

SRI DHARMASTHALA MANJUNATHESHWARA COLLEGE, (AUTONOMOUS),UJIRE-574240

(Re-Accredited by NAAC at 'A' Grade with CGPA 3.61 out of 4)



DEPARTMENT OF HOME SCIENCE

SYLLABUS AS PER NEP 2020

(With effect from 2022-23)

SDMC HOME SCIENCE UG Syllabus NEP





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DEPARTMENT OF HOME SCIENCE

Syllabus of

Honor's Degree in Arts Subject: HOME SCIENCE

(AS PER NEP 2020 GUIDELINES) 2023–2024 onwards

Approved in BOS meeting on 10-02-2024



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SDM COLLEGE (AUTONOMOUS), UJIRE DEPARTMENT OF HOME SCIENCE

SYLLABUS -FOUR YEARS UNDERGRADUATE PROGRAMME

PREAMBLE

The role of education is paramount in nation building. One of the major objectives of UGC is maintenance of standards of higher education. Over the past decades the higher education system of our country has undergone substantial structural and functional changes resulting in both quantitative and qualitative development of the beneficiaries. Such changes have gained momentum with the introduction of Choice Based Credit System (CBCS) which further expects Learning Outcome-Based curriculum to maximize the benefits of the newly designed curriculum. The Learning Outcome-Based Curriculum in Home Science/ Family and Community Sciences will help the teachers of the discipline to visualize the curriculum more specifically in terms of the learning outcomes expected from the students at the end of the instructional process. The commission strives to promote the link of students with the society/industry such that majority of the students engage in socially productive activities during their period of study in the institutions and at least half of the graduate students will secure access to employment/self-employment or engage themselves in pursuit of higher education. The model curriculum envisages to cater to the developmental trends in higher education, incorporating multi-disciplinary skills, professional and soft skills such as team work, communication skills, leadership skills, time management skills and inculcate human values, professional ethics, and the spirit of Innovation /entrepreneurship and critical thinking among students and promote avenues for display of these talents, linking general studies with professional courses. Besides imparting disciplinary knowledge to the learners, curriculum should aim to equip the students with competencies like problem solving, analytical reasoning and moral and ethical awareness. Introduction of internship and appropriate fieldwork/case studies are embedded in the curriculum for providing wider exposure to the students and enhancing their employability.

Learning outcomes specify what exactly the graduates are expected to know after completing a programme of study. The expected learning outcomes are used as reference points to help formulate graduate attributes, qualification descriptors, programme learning outcomes and course learning outcomes. Keeping the above objectives of higher education in mind the Learning Outcome-Based Curriculum Framework (LOCF) for the discipline of Home Science has been prepared and presented here.

Programme objectives

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.

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• 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.

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 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 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.

Curriculum Structure

(Core and Electives)

Semesters- I to IV

SEM	DSC	Core Papers
Sem-1	A1	Principles of Food and Nutrition
Sem-2	A2	Fundamentals of Human Development
Sem-3	A3	Early Childhood Care and Education
Sem-4	A4	Introduction to Textiles
Sem-5	A5	Human Development and family Dynamics
	A6	Interior Decoration
Sem-6	A7	Nutritional Management
	A8	Resource management

Open Electives for 1st to 4th Semesters

Semester	Title of the courses				
	Science stream	Non- Science stream			
First Semester	Food Preservation	Food Preservation			
Second Semester	Teaching Materials For Early Childhood Education	Teaching Materials For Early Childhood Education			
Third Semester	Fundamentals of Interior Decoration	Fundamentals of Interior Decoration			
Fourth Semester	Fashion Designing	Fashion Designing			



COURSE PATTERN AND SCHEME

Core/	Paper Code	Title of the Paper	Instruc	Duration	Max.	Mark	s	Credits
Electi ve			tion Hours	of the Examinati on (Hrs)	Exam	IA	Total	
I Semes	ster B.A							
DSC1	Theo ry HSCT101	Principles of Food and Nutrition	4	2	60	40	100	4
	Practical HSCP101	Principles of Food and Nutrition	4	4	25	25	50	2
OE1	HSOE101	Food Preservation	3	2	60	40	100	3
				Total nu	mber of	Credit	s in I Ser	nester: 09
II Seme	ester B.A							
DSC2	Theo ry HSCT151	Fundamentals of Human Development	4	2	60	40	100	4
	Practical HSCP151	Fundamentals of Human Development	4	4	25	25	50	2
OE2	HSOE151	Teaching Materials For Early Childhood Education	3	2	60	40	100	3
				Total nur	nber of	Credits	s in II Sei	mester: 09
III Sem	ester B.A							
DSC3	Theory HSCT201	Early Childhood Care and Education	4	2	60	40	100	4
	Practical HSCP201	Early Childhood Care and Education	4	4	25	25	50	2
OE3	Theory HSOE201	Fundamentals of Interior Decoration	3	2	60	40	100	3
L				Total nu	mber of	Credit	s in III Se	emester: 09
IV Sem	nester B.A							
DSC4	Theory	Introduction to	4	2	60	40	100	4

DSC4	Theory HSCT251	Introduction to Textiles	4	2	60	40	100	4
	Practical HSCP251	Introduction to Textiles	4	4	25	25	50	2
OE4	Theory HSOE251	Fashion Designing	3	2	60	40	100	3

Total number of Credits in IV Semester: 09



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DSC5	Theory	Human Development and	4	2	60	40	100	4
	HSCT301	Family Dynamics						
	Practical HSCP301	Human Development and Family Dynamics	4	4	25	25	50	2
	Theory HSCT 302	Interior Decoration	4	2	60	40	100	4
	Practical HSCP302	Interior Decoration	4	4	25	25	50	2

Total number of Credits in V Semester: 12

VI Sem	ester B.A							
DSC6	Theory HSCT351	Nutritional Management	4	2	60	40	100	4
	Practical HSCP351	Nutritional Management	4	4	25	25	50	2
	Theory HSCT 352	Resource Management	4	2	60	40	100	4
	Practical HSCP352	Resource Management	4	4	25	25	50	2

Total number of Credits in VI Semester: 12

HOME SCIENCE SEMESTER 1

Course Title: PRINCIPLES OF FOOD AND NUTRITION			
Total Contact Hours: 60Hrs	Course Credits: 4		
Formative Assessment Marks: 40	Summative Assessment Marks:60		

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 counsellors in hospitals.
- CO3: Take up self-employment in various food production unit.
- CO4: Apply the knowledge to preserve food at household level.
- CO5: Identify the vital link between Nutrition and Health.
- CO6: Reflect the knowledge on functions, requirements and effects of deficiency of various nutrients.
- CO7: 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.
- CO8: Demonstrate the ability to provide consultancy services.

B.A. HOME SCIENCE SEMESTER-1

PRINCIPLES OF FOOD AND NUTRITION

Paper code: HSCT 101	
Number of Theory Credits	Number of lecture hours/semester
4	60

CONTENT	60 Hrs.
Unit – 1 Introduction to Nutrition	12 Hrs
Chapter No. 1: Definition of nutrition, Malnutrition and Health, Functions of food, Food groups -Types of food pyramids	6 Hrs
Chapter No. 2: Balanced diet - Meal planning – steps in meal planning	6 Hrs
Unit – 2 Nutrients	18 Hrs
 Chapter No. 3: Nutrients Macro and Micro nutrients- classification, Sources, functions and deficiency. A) Carbohydrates, B) Proteins C) Fats D) Minerals – Calcium, Iron, Iodine. E) Vitamins – Fat soluble vitamins – A, D, E & K Water soluble vitamins – vitamin C Thiamine, Riboflavin, Niacin 	15 Hrs
Chapter No. 4: A) Water – Functions, sources and water balance B) Fibre – Functions and sources, C) Energy – factors affecting BMR	3 Hrs
Unit – 3 Methods of Cooking	15 Hrs
Chapter No. 5. Methods of cooking- Advantages and disadvantages a) Water – Boiling, steaming, pressure cooking b) Oil/Fat – Shallow frying, deep frying c)	4hrs
Chapter No. 6. Nutrition through lifecycle Nutritional requirement, dietary guidelines: Adulthood, Pregnancy, Lactation, Infancy -Complementary feeding, Pre-school, Adolescence, Old age.	11hrs
Unit – 4 Food Preservation	15 Hrs
Chapter No. 7 - Food Preservation- Objectives and principles-Methods: dehydration, temperature regulation ,using preservatives like salt and sugar	8 hrs
Chapter No. 8 - Food Handfing and Storage Mieuany laby hard non-	2022-2023 7hrs
thermal methods, Canning	/#15

Formative Assessment = 100 marks				
Assessment Occasion / type	Weightage in Marks			
Test 1	10			
Test 2	10			
Assignment + Project	10 +10			
Total	60 marks + 40 marks = 100 marks			

Practical Course:

Paper Code: HSCP 101		
Total Contact Hours: 60 Hrs	Course Credits:2	

List of Experiments to be conducted

Unit 1: a) Weights and Measures

b) Food pyramids

Unit 2: 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 – salt, sugar and dehydration.

