MAHATMA GANDHI UNIVERSITY

PRIYADARSHINI HILLS KOTTAYAM-
686560

CURRICULUM FOR BATCHELOR'S PROGRAME IN FAMILY AND COMMUNITY SCIENCE

(HOME SCIENCE)

Under choice Based Credit System (CBCS)

(2017 admission Onwards)

Board of studies members

1. Dr. Lizmitha Godwin

   Associate professor, Department of Family and Community Science

   Morning star Homescience College Angamaly
2. Dr. Miriam Mani

   Associate Professor, Department of Family and Community Science

   CMS College Kottayam
3. Mrs. Indu Abraham

   Guest Lecturer, Department of Family and Community Science

   BCM College, Kottayam
4. Mrs. Sharon Mary Xavier

   Guest Lecturer, Department of Family and Community Science

   BCM College, Kottayam
5. Mrs. Praseetha P.S

   Guest Lecturer, Department of Family and Community Science

   BCM College, Kottayam
6. Mrs. Jenishamol Antony

   Guest Lecturer, Department of Family and Community Science

   BCM College, Kottayam
7. Ms. Jesna John

   Guest Lecturer, Department of Family and Community Science

   BCM College, Kottayam

GRADUATE PROGRAMME OUTCOMES

GPO NO.	GRADUATE PROGRAMME OUTCOMES
GPO No. 1	**Disciplinary Knowledge &Critical Thinking:** Articulate knowledge of one or more disciplines that form a part of UG programme. Critically think, analyse, apply and evaluate various information and follow scientific approach to the development of knowledge
GPO No. 2	**Communication Skill:** Communicate thoughts and ideas clearly in writing and orally. Develop careful listening, logical thinking and proficiency in interpersonal communication.
GPO No. 3	**Environmental Awareness:** Sustainable approach to use of natural resources. Capable of addressing issues, promoting values and give up practices that harm the ecosystem and our planet.
GPO No. 4	**Ethical Awareness:** Uphold ethics/morals in all spheres of life. Identify and avoid unethical behaviour in all aspects of work.
GPO No. 5	**Social Commitment:** Be aware of individual roles in society as nation builders, contributing to the betterment of society. Foster social skills to value fellow beings and be aware of one's responsibilities as international citizens.
GPO No. 6	**Lifelong learners:** Equip students to be lifelong learners. Be flexible to take up the changing demands of work place as well as for personal spheres of activities.

PROGRAMME SPECIFIC OUT COME

SL.NO	PROGRAMME SPECIFIC OUTCOME	GPO
PSO 1	To understanding the extension education in the field of nutrition and health, Women and child development, apparel and fabric design, resource management and public awareness with a view to better family and community living.	GPO 1, GPO 3, GPO 5
PSO 2	To understand how to handle family and individual well- being according to their financial, psychological, biological, cultural and social health.	GPO 1, GPO 5
PSO 3	Apply skills to improve every facet of your home life – food, clothing, health, childcare, personal finance, religion, culture, arts, home beautification, etc.	GPO 6
PSO 4	Basic knowledge of the process of teaching, networking and developing educational materials based on innovative, interactive and participatory communication strategies.	GPO 1, GPO 2, GPO 4
PSO 5	Focus on professional training and skill enhancement in order to provide and widen employment opportunities for women through a continuously updated curriculum.	GPO 1, GPO 6

Course	Details
Code	HS1CRT01
Title	**METHODOLOGY OF HOME SCIENCE AND FOOD SCIENCE**
Degree	B.SC.
Branch(s)	**FAMILY AND COMMUNITY SCIENCE (HOME SCIENCE)**
Semester	I
Type	CORE
Credits	2
Total hours	72
Hours per week	2

SEMESTER I

CO No.	Expected Course Outcomes Upon completion of this course the students will be able to:	Cognitive level	PSO No.
1	Identify thrust areas in Family and Community Science (Home Science) and consider career prospects	R	5
2	Select appropriate methodology for undertaking research-oriented projects	Ap E	4
3	Compose a report in the approved format for a research project	C	4
4	Identify different food groups and their functions.	R	1
5	Formulate different recipes using different cooking methods.	C, An	1,3
6	Compare the different techniques available for preparation and preservation of foods	E,An	1,2,3

*PSO –Program Specific Outcome; CO- Course Outcome
Cognitive Level: R- Remember, U-Understanding, Ap- Application; An- Analyse; E- Evaluate; C-Create

Module	Course Description	Hrs	CO. No.
1.0	**Methodology of Home Science**	**6**	
1.1	a. A.Concept and Scope of Home Science	1	1
1.1.1	Areas of Home Science – Human Development	1	1
1.1.2	Nutrition and Dietetics	1	4
1.1.3	Textile Science and Fashion Designing	1	1
1.1.4	Family Resource Management	1	1
1.1.5	Extension Education	1	1
1.1.6	Thrust Areas of Research in Home Science	1	2,3
1.2	Research project	1	2,3
1.2.1	Types- survey and experimental. Selection of research topic	**1**	2,3
1.2.2	Research trends in Home Science Tools for data collection- check list, rating scale, questionnaire, and Interview schedule	**1**	2,3
1.2.3	Sampling techniques – definition, types –Random sampling- simple & systemic random sampling	1	2,3
1.2.4	Non- random sampling- purposive, stratified, Convenience and snow ball sampling.	1	2,3
1.2.5	Tabulation – definition, parts of a table. Graphic presentation- line, bar, pie, pictograph	1	2,3
1.2.6	Components of a project report – Introduction, Review, Methodology, Results and Discussion, Summary and Conclusion in brief, References	1	2,3
2.0	Food groups and Food preparation	6	4
2.1	Food groups: Functions of foods, food groups (Basic food group system – (ICMR	1	4,5
2.2	a.Food preparation: Objectives, Methods of cooking- moist heat, dry heat and combination methods, merits and demerits of each methods	**2**	4,5,6
2.3	b.Food preservation -Principles and Methods	1	6

2.4	c.Developments in the field of food science, Basic concepts of Genetically modified foods, Organic foods, Functional foods, probiotic and pre-biotic foods	2	4,5
3.0	Study of macronutrients in foods	6	4
3.1	a.Carbohydrates -Definition, composition, classification, starch - structure of starch granules, effect of cooking, gelatinisation, factors affecting, basic concepts of gelation, retro gradation, dextrinization Sugar cookery and its applications. Carbohydrates in food preparation	2	4,5
3.2	b.Proteins -Structure, classification based on function (complete, partially complete, incomplete), classification of amino acids(essential &non-essential) denaturation, food proteins- plant,animal proteins, on traditional proteins- single cell(yeast), leaf proteins (spirulina), textured vegetable protein(soya).	**2**	4,5
3.3	c.Lipids -Definition, composition, classification. Lipids in foods (visible and invisible), fatty acids(saturated, unsaturated, essential), rancidity-types, factors leading to rancidity, prevention, hydrogenation, applications of lipids in food preparations	2	4,5
4.0	Study of Plant Foods	11	4,5
4.1	a.Cereals -Structure, composition and nutritive value, cereal- pulse combination, common cereals and millets in India. gluten formation, factors affecting gluten formation, Parboiling- merits and demerits	3	4,5
4.2	b.Pulses-Nutritive value and composition, germination, fermentation, advantages, anti-nutritional factors (trypsin inhibitors, lathyrism). Important pulses in India.	2	4,5
4.3	c.Vegetables and fruits -Classification, composition and nutritive value, pigments, effects of acid and alkali, enzymatic and non- enzymatic browning, methods of prevention	2	4,5
4.4	Flavour components- organic acids and enzymes, changes in fruit during ripening, antioxidant role of	**2**	4,5

	fruits and vegetables.		
4.5	d.Nuts and Oilseeds-Nutritive value, common nuts and oilseeds, aflatoxins	1	4,5
4.6	e.Spices -Major spices of India. Health benefits of spices	1	4,5
5.0	Study of animal foods	9	4,5
5.1	a.Milk and milk products - Composition and nutritive value, pasteurisation, homogenisation, advantages.	2	4,5
5.2	Types of milk and milk products (whey proteins, skim milk, evaporated, condensed, dry milk, khoa, ice cream, toned milk, flavoured milk, fermented milk, butter, cheese, curd).	2	4,5
5.3	Egg - Structure, composition and nutritive value, deterioration in egg quality, evaluation of egg quality, egg white foam, stages, factors affecting foaming, culinary role of eggs, designer eggs	2	4,5
5.4	Meat & Poultry- Structure of meat, composition and nutritive value, rigor mortis, effect of cooking on meat, types of meat and meat products	2	4,5
5.5	b.Fish - Classification, types, composition and nutritive value, fish spoilage and preservation, fish products	1	4,5

REFERENCES

• Gupta S.P(2007), Statistical Methods, Sulthan Chand and Sons, New Delhi

• Khan J.A (2007), Research Methodology, Methods and Techniques, New Age International, New Delhi.

• Premlatha, M (2006), Textbook of Home Science, Kalyani Publishers, Ludhiana, 2nd Edition.

• Srilakshmi B (2007), Food Science, New Age International (P) Ltd, New Delhi.

• Swaminathan M (1998), Handbook of Food Science and Experimental Foods

• Chandrasekhar U(2002), Food Science and its Applications in Indian Cookery, Phoenix Publishing House, New Delhi

• Manay N.S and Shadaksharaswamy M, Foods, Facts and Principles, New Age International, New Delhi. Longvah,T , Ananthan,R, Bhaskarachary,K, Venakaiah,K (2017) Indian Food Composition Tables,NIN, Hyderabad

Text Books for Enrichment

• Potter, N.M(1996), Food Science, 5th Ed, CBS Publishers, New Delhi.

• Peckham, G.C(1994), Foundations of food Preparations, McMillan, London

• Roday, S(2007), Food Science and Nutrition, Oxford University, New Delhi.

