to control energy expenditure, efforts based on home making activites-mental effort, visual effort, manual effort, torsal effort and pedal effort, Energy cost-light, Moderate, and Heavy work. 3.2 Fatigue-Definition, types, factors affecting fatigue, ways to overcome fatigue, controlling and evaluating energy. 3.3 Work Simplification-Definition, importance, motion mindedness, work simplification techniques-process chart, operation chart, memo motion, cycle graph and path way chart,	

principles of body mechanics, mundell's classes of change.

Unit-4 Money Management	12 Hrs
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12 Hrs	
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4.1 Family income-Definition, classification of family income, sources and ways of improving family income, factor affecting income and expenditure pattern, methods of handling money income.
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4.2 Money transaction methods-NEFT, RTGS, IMPS, UPI, Cheque, Wire transfer. Meaning of supplementing family income, steps in money management.

4.3 Budget-importance, need, types, steps in making budget, factors affecting budget, advantage and disadvantages, obstacles in budgeting, Engel's law of consumption.

4.4 Account keeping-importance of account keeping, systems, guidelines in keeping accounts, evaluation.

Course Articulation Matrix: Mapping of Course Outcomes (COs) with Program Outcomes (POs1-11)

[illegible]

Pedagogy-Theory

Formative Assessment = 100 marks	
Assessment Occasion / type	Weightage in Marks
Assignment 1	5
Assignment 2	5
Project	10
Total	80 marks + 20 marks = 100 marks

References:	
1.	Armstrong, M. (2003). <i>A Handbook of Human Resource Management Practice</i> . Kogan Page, London, UK.
2.	Gratton, L. (1994). Implementing Strategic Intent: Human Resource Processes as a Force for Change, <i>Business Strategy Review</i> . 5(1): 47-66.
3.	Heneman, H. G. and Judge, T. A. (2003). <i>Staffing Organizations</i> , McGraw-Hill, London, UK.
4.	Sharma, I. J. 1984. The Culture Context of Indian Managers, <i>Management and Labour Studies</i> , 9: 72-80
5.	Singh, K. (2003). Strategic HR Orientation and Firm Performance in India, <i>International Journal of Human Resource Management</i> , 14(4): 530-4
6.	Gross, I. H., Crandall, E. W. and Knoll, M. M. (1980). <i>Management for Modern Families</i> . New Jersey: Prentice Hall Inc
7.	Bhargava, B. (2005). <i>Family Resource Management and Interior Decoration</i> , Jaipur: Apple Printer and V. R. Printers
8.	Varghese, M. A., Ogale, N. and Srinivasan K. (1985). <i>Home Management</i> . New Delhi: New Age International (P) Limited, Publishers (ISBN 13: 9780852269046)

SEMESTER-V

PRACTICAL

Course Title: INTEGRATING RESOURCE MANAGEMENT IN ECCEPRACTICES	
Paper Code:	Course Credits: 2
Total Contact Hours: 52Hrs	Duration of ESA/Exam: 3 Hrs

Course objectives:

- To provide an understanding of the principles of resource management in the context of ECCE.
- To enable students to identify and utilize various resources (human, material, financial, and time) effectively in early childhood settings.
- To develop skills in planning, organizing, and managing ECCE environments for optimal child development.
- To promote efficient use of locally available and low-cost teaching-learning materials.
- To foster decision-making and problem-solving skills in managing resources in preschool and childcare centers.
- To create awareness about sustainable and inclusive practices in ECCE resource management.

Course Learning Outcomes (CO)

At the end of the course students will be able to

- **CO1:** Describe the concept and importance of resource management in ECCE.
- **CO2:** Classify different types of resources used in ECCE settings.
- **CO3:** Apply principles of resource management in planning classroom activities and routines.
- **CO4:** Develop and use low-cost teaching-learning materials effectively.
- **CO5:** Analyze resource-related challenges and suggest feasible solutions in ECCE settings.
- **CO6:** Evaluate the efficiency of resource utilization in improving ECCE program quality.
- **CO7:** Design inclusive, safe, and sustainable ECCE environments using available resources.