Formative Assessment = 100 marks	
Assessment Occasion / type	Weightage in Marks
Model Exam	10
Record	10
Assignment + Project	5
Total	25 marks + 25 marks = 50 marks

References:

- Gopalan. C, RamaSastry B.V., and S.C. Balasubramanian (2009), Nutritive value of Indian Foods, NIN.ICM, Hyderabad.
- 2. Hugher C., Bennion M. (1970): Introductory Foods, 5th Edn., Macmillan Company
- 3. Mudambi S R and Rajagopal M V, (2008), Fundamentals of Foods, Nutrition & diet therapy by New Age International Publishers, New Delhi.
- 4. Robinson C H Lawler M R., Chenoweth W L and Garwick A. E. (1986) Normal and

Therapeutic Nutrition, 17th Edn, Macmillan Publishing Co.

- 5. Srilakshmi B, (2007), Dietetics. New Age International publishers. New Delhi
- 6. Srilakshmi B, (2002), Nutrition Science. New Age International publishers. New Delhi
- 7. Swaminathan M. (2002), Advanced text book on food and Nutrition. Volume I. Bappco.
- 8. Swaminathan M S (1985) Essentials of food and nutrition fundamentals Aspects VII:

Applied Aspects

9. Williams S. R. (1989) : Nutrition and Diet Theory, 4h Edn., Mosley Co.

FOOD PRESERVATION

Paper Code: HSOE 101	
Total Contact Hours: 45 Hrs	Course Credits: 3
Formative Assessment Marks:40	Summative Assessment Marks: 60

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.

B.A. HOME SCIENCE SEMESTER 1

FOOD PRESERVATION

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Course: OE 1	
Number of Theory Credits	Number of lecture hours/semester
3	45

CONTENT	45 Hrs
Unit-I Concept of Food Preservation	10 Hrs
Chapter No.1- Importance of Food Preservation, Types of Food spoilage by Microorganisms and by Enzymes, Basic Principles of Food Preservation	5 Hrs
Food preservatives- Use of Salt, Acid, Sugar, natural food preservatives and artificial preservatives	5 Hrs
Chapter No. 2- Starting a food preserving unit, Product Promotion strategies and marketing skills	
Unit-II Preparation of dehydrated products	20 Hrs
Chapter No.3 Methods of drying & dehydration , different types of driers , freeze drying- lyophilization , packing & storage	5 Hrs
 Chapter No. 4- Drying methods for the selected products -Rice, Sago, Wheat, Maida, Rice flakes, black gram dhal, green gram dhal, Horse gram dhal Roots and Tubers. Preparation of salted, dehydrated, preserves (Traditional Indian varieties of chips, Papads, Khakharas etc and Masala Powders, onion, garlic, ginger powder etc) 	7 Hrs
Chapter No. 5- Hands on experience :Drying of vegetables- peas, potato, carrot, French	
beans, Reconstitution of dried vegetables, Drying & preparation of powders- garlic, ginger, spices mix etc	8 Hrs
Unit -III Preservation by Using Sugar, Chemicals, Salts and Fermentation	15 Hrs
Chapter No. 7 - Role of Pectin in Preserved foods, Stages in Sugar Cookery, Sugar Concentrates – Principles of Gel Formation.	8 Hrs

Hands on Experience: Preparation of Jam, Jelly, Marmalades, Sauce and Squash,-	15
Preserves, Candied, Glazed, Crystallized Fruits, Toffee, Evaluation of pH, Acidity and	
mostin mulity Desperation and Descentation of Emit Luissa DTS	
peetin quanty, reparation and reservation of rfull succes, RTS	
Visit to Fruits and Vegetable processing industry	
CHEquiterative.A8sessRickhing100 Brandiples Involved and Types of Pickles, Chemical	
Presexvseisent Defisition, tybele of Preservation a Committed koreservatives, FSSAI	
guidelines. Foods farmented by Yeasts and Bacteria. Wing and Cheese Making	3 Hrs
Chapter No. 9 _{Tes} fands on experience: Pickle making, Visit to Commercial Pickle	
Manufacturing/Food+Industry / Wine industry 10+10	1 Urs
3 Total 60 marks + 40 marks = 100 marks	7 111 3
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Reference:

- Maney S (2008). Foods, Facts and Principles, 3 rd 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. 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
- 3. Srivastava R.P. (2012), Fruit and vegetable preservation Principles and Practices, International Book Distributing Co., (IBDC), New Delhi.
- Maria Parloa (2009), canned fruit, preserves and jellies: Household methods of preparation, US Department of Agriculture, Washington. 5
- Shafiur, Rahman, M. (2007), Handbook of Food Preservation, 2nd edition, CRC press, New Delhi

SEMESTER 2

Course Title: FUNDAMENTALS OF HUMAN DEVELOPMENT	
Paper Code: HSCT151	Course Credits: 4
Total Contact Hours: 60Hrs	Duration of ESA/Exam: 2 Hrs
Formative Assessment Marks: 40	Summative Assessment Marks:60

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 life span.
- CO2: Identify the biological and environmental factors affecting human development.
- CO3: Describe the characteristics, needs and developmental tasks of different stages in the human life cycle
- 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 : HSCT151	
Number of Theory Credits	Number of lecture hours/semester
4	60

CONTENT	60 Hrs
Unit – 1 Introduction	20 Hrs
Chapter No. 1 Human Development – Definition, needs, and Scope; Domains of	3 Hrs
Development:	
Chapter No. 2 Concept and principles of Growth and development; Factors	
influencing growth and development.	5 Hrs
	3 Hrs
Chapter No. 3 Methods of studying Human development, Prenatal development	
	5 Hrs
Chapter No. 4 Fertilization, Pregnancy–Signs, Symptoms, Complications,	4 11-19
Discomforts; Stages of Prenatal Development	4 Hrs
Chapter No. 5 Child Birth - Process and types, Birth complications	
Unit – 2 Infancy and Early childhood Years	20 Hrs
Chapter No. 6. Infancy - Definition, Significance, Developmental Tasks, and	
developmental milestones; Physical growth, reflexes and perceptual abilities,	8 Hrs
Immunization Schedule;	
Chapter No. 7. Early Childhood Years- Definition, Developmental tasks; physical,	
motor, intellectual, language, emotional, social developmental milestones.	8 Hrs
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.	4 Hrs
Unit – 3 Middle Childhood Years	20 Hrs
Chapter No. 9 The Middle Childhood Years - Definition, Developmental tasks.	
Highlights of Physical, Social, Emotional, Intellectual development. Significance	12 Hrs
of school and functions; Importance of extra-curricular activities, Peers -	

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Importance and Influence, Interest development	
Chapter No. 10 Role of Parents and Disciplinary Techniques; Role of siblings,	8 Hrs
peers and others in the development; Behavior problems	

Formative Assessment = 100 marks	
Assessment Occasion / type	Weightage in Marks
Test 1	10
Test 2	10
Assignment + Project	10 + 10
3 Total	60 marks + 40 marks = 100 marks