Course	Details				
Code	HS1CRT01				
Title	**METHODOLOGY OF HOME SCIENCE AND FOOD SCIENCE (PRACTICAL)**				
Degree	**BSC.**				
Branch(s)	**FAMILY AND COMMUNITY SCIENCE (HOME SCIENCE)**				
Year/Semester	1/I				
Type	CORE				
Credits	1	Hrs/Week	2	Total Hrs	36

CO No.	Expected Course Outcomes Upon completion of this course, the students will be able to:	Cognitive Level	PSO No
1	Prepare scientific tools appropriate for different research projects	C	4
2	Choose suitable methods for data presentation in a research project	E, An	4
3	Compare components of commercially available food stuffs against claims presented by the manufacturer	E, Ap	1
4	Understand the effect of different cooking methods on the quality of foods	U, An	1
5	Understand the different stages of cookery of common foods.	U	1
6	Apply various methods to prevent food spoilage in homes	C, Ap	1

*PSO –Program Specific Outcome; CO- Course Outcome
Cognitive Level: R- Remember, U-Understanding, Ap- Application; An- Analyse; E- Evaluate; C-Create

Module	Course Description	Hrs	CO.No
1	Preparation of a sample check list, rating scale, questionnaire, and Interview schedule related to any area of Family and Community Science (Home Science)	5	1
2	Select appropriate data from the subject related topic and prepare a sample line, bar, pie diagrams	3	1,2
3	Evaluation of gluten content in a cereal flour	5	3
4	Stages of egg white foam formation	3	3
5	Stages of sugar cookery	3	5
6	Gelatinization temperatures of various types of starches.	4	3,4
7	Effect of cooking on vegetable pigments.	4	3,4
8	Enzymatic and Non-enzymatic browning, Methods to prevent browning in fruits	4	3,4
9	Food preservation methods- preparation of jams, jelly and squash	5	6

SEMESTER II

Course	Details
Code	HS2CRT02
Title	**HUMAN PHYSIOLOGY & MICROBIOLOGY**
Degree	B.SC.
Branch(s)	**FAMILY AND COMMUNITY SCIENCE (HOME SCIENCE)**
Semester	II
Type	CORE
Credits	2
Total hours	72
Hours per week	2

CO No.	Expected Course Outcomes Upon completion of this course the students will be able to:	Cognitive level	PSO No.
1	Describe the working of various organ systems in the human body.	R	2
2	Explain digestion and absorption of various nutrients in the body.	U	2
3	Compare the action of different hormones and the effect of their imbalance	An, E	2
4	Understand the basic concepts of microbiology	U	2
5	Explain the different defence mechanisms in the body	U, R	2
6	Prepare commercially important products from beneficial microorganisms	C, Ap	3

*PSO –Program Specific Outcome; CO- Course Outcome
Cognitive Level: R- Remember, U-Understanding, Ap- Application; An- Analyse; E- Evaluate; C-Create

Module	Course Description	Hrs	CO. No.
1.0	**Respiratory and Cardiovascular System**	**7**	1
1.1	Structure of respiratory system, hypoxia, lung volume and capacities	**2**	1
1.2	Composition and functions of blood, Haemoglobin	**1**	1
1.3	Coagulation of blood, Blood groups	**1**	1
1.4	Structure of heart, Circulation (Systemic, pulmonary, coronary and portal system)	**2**	1
1.5	Cardiac cycle, Cardiac output, Blood pressure, Myocardial infarction	**1**	1
2.0	**Digestive and Excretory System**	**7**	1,2
2.1	Structure and functions of GI tract	**1**	1
2.2	Digestion and absorption of CHO, protein and fats.	**2**	2
2.3	Liver, Gallbladder, Pancreas, function and regulation of gastric intestinal secretion	**2**	2
2.4	Structure and function of kidney, Nephron, Mechanism of Urine formation	**2**	1
3.0	**Endocrine and Reproductive System**	**7**	
3.1	Endocrine glands and hormones in brief,	1	1,3
3.2	Action and disorder of pituitary, thyroid, Adrenal and pancreatic hormones	**2**	3
3.3	Structure of uterus, ovary, ovary gland (hormones) and their functions	**2**	1,3
3.4	Ovary gland (hormones) and their functions	**2**	3
4.0	**Basic concepts of Microbiology**	**8**	
4.1	Classification of microorganisms	**2**	4
4.2	Important microorganisms- Structure and economic importance of microorganism-bacteria, yeast.	**2**	4
4.3	Factors affecting the growth of microorganisms, Culture media and culture techniques,	**2**	4

4.4	Isolation and identification, grams staining	**2**	4
5.0	**Infection and Immunity**	**7**	
5.1	Sources of microorganisms, Transmission of infection	**1**	5
5.2	Bacterial infections in man- typhoid, Pneumonia	**1**	5
5.3	Viral infections – Hepatitis, AIDS.	**1**	5
5.4	Natural defences of the body—primary and secondary defence mechanisms	**2**	6
5.5	Immunity types, Immunization followed for various diseases, allergy. Hypersensitivity	**2**	6

REFERENCES

- Jain,A.K., (2003),Textbook of Physiology,Volume I,Avichal Publishing Company,New Delhi.
- Vidya rattan.,(2004),Handbook of Human Physiology,7 th edition,Jaypee Brothers Medical Publishers(p) Ltd,New Delhi.
- Ross and Wilson,(2006, Anatomy and Physiology in Health and Illness,10 th edition, Elsevier limited, London.
- Joshua A.K.,(1994),Microbiology,Popular book Depot Publishers.
- Anathanarayan,R and Panicker C.K.J, Text book of Microbiology,8 th edition 2009 Universities Press (India) pvt. Ltd., New Delhi.
- James.M.Jay (1986) Modern Food Microbiology,3rd edition,Van Nostrand,New York.
- Frazier W.C and Westhoff D.C (2008),Food Microbiology,I st edition,CBS Pub.

Text Books for Enrichment

- Guyton: Medical Physiology
- C.C.Chatterjee: Human Physiology,Vol I and II

Course	Details				
Code	HS2CRP02				
Title	**HUMAN PHYSIOLOGY & MICROBIOLOGY (PRACTICAL)**				
Degree	BSC.				
Branch(s)	**FAMILY AND COMMUNITY SCIENCE (HOME SCIENCE)**				
Year/Semester	1/II				
Type	CORE				
Credits	1	Hrs/Week	2	Total Hrs	36

CO No.	Expected Course Outcomes Upon completion of this course, the students will be able to:	Cognitive Level	PSO No
1	Identify microorganisms in a laboratory setting	U	2
2	Formulate and market food products using economically important microorganisms	Ap.C	3
3	Assess body health parameters such as blood pressure at home	Ap,E	2
4	Understand the working conditions in a food quality / microbiology laboratory and consider career prospects for the same	E,U	2,3

*PSO –Program Specific Outcome; CO- Course Outcome
Cognitive Level: R- Remember, U-Understanding, Ap- Application; An- Analyse; E- Evaluate; C-Create

Module	Course Description	Hrs	CO.No
1	Staining techniques for gram positive and negative bacteria	4	1
2	1.Fermentation- Preparation of wine and curd	8	2
3	2.Identification of microorganisms by gram staining	8	1
4	3.Assessment of Blood pressure	8	3
5	4.Field Project-visit to a diagnostic laboratory/Microbiology lab(ST)	8	4

SEMISTER III

Course	Details
Code	HS3CRT03
Title	**HUMAN DEVELOPMENT**
Degree	B.SC
Branch(s)	**FAMILY AND COMMUNITY SCIENCE (HOME SCIENCE)**
Year/Semester	2/III
Type	CORE
Credits	3
Total hours	54
Hours per week	3

CO No.	Expected Course Outcomes Upon completion of this course the students will be able to:	Cognitive level	PSO No.
1	To impart knowledge on the principles & pattern of growth & development of children from conception to olgage	U	1
2	Create awareness on the factors that stimulate growth and development.	C	1
3	Analysis the different developmental stages during preschool child.	An	3
4	Create awareness on the different concerns and issues during adolescence.	C	3
5	Apply the different methods of child study.	Ap	3
6	To identify personality of children.	U	1

*PSO –Program Specific Outcome; CO- Course Outcome
Cognitive Level: R- Remember, U-Understanding, Ap- Application; An- Analyse; E- Evaluate; C-Create

Module	Course Description	Hrs	CO. No.
1.0	**Introduction to Human development**	**8**	
1.1	Human development- significance & Scope	2	1
1.2	Methods of child study – Anthropometry, observation, interview, questionnaire, case study, projective techniques, psychological tests, sociometry, longitudinal & cross sectional approach.	2	5
1.3	Growth & development – Definition, principles, stages, areas, factors influencing, heredity – environment	2	1,2
	interaction		
1.4	Personality development – definition, types, determinants of personality	2	6
2.0	**Pre - natal development**	**15**	
2.1	A) Prenatal development – Conception, stages, factors influencing, complications / hazards during pregnancy.	3	1
2.2	Prenatal care, child birth	3	1
2.3	Neonate-Physical characteristics, abilities, adjustments, Apgar test Care of the new born, Immunization	5	1
2.4	Health assessment using growth chart , At risk babies, Baby friendly hospitals, APGAR test, needs &rights ofchildren	4	1
3.0	**Development during childhood**	**15**	
3.1	Infancy - Physical, motor, intellectual, emotional, social & language development. Factors influencing	4	1,2,3
3.2	Babyhood - Physical, motor, intellectual, emotional, social & language development. Factors influencing.	4	1,2,3
3.3	Early childhood - Physical, motor, intellectual, emotional, social & language development. Factors influencing.	4	1,2,3
3.4	Late childhood - Physical, motor, intellectual, emotional, social & language development, Factors influencing.	3	1,2,3

4.0	**Development During Adolescence**	**8**	
4.1	Adolescence- physical, motor, cognitive, emotional and social development. Factors influencing.	3	1,2,3
4.2	Identity formation and identity crisis. Different issues and concerns during adolescence, causes, consequences & management of each	5	1,3
5.0	**Discipline & guidance for children**	**8**	
5.1	Discipline- essentials, techniques and its effects on children.	3	1
5.2	Play – Importance, types, selection of toys, indigenous toys.	3	1
5.3	Habit formation- definition, principles.	2	1

REFERENCES

- Berk, L E (2000) Child Development (8th edition) PHI learning Pvt ltd, New Delhi
- Devdas ,R and Jaya ,N (2005) A text book on child development
- Hurlock E.B (2008) Developmental Psychology- A life-span approach 5th edn
- Marshall J and Stuart S (2001) Child development, GCSE Home economics for
- Santrock, J.W. (2010). Child Development: An Introduction (12th edition
- International Edition). New York: McGraw Hill
- Shaffer, D.R, and Kipp, K (2007). Developmental Psychology: Childhood and
- Adolescence (7th edition). Australia: Thomson Wadsworth.
- Suriakanthi A (1997) Child development - An Introduction 3rd edn

