

Saurashtra University

SYLLABUS

**B.Sc (Home Science)
Semester I & II**

Updated June - 2019

Preamble

Home Science has contributed a great deal towards national development by training students to take up leadership roles in extension and community outreach programs. The students are encouraged to develop a scientific temper. Familiarizing them with the use of newer technologies, methods in family and community linkages, and sustainable use of resources for human development are the hall mark of education in Home Science. As a discipline Home Science integrates the ingredients of sciences, social sciences and technology to facilitate the study of and enhance the quality of human life. It approaches in its curriculum that engages the student through teaching, research and extension. The education process in Home Science underscores the importance of the individual's dynamic relationship with his/her family, community and society as a whole, as well as with the resources in the environment. Higher education learning in Home Science subjects provides students the opportunity to sharpen their capacities with a sense of social responsibility.

In contemporary times, Home Scientists promote capacity building of individuals and communities for social and economic empowerment. They train community women and youth from various strata of society for entrepreneurs themselves. They do not remain job seekers but have also become job creators. They gain and provide employment in research organizations, food and textile industries, dietetic practice, education and child development domains, accreditation of green buildings, strategic planning and communication technologies. Keeping in view the growing aspirations of today's youth and capacity of Home Science discipline to deliver, the 3-year choice based credit system has been drawn up.

Years of national and international experience in the field has contributed to the wisdom that all the five windows of opportunity that Home Science offers be opened, i.e. Food and Nutrition. Human Development, communication and Extension and Fabric and Apparel Sciences. In this course, the students will learn the fundamental principles and foundations of all five areas. They are expected to internalize the principle of a Home Scientist, that is, to give back to the community from which they draw, for sustainable development. This is a major contribution of Home Science in both developed and developing societies.

The University Grants Commission's model 2001 curriculum of Home Science reflects a similar philosophy.

The objectives of the present B.Sc. program Home Science course are:

- To understand and appreciate the role of interdisciplinary sciences in the development and well-being of individuals, families and communities.
- To learn about the sciences and technologies that enhance quality the life of people

- To acquire professional and entrepreneurial skills for economic empowerment of the student in particular, and community in general.
- To develop professional skills in food, nutrition, textiles, housing, product making communication technologies and human development.
- To take science from the laboratory to the people.

SAURASHTRA UNIVERSITY, RAJKOT ANNEXURE 'A'
F.Y.B.H.SC. (HOME SCIENCE)
SEMESTER – I

Semester	Paper no.	Subject	Credits T + P	Total Credits	Paper Code
01	01	Resource Management	3+1	4	190801010101
01	02	Fundamentals of Food & Nutrition-I	3+1	4	190801010102
01	03	Introduction to Clothing and Textile – I	3+1	4	190801010103
01	04	Introduction to Human Development - I	3+1	4	190801010104
01	05	Introduction to Education Extension	3+1	4	190801010105
01	06	General Science I (Biology)	3+1	4	190801010106
01	07	Basic Computer & Its Application	0 + 2	2	190801010107
		Total	18+08	26	

SEMESTER – II

Semester	Paper No.	Subject	Credits T + P	Total Credits	Subject Code
02	01	Women Empowerment	3+1	4	190801010201
02	02	Fundamentals of Food & Nutrition-II	3+1	4	190801010202
02	03	Introduction to Clothing and Textile – II	3+1	4	190801010203
02	04	Introduction Human Development - II	3+1	4	190801010204
02	05	Community Development & Extension	3+1	4	190801010205
02	06	General Science – II (Human Anatomy & Physiology)	3+1	4	190801010206
02	07	Environmental Science	2+0	2	190801010207
		Total	20+06	26	

Saurashtra University, Rajkot Annexure 'B'
F.Y.B.H.Sc. (Home Science)
Semester – I

Semester	Paper No.	Subject	PM	IM	EM	TM	Credits T + P	Total Credits
01	01	Resource Management	20	30	50	100	3+1	4
01	02	Fundamentals of Food & Nutrition-I	20	30	50	100	3+1	4
01	03	Introduction to Clothing and Textile Part –I	20	30	50	100	3+1	4
01	04	Introduction to Human Development Part -1	20	30	50	100	3+1	4
01	05	Introduction to Education Extension	20	30	50	100	3+1	4
01	06	General Science I (Biology)	20	30	50	100	3+1	4
01	07	Basic Computer & Its Application	35	15	--	50	0 + 2	2
		Total	155	195	300	650	18+08	26