Practical Course:

Paper Code: HSCP 151	
Total Contact Hours: 60 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

Formative Assessment 100	
Assessment Occasion/ type	Weightage in Marks
Model Test	10
Record	10
Assignment /Project	5
Total	25 marks + 25 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: Prentice Hall.
- Bhangaokar, R.,&Kapadia, S. (in press). Human Development Research in India: A historical overview. In G. Misra (Ed.), Hundred years of Psychology in India. New Delhi: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 University Press.
- 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.
- Lightfoot, C., Cole, M., & Cole, S. (2012). The development of children (7^{t h}edition.).New York: Worth Publishers.
- Santrock, J. (2017). A topical approach to life span development (9th ed.). New York, Mcgraw-Hill Higher Education.
- Singh, A. (2015). Foundations of Human Development: A life span approach.
 ND: Orient Black Swan.
- 11. Walsh, B.A., Deflorio, L., Burnham, M.M., & Weiser, D.A. (2017). Introduction to Human Development and Family Studies. NY: Routledge
- Hurlock.B.Elizabeth 'Developmental Psychology A Life Span Approach' Tata McGraw Hill Publications, New Delhi Latest Edition. 3.
- Suriakanthi. A. (2015) 'Child Development' Kavitha Publications, Gandhigram, Tamil Nadu.

SEMESTER 2

Course Title: TEACHING MATERIALS FOR EARLY CHILDHOOD		
EDUCATION		
Paper Code: HSOE 151	Total Contact Hours: 45 Hrs	
Course Credits: 3	Duration of ESA/Exam: 2 Hrs	
Formative Assessment Marks: 40 Summative Assessment Marks:60		

Objectives:

- To understand the classification and characteristics of children with special needs.
- To understand the causes and prevalence of children with special needs.
- To know the different methods and materials used for teaching young children.
- To know the importance of creativity.
- To develop interest in 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

2022-2023

B.A. HOME SCIENCE SEMESTER 2

TEACHING MATERIALS FOR EARLY CHILDHOOD EDUCATION

Course: OE	
Number of Theory Credits	Number of lecture hours/semester
3	45

CONTENT	
Unit-I - Concept & need for teaching learning materials	
 Chapter No. 1- Objectives of Teaching-Learning Materials, Orientation on Inferent methods and materials used for teaching young children and studying the columpus of different methods. The oral communication methods: (stories, songs, Music, description, explanation, etc.) and conversational methods (conversation, heuristic conversation, questioning on a special subject, etc.). Exploratory learning methods: direct exploration of objects and phenomena (systematic and independent observation, 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.) Figurative aids (pictures, photographs, atlas books, maps, albums, table games, etc.) Printed teaching aids (children's books, workbooks, etc.). Printed teaching aids 	15 Hrs

• Digital material (audio & video)		
Unit-II – Development of Materials for Early years		
Chapter No. 2- Design and development of developmentally appropriate pla	ay	
materials to foster all round development in children using indigenous material	ls, 8 Hrs	
Developing stories, songs with music and rhythm appropriate for infancy through	gh	
early childhood		
Chapter No. 3 - Creative Activities - importance, Types and values promote	<mark>d,</mark>	
method of giving instructions. Process of scripting for puppet plays and creati	ve 5 Hrs	
drama.		
a) Painting – free hand, finger, thread, wax resist &spray		
b) Printing -block, leaf, stencil, thumb		
c) Pasting – collage, paper mosaic, sand		
d) Miscellaneous-etching, marbling, dough modelling		
Unit –III- Development of Materials for developmentally challenged children		
Chapter No. 4- Creating teaching learning materials for developmental	<mark>ly</mark> 8 Hrs	
challenged children (Blind, Dum& deaf, Learning disabilities, Speech disorder	<mark>rs,</mark>	
Mentally retarded, Gifted children, Slow learners)		
Chapter No. 5 - Designing & developing digital play materials like videos, aud	io	
aids or audio- Visual aids		

Formative Assessment = 100 marks		
Assessment Occasion / type	Weightage in Marks	
Test 1	10	
Test 2	10	
Assignment + Project	10 + 10	
3 Total	60 marks +40 marks = 100 marks	

Reference:

1. Contractor, M., (1984), Creative drama and puppetry in education, National book trust of India, Delhi.

2. Devadas P. Rajammal and N. Jaya (1996), "A Textbook on child development", Mac Millan India Ltd. New Delhi.

3. Nasim Siddiqi, Suman Bhatia and Suptika Biswas (2007) Early Childhood Care and Education – Book IV, DOABA HOUSE, New Delhi.

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.

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Program Name	BA Home Sc	ience	Semester	Third Sem
Course Title	e Title EARLY CHILDHOOD CARE AND EDUCATION			
Course No.	HSCT201		No. of Credits	4+2
Contact hours	52Hrs		Duration of SEA/Exam	2 Hours
Formative Asses	sment Marks	40	Summative Assessment Marks	60

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 early childhood 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: Analyse curriculum models and pedagogical approaches in early childhood education.

Create developmentally appropriate programs for young children

SEMESTER 3

EARLY CHILDHOOD CARE AND EDUCATION

Paper Code : HSCT201	
Number of Theory Credits	Number of lecture hours/semester
4+2	52

Content	52Hrs	
Unit–I Early Childhood Care and Education	13 Hrs	
Chapter 1 Meaning, Importance and Need for ECCE, Objectives of ECCE.		
Chapter 2- Types of ECCE Programmes – Day care, Montessori, Kindergarten, Balwadi,	4 Hrs	
Anganwadi. Mobile Crèche and Play Group		
Chapter 3- Historical overview of Early Childhood Care and Education - Contributions of	5 Hrs	
Western and Indian Educators- Gandhiji, Montessori, Frobel, and John Dewey		
Chapter 4- Policies and Contributions of Agencies to ECCE in India	2 Hrs	
Unit -II - Organizational Setup and Material Management	13 Hrs	
Chapter 5: Organizational Setup and Material Management – Place/Building/Space – indoor	5 Hrs	
and outdoor, amenities and facilities for indoor and outdoor, garden, playground, storage		
Chapter 6: Equipments and Materials required for Play and Learning – Selection and Care of	4 Hrs	
equipments; Equipments needed for Urban and Rural preschools.		
Chapter 7: Curriculum models and Programme Planning – Meaning of curriculum, curriculum	4 Hrs	
models, Programme planning – Principles, Types and Factors influencing Programme planning,		
Programme evaluation		
Unit -III	13 Hrs	
Chapter 8: Activities for Young children in ECCE – Age/Developmentally appropriate	5 Hrs	
activities, Art and creative activities, Music and Rhythmic Activities, Mathematic, Language		
and Communication activities; Nature and Science Activities.		
Chapter 9: 3 Rs – Reading readiness, writing readiness and readiness for arithmetic; Literature	4 Hrs	
for Children; Indoor and outdoor Play activities – Role of teacher in planning and implementing		
the activities.		
Chapter 10: Parent Education and Involvement – Needs and Importance, Methods, Planning,	4 Hrs	
Implementing and Evaluation of parent education program.		