Course	Details
Code	HS3CRP03
Title	**HUMAN DEVELOPMENT- PRACTICAL**
Degree	B.Sc
Branch(s)	**FAMILY AND COMMUNITY SCIENCE (HOME SCIENCE)**
Year/Semester	2/III
Type	CORE
Credits	1
Total hours	36
Hours per week	2

CO No.	Expected Course Outcomes Upon completion of this course the students will be able to:	Cognitive level	PSO No.
1	Assess the physical, motor, emotional, intellectual and social development of a pre-school child.	E, Ap	3
2	Develop materials to enhance overall development of a child.	C	3
3	Understand the pattern involved in the growth and development of a child from infancy to adulthood.	U	2
4	Monitor progress in physical growth of children with the help of standardised tools.	An, E	3
5	Preparation of visual aids for effective communication of messages related to child care.	C, Ap	3,4

*PSO –Program Specific Outcome; CO- Course Outcome
Cognitive Level: R- Remember, U-Understanding, Ap- Application; An- Analyse; E- Evaluate; C-Create

Module	Course Description	Hrs	CO. No.
1	Study of physical & motor, Intellectual, emotional and social development of a Pre-school child.	10	1
2	Preparation of growth enhancing material/ play materials/ toys for infants / toddlers/ Pre- school children.	10	2
3	Growth monitoring of a child below 5 years using growth chart.	6	3,4
4	Preparation of a brochure/ leaflet /folder/chart on any related topic in Hum development OR Preparation of an illustrated album / a power point on any topic related to Human development.	10	5

SEMESTER IV

Course	Details
Code	HS4CRT04
Title	**FAMILY DYNAMICS**
Degree	B.SC
Branch(s)	**FAMILY AND COMMUNITY SCIENCE (HOME SCIENCE)**
Semester	IV
Type	CORE
Credits	3
Total hours	54
Hours per week	3

CO No.	Expected Course Outcomes Upon completion of this course the students will be able to:	Cognitive level	PSO No.
1	Summarise the different aspects of marriage and the factors leading to Successful marriage	U	1, 2
2	Describe different aspects of family, family interactions and the current issues affecting family and Child Development	R	2
3	Identify the critical family situations and get equipped with coping strategies.	An	1,2
4	Understand the Needs & problems of the elderly and develop a positive attitude towards the care of the aged.	U	2

*PSO –Program Specific Outcome; CO- Course Outcome
Cognitive Level: R- Remember, U-Understanding, Ap- Application; An- Analyse; E- Evaluate; C-Create

Module	Course Description	Hrs	CO. No.
1.0	**Marriage**	**8**	
1.1	Definition, Functions, types.	3	1
1.2	Marital adjustment -Areas of Adjustment.	2	1
1.3	Factors leading to successful married life	3	1
2.0	**Family and contemporary issues affecting family**	**12**	
2.1	Family- the basic social institution, functions of family. Types-Joint, Nuclear, extended, lone-parent, reconstituted families.	5	1
2.2	Family Interactions (Husband –wife & parent-child) and its influence on child development. Responsible parenthood.	**2**	1
2.3	Contemporary issues affecting family(India and Global)- maternal employment, Lone parenthood, reconstituted families, impact of electronic media on family	5	2,3
3.0	**Critical family situations and the coping strategies**	20	
3.1	Family Crisis - Meaning, and types - Death, divorce, desertion, suicide, prolonged illness, imprisonment, unemployment, dowry, alcoholism, drug addiction, war separation, economic depression. Consequences and coping strategies	10	3
3.2	Children with special needs-Definition, general classification, characteristics, general causes, role of family towards children with special needs.	7	2
3.3	Children with Behaviour problems- definition, causes , methods of handling	3	2
4.0	**Population education**	7	
4.1	Definition. Overpopulation – definition & its problems.	**3**	2
4.2	Methods of family planning.	2	2
4.3	Sex education	2	2
5	**Old age**	7	
5.1	Physical & psychological changes during old age.	**3**	4

5.2	Needs, problems of the elderly.	2	4
5.3	Care of the aged.	2	4

REFERENCES

• Devadas, R and Jaya, N. (2005), AText book on Child development.

• Hurlock, E.B. (2008), Developmental Psychology – A life span approach,5th Edn.

• Minett, P. (2005). Child Care & Development, 5th Edn. John Murray Pub. Ltd.

Walsh .A. B, De Florio. L ,Burnham .M .(2017) . Introduction to Human Development and Family studies Routledge ,New York.

Course	Details
Code	HS4CRP04
Title	**FAMILY DYNAMICS**
Degree	B.SC
Branch(s)	**FAMILY AND COMMUNITY SCIENCE(HOME SCIENCE)**
Semester	IV
Type	CORE PRACTICAL 4
Credits	1
Total hours	36
Hours per week	2

CO No.	Expected Course Outcomes Upon completion of this course the students will be able to:	Cognitive level	PSO No.
1	Understand the problems related to old age and develop a sense of responsibility towards destitute and elderly.	U	1
2	Interact with the neglected population and develop a Sense of responsibility towards the society as a whole.	U, R	1,2
3	Prepare visual aids to create awareness on topics related to family living	C, Ap	1
4	Create technologically advanced tools for interaction and dissemination of information	C, Ap	1,2

*PSO –Program Specific Outcome; CO- Course Outcome
Cognitive Level: R- Remember, U-Understanding, Ap- Application; An- Analyse; E- Evaluate; C-Create

Module	Course Description	Hrs	CO. No.
1.0	Visit to an Old age Home/ pakal veedu and interact with the inmates to assess their (problems / interests/ desires) and report.	**8**	1,2
1.1	A project on the characteristics of a child with any behavior problem. /Child with special needs.	8	2
1.2	Preparation of a brochure/ leaflet /folder/chart on any topic related to family Dynamics	10	3
2.0	Preparation of a power point presentation on any related topic of your study	**10**	4

SEMESTER V

Course	Details
Code	HS5CRT05
Title	**INTERIOR DECORATION**
Degree	B.SC
Branch(s)	**FAMILY AND COMMUNITY SCIENCE (HOME SCIENCE)**
Semester	V
Type	CORE
Credits	4
Total hours	72
Hours per week	4

CO No.	Expected Course Outcomes Upon completion of this course the students will be able to:	Cognitive level	PSO No.
1	Identify the basic elements of design	R	3
2	Select appropriate colours for home decor	E	3
3	Develop basic skills for a career option in interior decoration	Ap	3,5
4	Choose appropriate furniture and lighting for homes	An, Ap	3,5
5	Construct basic design drafts for interior decor/organization	C	3,5

*PSO –Program Specific Outcome; CO- Course Outcome
Cognitive Level: R- Remember, U-Understanding, Ap- Application; An- Analyse; E- Evaluate; C-Create

Module	Course Description	Hrs	CO. No.
1.0	**Fundamentals of Interior Decoration**	**10**	
1.1	Introduction to Interior Designing	1	3
1.2	Importance of good taste	1	3
1.3	Concept and objectives of interior decoration	2	1,3
1.4	Definition, Types of design	2	1
1.5	Elements of design-line, shape, texture, colour, pattern, light and space	2	1
1.6	Principles of design- proportion, balance, rhythm, emphasis, harmony	2	1
2.0	**Colour and Home lighting**	18	
2.1	Qualities of colour	2	2
2.2	Prang colour system	2	2
2.3	Colour harmonies and schemes	2	2
2.4	Use and effects of various colours	2	2,3
2.5	Colour schemes for various rooms	2	2,3
2.6	Home Lighting	1	4,3
2.7	Importance of home lighting	1	4
2.8	Sources of lighting- natural and artificial	2	4
2.9	Types of lightings-Direct, Indirect, semi direct and semi indirect	**2**	4
2.10	Lighting for different rooms.	1	4,3
2.11	Physical and Psychological aspects of lighting	1	4
3.0	**Furniture and Furnishing**	16	
3.1	Furniture – Importance, Types	3	4
3.2	Furniture requirement for various rooms	2	4
3.3	Guidelines for selection and arrangement of furniture.	**2**	4
3.4	Classification and selection of soft furnishings.	2	4

3.5	Types of windows, window treatments - curtain styles	4	4
3.6	Selection and care of rugs and carpets	3	4,3
4.0	**Accessories**	**10**	
4.1	Classification, selection, placement	2	3
4.2	Role of accessories in interiors	1	3
4.3	Flower arrangement - principles, different styles, and basic shapes	3	3
4.4	Drying techniques	2	3
4.5	Dry flower arrangement	2	3
5.0	**Interior and Exterior Space Organisation**	**18**	
5.1	Space requirement for various activities in various rooms	1	5
5.2	Storage for living, dining and bed rooms	1	5
5.3	Principles of space planning	1	5
5.4	Space saving techniques	1	5
5.5	Kitchen- types of kitchen, Modular kitchen	2	5
5.6	Working areas and work triangle	1	5
5.7	Gardening - components and routine duties	2	5
5.8	Landscaping – objectives, principles, types formal and informal	2	5
5.9	Indoor gardens – selection of indoor plants, care and maintenance, benefits	2	5,3
5.10	Bonsai – styles and techniques	2	5,3
5.11	Trends in gardening – terrarium, bottle garden, dish garden, vertical, water garden, kitchen garden and aquaponics	3	5

REFERENCES

• Rutt, A.H. (1963) Home furnishing. John Wiley & Sons, Inc.;

• Teresa, P. Lanker. (1960). Flower Arranging: Step-by-step Instructions for Everyday Designs. Florist

• Supriya, K.B.(2004). Landscape gardening and designing with plants. Pointer Publishers

Text Books for Enrichment

• Faulkner, R. & Faulkner,S. (1961) Inside Today's Home. Rev. ed. © Holt, Rlnehart & Winston, Inc.

• Craig, H.T. and Rush, O.D. (1966). Homes With Character. Heath, 1966

• Goldstein. H & Goldstein V. (1954). Art in Everyday Life Macmillan Publishers.