Semester – II

Semester	Paper No.	Subject	PM	IM	EM	TM	Credits T + P	Total Credits
02	01	Women Empowerment	20	30	50	100	3+1	4
02	02	Fundamentals of Food & Nutrition-II	20	30	50	100	3+1	4
02	03	Introduction to Clothing and Textile Part – II	20	30	50	100	3+1	4
02	04	Introduction Human Development Part II	20	30	50	100	3+1	4
02	05	General Science –II (Human Anatomy & Physiology)	20	30	50	100	3+1	4
02	06	Community Development & Extension	20	30	50	100	3+1	4
02	07	Environmental Science	---	15	35	50	2+0	2
		Total	120	195	335	650	20+06	26

PM= Practical Marks IM = Internal Marks EM = External Marks TM = total Marks

T = theory P = practical

Saurashtra University, Rajkot Annexure 'C'

Faculty of Home Science

Semester – I

Semester	Paper No.	Subject	Total Credits	PM	IM	EM	TM	External Exam Time Duration	Practical Exam Time Duration
01	01	Resource Management	4	20	30	50	100	2 Hours	2Hours
01	02	Fundamentals of Food & Nutrition-I	4	20	30	50	100	2 Hours	2Hours
01	03	Introduction to Clothing and Textile Part –I	4	20	30	50	100	2 Hours	2Hours
01	04	Introduction to Human Development Part -1	4	20	30	50	100	2 Hours	2Hours
01	05	Introduction to Education Extension	4	20	30	50	100	2 Hours	2Hours
01	06	General Science I (Biology)	4	20	30	50	100	2 Hours	2Hours
01	07	Basic Computer & Its Application	2	35	15	---	50	3 hours	4Hours
		Total	26	120	195	300	650	---	---

Semester – II

Semester	Paper No.	Subject	Total Credits	PM	IM	EM	TM	External Exam Time Duration	Practical Exam Time Duration
02	01	Women Empowerment	3	20	30	50	100	2 Hours	3Hours
02	02	Fundamentals of Food & Nutrition-II	3	20	30	50	100	2 Hours	3Hours
02	03	Introduction to Clothing and Textile – II	3	20	30	50	100	2 Hours	3Hours
02	04	Introduction Human Development - II	3	20	30	50	100	2 Hours	3Hours
02	05	Community Development & Extension	3	20	30	50	100	2 Hours	3Hours
02	06	General Science –II (Human Anatomy & Physiology)	3	20	30	50	100	2 Hours	3Hours
02	07	Environmental Science	2	35	15	---	50	1.5 Hrs	---
		Total	26	155	195	300	650	---	---

PM= Practical Marks IM = Internal Marks EM = External Marks TM = total Marks

T = theory P = practical

With Effect from Academic Year 2019-2020

NOTES

Marks and credits distribution –

- 1)** Where the Paper have 4 credits the distribution of marks are as below

Theory - 50 Marks

Practical – 20 Marks

Internal – 30 Marks

Total – 100 Marks

- 2)** Theory credits – 1 hour /credit so 3 hours/week

Practical credits – 2 hours/credit, so 2 hours/Batch

- 3)** Duration of Theory Examination for 50 marks – 2 hours.

- 4)** Duration of Practical Examination for 20 marks – 2 hours

- 5)** Duration of Theory Examination for 35 marks – 1.5 hours.