Unit -IV	²⁶ 13 Hrs
Chapter 11: Personnel Management - Personnel required in ECCE centre - Selection and	8Hrs
recruitment, qualities, roles, duties and responsibilities; Supervision and monitoring, Evaluation	
of personnel – Cooperation and Coordination of personnel	
Chapter 12: Documentation and Financial Management – Importance and Principles of Record	5 Hrs
keeping, Types of records; Financial allocations and budgetary	
considerations, budget making and Resource generation avenues	

Pedagogy-Theory

Formative Assessment :40 MARKS		
Assessment Occasion/ type	Weightage in Marks	
Test 1	10	
Test 2	10	
Assignment / Project	10+10	
Total	THEORY 60 MARKS $+$ 40 Marks =100	

Course Title	EARLY CHILDHOOD CARE AND EDUCATION (Practical)	Practical Credits	2
Course No.	HSCP201	Contact Hours	52/13 sessions
List of Experiments to be conducted			
Unit-I: Visit to Nursery School, Day Care/ Crèches, Anganwadi/ Balwadi – Observe the early			4 Hrs
childhood education programme and write a report			
Unit-II: Plan and prepare teaching aids for physical development, storytelling, creative			15 Hrs
activities, nature and science activities			
Unit-III:			6 Hrs
a) Develop low cost and indigenous play materials for cognitive development			
b) Prepare a Scrap Book/picture book/ resource book for toddlers			

Unit-IV:

a) Plan daily schedules on any three themes used in the ECE

b) Design a parent handbook/ brochure to provide information about an early childhood education centre

Pedagogy-Practical:

Formative Assessment :25 MARKS		
Assessment Occasion/ type	Weightage in Marks	
Model Test	10	
Record	10	
Assignment / Project	5	
Total	Exam 25 Marks + IA 25 Marks =50	

Refe	rences
1	Agarwal, J. C. (2007). Early childhood care and education: principles and practices. New Delhi:
	Shipra
2	Agarwal, S.P. and Usmani, M. (2000). Children's education in India: from Vedic times to twenty
	first century New Delhi: Shipra.
3	OECD. (2004). Curricula and pedagogies in early childhood education and care. Retrieved from
	http://www.oecd.org/education/school/31672150.pd
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: the culture of pedagogy. New York: Sage
6	Kress, J.S., Norris, J. A., Schoenholz, D. A., Elias, M.J., and Seigle, P. (Nov., 2004). Bringing
	Together Educational Standards and Social and Emotional Learning: Making the Case for
	Educators. American Journal of Education, 111 (1), pp 66-89
7	Moyles, J. & Hargreaves, L. (1998). The primary curriculum. Learning from international
	perspectives. London: Routledge
8	National association for the education of young children, July 1998. Learning to read and Write:
	developmentally appropriate practices for young children. 53 (4), 30-46.
9	NCERT (2007). Handbook of arts in education
10	Neuman, S., Dwyer, J. & Koh, S. (2007). Child/Home early language and literacy observation.
	Baltimore: Brookes Publishing House.

²⁷**Hrs**

Program Name B.A/B.Sc Home Science			Semester	Third Sem
Course Title	FUNDAMENTALS	OF INTERIOR	DECORATION	
Course No.	HSOE 201	OE-3	No. of Credits 3	
Contact hours	45 Hrs		Duration of SEA/Exam 2Hours	
Formative Assessment Marks 40			Summative Assessment Marks 60	

Objectives:

- To focus on Housing in the present day world.
- To provide an insight into the fundamentals of design.
- To develop the skills of drawing house plans, furniture layout.
- To know the principles of design.
- To learn colour concept.

Course Learning Outcomes (CO)

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

- CO1: Appreciate growth and development of interior design and decoration in India
- CO2: Enabling students distinguish between Interior decoration and Interior design
- CO3: Analyze place of elements and principles in interior designing
- CO4: Use of Accessories in interiors
- CO5: Understand the use of Light in interiors.
- CO6: Acquire skills to formulate colour schemes in interiors.
- CO7: Skills in arranging and placement of accessories.

SEMESTER 3

FUNDAMENTALS OF INTERIOR DECORATION

Paper Code : HSOE201	
Number of Theory Credits	Number of lecture hours/semester
3	45

Content	45 Hrs	
Unit–I Interior Design vs. Interior Decoration		
1.1 Interior Design and Interior Decoration: concept and basic differences	5 Hrs	
1.2 Aims of Interior Design: Beauty, Expressiveness and Functionalism		
1.3 Interior decoration in India: History		
Unit -II - Fundamentals in Designing		
2.1 Design: Definition and classification, Structural and Decorative design – importance and	15 Hrs	
requirements of good structural design. Classification of decorative design- naturalistic,		
conventional, geometric, and abstract.		
2.2 Elements of Art- Line- meaning and definition, types; Shape and form; Texture - meaning		
and classification- tactile and visual textures; Light- types		
2.3 Colour –The Prang Colour System, Dimensions of Colour, Colour schemes (related,	15 Hrs	
contrasting), consideration for the choice of colour in different rooms.		
2.4 Principles of design - Balance: meaning and definition, classification - Rhythm: meaning		
and definition, types - Emphasis- meaning and definition, types, and methods of achieving -		
Proportion: meaning and definition, - Harmony: meaning and definition, methods of achieving.		
Unit -III Accessories in Interiors		
3.1 Accessories: Definition and importance Classification – functional, decorative and both	10 Hrs	
3.2 Selection and placement of accessories		
3.3 Types of accessories		

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Pedagogy

Formative Assessment :40 MARKS				
Assessment Occasion/ type Weightage in Marks				
Test 1	15			
Test 2	15			
Assignment / Project	5+5			
Total	60 Marks + 40 Marks =100			

Refe	References				
1	Gandotra, V., Shukul, M., and Jaiswal, N .(2010-11). Introduction to Interior Design & Decoration.				
	New Delhi: Dominant Publishers and Distributors. (ISBN No.81-7888-295-7)				
2	Goldstein. and Goldstein, V. (1967). Art in Everyday Life. New Delhi: Oxford and IBH Publishing				
	Co.				
3	Kasu, A.A (2005). Interior Design. Delhi: Ashish Book Centre				
4	Mullick, P. (2016).Text Book of Home Science.(4th Ed.).Kalyani Publishers(ISBN13				
	9789327262766)				
5	Seetharaman P., and Pannu, P. (2010). Interior Design and Decoration .New Delhi : CBS Publishers				
	& Distributors Pvt. Ltd (ISBN No. 81-239-1192-0).				
6	Bhatt, P. (2011). Foundation of Art and Design. Mumbai: The Lakhani Book Depot.				
7	Gandotra, V. Shukul, M., and Jaiswal, N. (2010-11). Introduction to Interior Design & Decoration				

Program Name B.A Home Science		Semester	Four	th Sem	
Course Title	INTRODUC	TION TO TEXTILES			
Course No.	HSCT251		No. of Credits	4+2	
Contact hours	52 Hrs		Duration of SEA/Exam	2 Ho	urs
Formative Asses	ssment Marks	40	Summative Assessment Marks		60

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 4

INTRODUCTION TO TEXTILES

Paper Code : HSCT251	
Number of Theory Credits	Number of lecture hours/semester
4+2	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.	2 Hrs
Chapter 2- Manufacturing process and properties of Cotton, Silk, Wool, Nylon, Polyester, Classification of Yarns, Yarn Twists and Counts	8 Hrs
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	2 Hrs
Chapter 4- Basic Weaves – Plain Weave, Basket Weave, Rib, Twill, Satin, Fancy weaves – Leno, Pile and Jacquard.	4 Hrs
Unit -II - Finishing	12 Hrs
Chapter 5: Objectives, Classification Finishes - Aesthetic Finishes (Singing, Bleaching, Mercerization, Tentering, Shrinking, Weighting, Calendaring, Sizing, Embossing and Napping).	7 Hrs
Chapter 6: Finishes for enhancing special character-Functional Finishes (Fireproof, Waterproof, proof, and Mildew proof	5 Hrs
Unit -III Care of Clothing	6 Hrs
Chapter 7: Laundering of Cotton, Silk and Wool and Storage	4 Hrs
Chapter 8: Dry Cleaning – Meaning, Methods and Advantages & Disadvantages.	2 Hrs
Unit -IV Processing of Fabric	18 Hrs
(a) DYEING	4 Hrs
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Chapter 9: Introduction, Principles of dyeing, Methods of dyeing (dope, fiber, yarn, fabric and garment)	33
Chapter 10: Synthetic Dyes: (Direct, Azoic, Basic, Vat, Solubilized vat dyes, Sulphur, Acid,	5 Hrs
Mordant, Natural, Reactive and Disperse)	
Chapter 11: Natural Dyes: (Classification, their application and ecological concern)	4 Hrs
(b) PRINTING	
Chapter 12: Introduction to printing and Various methods of Printing	4 Hrs
Chapter 13: Difference between Dyeing and Printing.	1 Hrs