SEMESTER V

PRACTICAL COURSE
INTEGRATING RESOURCE MANAGEMENT IN ECCE PRACTICES

Paper code:	
Number of Practical Credits	Number of lecturehours/semester
2	52

CONTENT	52 Hrs.
Unit I: Introduction to ECCE and Resource Management	13 Hrs
Observation of ECCE setting (Anganwadi/Preschool) and listing available resources.	
Unit II: Planning and Organization of ECCE Environment	13 Hrs
Prepare a layout plan of a preschool classroom.	
Organize a model activity corner using available materials.	
Unit III: Time, Energy, Finance and Material Management in ECCE	18 Hrs
Prepare a daily schedule for preschool children.	
Develop a weekly activity plan.	
Preparation of at least 3 teaching aids using waste materials.	
Demonstration of TLM usage in classroom activities.	
Prepare a simple budget for a preschool activity.	
Unit IV: Activity Planning and Implementation	08 Hrs
Planning integrated ECCE activities using available resources.	
Evaluation of activities and child participation.	

Course Articulation Matrix: Mapping of Course Outcomes (COs) with Program Outcomes (POs 1-11)

Course Outcomes (COs)/Program Outcomes (POs)	Program Outcomes (POs)										
	1	2	3	4	5	6	7	8	9	10	11
Describe the concept and importance of resource management in ECCE.				X		X	X	X			
Classify different types of resources used in ECCE settings.		X		X		X	X	X			
Apply principles of resource management in planning classroom activities and routines.		X		X			X			X	
Develop and use low-cost teaching-learning materials effectively.		X	X			X			X		
Analyze resource-related challenges and suggest feasible solutions in ECCE settings.	X	X				X				X	
Evaluate the efficiency of resource utilization in improving ECCE program quality.				X					X		
Design inclusive, safe, and sustainable ECCE environments using available resources.						X		X			

Practical Pedagogy:

Formative Assessment = 50 marks	
Assessment Occasion / type	Weightage in Marks
Model Exam	5
Project	5
Total	40 marks + 10 marks = 50 marks

References:	
1.	Berk, L. E. (2018). Development through the lifespan (7th ed.). Pearson Education.
2.	Bredekamp, S. (Ed.). (2014). Effective practices in early childhood education: Building a foundation (2nd ed.). Pearson.
3.	Bhargava, B. (2005). Family Resource Management and Interior Decoration, Jaipur: Apple Printers and V. R. Printers
4.	Dodge, D. T., Colker, L. J., & Heroman, C. (2002). The creative curriculum for preschool (4th ed.). Teaching Strategies.
5.	Henniger, M. L. (2017). Teaching young children: An introduction (6th ed.). Pearson.
6.	Kaul, V. (2017). Early childhood education programme. PHI Learning
7.	Ministry of Women and Child Development. (2013). National early childhood care and education (ECCE) curriculum framework. Government of India.
8.	Morrison, G. S. (2018). Early childhood education today (14th ed.). Pearson.
9.	NCERT. (2019). Preschool curriculum. National Council of Educational Research and Training.
10.	Pandy, S., & Yadav, P. (2015). Family resource management. Kalyani Publishers.
11.	Post, J., & Hohmann, M. (2012). Education of young children: Active learning practices for preschool and child care programs. HighScope Press.
12.	Varghese, M. A., Ogale, N. and Srinivasan K. (1985). Home Management. New Delhi: New Age International (P) Limited, Publishers (ISBN 13: 9780852269046)

COMPULSORY PAPER

Course Title: FOOD PRESERVATION	
Paper Code:	Course Credits: 2
Total Contact Hours:32Hrs	Duration of ESA/Exam: 2 Hrs

Course objectives:

- To Preventing contamination,
- To Reducing microbial numbers.
- To preventing microbial growth and delaying self-decomposition.
- To know about Food storage and Transportation.
- To Turns raw food materials into attractive, marketable products
- To Provide employment to a large population
- To boosts the shelf life of food products

Course Learning Outcomes (CO)

At the end of the course students will be able to:

- CO1: Know the principles of preservation behind the methods of preservation
- CO2: Understand the stages of sugar cookery, quality of pectin and acidity in the development of preserved food products
- CO3: Acquire skills to formulate food based products
- CO4: Explore the principles of preservation in fruits and vegetables based products
- CO5: Skills to prepare cereals and pulse based preserved products and develop new products with retention of quality course.