- 6)** Duration of Practical Examination for 35 marks – 3 hours

B. Sc (HOME SCIENCE)					
YEAR	I	RESOURCE MANAGEMENT		CREDIT	04 (03+01)
SEMESTER	I	PAPER NO. 1		HOURS/ WK	05
Total Marks: 100		Internal: 30	Theory: 50	Practical: 20	
OBJECTIVES		<ol style="list-style-type: none"> 1. To know about factors involved in management. 2. To create an awareness among the students about management in the family as well. 3. To recognize the importance of wise use of resources in order to achieve goals. 			
COURSE CONTENT: THEORY					
UNIT - I		Introduction to Resource Management			
		<ul style="list-style-type: none"> • Concept, university and scope of management • Approaches to management • Ethics in management • Motivation Theory 			
UNIT - II		Resources			
		<ul style="list-style-type: none"> • Understanding meaning, classification and characteristics of resources, factors affecting utilization of resources. • Maximizing use of resources and resource conservation. • Availability and management of specific resource by an individual/family <ul style="list-style-type: none"> – Money – Time – Energy – Space • Application of Management Process in: <ul style="list-style-type: none"> – Event Planning & Execution 			
UNIT - III		Functions of Management: An overview			
		<ul style="list-style-type: none"> • Decision Making • Planning • Supervising • Controlling • Organizing • Evaluation 			
PRACTICALS					
	1	Resource conservation and optimization/green technologies (natural resources): Portfolio			
	2	Identification and development of self as a resource. <ul style="list-style-type: none"> – SWOT analysis – who am I and Micro lab – Building Decision Making abilities through management games 			
	3	Preparation of time plans for self and family			
	4	Suggestions for improving income			

5	Event planning management and evaluation-with reference to <ul style="list-style-type: none"> - Managerial process - Resource optimization – time, money, products, space, human capital
REFERENCES	
1	Koontz. H. and O'Donnel C., 2005. Management – A systems and contingency analysis of managerial functions. New York: McGraw-Hill Book Company
2	Kreitner. 2009, Management Theory and Applications. Cengage Learning: India
3	Rao V.S. and Narayana P.S. Principles and practices of Management, 2007, Konark Publishers Pvt. Ltd.

B. Sc (HOME SCIENCE)					
YEAR	I	FUNDAMENTALS OF FOOD AND NUTRITION – I		CREDIT	04 (03+01)
SEMESTER	I	PAPER NO. 2		HOURS/ WK	05
Total Marks: 100		Internal: 30	Theory: 50	Practical: 20	
OBJECTIVES		<ol style="list-style-type: none"> 1. The course enables the students to understand the functions of food and the role of various nutrients and the effects of deficiency and excess 2. To learn about the composition and nutritional contribution and selection of different food stuff 3. To be familiar with different methods of cooking, their advantages and disadvantages 4. To develop the ability to improve the nutritional value of food. 			
COURSE CONTENT: THEORY					
UNIT - I		Introduction			
		<ul style="list-style-type: none"> • Concept of nutrition • Definition of food, diet, nutritional status and malnutrition • Signs of good and poor nutrition 			
UNIT - II		Functions of food			
		<ul style="list-style-type: none"> • Energy yielding, body building and protective foods 			
UNIT - III		Macro nutrients: Classification, digestion, absorption, metabolism, sources, functions, RDA, deficiency and excess (in brief)			
		<ul style="list-style-type: none"> • Carbohydrates • Protein • Fat 			
UNIT - IV		Energy			
		<ul style="list-style-type: none"> • Fuel and energy • Energy yielding food factors • Energy value of food • Energy units • Determination of energy value using bomb calorimeter • Direct and indirect calorimeter • Basal metabolism - factors affecting BMR, BEE • Recommended allowances for calories 			
PRACTICALS					
	1	Use and care of kitchen equipments			
	2	Controlling techniques: weights and measures – Standard and household measures for raw food			
	3	Preparation and calculation of following rich recipes <ol style="list-style-type: none"> a. Carbohydrates b. Protein c. Energy 			
	4	Preparing recipes using pre-preparation methods <ol style="list-style-type: none"> a. Germination 			

	b. Fermentation
REFERENCES	
1	S.R.Mudambi and M..Rajagopal (2007) Fundamentals of Foods, Nutrition and Diet Therapy, New Age International Publishers
2	Neelam Buddhdev, Bhavana Vaid (2004) Fundamentals of Foods and Nutrition , Pravin Prakashan
3	R. Rajlaxmi (1978) Prayukta Poshan, University Granth Nirman Board, Gujarat
4	Thangam E. Philip (1984) Modern Cookery - Vol. I Orient Longman Limited
5	M. Swaminathan (1979) Food Science and Experimental Foods, Ganesh and Co., Madras
6	F.P. Antia (1982) Clinical Dietetics and Nutrition, Oxford University Press
7	Swaminathan M (2000). Advanced Textbook on Foods and Nutrition, Vol I (2 nd ed.). Bangalore Printing and Publishing Ltd, Bangalore
8	Swaminathan M (2008). Essentials of Foods and Nutrition, Vol II. BAPPCO
9	B. Srilakshmi (2006) Nutrition Science, New Age International Publishers