Pedagogy-Theory

Formative Assessment :40 MARKS			
Assessment Occasion/ type	Weightage in Marks		
Test 1	10		
Test 2	10		
Assignment / Project	10+10		
Total	THEORY 60 MARKS + 40 Marks =100		

Course Title	INTRODUCTION TO TEXTILES		Practical Credits 2 34
Course No.	HSCP251	Contact hours	52 hrs / 13 Sessions
List of Experi	ments to be conducted		
1. Fiber Identif	cation Test-		
A) Visu	al test.		
B) Solu	hility teet		
15) Solu	onny con		
C) Burr	ang test and		
D) Mict	oscopic test		
(Cotton	, Silk, Wool, Rayon, Polyester & Nylon f	ibers)	
2. Yarn Identif	cation- Single, Ply, Cord, elastic, Monofi	lament, Multifilam	ent and Spun Yarn
3. Identification	1 of fiber, yarn, weave, print & dyeing		
4. Weaving- M	aking samples of the following:		
A) Plair	1- Basket Ribbed.		
B) Twil	I- Even and Uneven		
C) Sate	en Warp and Weft Face		
5. Dyeing & Pr	inting –Block/spray/stencil/tie &dye/batik	ζ.	
Visit to spinnin	g/weaving/dyeing/printing unit		

Pedagogy-Practical:

Formative Assessment : 25 MARKS		
Assessment Occasion/ type	Weightage in Marks	
Model Test	10	
Record	10	
Assignment / Project	5	
Total	Exam 25 Marks + IA 25 Marks =50	

Refe	erences
1	Hollen and Saddler J (1995): Textiles latest Ed., Mac Millan and Co., New York.
2	Mullick P.,(2012), "Text Book of Home Science "Kalyani Publishers. New Delhi.
3	Potter and Cob man "Fiber to Fabric".
4	Dorothy Burhan "A Textile Terminology"
5	Hert K.P." Textiles fibers and their use", IBH Publishing co.
6	Durga.Denikar "Household Textiles and Laundry" Abnaram L Sons Delhi.
7	Corbman. B. P (2001): Textile Fiber to Fabric, McGraw Hill, New York
8	Peter. R. Lord, (2003). Handbook of Yarn Production, Wood head Publishing Ltd, England.
9	Kothari, V. K, (2010). Progress in Textile Science, Vol I, II and III, IAFL Publications, New Delhi.
10	Seema Sekhri, (2011). Textbook of Fabric Science, Fundamentals to finishing, PHI Learning Private
	limited, New Delhi.

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Program Name	B.A Home Se	cience	Semester	Fourt	h Sem
Course Title	FASHION DESIGNING				
Course No.	HSOE 251		No. of Credits	3	
Contact hours	45 Hrs		Duration of SEA/Exam 2 Ho		rs
Formative Assessment Marks 40		Summative Assessment Marks 6		60	

Objectives:

- Anticipating Consumer Trends.
- To know about fashion and fashion cycle
- To learn basics of textiles
- To identify textile fibers
- To learn fashion illustration

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 4

FASHION DESIGNING

Paper Code : HSOE 251	
Number of Theory Credits	Number of lecture hours/semester
3	45

Content	45 Hrs
Unit–I- Introduction to Fashion	<u> </u>
1.1 Fashion – Definition, Classification, terminologies,	5 Hrs
1.2 Fashion cycle, Factor influencing the fashion trends,	
1.3 Fashion psychology and forecasting	
Unit -II- Elements and Principles of Design	
2.1 Introduction to textile, Textile terminology	25 Hrs
2.2 Textile fibres and their classification, physical and chemical properties of fibres.	
2.3 Elements of Design and colour- Definition, Types, Elements, Principles and its	
application in dress design in dress design.	
2.4 Selection of suitable clothing and design, factors affecting selection of clothing,	
Clothing of different age groups.	
Unit -III- Fashion Design	15 Hrs
3.1 Fashion illustration: - Definition, terminology, importance and theories, tools for fashion	
drawing, sketching principles, Human anatomy: - Basic human proportion of male and female.	
3.2 Illustration for apparels using the themes- Casual, formal, ethnic, office wear, winter,	
summer, and spring	
3.3 Fashion Designer – meaning, classification, Male and Female Designers of National	
repute.	

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Pedagogy	4
Formative Assessment : 40 MARKS	
Assessment Occasion/ type	Weightage in Marks
Test 1	10
Test 2	10
Assignment / Project	10+10
Total	60 Marks + 40 Marks =100

Refe	erences
1	Derrick, L. (2018) Fashion Sketchbook: Fashion Sketchbook with figure templates (Fashion
	Croquis), Create Space Independent Publishing Platform
2	Elaine, S. (2013) The Dynamics of Fashion. 4th Ed. New York: Bloomsbury publication.
3	Patrick, J. I. (2003) Introduction to Fashion Design, London: B.T. Batsford
4	Sharon L. T. and Glazer, S.S. (2017), Illustrating Fashion, 4th Ed. New York: Fairchild Books. The
	Snap Fashion Sketch Book, Prentice Hall, New Jersey.
5	Stipelman, S. (2017) Illustrating Fashion, 4th Ed. New York: Fairchild Books.
6	Booth, J.E. (1996). Principles of Textile Testing. New Delhi: CBS Publishers & Distributors Pvt. Ltd.
7	Corbman, P.B. (1983). Textiles: Fibre to Fabric. McGraw-Hill Publishers.
8	Tyagi, A. (2016). Handbook of Fashion and Textile Design .New Delhi: Sonali publication
9	Wynne. A. (1997). Textiles, The Motivate Series Mcmillain Education Ltd. London.

				5
Program Name	BA Home Science		Semester	Fifth Sem
Course Title	Course Title Human Development and Family Dynamics (Theory)			
Course No.	Course No.HSCT 301DSCNo. of Credits4+2		4+2	
Contact hours 60 Hrs		Duration of SEA/Exam 2 Hours		
Formative Assessment Marks 40		Summative Assessment Marks 60		

Course Outcomes :

CO1: Understand the period of Adolescence and its developmental changes.

- CO2: Study the need of counselling for adolescents.
- CO3: Understand the physical, Physiological cognitive and socio-emotional development during adulthood stages.
- CO4: Sensitized about interpersonal relationships, Marriage, functions of marriage, changing trends in marriage and Family and family dynamics.

CO5: Prepare for outreach activities with varied groups of adults and elderly.

Content	60 Hrs
Unit-I. Adolescence	15 Hrs
Chapter No. 1 Definition, characteristics, developmental tasks of Adolescence.	4 Hrs
Chapter No. 2 Physical changes, puberty, primary and secondary sexual characteristics among adolescents.	4 Hrs
Chapter No. 3 Identity formation, social, emotional, cognitive and moral development. Interests and problems of adolescents	5 Hrs
Chapter No. 4 Need for adolescent counseling. Techniques and methods of adolescent counseling. Education and Career guidance	2 Hrs
Unit-II. Adulthood- Early Adulthood and Marriage	15 Hrs
Chapter No. 5 Historical perspectives on adulthood, Contemporary changes, increase in life expectancy	5 Hrs

and decrease in death rate, classification of Adulthood.	6
Early Adulthood- Characteristics and developmental tasks, physical, social, cognitive, emotional and moral development. Roles, responsibilities and adjustments.	
Chapter No. 6	
Marriage – definition, functions, areas of marital adjustments, essentials of successful marriage	5 Hrs
Chapter No. 7	
Changing trends in marriage: cohabitation, remarriage, LGBT (Lesbian, Gay, Bisexual, and Transgender) marriages	5 hrs
Unit-III. Family, Family Dynamics and Middle Adulthood	15 Hrs
Chapter No. 8 Family – Definition functions and types. Changing trends in family: causes for change, single parent families, separated families, nuclear families cross-generational families, adoptive/foster families, blended families, same-sex parent families	5 Hrs
Chapter No. 9 Family Dynamics- Definition, function and scope. Gender norms and roles in family dynamics	5 Hrs
Chapter No. 10 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	5 Hrs
Unit-IV. Family crisis and Late Adulthood	15 Hrs
 Chapter No. 11 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. Family cohesion- the role of effective communication, compassion, perspective-taking, role distribution, positive conflict resolution, and teamwork. 	8 Hrs
guidance clinics, counseling and rehabilitation centers	
Chapter No. 12 Late Adulthood - Characteristics and developmental tasks. Physical, physiological, psychological and social changes. Health care and health problems, Adjustments to retirement. successful ageing	7 Hrs