SEMESTER V
FOOD PRESERVATION

Paper code:	
Number of Theory Credits	Number of lecture hours/semester
2	32 HOURS

CONTENT	32 Hrs.
Unit-1 Concept of Food Preservation	8 Hrs
1.1 Importance of Food Preservation, Types of Food spoilage by Microorganisms and by Enzymes, Basic Principles of Food Preservation. 1.2 Food preservatives- Use of Salt, Acid, Sugar, natural food preservatives and artificial preservatives.	
Unit – 2 Preparation of dehydrated products	12 Hrs
a. Methods of drying & dehydration, different types of driers, freeze drying- lyophilization, packing & storage. b. Drying methods for the selected products -Rice, Sago, Wheat, Maida, Rice flakes, black gram dhal. c. Hands on experience: Drying of vegetables- peas, potato, carrot, Reconstitution of dried vegetables. d. Drying & preparation of powders- garlic, ginger, spices mix etc.	
Unit – 3 Preservation by Using Sugar, Chemicals, Salts and Fermentation	12 Hrs
3.4 Role of Pectin in Preserved foods, Stages in Sugar Cookery, Sugar Concentrate. 3.5 Preparation of Jam, Jelly, Marmalades, Sauce and Squash. 3.6 Hands on experience: Pickle making. 3.7 Visit to Commercial Pickle Manufacturing/ Food Industry.	

Course Articulation Matrix: Mapping of Course Outcomes (COs) with Program Outcomes (POs 1-11)

Course Outcomes (COs)/Program Outcomes (POs)	Program Outcomes (POs)										
	1	2	3	4	5	6	7	8	9	10	11
Know the principles of preservation behind the methods of preservation.				X		X	X	X			
Understand the stages of sugar cookery, quality of pectin and acidity in the development of preserved food products.											
Acquire skills to formulate food based products.		X		X			X			X	
Explore the principles of preservation in fruits and vegetables based products.											
Skills to prepare cereals and pulse based preserved products and develop new products with retention of quality course.	X	X								X	

Pedagogy-Theory:

Formative Assessment = 50 marks	
Assessment Occasion / type	Weightage in Marks
Assignment 1	5
Assignment 2	5
Total	40 marks + 10 marks = 50 marks

References:

1.	Maney .S (2008). Foods, Facts and Principles, 3rd Edition Published by Wiley Eastern, New Delhi. Usha Chandrasekhar (2002) Food Science and Application in Indian Cookery, Phoenix Publishing House P. Ltd., New Delhi.
2.	Maria Parloa (2009), canned fruit, preserves and jellies: Household methods of preparation, US Department of Agriculture, Washington.
3.	Raina U, Kashyap S, Narula V, Thomas S Suvira, Vir S, Chopra S (2010) Basic Food Preparation: A Complete Manual, 4th Edition, Orient Black Swan Ltd, Mumbai.
4.	Shafiur, Rahman, M. (2007), Handbook of Food Preservation, 2nd edition, CRC press, New Delhi.
5.	Srivastava R.P. (2012), Fruit and Vegetable Preservation – Principles and Practices, International Book Distributing Co., (IBDC), New Delhi.

SEMESTER-VI
PAPER-VII

Course Title: HUMANDEVELOPMENTANDFAMILYDYNAMICS	
Paper Code:	Course Credits: 3
Total Contact Hours: 48Hrs	Duration of ESA/Exam: 3 Hrs

Course Objectives:

- To understand the stages of human development from infancy to old age.
- To explore the biological, psychological, and social aspects of development.
- To study the structure, functions, and changes in family systems.
- To analyze family roles, relationships, and dynamics in various cultural contexts.
- To enhance awareness of challenges faced by individuals and families across the life span.