Course	Details
Code	HS5CRP05
Title	**INTERIOR DECORATION - PRACTICAL**
Degree	B.SC
Branch(s)	**FAMILY AND COMMUNITY SCIENCE (HOME SCIENCE)**
Semester	V
Type	CORE
Credits	1
Total hours	36
Hours per week	2

CO No.	Expected Course Outcomes Upon completion of this course the students will be able to:	Cognitive level	PSO No.
1	Select appropriate elements of design for application in home and work interiors	E	1
2	Apply suitable colour schemes in a design	Ap	2
3	Demonstration of table setting, napkin folding and flower arrangements in different shapes and styles	C, Ap	2,3
4	Evaluate interiors for their design elements	E, An	2,3
5	Create decorative arts and crafts	C, Ap	3,4

*PSO –Program Specific Outcome; CO- Course Outcome
Cognitive Level: R- Remember, U-Understanding, Ap- Application; An- Analyse; E- Evaluate; C-Create

Module	Course Description	Hrs	CO. No.
1.0	**Design and colour**	**12**	
1.1	Application of various types of design	2	1
1.2	Elements of design	2	1
1.3	Principles of designs	2	1
1.4	Application of motif in a design suitable for furnishing / accessories	2	1
1.5	Preparation of colour charts	2	2
1.6	Application of colour schemes in a design/ room	2	2
2.0	**Flower Arrangement Table settings and napkin folding**	**8**	
2.1	Table settings and napkin folding	3	3
2.1	Demonstration of basic shapes in flower arrangement, dry flower arrangement, Ikebana, artificial flower arrangement, bouquet making	5	3
3	**Furnishings**	**6**	
3.1	Curtain Styles : Illustration of various curtain styles	6	1,4
4	**Evaluation of Interiors**	**2**	
4.1	Photographic evaluation of any two rooms (Living room, dining room, bed room, bath room, kitchen etc)	2	4
5	**Creative arts**	**8**	
5.1	Creation of art objects any decorative/ functional accessory	8	5

Course	Details
Code	HS5CRT06
Title	**HUMAN NUTRITION & BIOCHEMISTRY**
Degree	B.SC.
Branch(s)	**FAMILY AND COMMUNITY SCIENCE (HOME SCIENCE)**
Semester	V
Type	CORE
Credits	3
Total hours	90
Hours per week	3

CO No.	Expected Course Outcomes Upon completion of this course the students will be able to:	Cognitive level	PSO No.
1	Understand the significance of maintaining a healthy lifestyle with adequate physical activity and a balanced diet	U	1
2	Identify basic nutrients present in foods	R	1
3	Outline the metabolic pathways of the different macro and micronutrients in the body	E	1
4	Assess nutritional status of individuals by scientific methods Prepare diet plans for individuals of varying ages and physical states	An C	1
5	Understand the significance of maintaining a healthy lifestyle with adequate physical activity and a balanced diet	U	1

*PSO –Program Specific Outcome; CO- Course Outcome
Cognitive Level: R- Remember, U-Understanding, Ap- Application; An- Analyse; E- Evaluate; C-Create

Module	Course Description	Hrs	CO. No.
1.0	**Introduction to Nutrition Science**	**5**	
1.1	Define nutrition	1	1
1.2	RDA, Factors affecting RDA	1	1
1.3	RDA for different nutrients	2	1
1.4	Indian reference man and woman.	1	1
2.0	**Human Energy Requirements**	**6**	
2.1	Definition of energy	1	1
2.2	Factors influencing food intake, total energy requirements	1	1
2.3	Measurement of BMR, factors affecting BMR, thermic effect of food	2	1
2.4	Measurement of basal metabolism -Direct Calorimetric-Bomb calorimeter	**1**	1
2.5	Indirect calorimetric method- Benedict's oxy calorimeter. Energy requirements	1	1
3.0	**Macronutrients and their metabolism**	**15**	
3.1	Carbohydrates-Functions, Metabolism – glycolysis	2	2
3.2	TCA cycle & its energetic	2	2
3.3	Types of dietary fibre, physiological and metabolic effects of dietary fibre and potential health benefits	2	3
3.4	a) Proteins – Classification of proteins and amino acids	1	2
3.5	Functions, Metabolism – Deamination, Transamination, De-carboxylation	**1**	3
3.6	Protein turnover, methods of evaluating protein quality-Biological value, net protein utilisation, digestibility coefficient	2	3
3.7	b) Lipids – Composition, function	1	2
3.8	Lipid Metabolism–(Beta-oxidation, ketone body formation	1	3

3.9	Water: Functions, Distributions of body water	1	2
3.10	Factors influencing water distribution, Regulation of water balance, requirements of water, dehydration, oedema	**2**	2
4.0	**Vitamins and Minerals**	**15**	
4.1	a)Fat soluble vitamins- Classification, food sources, functions, deficiency/ cy/toxicity and requirements	3	2
4.2	Water soluble vitamins-Classification, food sources, functions, deficiency/toxicity, requirements	3	2
4.3	b)Macro minerals –Functions, food sources, deficiency/toxicity and requirements of calcium, phosphorus, sodium, potassium	3	2
4.4	Micro minerals –Factors affecting absorption of minerals, functions, food sources	3	2
4.5	Deficiency and requirements of iron, iodine, fluorine and zinc	3	2
5.0	**Principles of Human Nutrition**	**13**	
5.1	Assessment of nutritional status Anthropometry – measurements of height, weight, head and chest. Circumference, mid arm circumference, skin fold thickness, interpretation ofmeasurements and comparison with standards (NCHS, ICMR), classification according to grades of malnutrition.	2	4
5.2	Clinical assessment of PEM, and deficiencies of vitamins and minerals	1	4
5.3	Dietary Assessment – oral questionnaire (24-hour recall method), weighment method	1	4
5.4	Nutrition in Infancy-Nutritional requirement, breast feeding- advantages, Define- weaning and types of supplementary Foods	1	4
5.5	Nutrition in Preschool Age-Nutritional requirement, nutrition related problems, feeding patterns, Diet plan	1	5
5.6	Nutrition in school going age-Nutritional requirement, dietary guidelines, packed lunches, school lunch	1	5

	programme –mid day meal programme, diet planning		
5.7	Nutrition inAdolescence-Nutritional requirement, factors influencing.dietary guidelines, eating disorders	1	5
5.8	Nutrition in Pregnancy-Physiological changes during pregnancy, nutritional requirements, complications in pregnancy- gestational diabetes, toxaemia, effect of maternal malnutrition on foetus	2	5
5.9	Nutrition in Lactation-Nutritional requirements, human milk composition and importance, lactogogues, diet planning.	2	5
5.10	Nutrition in old age-Factors affecting food intake and nutrient use, nutrient needs, diet planning	1	5

REFERENCES

• Srilakshmi, B. (2008). Nutrition Science, 3rd edn, New Delhi.: NewAge International (p) Ltd. Publishers.

• BamjiM.S., Krishnaswamy,K., and Brahmam G.N.V.(2009). Textbook of Human Nutrition, 3rdedn. New Delhi.: Oxford and IBH Publishing Co.Pvt.Ltd.,?

• Swaminathan,M. (2001).Principles of Nutrition and Dietetics. Bangalore.: The Bangalore Printing and Pub,Co,Ltd,,

• Longvah,T ,Ananthan,R, Bhaskarachary,K, Venakaiah,K (2017) Indian Food Composition Tables,NIN, Hyderabad

Text Books for Enrichment

• Park, K. (2005).Park's Textbook of Preventive and Social Medicine,18th edn. India.: M/s BanarsidasBhanot Publishers, Jabalpur,.28

• C. Gopalan, B.V. Ramasastri and S.C. Balasubramanian. (2007). Nutritive value of IndianFoods. Hyderabad.: NIN, ICMR

Course	Details				
Code	HS5CRP06				
Title	**HUMAN NUTRITION AND BIOCHEMISTRY - PRACTICAL**				
Degree	BSc.				
Branch(s)	**FAMILY AND COMMUNITY SCIENCE (HOME SCIENCE)**				
Year/Semester	3/V				
Type	CORE				
Credits	1	Hrs/Week	2	Total Hrs	36

CO No.	Expected Course Outcomes Upon completion of this course, the students will be able to:	Cognitive Level	PSO No
1	Analyse various foods for their qualitative aspects	E,Ap	1
2	Assess the quality of frequently consumed food items	An	1
3	Examine food stuffs quantitatively for minerals and vitamins	E,An	1
4	Plan and formulate normal diets for various age groups	C	1,5

*PSO –Program Specific Outcome; CO- Course Outcome
Cognitive Level: R- Remember, U-Understanding, Ap- Application; An- Analyse; E- Evaluate; C-Create

Module	Course Description	Hrs	CO.No
1	**Food Analysis**	**18**	
1.1	Qualitative tests for carbohydrates	6	1
1.2	Qualitative tests for protein	4	1
1.3	Qualitative tests for calcium	4	1
1.4	Qualitative tests for phosphorus	2	1
1.5	Qualitative tests for iron	2	1
2	**1Quantitative tests for various food stuffs**	**9**	
2.1	Lactose in milk	3	3
2.2	Vitamin C in food stuffs	3	3
2.3	Calcium in foods	3	3
3	**Planning, preparing and serving normal diets for different ages**	**18**	
3.1	Infancy	2	4
3.2	Preschool age	2	4
3.3	School going age	2	4
3.4	Adolescence	2	4
3.5	Adult	4	4
3.6	Pregnancy	2	4
3.7	Lactation	2	4
3.8	Old Age.	2	4

Course	Details
Code	HS5CRT07
Title	**TEXTILE SCIENCE**
Degree	B.Sc
Branch(s)	**FAMILY AND COMMUNITY SCIENCE (HOME SCIENCE)**
Semester	V
Type	CORE
Credits	3
Total hours	54
Hours per week	3

CO No.	Expected Course Outcomes Upon completion of this course the students will be able to:	Cognitiv e level	PSO No.
1	Describe the production, properties and use of different textile fibers.	U	1
2	Identify and classify textile fibers using the microscopic and burning tests.	U, Ap	1
3	Understand the process of yarn making and characteristics of different types of yarns.	U	1
4	Explain the different methods of fabric construction and Identify different textile weaves.	U, An	1,5
5	Describe different methods of Textile dyeing and printing process.	U	1,3
6	Apply some basic hand printing methods on textile fabrics.	Ap	3,5
7	Describe the different types of finishes and its purpose.	U	1
8	Discuss some of new trends in textiles	U	1,3,5