B. Sc (HOME SCIENCE)				
YEAR	I	INTRODUCTION TO CLOTHING AND TEXTILE – I		CREDIT
				04 (03+01)
SEMESTER	I	PAPER NO. 3		HOURS/ WK
				05
Total Marks: 100		Internal: 30	Theory: 50	Practical: 20
OBJECTIVES		1. To enable the students to equip with techniques. 2. Prepare the garment as per using appropriate tool, machine and technique. 3. To acquired the knowledge of different kinds of fibres and their properties.		
COURSE CONTENT: THEORY				
UNIT - I		Sewing machine		
		<ul style="list-style-type: none"> • History of Sewing Machine. • Parts and Functions of Sewing Machine. • Problems and Remedy of Sewing Machine. • Care of Sewing Machine 		
UNIT - II		Sewing Tools (with figure)		
		<ul style="list-style-type: none"> • Measuring Tools • Marking Tools • Cutting Tools • Finishing Tools 		
UNIT - III		Basic Stitches		
		<ul style="list-style-type: none"> • Basic Hand Stitches • Basic Machine Stitches 		
UNIT - IV		Selection of Fabric		
		<ul style="list-style-type: none"> • Budget • Age • Occasional • Figure • Fashion 		
UNIT - V		Terminology of Textile		
UNIT - VI		Introduction to Textile		
		<ul style="list-style-type: none"> • General Properties of Textile Fibre (Primary and Secondary) • Classification of Fibres. 		
PRACTICALS				
	1	Demonstration of Sewing Machine		
	2	Various Tools Chart		
	3	Basic Stitches (Hand Stitches : Five)		
	4	Collection and Introduction of various Fabrics.		
	5	Drafting and Stitches: Any Two: Pillow Cover, Laundry Bag, Apron		
REFERENCES				
	1	વસ્ત્ર વિજ્ઞાન એવમ પરિધાન : પ્રમિલા વર્મા		
	2	વ્યવહારિક વસ્ત્ર વિજ્ઞાન : પૂષ્પા શો અને ગીતા શો		

3	Textbook of Fabric Science: Fundamentals to Finishing Sekhri S. (2013) PHI Learning, Delhi.
4	Understanding Textiles, Tortora, G. Phyllis, McMillan Co. USA.
5	Textile Science, Vilensky G., (1983) CBS Publishers and Distributors, Delhi.
6	Pattern Making for Fashion Design Armstrong,H.J. 2009,Harper Collins Publishers Inc., New York
7	Evaluating Apparel Quality Stamper, A.A., S. H. Sharp and L.B. Donnell, 1986, , Fairchild Publications, America.

B. Sc (HOME SCIENCE)					
YEAR	I	INTRODUCTION TO HUMAN DEVELOPMENT- I		CREDIT	04 (03+01)
SEMESTER	I	PAPER NO. 4		HOURS/ WK	05
Total Marks: 100		Internal: 30	Theory: 50	Practical: 20	
OBJECTIVES		1. To introduce the student to the field of human development concepts, scope dimensions and interrelations. 2. To sensitize the student to intervention in the field of human development.			
COURSE CONTENT: THEORY					
UNIT - I		An overview of the field of Human Development			
		<ul style="list-style-type: none"> • What is Human Development? • Need do to study of Human development. • Human development with focus on life span (Different stages of Human development) • Individual differences in Human development. • Human development as Multidisciplinary science. 			
UNIT - II		Growth and Development			
		<ul style="list-style-type: none"> • Definition of growth and development. • General principles of growth and development. • Factors affecting growth and development 			
UNIT - III		Basic factors in development			
		(A) Heredity and Environment. (B) Learning and maturation. <ul style="list-style-type: none"> ▪ 3(A) Heredity:- meaning, process and study about the importance of heredity. ▪ 3(A) Environment:-meaning, types and study about the importance of environment. ▪ 3(A) Relational importance of heredity and environment. ▪ 3(B) Learning and Maturation. 			
PRACTICALS					
	1	Visit to Balwadi (L.K.G. and H.K.G.)			
	2	Making toys from paper/mud/sand/beads.			
	3	Making Albums of Birds/Animals/Fruits/Vegetables/alphabets			
	4	Anganwadi visit			
	5	One case study of 3 to 5 years child			
REFERENCES					
	1	Fundamentals of child development and child care - Poonam Sharma & Lata Gairda			
	2	Elements of child development - Dr.K.C.Panda			
	3	માનવ વિકાસ અને બાલ મનોવિજ્ઞાન – પ્રો.સારડા, શાહ,, નસીત, રાઠોડ, વસાણી, ગુજરાતી, કચરરા			
	4	બાલ મનોવિજ્ઞાન – ઉદયવીર સક્સેના			
	5	બાલમાનસ પરિચય – ડૉ. બી.પરીખ, ડૉ. આઈ.સી.જરીવાલા			