Course Outcomes:

- CO1: Understand the sequential stages of human growth and development across the lifespan.
- CO2: Apply knowledge of developmental milestones and their importance in child and adult care.
- CO3: Analyze the structure and functioning of families in contemporary society.
- CO4: Develop sensitivity towards interpersonal relationships, family roles, and value systems.
- CO5: Evaluate the impact of socio-cultural factors on individual and family development.
- CO6: Prepare students for careers in counseling, education, family welfare services, child care, and elder care programs.

SEMESTER VI

PAPER CODE:	
HUMAN DEVELOPMENT AND FAMILY DYNAMICS	
Number of Theory Credits	Number of lecture hours/semester
3	48

CONTENT	48 Hrs.
Unit–1 Adolescence	12 Hrs
1.1 Definition, characteristics, developmental tasks of Adolescence. 1.2 Physical changes, puberty, primary and secondary sexual characteristics of adolescents. 1.3 Identity formation, social, emotional, cognitive and moral development. Interests and problems of adolescents. 1.4 Need for adolescent counseling. Techniques and methods of adolescent counseling. Education and Career guidance.	
Unit – 2 Adulthood-Early Adulthood and Marriage	12 Hrs
2.1 Historical perspectives on adulthood, Contemporary changes, increase in life expectancy and decrease in death rate, classification of Adulthood. 2.2 Early Adulthood- Characteristics and developmental tasks, physical, social, cognitive, emotional and moral development. Roles, responsibilities and adjustments. 2.3 Marriage–Definition, Purpose of marriage, Mate selection, Types of marriage, areas of marital adjustments, essentials of successful marriage, Changing trends in marriage: cohabitation, remarriage, LGBT (Lesbian, Gay, Bisexual, and Transgender) marriages.	
Unit – 3 Family, Family Dynamics and Middle Adulthood	12 Hrs
3.1 Definition, functions, Characteristics of the family and types. 3.2 Family Dynamics-Definition, function and scope. Gender norms and roles in family dynamics. 3.3 Middle Adulthood-Characteristics and developmental tasks. Physical, physiological and Socio-	

emotional changes, changes in cognitive abilities, Adjustments and hazards of middle age, preparation for retirement.

Unit – 4 FamilycrisisandLateAdulthood

12 Hrs

4.1 Forms of family crisis: Marriage, divorce/separation, remarriage, financial instability, poor work-family balance, illness, death, childlessness, child abuse/neglect, family violence, peer pressure, addiction, rape, suicide, unemployment, natural disasters, epidemics and wars.

4.2 Agencies offering support: Marriage and family therapists, Family courts, Child guidance clinics, counseling and rehabilitation centers.

4.3.Characteristics of old age, Problems of elderly – failing health, economic insecurity, isolation, neglect,abuse, boredom, lowered self-esteem, lack of preparedness for old age.

Health changes of aging- obesity, arthritis, osteoporosis, cancer, cardiovascular, vision & hearing loss, mental health, depression.

Elderly abuse- types-physical, psychological, financial, sexual, neglect,unknown.

Nutritional care during old age- causes of poor nutrition-decrease insensitivity, side effects of medicine, poor dental health, and financial burden, lack of transportation, physical difficulty, forgetfulness & depression, strategies to improve nutrition in elderly people.

Course Articulation Matrix: Mapping of Course Outcomes (COs) with Program Outcomes (POs 1-11)

[illegible]

Pedagogy-Theory

Formative Assessment = 100 marks	
Assessment Occasion / type	Weightage in Marks
Assignment 1	5
Assignment 2	5
Project	10
Total	80 marks + 20 marks = 100 marks