*PSO –Program Specific Outcome; CO- Course Outcome
Cognitive Level: R- Remember, U-Understanding, Ap- Application; An- Analyse; E- Evaluate; C-Create

Module	Course Description	Hrs	PSO. No.
1.0	**Study of Fibres**	**14**	
1.1	Definition, Properties of textile fibers- primary and secondary classification.	3	1
1.2	Production, properties and uses of Textile fibres- cotton, linen, wool, silk, rayon, nylon, and polyester	6	1
1.3	A brief introduction to jute, bamboo, spandex and organic cotton.	2	1
1.4	Methods of identification of textile fibres- visual test, microscopic test and burning test	3	2
2.0	**Study of yarns**	**10**	
2.1	Definition, process of making fibre in to yarn, hand spinning.	2	3
2.2	Mechanical spinning (Ring spinning and open end spinning and chemical spinning.	3	3
2.3	Classification of yarns- based on type – number of parts, count and twist	3	3
2.4	Textured yarns, bi-component yarns, blends and mixtures.	2	3
3.0	**Fabric structure**	**12**	
3.1	Weaving- parts of a loom and basic weaving operations, a brief introduction to shuttle less looms- projectile, rapier and air jet and water jet looms.	4	4
3.2	Basic weaves- plain, twill and satin. Fancy Weaves- jacquard, dobby, lappet, clip spot, crepe and double cloth.	3	4
3.3	Characteristics of woven fabrics –warp and weft, grain, selvedge, thread count and balance.	2	4
3.4	Other methods of fabric construction-knitting, felting, lace making, bonding, and braiding	3	4
4.0	**Dyeing, Printing**	**10**	

4.1	Classification of dyes: Natural, artificial- acid, basic, disperse, vat, Naphthol, pigment, sulphur, and mordant.	4	5
4.2	Methods of dyeing-stock, yarn, piece, product, cross and union dyeing.	3	5
4.3	Printing:-Direct- roller, block, screen and stencil. Resist- tie & dye, batik and Discharge.	3	5,6
5.0	**Fabric Finishes and New trend in textiles.**	**8**	
5.1	Definition, purpose. Classification	1	7
5.2	Types-singeing, bleaching, mercerization, calendaring, shrinkage control, sanforizing, crabbing, beetling, sizing, weighting, shearing, fulling, schrienerizing, crepe,	3	7
5.3	Special finishes-water proofing, flame proofing, and antibacterial finish.	2	7
5.4	New Trends in Textiles-Brief introduction to Technical textiles, medicinal fabrics, Nano textiles and geo textiles.	2	8

REFERENCES

- Corbman.B.P.(2005).Fibre to Fabric.Singapore.:Mc.Graw Hills book.co.Kadolf S.J (2008) Textiles, Anne Langford, Prentice Hall.
- Gokarneshan U (2005) Fabric Structure and Design, New Age International Publishers Well's K(2002) Fabric Dyeing and Printing, Conran Octopus.
- Smith J.L (2006) Textile Processing, Chandigarh, Abhishek Publications Wingate (1978) Textile Science and their Section, Prentice Hall.
- Dantygi S (2008) Fundamentals of Textiles And Their care, Orient Longman.

Course	Details
Code	HS5CRP07
Title	**TEXTILE SCIENCE - PRACTICAL**
Degree	B.Sc
Branch(s)	**FAMILY AND COMMUNITY SCIENCE (HOME SCIENCE)**
Semester	V
Type	CORE
Credits	1
Total hours	36
Hours per week	2

CO No.	Expected Course Outcomes Upon completion of this course the students will be able to:	Cognitive level	PSO No.
1	Identify textile fibre by their appearance and texture	U,R	3
2	Analyze the textile fibres and test claims given by fabric manufacturers.	An	3
3	Understand the process of basic fabric construction.	Ap, U	3
4	Assess fabric quality and make wise purchase decisions.	E, An	3
5	Prepare printed fabrics by applying hand printing techniques.	C, Ap	3,5
6	Understand the current trends in textile and fashion industry	U	5

*PSO –Program Specific Outcome; CO- Course Outcome
Cognitive Level: R- Remember, U-Understanding, Ap- Application; An- Analyse; E- Evaluate; C-Create

Module	Course Description	Hrs	PSO. No.
1	Collection of different textile fibres (Cotton, Silk, Polyester, Nylon, wool and rayon)	**6**	1
2	Testing of fibers: - Visual Inspection, Burning and Microscopic Test.	4	2
3	Fabric structure: Basic weaves- Collect samples for all the Basic weaves and their variations.	5	3
4	Fancy weaves- Collect samples for Pile, Dobby, Jacquard, Leno, Clip Spot, Lappet and Double Cloth.	7	4
5	Thread count: - Collect samples for low medium and high count fabric.	4	4
6	Prepare samples for Block, Batik and Tie & Dye (any two variations)	5	5
7	Visit to Mills /Shops	5	6

Course	Details
Code	HS5CRT08
Title	**ENVIRONMENTAL STUDIES AND HUMAN RIGHTS**
Degree	B.SC
Branch(s)	**FAMILY AND COMMUNITY SCIENCE (HOME SCIENCE)**
Semester	V
Type	CORE
Credits	4
Total hours	72
Hours per week	2

CO No.	Expected Course Outcomes Upon completion of this course the students will be able to:	Cognitive level	PSO No.
1	Understands the basic concept of environment and ecosystem	U	1
2	To identify the concept of biodiversity and its conservation	R	1,2
3	To recognize the environmental problems – causes, effects and management	U	1,2
4	Describe the conservation of natural resources	R	1,2
5	To create awareness on human rights	C	1

*PSO –Program Specific Outcome; CO- Course Outcome
Cognitive Level: R- Remember, U-Understanding, Ap- Application; An- Analyse; E- Evaluate; C-Create

Module	Course Description	Hrs	CO. No.
1.0	**Basic concepts of Environment**	**12**	
1.1	Environment – Definition, components	2	1
1.2	Ecosystem – Definition, structure, types	2	1
1.3	Energy flow in the ecosystem	3	1
1.4	Food chain	2	1
1.5	Ecological pyramids – pyramid of numbers, pyramid of biomass, pyramid of energy	3	1
2.0	**Biodiversity and its conservation**	**12**	
2.1	Introduction, genetics species and ecosystem diversity	2	2
2.2	Values of biodiversity	3	2
2.3	Threats of biodiversity – habitat loss, poaching of wildlife, man –wildlife conflict	2	2
2.4	Loss of biodiversity – endangered and endemic species of india	2	2
2.5	Conservation of biodiversity – ex-situ and in-situ conservation	3	2
3.0	**Environmental problems – causes, effects and management**	**12**	
3.1	Environmental pollution – air, water, soil, marine, noise, thermal and nuclear hazards.	3	3
3.2	Environmental issues – climate change, global warming, carbon footprint acid rain, ozone layer depletion, deforestation, drought, scarcity of water	2	3
3.3	Solid waste – sources, types, effects and management techniques	**2**	3
3.4	Green protocol	2	3
3.5	Water management techniques – water harvesting, drip irrigation, watershed management, water –wise habits	3	3
4.0	**Conservation of natural resources**	**18**	
4.1	Meaning, types – renewable and non renewable	3	4

	resources		
4.2	Use and exploitation of forest, water, mineral, food, land, and energy resources	4	4
4.3	Growing energy needs and energy consumption	3	4
4.4	Renewable energy sources and devices- solar energy – solar cooker, photovoltaic water pump, water heater, domestic and street lights	**4**	4
4.5	Wind energy – wind mill, hydro energy , Bio energy- biogas plant, geothermal energy and tidal energy	4	4
5.0	**Human Rights**	**18**	
5.1	Introduction to Human rights, meaning concept and development	2	5
5.2	History of human rights – Different generations of human rights – universality of human rights	2	5
5.3	Basic international human rights documents – UDHR, ICCPR, ICESCR – value dimensions of Human rights	2	5
5.4	Human rights and united nations - Human Rights Co – ordination within UN system	2	5
5.5	Role of UN secretariat – the economic and social council and Human rights – The committee on the elimination of racial discrimination	2	5
5.6	The committee on the elimination of discrimination against women – the committee on economic, social and cultural rights – the human rights committee – critical appraisal of UN human rights regime	2	5
5.7	Human rights national perspective – human rights in Indian constitution – fundamental rights – the constitutional context of human rights – directive principles of state policy and human rights	2	5
5.8	Human rights of women – children – minorities – prisoners – science technology and human rights	2	5
5.9	National human rights commission – state human rights commission – human rights awareness in education	2	5

REFERENCES

- Rajagopalan. R, Environmental Studies from crisis and cure, Oxford University Press, Published:2016 (TB)
- Sharma B.K., 2001. Environmental Chemistry. Geol Publ. House, Meerut (Ref)
- ownsend C., Harper J, and Michael Begon, Essentials of Ecology, Blackwell Science (Ref)
- Trivedi R.K., Handbook of Environmental Laws, Rules Guidelines, Compliances and Stadards, Vol I and II, Enviro Media (Ref)
- Trivedi R. K. and P.K. Goel, Introduction to air pollution, Techno-Science Publication (Ref)
- Wanger K.D., 1998 Environmental Management. W.B. Saunders Co. Philadelphia, USA 499p (Ref) (M) Magazine (R) Reference (TB) Textbook
- Amartya Sen, The Idea Justice, New Delhi: Penguin Books, 2009.
- Chatrath, K. J.S., (ed.), Education for Human Rights and Democracy (Shimla: IndianInstitute of Advanced Studies, 1998)
- Law Relating to Human Rights, Asia Law House,2001.
- Shireesh Pal Singh, Human Rights Education in 21st Century, Discovery Publishing House Pvt.Ltd, New Delhi,
- S.K.Khanna, Children And The Human Rights, Common Wealth Publishers,1998. 2011.
- Sudhir Kapoor, Human Rights in 21st Century,Mangal Deep Publications, Jaipur,2001.
- United Nations Development Programme, Human Development Report 2004

Course	Details
Code	HS5CRT08
Title	**ENVIRONMENTAL STUDIES AND HUMAN RIGHTS - PRACTICAL**
Degree	B.SC
Branch(s)	**FAMILY AND COMMUNITY SCIENCE (HOME SCIENCE)**
Semester	V
Type	CORE
Credits	1
Total hours	36
Hours per week	2