Pedagogy - Theory

Formative Assessment + Summative assessment = 40+60=100 marks		
Formative Assessment	Weightage in Marks	
Test 1	15	
Test 2	15	
Assignment + Project	5 + 5	
Summative Assessment	60	
Total	40 marks + 60 marks = 100 marks	

Course Title: Human development and Family Dynamics (Practical) Practical O		Credits 2			
Course No.	Course No.HSCP 301Contact Hours:		ntact Hours:	60 Hours	
Practical Topi	cs - 2 credits				
Unit I					
• Conduct marriage//a or therapist group/parer	a study on selection of life partner/ chang djustments/ problems in marriage OR Plan an interaction s working in the area of interpersonal conflicts (in the fa tt-child/ Adolescent).	ging 1 with amily	trends in a counselor family/peer	15H	Irs
Unit II					
• Conduct a role play to create awareness among college students on family values / family relationship /stability in marriage. OR Select a form of family crisis or stress. Develop an educational aid to prevent and manage the crisis.		15 H	Irs		
• Visit to an A	Adolescent/ family counselling center and write a report				
 Unit III Organize a workshop for adolescents on -physical changes/health issues/ menstrual hygiene/behaviour during adolescence. OR Conduct a workshop on enhancing family cohesion and conflict resolution 		15	Hrs		
Unit IV • Plan, preparecreational interperson in relations	are and conduct activities to foster cognitive abilities / he activities for the aged. OR Create posters about ways t al communication skills and patters of relating to enhance ships	alth/ 1 o imp ce res	nutrition/ rove iliency	15	Hrs

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Assessment	0
Formative +Summative Assessment = 25+	25=50 marks
Formative Assessment	Weightage in Marks
Test 1	15
Test 2	15
Assignment / project	5 + 5
Total	25 marks + 25 marks = 50 marks

Refere	nces:
1.	Arnett, J. J., & Jensen, L. A. (2019). Human Development: A cultural approach (3rded.). New
	York: Pearson.
2.	Berk, L.E. (2005). Child development (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). Adult development and aging (7thed). 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). A topical approach to life span development (9th ed.). New NY .: Mcgraw-Hill
	Higher Education.
8.	Singh, A. (2015). Foundations of Human Development: A life span approach. 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). Introduction to Human
	Development and Family Studies. NY: Routledge

Program Name	BA. Home Science		Semester	Fifth Sem
Course Title	Interior Decoration (Theory)		
Course No.	HSCT 302	DSC	No. of Credits	4+2
Contact hours	60 Hrs		Duration of SEA/Exam	2 Hours
Formative Assessment Marks 40		Summative Assessment N	Iarks 60	

Course Outcomes (COs): At the end of the course the student should be able to

- To Learn about housing and its principles
- To understand about color and its application in interiors
- To apply elements and principles of design in interior decoration
- To know about furniture, window treatment and accessories in interiors

Content	60 Hrs
Unit-I. Design Fundamentals	15 Hrs
Chapter No. 1 Types of design- Structural and Decorative, Naturalistic, Stylized, Geometric, Abstract.	3 Hrs
Chapter No. 2 Elements of Art- Line, form, color, space, texture, Pattern, light.	7 Hrs
Chapter No. 3 Principles of design- Harmony, Proportion, Balance, Rhythm, Emphasis	5 Hrs
Unit-II. Dimension of color	15 Hrs
Chapter No. 4 Dimension of color- Hue, Value, Intensity, Advancing and receding colors, cool and warm colors. Characteristics of colors	5 Hrs
Chapter No. 5 Prang color system- Primary, secondary, and Tertiary colors, color wheel.	5 Hrs
Chapter No. 6 Color Harmonies- Related and Non-Related Color Harmonies, Psychological implications of colors	5 Hrs
Unit-III. Furniture and Window treatment	15 Hrs
Chapter No. 7 Factors to be considered in Selection, Principles of Furniture Arrangement, Furniture Arrangement for different rooms. Styles of Furniture and materials used to make furniture	5 hrs

Chapter No. 8	10
Windows- Types of windows- casement, bay window, sliding window, awing window,	¹⁰ 5 Hrs
picture window. Window treatment- Modes of Hanging Curtains- Cafe, Tier, Priiilla, Criss	
Cross, Glass, Pleated	
Chapter No. 9	5 IIma
Accessories – classification and	5 mrs
types Flower decoration -styles and	
shapes	
Unit-IV Housing and Building Materials	15
Chapter No.10	5
Principles of Housing, Building materials	
Chapter No.11	5
Flooring and flooring materials	
Chapter No.12	5
Wall finishes	

Pedagogy - Theory

Formative Assessment + Summative assessment = 40+60=100 marks			
Formative Assessment Weightage in Marks			
Test 1	15		
Test 2	15		
Assignment + Project	5 + 5		
Summative Assessment 60			
Total	40 marks + 60 marks = 100 marks		

Course Title:	Interior Decoration (Practical)	Practical Credits	2
Course No.	HSCP 302	Contact Hours:	60 Hours
Practical Topics - 2	credits		
Unit I			15 Hrs
Design- Structural and	d Decorative design. Elements of Arts a	nd Principles of design.	
Unit II			15 Hrs
Color wheels, color h	armonies.		
Unit III			15 Hrs
Furniture arrangemen	t and Window treatment		
Unit IV			
Flower arrangement			15 Hrs

Assessment	
Formative +Summative Assessment = 25+25=50 marks	
Formative Assessment	Weightage in Marks
Test 1	10
Test 2	10
Assignment / project	5
Total	25 marks + 25 marks = 50 marks

Refere	nces:
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
2.	Publishers and Distributors, New Delhi.
3	Sita Ram Premavathy Pannuparveen (2005) Interior Design and Decoration - CBS Publishers, ,
5.	New Delhi.
Δ	Premlatha Mullick (2015) Textbook Of Home Science - Kalyani Publishers, New Delhi.
т.	

Program Name	ame BA. Home Science		Semester	Sixth Sem
Course Title	Nutritional Management (Theory)			
Course No.	HSCT 351	DSC	No. of Credits	4+2
Contact hours	60 Hrs		Duration of SEA/Exam	2 Hours
Formative Assessment Marks 40		Summative Assessment N	larks 60	

Course Outcomes (COs): At the end of the course the student should be able to

- Design food plans and assess the adequacy of diets to meet the nutritional needs of humans at various stages of life cycle.
- Assess nutrition issues and conditions and recommend nutrition intervention and support to promote the health and wellbeing.
- Have the knowledge, both to develop and critique nutritional interventions designed to improve human health and well-being at specific age associated time points.
- On completion of the course students will be able to critically assess nutritional requirements and nutritional health status of an individual

Content	60 Hrs
Unit-I. Introduction to RDA (Recommended Dietary Allowances /EAR (Estimated Average Requirements) and Balanced Diet	15 Hrs
Chapter No. 1	5 IIma
Basic concept and purposes of Recommending the Dietary Allowances and	5 ПГ 8
Factors Affecting RDA/EAR.	
Chapter No. 2 Requirements RDA/ EAR for various age groups. Uses of ICMR- RDA/EAR in planning balance diet.	5 Hrs
Chapter No. 3 Exchange system and Dietary Diversity	5 Hrs
Unit II. Nutrition in Programmy I actation, and Information	15 Uns
Unit-11. Nutrition in Fregnancy, Lactation, and Infancy	
Chapter No. 4 Physiological Changes occurring during Pregnancy. Importance of Food and Nutritional Care and Requirement during pregnancy. General Dietary and nutritional Problems and Complication	5 Hrs