References:	
1.	Arnett, J.J., & Jensen, L.A. (2019). <i>Human Development: A cultural approach</i> (3rd ed.). New York: Pearson.
2.	Berk, L.E. (2005). <i>Child development</i> (5th ed.). New Delhi: Prentice Hall
3.	Baradha, G. 'Basics of Human Development' Saradalaya Press, Sri Avinashilingam Education Trust Institutions, Coimbatore 2008.
4.	Cavanaugh, J., & Blanchard-Fields, F. (2011). <i>Adult development and aging</i> (7th ed.). Stamford, CT: Cengage Learning.
5.	Hurlock, B. Elizabeth 'Developmental Psychology – A Life Span Approach' Tata McGraw Hill Publications, New Delhi Latest Edition. 3.
6.	Kapadia, S. (2011). Psychology and human development in India. Country paper. International Society for the Study of Behavioural Development Bulletin Number 2, Serial No. 60, pp. 37-42.
7.	Santrock, J. (2017). <i>A topical approach to life span development</i> (9th ed.). New NY.: McGraw-Hill Higher Education.
8.	Singh, A. (2015). <i>Foundations of Human Development: A life span approach</i> . ND: Orient Black Swan
9.	Suriakanthi, A. (2015) 'Child Development' Kavitha Publications, Gandhigram, Tamil Nadu.
10.	Walsh, B.A., DeFlorio, L., Burnham, M.M., & Weiser, D.A. (2017). <i>Introduction to Human Development and Family Studies</i> . NY: Routledge

SEMESTER-VI
PAPER-VIII

Course Title: PAPER-VIII INTERIORDECORATION	
Paper Code:	Course Credits: 3
Total Contact Hours: 48Hrs	Duration of ESA/Exam: 3 Hrs

Course Objectives:

- To understand the fundamental principles and elements of interior decoration.
- To develop skills in space planning, color coordination, and furniture arrangement.
- To acquire knowledge about materials, finishes, lighting, and accessories used in interiors.
- To learn techniques for creating aesthetically pleasing and functional living spaces.
- To promote creativity and innovation in designing residential and commercial interiors.
- To prepare students for careers or entrepreneurial opportunities in the interior design field.

Course Outcomes:

- CO1: Students will be able to identify and apply the principles and elements of design in interiors.
- CO2: They will develop presentation and communication skills to express design ideas effectively.
- CO3: Students will understand the use of various materials and lighting for different interior styles.
- CO4: They will create basic interior design layouts and mood boards using manual or digital methods.
- CO5: They will show sensitivity to environmental concerns and opt for eco-friendly interior solutions.
- CO6: They will be equipped with skills necessary to pursue further studies or work in interior-related professions.

SEMESTER IV
PAPER-VIII INTERIOR DECORATION

PAPER CODE:	
Number of Theory Credits	Number of lecture hours/semester
3	48

CONTENT	48 Hrs.
Unit-1 Fundamentals of Interior Decoration	12 Hrs
1.1 History of Interior decoration. 1.2 Objectives of interior decoration. 1.3 Types of design – Structural and Decorative design – Type of motifs used in decorative Design.	
Unit – 2	12 Hrs
2.1 Elements of Art – (Line, Form, color, texture, Pattern. Light and Space) their application in Interior Decoration. 2.2 Principles of design – Balance, Proportion, Rhythm. Harmony and Emphasis – their application in interior Decoration.	
Unit – 3 Dimension of color and Flower Arrangement	12 Hrs
3.1 Dimension of color- Hue, Value, Intensity, Advancing and receding colors, cool and warm colors. Characteristics of colors. Color wheel. 3.2 Color schemes, Psychological implications of colors. 3.3 Definition, Types and Shapes, Mechanics used and cares of flowers, Flower Arrangements for different rooms and occasions, History of flower arrangement.	
Unit – 4 Furniture and Furnishings	12 Hrs
4.1 Principles of furniture arrangement.	