CO No.	Expected Course Outcomes Upon completion of this course the students will be able to:	Cognitive level	PSO No.
1	Explain the need for energy conservation techniques / Devices	U	3
2	Create awareness on waste management.	Ap	4
3	Create a beneficial product from used /old clothes	Ap	4
4	Find out the organic foods available in the market	Ap	4
5	Outline the rights of women and children in India	R, U	3

*PSO –Program Specific Outcome; CO- Course Outcome
Cognitive Level: R- Remember, U-Understanding, Ap- Application; An- Analyse; E- Evaluate; C-Create

Module	Course Description	Hrs	CO. No.
1.0	**Energy conservation**	**10**	
1.1	Visits to organization/ institutions involved with alternate energy programmes	5	1
1.2	Study of devices/ Techniques for conservation of energy /renewable energy devices (solar devices and biogas)	5	1
2.0	**Waste management**	10	
2.1	Study of waste management practices in our house/locality	5	2
2.2	Development of wealth from waste	5	2
3	**Create a beneficial product from used/ old clothes**	**8**	3
4	**Survey of organic foods available in the market/ visit to an organic farm**	**4**	4
5	**Make an illustrated chart on rights of women and children in India**	**4**	5

Course	Details
Code	HS5OP4
Title	**SELF EMPOWERMENT SKILLS**
Degree	B.SC.
Branch(s)	**FAMILY AND COMMUNITY SCIENCE (HOME SCIENCE)**
Semester	V
Type	OPEN COURSE
Credits	2
Total hours	54
Hours per week	3

CO No.	Expected Course Outcomes Upon completion of this course the students will be able to:	Cognitive level	PSO No.
1	Understand the pleasing personalities and to make them efficient in life	U	4
2	Understand the resource development skills.	U	2
3	Understand the effective communicative skills	U	2
4	Understand the Self-empowerment	U	5
5	Understand various methods to mould students as a social person	U	4
6	Prepare students graceful to the family and Society	C	3

*PSO –Program Specific Outcome; CO- Course Outcome
Cognitive Level: R- Remember, U-Understanding, Ap- Application; An- Analyse; E- Evaluate; C-Create

Module	Course Description	Hrs	CO. No.
1.0	**Personality Development**	**10**	
1.1	Definition, Determinants of personality	2	1
1.2	Types based on temperament& body build and type A & B	2	1
1.3	Tips to develop a positive personality	2	1
1.4	Self-esteem-definition and types of self esteem	2	1
1.5	Importance of self-esteem, Steps to improve self esteem	2	1
2.0	**Resource Management Skills**	**10**	
2.1	Definition, Types of resources	2	2
2.2	Definition of management, steps in management process. Decision making	2	2
2.2	Time management-time schedule, techniques for time management	2	2
2.4	Money management-Steps in making budget, Account keeping	2	2
2.5	Energy money management, different types of fatigue. Causes of fatigue work simplification	2	2
3.0	**Soft Skills**	**12**	
3.1	Intelligent listening, Effective speaking	2	3
3.2	Impressive writing skills -Letters, Note taking	3	3
3.3	Facing Interviews, Participating in group discussions	3	3
3.4	Importance of interpersonal skills in relationship (Husband-wife, parent – child, teacher-student and sibling relationship.).	4	3
4.0	**Learning skills**	**12**	
4.1	Intelligence-definition, areas of intelligence, memory techniques	3	3,4
4.2	Scientific learning, tips for writing examinations.	2	3,4

4.3	Social skills-definition. Different social skills. Qualities that a person successful.	3	3,4
4.4	Family life skills-marriage-definition, areas of marital adjustment. Factors influencing	3	3,4
4.5	Reproductive Health-diet, personal hygiene. Stress management.	1	5
5.0	**Aesthetic &Income generating Skills.**	**10**	
5.1	Interior decoration-Types, elements& principles of design, colour combination	4	5,6
5.2	Flower management-material needs, styles.	2	5,6
5.3	Meal planning -principles, table etiquettes.	2	5,6
5.4	Waste management-wealth from waste.	2	5,6

REFERENCES

- Mitter, S & Aggarwal, S.C. (2002). How to develop your personality & Potentialities. Sultan Chand & sons, New Delhi.
- Khera Shiv (2002). You Can Win. Macmillan pub. New Delhi.

SEMESTER VI

Course	Details
Code	HS5CRT09
Title	**FAMILY RESOURCE MANAGEMENT**
Degree	B.SC
Branch(s)	**FAMILY AND COMMUNITY SCIENCE (HOME SCIENCE)**
Semester	VI
Type	CORE
Credits	3
Total hours	54
Hours per week	3

CO No.	Expected Course Outcomes Upon completion of this course the students will be able to:	Cognitive level	PSO No.
1	Develop acquire scientific skills in the management of resources	Ap	1
2	Identify the significance of resource management and thereby improve the quality of life.	R	1
3	Identify the principles of management and their application in family context.	R	1,3
4	Create awareness and need for consumer education.	C, Ap	1,3

*PSO –Program Specific Outcome; CO- Course Outcome
Cognitive Level: R- Remember, U-Understanding, Ap- Application; An- Analyse; E- Evaluate; C-Create

Module	Course Description	Hrs	CO. No.
1.0	**Introduction to Home Management**	**10**	
1.1	Definition, theory of management, steps involved in management-planning, organizing, controlling, evaluation.	1	1,3
1.2	Decision making- role of decision making in management, steps in decision making. Methods of resolving conflict	1	3
1.3	Concepts in management-Values, goals, standard. Qualities of a good home maker.	2	1,3
2.0	**Management of Family Resources**	**18**	
2.1	Meaning, Definition, Classification and Characteristics of resources. Factors affecting use of resources.	2	2
2.2	Management of Time-Steps in making time plan, tools and aids in time management-time norm, time cost, peak load, work curve.	**2**	2
2.3	Time management matrix; Leisure time and its utilization	2	2
3.0	**Management of Money**	**2**	
3.1	Types of family income, guidelines in money management.	2	2,3
3.2	Family budget- types and steps in family budget, Engel's law of consumption.	1	4,3
3.3	Accounting, financial recording- types, purpose, advantages.	1	4
3.4	Savings and Investment-meaning, saving institution and scheme, supplementing family income.	2	4
3.5	Family credit-types, sources, use and misuse.	2	4
4.0	**Management of Energy**	**16**	
4.1	Significance, energy requirement for various house hold activities-work curve or production curve.	3	4
4.2	Fatigue – classification, causative factors and alleviating	2	4

	techniques		
4.3	work simplification-meaning and technique, Mundell's classes of change	**2**	4
4.4	Labour saving equipment- importance, principle, use, and care of equipment such as cooker, microwave oven, OTG, mixers and grinders, refrigerator, washing machine, and dish washers	2	4
5.0	**Consumer Education**	**4**	
5.1	Meaning, consumer problems, rights and responsibilities of a consumer	3	4,3
5.2	Consumer Aids, Consumer Protection Act	10	3
5.3	Consumer redressal procedure and better buying practices, Green consumerism	2	3

REFERENCES

- Nicklle. P. Dorsey , J. M Management of family living, Sterling Publishers, New Delhi
- Gross. I. M and Grandall . Dd, Management for modern families.
- M.A Varghese, N Ogale, Home Management.
- M.A. Household Equipment Manual , S.N.D.T women university
- Premalata Mullick- text book of Home Science, Kalyani publishers, Ludhiana

Course	Details
Code	HS5CRP09
Title	**FAMILY RESOURCE MANAGEMENT - PRACTICAL**
Degree	B.Sc
Branch(s)	**FAMILY AND COMMUNITY SCIENCE (HOME SCIENCE)**
Semester	V
Type	CORE
Credits	2
Total hours	36
Hours per week	2

CO No.	Expected Course Outcomes Upon completion of this course the students will be able to:	Cognitive level	PSO No.
1	Develop acquire scientific skills in the management of resources	Ap	1
2	Identify the significance of resource management and thereby improve the quality of life.	R	1
3	Identify the principles of management and their application in family context.	R	1,3
4	Create awareness and need for consumer education.	C, Ap	1,3

*PSO –Program Specific Outcome; CO- Course Outcome
Cognitive Level: R- Remember, U-Understanding, Ap- Application; An- Analyse; E- Evaluate; C-Create

Module	Course Description	Hrs	CO. No.
1.0	**Management of Time and Energy**	**10**	
1.1	Time schedule: Preparation of time plan for college girl / homemaker and its evaluation,	5	1, 2
1.2	Determination of working height in vertical and horizontal planes.	5	1
2.0	**Management of money and material resources**	**8**	
2.1	Budget Planning - preparation of a model family budget for your family / budget suitable for various categories	8	3,1
3.0	**Event Management**	**8**	
3.1	Planning, organizing, implementing and evaluating a group activity (Party/Exhibition/ tour) Or Residence stay for a week incorporating principles of management	8	1,3
4.0	**Consumer Education**	**4**	
4.1	Development and evaluation of Labels / Advertisements for consumer products	2	4
4.2	Preparation of a consumer complaint for any consumer product.	2	4
5.0	**Market survey**	**8**	
5.1	Compare available energy saving devices and make appropriate choices for usage in homes.	8	4

Course	Details
Code	HS6CRT10
Title	**CLINICAL NUTRIYION &DIETETICS**
Degree	B.Sc.
Branch(s)	**Family and Community Science (Home Science)**
Semester	VI
Type	CORE
Credits	3
Total hours	54
Hours per week	3

CO No.	Expected Course Outcomes Upon completion of this course the students will be able to:	Cognitive level	PSO No.
1	Describe the different types of diets and feeding methods	R	1
2	Explain the nutritional management in various disease conditions	U	1
3	Maintain a healthy weight and manage a healthy lifestyle	Ap	1
4	Analyze the various causative factors of common illnesses	An, E	1
5	Formulate diet plans for various disease conditions	C, Ap	1
6	Understand the prevalent conditions of malnutrition in the community	U, An	1,6

*PSO –Program Specific Outcome; CO- Course Outcome
Cognitive Level: R- Remember, U-Understanding, Ap- Application; An- Analyse; E- Evaluate; C-Create