Chapter No. 5	¹³ 5 Hrs
Physiology and Hormones involved in Lactation. Food supplements and galactagogues.	
Factors Affecting the Volume and Composition of Breast Milk, Nutritional Requirements	
during lactation	
Chapter No. 6	
Growth and Development of Infants. Composition of Human Milk and Human Milk	
Substitute. Bottle Feeding and related Problems. Weaning and Supplementary Feeding	5 Hrs
Foods. Feeding Problems and Complications. Use of growth charts and standards and	C III S
prevention of growth faltering	
Unit-III. Nutrition during Childhood and Adolescence	15 Hrs
Chapter No. 7 Growth and Development of Pre School, School Going Children. Food and Nutritional Requirements. Factors to be considered while Planning Diet for Children	5 Hrs
Chapter No. 8 Growth Spurt during Adolescence. Food Habits, Dietary Guidelines, planning Food and Nutritional Requirements.	5 Hrs
Chapter No. 9	5 Hrs
Nutritional and Behavioural Problems and Eating Disorders of adolescents.	
Unit-IV Nutrition during Adulthood and Elderly	15 Hrs
Chapter No. 10	5 Hrs
Reference Man and Reference Woman. Food and Nutritional Requirements for Adults	
Chanter No. 11	5 Hrs
Chapter 190, 11 Role of exercise and Diet. Onset of Non communicable diseases/lifestyle disorders	51115
Prevention and management	
Chapter No. 12	5 Hrs
Processes of Aging, Food and Nutritional Requirements of Elders, Nutrition Related	
Problems of Old Age. Dietary Guidelines and diet Modifications	

Pedagogy - Theory

Formative Assessment + Summative assessment = 40+60=100 marks		
Formative Assessment	Weightage in Marks	
Test 1	15	
Test 2	15	
Assignment + Project	5 + 5	
Summative Assessment	60	
Total	40 marks + 60 marks = 100 marks	

Course Title:	Nutritional Management (Practical)	Practica	l Credli t s	2
Course No.	HSCP 351	Contact Hours	: 60	
Unit I:				
1. Planning, F	Preparing and Evaluating Menu during Pregnancy	Planning,	1:	5 Hrs
2. Preparing a	and Evaluating Menu during Lactation			
1 Planning F	Preparing and Evaluating Menu during Pregnancy	Planning		
2. Drawning, 1		Tranning,	15	5 Hrs
2. Preparing a	nd Evaluating Menu during Lactation			
Unit III.				
5. Planning, F	Preparing and Evaluating Menu for School Going	Children	1:	5 Hrs
6. Planning, F	Preparing and Evaluating Menu for Adolescents			
Unit IV:				
7. Planning, H	Preparing and Evaluating Menu for Adults		1	5Hrs
8. Planning, F	Preparing and Evaluating Menu for Elderly			

Assessment

Formative +Summative Assessment = 25+25=50 marks		
Formative Assessment	Weightage in Marks	
Record	10	
Test 2	10	
Assignment / project	5	
Total	25 marks + 25 marks = 50 marks	

Refere	ences:
1	Mahtab, S, Bamji, Kamala Krishnasamy, Brahmam, G.N.V. (2012) Text Book of Human
1.	Nutrition, Third Edition, Oxford and IBH Publishing Co. P. Ltd., New Delhi
2.	Srilakshmi, B. (2013), Dietetics, New Age International (P) Ltd., New Delhi.
3.	SunetraRoday (2017). Food Science and Nutrition, Oxford University Press, New Delhi
Δ	Longvah, T, Ananthan, R, Bhaskarachary, K, Venkaiah, K. (2017). Indian Food Composition
т.	Tables (IFCT), Indian Council of Medical Research, National Institute of Nutrition, Hyderabad.
5	ShakuntalaManay, Shadaksharaswamy. M (2013) Foods, Facts and Principles, New Age
5.	International Pvt Ltd Publishers, 2nd Edition) Ltd., New Delhi.
6	Swaminathan, M. (2012), Advanced Textbook on Food and Nutrition, Vol. 1, Second Edition,
0.	Bangalore Printing and Publishing Co. Ltd., Bangalore.

Program Name	BA. Home Science		Semester	Sixth Sem
Course Title	Resource Management (Theory)			
Course No.	HSCT 352 DSC		No. of Credits 4+2	
Contact hours	urs 60 Hrs		Duration of SEA/Exam 2 Hour	
Formative Assessment Marks 40		Summative Assessment Marks 60		

Course Outcomes (COs): At the end of the course the student should be able to

- Understand the available resources and develop the ability to evaluate the managerial efficiency and effectiveness in the family and other organization.
- Acquire an understanding of real-world challenges in HRM and identify measures to ensure a stable work environment efficiently through proper coordination, employee empowerment and training practices
- Critical thinking skills by developing a data-driven approach to improve business productivity and performance.
- Understand International Human Resource Management

Content	60Hrs
Unit-I. Introduction to Resource Management	15 Hrs
Chapter No. 1	
Resources: Definition and Classification – Human and Non-Human Resources,	5 Hrs
Chapter No. 2	5 Hrs
Renewable and Non-Renewable resources, Energy conservation and sustainability	
Chapter No. 3	5 Hrs
Management: Definition, Motivating factors, Managerial Process, Decision making and	
Problem Solving.	
Unit-II Management of Time, Money, and Energy	15 Hrs
Chapter No. 4	5 Hrs
Time Management	
Time plan, Tools, Process and practices.	
	5 Hrs
Chapter No. 5	
Money Management	
Budget plan, Account Keeping, Saving Process and Practice	
Chapter No. 6	5 Hrs
Energy Management Fatigue, Work simplification, Workspace management	
Unit-III. Human Resource Management	15 Hrs
	5 Hrs
Chapter No. 7	
Fundamentals of Human Resource Management	

Concepts, Roles and Responsibilities, HR policies, Principles and Practices, Managerial	16
Decisions and Problem Solving, Manpower planning and Resourcing, Organization	
Structure, and behaviour	
	5 Hrs
Chapter No. 8	
Recruitment and Selection	
Concepts, Factors Affecting Recruitment, Types of Recruitment, Process of Selection,	
Selection Tests, Barriers in Selection	
	5 Hrs
Chapter No. 9	
Performance and Compensation Management	
Objectives and methods of Performance and Appraisal, Appraisal Forms and Formats,	
Competency Mapping, Forms and bases for compensation, job evaluation and	
compensation/evaluation systems, Rewards, Promotion and Transfer	
Unit-IV. Human Resource Development	15 Hrs
Chapter No. 10	
Managerial Communication and Skill Development	5 Hrs
Employee training and development, Managerial Accounting and Business statistics	
	5 Hrs
Chapter No. 11	
, HR Audit, Corporate Social Responsibility and Business Ethics, Government regulations	
and Labor Laws.	
Chapter No. 12	5 Hrs
International Human Resource Management Human Resources in a Comparative	
Perspective, International Recruitment and Selection, Challenges of IHRM, International	
Labor Standards, Approaches to International Compensation	

Pedagogy - Theory

Formative Assessment + Summative assessment = 40+60=100 marks		
Formative Assessment	Weightage in Marks	
Test 1	15	
Test 2	15	
Assignment + Project	5 + 5	
Summative Assessment	60	
Total	40 marks + 60 marks = 100 marks	

Course Title:	Course Title: Resource Management (Practical) Practical		Practical C	Credits	2
Course No.	HSCP 352	Con	tact Hours:	60	
Unit I: Preparation of tim	e plans for self			15 H	Irs
Unit II: Time and Motion	Studies for simplifying work- Flow process chart etc., Kitchen	Planr	ning.	15 H	Irs
Unit III: Money Managemo	ent, Planning budget, and maintenance of accounts			15 H	Irs
Unit IV: Organize a panel o	liscussion on International Labor laws/ International Compens	ation		15 H	Irs