4.2 Style in furniture. Factors to be considered in selecting furniture and furnishing.

4.3 Types of Joints, materials used to make furniture.

Course Articulation Matrix: Mapping of Course Outcomes (COs) with Program Outcomes (POs 1-11)

Course Outcomes (COs)/Program Outcomes (POs)	Program Outcomes (POs)										
	1	2	3	4	5	6	7	8	9	10	11
Students will be able to identify and apply the principles and elements of design in interiors.				X		X	X	X			
They will develop presentation and communication skills to express design ideas effectively.											
Students will understand the use of various materials and lighting for different interior styles.		X		X			X			X	
They will create basic interior design layouts and mood boards using manual or digital methods.											
They will show sensitivity to environmental concerns and opt for eco-friendly interior solutions.	X	X								X	
They will be equipped with skills necessary to pursue further studies or work in interior-related professions.											

Pedagogy-Theory

Formative Assessment = 100 marks	
Assessment Occasion / type	Weightage in Marks
Assignment 1	5
Assignment 2	5
Project	10
Total	80 marks + 20 marks = 100 marks

References:	
1.	Prathap Rao (2003) Interior design Principles - Standard Publishers and Distributors, New Delhi..
2.	Raja Rao and Subramanya (2003) Planning and Designing Residential Buildings - Standard Publishers and Distributors, New Delhi.

3.	Premlatha Mullick (2015) Textbook Of Home Science - Kalyani Publishers, New Delhi.
4.	Pile, J. F. (2007). Interior design (4th ed.). Pearson Prentice Hall.
5.	Sita Ram Premavathy Pannuparveen (2005) Interior Design and Decoration - CBS Publishers, , New Delhi

SEMESTER-V PRACTICAL

Course Title: DESIGNING INTERIOR SPACES FOR ENHANCING FAMILY WELL-BEING	
Paper Code:	Course Credits: 2
Total Contact Hours: 52Hrs	Duration of ESA/Exam: 3 Hrs

Course objectives:

- To Understand the principles of interior design and their impact on family well-being.
- To Explain elements and principles of design (space, light, color, texture, furniture, layout).
- To Apply design concepts in planning functional and aesthetic residential spaces.
- To Analyze the relationship between interior environments and physical, psychological, and social well-being of families.
- To Evaluate existing interior spaces in terms of comfort, safety, accessibility, and sustainability.
- To Design interior layouts that promote health, comfort, and efficient resource use.
- To Develop innovative and cost-effective solutions for improving living environments.

Course Learning Outcomes (CO)

At the end of the course students will be able to

- CO1: Describe the basic concepts and principles of interior design related to family well-being.
- CO2: Identify and classify elements of interior design used in residential spaces.
- CO3: Apply design principles to create functional and aesthetically pleasing home interiors.
- CO4: Analyze how interior environments influence physical, emotional, and social well-being of family members.
- CO5: Evaluate residential interiors based on safety, ergonomics, accessibility, and sustainability.

- CO6: Design interior spaces that enhance comfort, health, and family interaction.
- CO7: Propose cost-effective and eco-friendly design solutions for diverse family needs.

**SEMESTER VI
PRACTICAL COURSE
DESIGNING INTERIOR SPACES FOR ENHANCING FAMILY
WELL-BEING**

Paper code:	
Number of Practical Credits	Number of lecturehours/semester
2	52

CONTENT	52 Hrs.
Unit I: Interior Design and Family Well-being	13 Hrs
Observation of home environment and identification of strengths and limitations. Preparation of observation report.	
Unit II: Space Planning and Furniture Arrangement	13 Hrs
Draw a floor plan for a different room. Arrange furniture templets for maximum utility and comfort.	
Unit III: Color, Lighting, Furnishings, and Accessories	18 Hrs
Develop a color scheme for a room. Plan lighting arrangement for different spaces. Prepare a sample for furnishings -curtains, cushions, carpets Design low-cost decorative items.	
Unit IV: Designing for Family Needs and Well-being	08 Hrs
Plan and present a complete interior design for one room Prepare a report with justification based on family needs.	