Module	Course Description	Hrs	CO. No.
1.0	**Concept of Dietetics**	**10**	
1.1	Purpose and principles of therapeutic diet	2	**1**
1.2	Definition of nutrition care process and team approach to nutritional care	1	**1**
1.3	Role of Dietitian	1	**1**
1.4	Classification of therapeutic diet	2	**1**
1.5	Progressive diets-clear fluid, full fluid, soft and regular.	2	**1**
1.6	Special feeding methods-enteral and parenteral feeding	2	**1**
2.0	**Nutritional management of common disorders, aetiology, clinical features and nutritional management of the following: -**	**15**	
2.1	Fevers -classification of fevers-acute and chronic (typhoid and tuberculosis infections-(HIV-AIDS)	4	2
2.2	Gastro intestinal disorders: Peptic ulcer,constipation,Diarrhoea.	5	2
3.0	**Nutritional care in weight management, Diabetes mellitus and coronary heart diseases**	**14**	
3.1	A**e**tiology, clinicalfeatures, diagnosis, complications and nutritional life style modification and management in weight management	2	3
3.2	Aetiology, clinicalfeatures, diagnosis, complications and nutritional life style modification and management in over weight and obesity.	2	3
3.3	Aetiology, clinicalfeatures, diagnosis, complications and nutritional life style modification and management in underweight.	2	3
3.4	Aetiology,clinicalfeatures,diagnosis,complications and nutritional life style modification and management in Diabetes Mellitus.Type 1 and Type II	2	3
3.5	Aetiology,clinicalfeatures,diagnosis,complications and nutritional life style modification and management in	3	2

	Coronary Artery Diseases.		
3.6	Aetiology,clinicalfeatures,diagnosis,complications and nutritional life style modification and management in Atherosclerosis and hypertension.	3	2
4.0	**Dietary Management of liver, Renal disorders and Cancer.**	**15**	
4.1	Aetiology ,clinical features,symptoms and dietary management of:Liverdiseases,Infectivehepatitis,Cirrhosis.	5	2,4
4.1	Aetiology ,clinical features,symptoms and dietary management of:.RenalDisorders:Acute and chronic Nephritis,Nephrotic Syndrome.	5	2,4
4.2	Aetiology ,clinical features,symptoms and dietary management of:Cancer.	5	2,4
5.0	**Nutritional problems of the community**	**14**	
5.1	Prevalence,causes,consequences,prevention and contrl of PEM.	4	6
5.2	Prevalence,causes,consequences,prevention and contrl of Iodine Deficiency Disorders.	4	6
5.3	Prevalence,causes,consequences,prevention and contrl of Iron Deficinecy Anaemia	3	6
5.4	Prevalence,causes,consequences,prevention and contrl of Vitamin A deficiency.	3	6

REFERENCES

• Bamji MS, Krishnaswamy K and Brahmam GNV (2009). Textbook of Human Nutrition, 3rd Edition.:Oxford& IBH Publishing Co Pvt Ltd.

• Joshi SA.(2010). Nutrition & Dietetics. 3rd Edition.: Tata McGraw- Hill Education Pvt. Ltd.

• Khanna K, Gupta S, Seth R, Passi SJ, Mahna R, Puri S. (1997). Textbook of Nutrition and Dietetics.:Phoenix Publishing House Pvt. Ltd.

Text Books for Enrichment

• Mahan L K and Escott-Stump S. (2008). Krause's Food & Nutrition Therapy, 12th ed. Saunders- Elsevier. 42

• Stacy Nix. (2009). William's Basic Nutrition and Diet Therapy, 13th Edition.: Elsevier Mosby.

Course	Details				
Code	HS6CRP10				
Title	**CLINICAL NUTRITION & DIETITICS - PRACTICAL**				
Degree	BSC.				
Branch(s)	**FAMILY AND COMMUNITY SCIENCE (HOME SCIENCE)**				
Year/Semester	III/VI				
Type	CORE				
Credits	2	Hrs/Week	3	Total Hrs	54

CO No.	Expected Course Outcomes Upon completion of this course, the students will be able to:	Cognitive Level	PSO No
1	Evaluate body weight status using BMI measures	E	1
2	Formulate diets for various disease conditions.	C	1
3	Select appropriate feeding techniques for various illnesses	An,E	1
4	Understand the working of a hospital dietary unit	U	1,5

*PSO –Program Specific Outcome; CO- Course Outcome
Cognitive Level: R- Remember, U-Understanding, Ap- Application; An- Analyse; E- Evaluate; C-Create

Module	Course Description	Hrs	CO.No
1.0	Calculation of BMI using height-weight measurements	4	1
2.0	Preparation of Therapeutic Recipes. Types of Therapeutic Diet: Normal Soft, Fluid – Full Fluid and Clear Fluid Diets	18	2
3.0	Diet plan for	28	3
3.1	Fever patient(Typhoid/Tuberculosis	2	3
3.2	Cancer- breast cancer	2	3
3.3	Diabetic Mellitus	2	3
3.4	CHD (Atherosclerosis)	2	3
3.5	Peptic Ulcer	2	3
3.6	Cirrhosis	2	3
3.7	Hepatitis	2	3
3.8	Nephritis	2	3
3.9	Obesity	2	3
3.10	Under weight	2	3
3.11	PEM (Kwashiorkor)	2	3
3.12	Iron Deficiency Anaemia	2	3
4.0	Visit to a feeding programme / Diet clinic.	6	4

Course	Details
Code	HS6CRT11
Title	**FASHION DESIGNING AND APPAREL PRODUCTION**
Degree	B.Sc
Branch(s)	**FAMILY AND COMMUNITY SCIENCE (HOME SCIENCE)**
Semester	VI
Type	CORE
Credits	3
Total hours	54
Hours per week	3

CO No.	Expected Course Outcomes Upon completion of this course the students will be able to:	Cognitive level	PSO No.
1	Describe the different terminologies and principles related to contemporary fashion	U	1
2	Explain the fundamentals of fashion designing.	U	1
3	Understand and use the elements and principles of design and Apply the use of pattern making for fashion and clothing	U, Ap	1,3
4	Knowledge in designing garments for different figure type.	U	1,5
5	Visualize and Apply the basic procedure in garment construction.	U, Ap	3

6	Explain the organisations of garment industry and marketing.	U	1
7	Discuss the Indian apparel market in global perspective.	U	1

*PSO –Program Specific Outcome; CO- Course Outcome
Cognitive Level: R- Remember, U-Understanding, Ap- Application; An- Analyse; E- Evaluate; C-Create

Module	Course Description	Hrs	PSO. No.
1.0	**Introduction to Fashion**	**10**	
1.1	Fashion Terminologies.	1	1
1.2	Fashion evolution – Fashion cycles, consumer groups in fashion cycles– fashion innovators, adopters, laggards.	3	1
1.3	Adoption of Fashion – trickle down, trickle up and trickle across theory.	2	1
1.4	Fashion forecasting, Principles and factors influencing fashion, Seasons of fashion	4	2,3
2.0	**Fundamentals of Fashion Designing**	**12**	
2.1	8 -head theory, Basic body shapes.	2	2
2.2	Design- definition and types – structural and decorative design, requirements of a good structural and decorative design.	1	2
2.3	Elements of design – line, shape or form, colour, size and texture.	3	3
2.4	Principles of design - Balance – Formal and Informal, Rhythm - through repetition, radiation and gradation, Emphasis, Harmony and Proportion.	3	3
2.5	Designs suitable for various figure types.	3	3

3.0	**Introduction to Pattern Making**	**12**	
3.1	Body measurement – Importance, guidelines for measuring, ladies and children's measurements.	3	4
3.2	Pattern making – Methods of pattern making – (Drafting, Draping - Merits and Demerits), Principles of pattern drafting.	5	4
3.3	Pattern alteration-lengthening and shortening of bodies block, skirt and sleeve block.	4	4
4.0	**Garment Construction.**	**10**	
4.1	Preparation of fabric for cutting. Pattern layout, Marking, cutting, stitching and finishing of garments.	5	5
4.2	Parts and functions of a single needle machine,	3	5
4.3	Tools and equipments used for sewing.	2	5
5.0	**Introduction to Garment industry**	**10**	
5.1	Brief introduction to functions of various departments in garment industry - Design department, Marketing department, Finance department, purchasing department, production department and operation department.	5	6
5.2	Marketing - definition, marketing mix.	3	7
5.3	Merchandising- definition, role of merchandiser.	2	7

REFERENCES

- Mathews,M., (2008) Practical Clothing Construction, Part II, Bhattaramís Reprographics (P Ltd, Chennai.
- Mullick .P.,(2002) Garment Construction Skills, Kalyani Publishers, New Delhi.
- Sumathy, G.H (2002) Elements of fashion and Apparel Design New Age International (p) Ltd, New Delhi
- Cooklin .G.,(1988) Introduction to Clothing Manufacture, Blackwell Science, New Delhi
- Narang. M(2007). Fashion Technology Hand Book, Asia Pacific Business Press, New Delhi
- Heannette. A., Jar now et-al., Inside the Fashion Business-, MacMillan Publishing Company, New York.
- Frings,G.S., Fashion –From concept to consumer –, 6th edition, prentice Hall (1999).3. Inside the fashion business –Bennett, Coleman & o ,Mumbai(1998).
- Cooklin,G., Garment Technology for Fashion Designers, Blackwell Science Ltd
- Armstrong, H. J (1997) Pattern making for Fashion Design, Harper& Row publication
- Riter. J. (1998) Hand book for Fashion Designing, Best Drafting Techniques, Mital publication.
- Ireland P.J. (2007) New fashion Figure Templates, Anova Books Co. Ltd, Londo

Course	Details
Code	HS6BO11U (P)
Title	FASHION DESIGNING AND APPAREL PRODUCTION - PRACTICAL
Degree	B.Sc
Branch(s)	FAMILY AND COMMUNITY SCIENCE (HOME SCIENCE)
Semester	VI
Type	CORE
Credits	1
Total hours	36
Hours per week	3

CO No.	Expected Course Outcomes Upon completion of this course the students will be able to:	Cognitive level	PSO No.
1	Create new designs corresponding to one's own ideas and creativity.	C	3
2	Create new designs using embroidery stitches.	C	3
3	Apply the different sewing techniques.	Ap	3
4	Apply designing and stitching in two different garments.	Ap	3,5