Assessment

Formative +Summative Assessment = 25+25=50 marks		
Formative Assessment	Weightage in Marks	
Record	10	
Test 2	10	
Assignment / project	5	
Total	25 marks + 25 marks = 50 marks	

Refere	ences:
1.	Armstrong, M. (2003). A Handbook of Human Resource Management Practice. Kogan Page, London, UK
2.	Gratton, L. (1994). Implementing Strategic Intent: Human Resource Processes as a Force for Change, Business Strategy Review. 5(1):47-66.
3.	Heneman, H. G. and Judge, T. A. (2003). Staffing Organizations, McGraw-Hill, London, UK.
4.	Sharma, I. J. 1984. The Culture Context of Indian Managers, Management and Labour Studies, 9:72-80
5.	Singh, K. (2003). Strategic HR Orientation and Firm Performance in India, International Journal of Human Resource Management, 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

Question paper Pattern for I-IV Semester end examinations

CODE NO:

Reg No:

SDM COLLEGE (AUTONOMOUS), UJIRE

CORE SUBJECT-SEMESTER END EXAMINATION B.A-HOME SCIENCE

PAPER-SEMESTER I/II/III/IV/V/VI

TOPIC-

TIME: 2HRS

Max Marks 60

Note: Answer all

Parts PART- A

PART-A

<u>PARI-A</u>			
I. A	Answer any TEN of the following questions	10x2=2	0
a.			
b.			
c.			
d.			
e.			
f.			
g.			
h.			
i.			
j.			
k.			
l.			
п	Anorman the following exection	4-10-40	
11.	Answer the following question	4x10-40	
1. a].	6	
b).	4	
	OR		
2. a	l.	6	
b).	4	
2			
3. a	l.	6	
b		4	
4 9	UK	6	
н. а ь	ı.	4	
L	J.	7	

5. a. 6 b. 4 OR 6. a. 6 b. 4 7. a. 6 b. 4 OR 8. a. 6 4 b.

XXXXXXXXXX



S.D.M. COLLEGE (AUTONOMOUS), UJIRE (NEP) ALL SEMESTER OPEN ELECTIVE EXAMINATION, MONTH BA- HOME SCIENCE

PAPER II –

Time: 2	2 Hour	Max Marks: 60
	PART-A	
I.	Answer any TEN of the following questions	
	10x2=20	
a.		
b.		
c.		
d.		
e		
c. f		
і. а		
<u>g</u> . ь		
n. :		
l.		
J.		
k.		
l.		
	PART-B	
II. Ans	swer the following question	4x10=40
1. a.		5
b.		5
•	OR	-
2. a.		5
b.		5
2		5
3. a.		5
D.	OB	5
4 a	OK	5
т. а. Ь		5
υ.		5
5 a		5
5. u. h		5
0.	OR	5
6. a.		5
h		5
7. a.		5
h		5
0.	OR	5
8. a.		5
b.		5
		5

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S.D.M. COLLEGE (AUTONOMOUS), UJIRE S.D.M. COLLEGE (AUTONOMOUS), UJIRE CORE SUBJECT-INTERNAL EXAMINATIONS HOME SCIENCE PAPER - SEMESTE

SEMESTER- 1/II /III/IV

TOPIC-

Time::1 hr

CODE NUMBER

Max marks: 25

5X2=10

I Answer any FIVE of the following

1. 2. 3.

4.

5.

6.

II Answer any THREE of the following

3X5=15

1.

2.

3. ₄

4.

5.

xxxxxxxxx

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OPEN ELECTIVES-INTERNAL EXAMINATIONS HOME SCIENCE CODE NUMBER PAPER - SEMESTER- I/II /III/IV

Time::1 hr	Max marks: 25
I Answer any FIVE of the following	1X5=5
1.	
2. 3.	
4. 5.	
6.	
II Answer the following	
1a)	5Marks
b)	5 Marks
OR	
2 a)	5Marks
b)	5 Marks
3 a)	5Marks 5 Marks
0)	J Warks
OR	
4 a)	5Marks 5 Marks
0)	5 Marks

Xxxxxxxxx



SRI DHARMASTHALA MANJUNATHESHWARA COLLEGE (AUTONOMOUS), UJIRE – 574240

VALUE ADDED COURSE ON HOME MANAGEMENT FOR HAPPY LIVING

TOTAL HOURS: 40

Preamble:

Home management is the vital factor in every members contributing to the overall health, happiness and wellbeing of the family. Management today is an important factor in every sphere of activity. The concept of management deals with achieving desired goals through planned activity. It is an essential component of family living. Home management for happy living is the natural outcome of human relationship in the home environment. When the family is established, management becomes one of the major responsibilities of the family living.

Learning objectives:

- To identify the application and principles of management.
- To study the values, standards and goals which give meaning to the lives, thoughts, feelings and experiences of the members of the family
- To identify the family desired goals.
- To understand the management of resources in our day to day life.

Learning Outcomes:

- Students will be able to plan, control and evaluate the use of resources of family for the purpose of attaining family goals.
- Effective management enhances the chances of achieving goals by making wise decisions and proper utilization of resources.
- Students will be able to develop creative and innovative skills
- Students will be able to manage family income and its proper distribution.

Unit-I Home Management

- 1. Meaning, Process, Classification and Characteristics
- 2. Money Management- Family Income, Budgeting, Savings, Investment
- Consumer Education Needs for education, Responsibility, Problems faced by the consumer, Rights

Unit-II Textiles and Clothing

- 1. Fibres- Meaning and Classification
- 2. Care of Clothing (Cotton, Silk, Wool)
- 3. Stains and stain removal methods- Dip, Drop, Steam, Sponge
- 4. Traditional Indian Textiles and Embroidery

Unit-III Principles of Food and Nutrition

1. Meaning of Food, Nutrition, Nutrients, Health, and Malnutrition

2. Classification of Food, Classification of Nutrients, and Food guide pyramid

. Scientific and safe cooking, Methods of cooking and kitchen safety

Unit-IV House Keeping and Interior Decoration

Hours: 8

Hours: 8

Hours: 8

Hours: 8

24

- Care and maintenance of household equipment's (Mixer, Oven, Refrigerator, Washing machine, and Geyser)
- 2. Flower Arrangement- Types, Care and maintenance, Materials and Flowers
- Etiquette- Planning and organizing a party, Table setting, and Role of Hostess

Practical:

Hours: 8

- 1. Basic Embroidery making- Chain stitch, Cross, Herringbone, Blanket, and French knot
- 2. Napkin Folding
- 3. Cards making- Greeting card, Thank you card, Get well card and Book mark card
- 4. Preparing one nutritious recipes without fire.

Reference books:

- 1. Bermard P Corbman, (2001), Textiles-Fiber to Fabric, 6th edition, Mc Graw Hill International Editions, New Delhi.
- 2. Nickel and Dorsey, (1986), Management in Family Living, 3rd Edition, John Wiley & Sons Inc Publication, New York.
- 3. Premavathy Seetharaman, Praveen Pannu, (2005), Interior Design and Decoration, CBS Publishers and Distributors, Bangalore
- 4. Swaminathan M S, (1985), Essentials of Food and Nutrition Fundamentals Aspects, 7th Edition, New age International Publishers, Bangalore.
- 5. Varghese, Ogle and Srinivasan, (1980), Home Management, Wiley Eastern Ltd., New Delhi.
- 6. Wingate I. B, (1976), Textile Fabrics and their selection, Englewood Cliffs Prentice Publication, New Jersey.

Scheme of Examination

Internal Assessment 10 marks

Marks based on a) Assignments on the topic or b) Survey report or c) Minor project

Term End Examination 40 marks Duration of Examination 02 Hours

 I Answer any four of the following
 4x5=20

 1.
 2.

 3.
 4.

 5.
 II Practical

 1.
 2.

 3.
 4.

 4.
 5.

 1.
 2.

 3.
 4.