Course Articulation Matrix: Mapping of Course Outcomes (COs) with Program Outcomes (POs 1-11)

Course Outcomes (COs)/Program Outcomes (POs)	Program Outcomes (POs)										
	1	2	3	4	5	6	7	8	9	10	11
Describe the basic concepts and principles of interior design related to family well-being.		X			X	X					
Identify and classify elements of interior design used in residential spaces.		X		X			X	X			
Apply design principles to create functional and aesthetically pleasing home interiors.		X		X				X			
Analyze how interior environments influence physical, emotional, and social well-being of family members.		X				X					
Evaluate residential interiors based on safety, ergonomics, accessibility, and sustainability.	X	X						X	X		
Design interior spaces that enhance comfort, health, and family interaction.				X				X			
Propose cost-effective and eco-friendly design solutions for diverse family needs.								X			

Practical Pedagogy:

Formative Assessment = 50 marks	
Assessment Occasion / type	Weightage in Marks
Model Exam	5
Project	5
Total	40 marks + 10 marks = 50 marks

References:	
1.	Arnett, J. J., & Jensen, L. A. (2019). Human Development: A cultural approach (3rd ed.). New York: Pearson.
2.	Berk, L. E. (2005). Child development (5th ed.). New Delhi: Prentice Hall
3.	Baradha, G. 'Basics of Human Development' Saradaya Press, Sri Avinashilingam Education Trust Institutions, Coimbatore 2008.
4.	Ching, F. D. K. (2014). Interior design illustrated (3rd ed.). Wiley.
5.	Hurlock, B. Elizabeth 'Developmental Psychology – A Life Span Approach' Tata McGraw Hill Publications, New Delhi Latest Edition. 3.
6.	Kapadia, S. (2011). Psychology and human development in India. Country paper. International Society for the Study of Behavioural Development Bulletin Number 2, Serial No. 60, pp. 37-42.
7.	Panero, J., & Zelnik, M. (1979). Human dimension and interior space: A source book of design reference standards. Watson-Guptill.
8.	Pile, J. F. (2007). Interior design (4th ed.). Pearson Prentice Hall.
9.	Prathap Rao (2003) Interior design Principles - Standard Publishers and Distributors, New Delhi.
10.	Raja Rao and Subramanya (2003) Planning and Designing Residential Buildings - Standard Publishers and Distributors, New Delhi.
11.	Santrock, J. (2017). A topical approach to life span development (9th ed.). New NY. McGraw-Hill Higher Education.
12.	Singh, A. (2015). Foundations of Human Development: A life span approach. ND: Orient Black Swan

COMPULSORY PAPER

INTERNSHIP REPORT

Note: Sixth Semester will have Internship / Project with viva, which can be undertaken in Hospitals / Food Industry /NGO's or any other related field of Home Science as compulsory comprises of 2 creditsfor 32 hours.

Question paper pattern for **(I, II, III, IV, V, & VI)** semester examination in
B.A. Home Science

SEMESTER MONTH YEAR

Time: 3 hours

Max Marks: 80

Code: TITLE OF THE COURSE

PAPER

PART - A

I. Answer any TEN of the following questions 10x2=20

a.

b.

c.

d.

e.

f.

g.

h.

i.

j.

k.

l.

PART-B

II. Answer any THREE of the following questions. 3x4=12

- 1.
- 2.
- 3.
- 4.

PART-C

III. Answer any FOUR of the following questions.

4x6=24

- 5.
- 6.
- 7.
- 8.
- 9.

PART-D

IV. Answer any THREE of the following questions.

3x8=24

- 10.
- 11.
- 12.
- 13.

Note: Sixth Semester will have Internship / Project with viva, which can be undertaken in Hospitals / Food Industry / or any other related field of Home Science as compulsory comprises of 2 credits.

Question paper pattern for ELECTIVE [III, IV Semester] COMPULSORY papers of (IV, V, VI) Semester Examination in BA Home science

SEMESTER MONTH YEAR

Code: TITLE OF THE COURSE

Time: 2 Hours

Max.Marks:40

PART - A

I. Answer any SIX of the following questions

6x2=12

- a.
- b.
- c.
- d.
- e.
- f.
- g

PART-B

II. Answer any TWO of the following questions.

2x4=8

- 1.
- 2.
- 3.

PART-C

III. Answer any FOUR of the following questions.

4x5=20

- 4.
- 5.
- 6.

7.

8.