*PSO –Program Specific Outcome; CO- Course Outcome
Cognitive Level: R- Remember, U-Understanding, Ap- Application; An- Analyse; E- Evaluate; C-Create

Module	Course Description	Hrs	CO. No.
1	**Garment Designing**	**10**	
1.1	Illustrating fashion figure - 8 heads female	4	1
1.2	Sketching of formal wear, party wear and suitable for children and women on croquies (two styles each)	6	1
2	**Sewing Techniques**	**20**	
2.1	Basic Hand Stitches - Basting, overcastting, hemming.	1	2
2.2	Hand embroidery stitches – minimum 5 Nos	2	2
2.3	Seams – Plain seam, French seam, flat fell seam, top stitched seam, piped seam, Double stitch finish.	2	3
2.3	Fullness by gathers, pleats (knife, box, inverted), darts, tucks.	3	3
2.4	Placket – One piece placket, Two piece placket.	3	3
2.5	Bias and its application – Joining bias, Bias facing, Bias binding, Shaped facing.	3	3
2.6	Hems – Narrow machine stitched hem, stitched and turned hem.	2	3
2.7	Fasteners – Button and button hole, Press buttons and hook and eye.	4	3
3.0	**Garment construction.**	**24**	
3.1	Preparation of paper patterns and construction of a A-line frock for a preschool child with any type of collar and sleeve for a preschool child.	12	4
3.2	Preparation of paper patterns and construction of churidhar/salwar and Kameez for an Adolescent girl.	12	4

Course	Details
Code	HS6CRT12
Title	**EXTENSION EDUCATION AND DEVELOPMENT COMMUNICATION**
Degree	B.Sc
Branch(s)	**FAMILY AND COMMUNITY SCIENCE (HOME SCIENCE)**
Semester	VI
Type	CORE
Credits	3
Total hours	54
Hours per week	3

CO No.	Expected Course Outcomes Upon completion of this course the students will be able to:	Cognitive level	PSO No.
1	Explain and analyse the widening concept of extension education in India.	U, An	1
2	Discuss the need and role of home science extension in upbringing the family and society.	U	1
3	Describe the community development and its set up in India	U	1
4	Distinguish the socio cultural and economic environment of rural, urban and tribal communities.	An	1
5	Recognize the importance of rural Leadership in bringing about planned change in human behaviour for developing community	U	1
6	Plan, implement and evaluate an extension programme.	C	1

7	Describe the basics in communication and explain the different methods of approaching people.	U	4
8	Prepare and use technologically advanced visual aids in teaching and communication	Ap	4, 5

*PSO –Program Specific Outcome; CO- Course Outcome
Cognitive Level: R- Remember, U-Understanding, Ap- Application; An- Analyse; E- Evaluate; C-Create

Module	Course Description	Hrs	PSO. No.
1.0	**Extension Education**	**10**	
1.1	Extension-Meaning, Definition, Needs, Importance, Concepts, scope, objectives and principles of extension education. Difference between formal and informal and extension education.	4	1
1.2	Role and Qualities of extension worker.	2	1
1.3	Concept of extension education process.	2	1
1.4	Home Science Extension Education. Role of Home Science Extension Education in Community development.	2	2,3
2.0	**Community Development set up**	**12**	
2.1	Definition, Objectives and principles of community development programme in India.	2	3
2.2	Community development set up-at the national, state, district, block and village levels	2	3
2.3	Types of communities in India and its special features-Rural , Urban, and Tribal	2	4
2.4	Basic rural Institutions- school, panchayat, co-operatives.	2	4
2.5	Ongoing community development programme for	2	4

	women and children in India.		
2.6	Governmental organization – DWCRA, ICDS, IMY, STEP, SGSY. Non-governmental organization – CSWB, SSWB, CAPART, SHG.	2	4
3.0	**Leader and Leadership.**	**10**	
3.1	Leadership -Concept and definitions, types of community leaders-Professional leader and lay leaders; autocratic, democratic and lassiez-faire leaders.	5	5
3.2	Methods of identifying community leaders.	3	5
3.3	Importance of rural Leadership for community development	2	5
4.0	**Programme planning, Implementation and evaluation in extension.**	**10**	
4.1	Objectives, Principles and steps involved, Calendar of work.	3	6
4.2	Plan of work – Components, developing a plan of work, Factors to be considered.	4	6
4.3	Implementation and evaluation. Methods and tools for evaluation.	3	6
5.0	**Communication and Methods of approaching people.**	**12**	
5.1	Definition, Function, importance, elements – Leagen's model, process, level of communication.	2	7
5.2	Extension teaching methods – Individual methods – Personal visits, letter. Group methods – meetings, discussions, demonstrations,	2	7
5.3	Folk songs, drama, role play, seminar, field trips, exhibitions. Mass methods – print and electronic media.	2	7

5.4	Modern methods – Computer based technologies – Email, blogs, podcast, social net working, video sharing, Teleconferencing.	2	7
5.5	Advantages and limitations of each method.	2	7
5.6	Recent trends in communication – ICT tools and Audio-Visual aid – Definition, importance, classification, section and use cone of experience.	2	8

REFERENCES

- Mathews,M., (2008) Practical Clothing Construction, Part II, Bhattaramís Reprographics (P Ltd, Chennai.
- Mullick .P.,(2002) Garment Construction Skills, Kalyani Publishers, New Delhi.
- Sumathy, G.H (2002) Elements of fashion and Apparel Design New Age International (p) Ltd, New Delhi
- Cooklin .G.,(1988) Introduction to Clothing Manufacture, Blackwell Science, New Delhi
- Narang. M(2007). Fashion Technology Hand Book, Asia Pacific Business Press, New Delhi
- Heannette. A., Jar now et-al., Inside the Fashion Business-, MacMillan Publishing Company, New York.
- Frings,G.S., Fashion –From concept to consumer –, 6th edition, prentice Hall (1999).3. Inside the fashion business –Bennett, Coleman & o ,Mumbai(1998).
- Cooklin,G., Garment Technology for Fashion Designers, Blackwell Science Ltd
- Armstrong, H. J (1997) Pattern making for Fashion Design, Harper& Row publication
- Riter. J. (1998) Hand book for Fashion Designing, Best Drafting Techniques, Mital publication.
- Ireland P.J. (2007) New fashion Figure Templates, Anova Books Co. Ltd, Londo

Course	Details
Code	HS6CRP12
Title	**EXTENSION EDUCATION AND COMMUNICATION - PRACTICAL**
Degree	B.Sc
Branch(s)	**FAMILY AND COMMUNITY SCIENCE (HOME SCIENCE)**
Semester	VI
Type	CORE
Credits	2
Total hours	36
Hours per week	2

CO No.	Expected Course Outcomes Upon completion of this course the students will be able to:	Cognitive level	PSO No.
1	Interact with extension workers and understand their nature of work and their commitment towards the society.	U	1
2	Understand the role of community organizations.	R	1
3	Plan, implement and evaluate an extension programme for the advancement of the society.	Ap, E	2
4	Prepare and report visual aids for conveying messages related to the betterment of livelihood of the general public.	C	4
5	Analyze news articles or media content and assess their credibility.	An	4
6	Preparation of visual aids.	C	4

*PSO –Program Specific Outcome; CO- Course Outcome
Cognitive Level: R- Remember, U-Understanding, Ap- Application; An- Analyse; E- Evaluate; C-Create

Module	Course Description	Hrs	CO. No.
1	**Extension Education** Interact with extension workers and understand their nature of work and their commitment towards the society.	8	1
2	**Community Development**	**8**	
2.1	Visit any one community organization (Panchayat/Cooperatives /School / Krishi Vigyan Kendra) to find out its role in community development and record the services rendered.	4	2
2.2	Observe the working of any one community development programme in your community and record its features.	4	2
3	**Community development programme planning.** Prepare a plan of work for any one community development programme related to home science, with tool or evaluation.	6	3
4	**Communication method**	**6**	
4.1	Write a report of an exhibition/fairs/street drama you observed.	3	3
4.2	Develop a script for street drama/puppet show/ street play.	3	3
5	**Recent trends in communication**	**8**	
5.1	Prepare visual aids for conveying message related to the betterment of lively hood of the general public.	3	4
5.2	Analyse news article or media content and assess their credibility.	2	5
5.3	Designing visual aids: leaflet/ pamphlet/poster and chart.	3	6

Course	Details
Code	**HSCBT02**
Title	**EARLY CHILDHOOD CARE AND EDUCATION**
Degree	B.Sc
Branch(s)	**FAMILY AND COMMUNITY SCIENCE (HOME SCIENCE)**
Year/Semester	3/VI
Type	CORE
Credits	3
Total hours	54
Hours per week	3

CO No.	Expected Course Outcomes Upon completion of this course the students will be able to:	Cognitive level	PSO No.
1	To become aware about the role of environmental stimulation for the all round development of children.	U	1
2	To know the different early stimulation programmes	U	1,2
3	To create a positive attitude about the Care of children with special needs.	U, Ap	1
4	To make the youth aware about the safety issues of children.	U	1
5	To inspire the students with the pros and cons of pre-school education.	U	1

*PSO –Program Specific Outcome; CO- Course Outcome
Cognitive Level: R- Remember, U-Understanding, Ap- Application; An- Analyse; E- Evaluate; C-Create

Module	Course Description	Hrs	CO. No.
1.0	**Early stimulation for children**	**4**	
1.1	Definition	1	1
1.2	Environmental stimulation for physical & motor, intellectual, emotional, social & language development.	2	1
1.3	Role of environmental stimulation for the all round development of children.	1	1
2.0	**Looked after children**	**2**	
2.1	Residential care for children, Foster care, Adoption.	1	2
2.1	Day care provisions. Care of children with special needs	1	2
3.0	**Child safety**	**7**	
3.1	Common accidents during childhood years. Safety measures inside & outside the home	3	3
3.2	Safety issues -safety of child related products, toy safety, safety of children's nightwear, personal safety.	4	3
4.0	**Early childhood education.**	**8**	
4.1	Preschool education- definition, objectives, importance, types.	**1**	4
4.2	Pre-school programme – definition, principles in programme planning, short & long term planning, daily programme.	**1**	4
4.3	Preschool organization- physical arrangement, equipment needed	2	4
4.4	Maintenance of records, preschool personals, home – school relationships.	2	4
4.5	Early intervention for the developmental delay.	2	4