B. Sc (HOME SCIENCE)					
YEAR	I	INTRODUCTION TO EDUCATION EXTENSION		CREDIT	04 (03+01)
SEMESTER	I	PAPER NO. 5		HOURS/ WK	05
Total Marks: 100		Internal: 30	Theory: 50	Practical: 20	
OBJECTIVES		To enables students to 1. Understand the widening concept of extension. 2. To know about extension programme planning. 3. To know about types of education.			
COURSE CONTENT: THEORY					
UNIT - I		Concept of Extension			
		<ul style="list-style-type: none"> • Meaning and Definition of Extension • Origin and wider understanding of the meaning of extension • Extension Education and importance of extension 			
UNIT - II		Extension			
		<ul style="list-style-type: none"> • Principles of Education Extension • Philosophy of Education Extension • Objectives of the Education Extension • Need of Education Extension 			
UNIT - III		Extension Programme Planning and Process			
		<ul style="list-style-type: none"> • The Extensional Educational Process • Meaning, Objectives and Importance of Extension Programme Planning. • Role of Extension Worker in Extension Programme 			
UNIT - IV		Extension methods and approaches			
		<ul style="list-style-type: none"> • Classification of Approaches • Types of Methods for Approaches – interview, circular/letter, puppet show, film show 			
UNIT - V		Education			
		<ul style="list-style-type: none"> • Types of Education : Formal, In formal, Non formal – Definition, Characteristics, Advantages & Disadvantages • Adult learning Components of Extension 			
PRACTICALS					
	1	Discuss with male/ female extension worker – regarding his/her job & responsibilities			
	2	To enable students for job opportunities, plan, prepare and evaluate any one type of formal education programme for home science students with demonstration method. E.g. - Beauty care and Treatment, Soft toys making, Hobby Classes Any other activities which is related to guruh Udhayog and waste out of best.			
	3	Group Discussion - various methods of approaches.			
	4	Make teaching aids: placards/street play/slide show/slogan			
REFERENCES					
	1	Mikkelsen, Britha, (2002), Methods for Development Work and			

	Research. New Delhi: Sage Publications
2	Dale R, (2004) Evaluating Development Programmes and Projects. New Delhi
3	Kumar & Hansra, (1997) Extension Education for Human Resource Development. New Delhi: Concept Publishers
4	Supa S.V., An Introduction to Extension Education, Oxford and IBH Pub. Co .Pvt. Ltd.

B. Sc (HOME SCIENCE)					
YEAR	I	GENERAL SCIENCE I (BIOLOGY)		CREDIT	04 (03+01)
SEMESTER	I	PAPER NO. 6		HOURS/ WK	05
Total Marks: 100		Internal: 30	Theory: 50	Practical: 20	
OBJECTIVES		1. To understand Cell Biology 2. To understand Basic functions of Life forms 3. To be aware of role of Plants and Micro-organisms in Human Life			
COURSE CONTENT: THEORY					
UNIT - I		Cell as Unit of Life			
		<ul style="list-style-type: none"> • Typical Plant Cell • Typical Animal Cell • Animal Tissues: Epithelial, Connective, Muscular and Nervous Tissues. 			
UNIT - II		Morphology of flowering Plant			
		<ul style="list-style-type: none"> • Typical flowering plant and it's parts • Root and their modifications • Stem and it's modifications • Types of leaves and venation • Different parts of flower • Germination of seed 			
UNIT - III		Microscopic Forms of Life			
		<ul style="list-style-type: none"> • History of Microbiology • Economic importance of microorganisms • General morphology of virus, bacteria, fungi, algae and protozoa 			
UNIT - IV		Aetiology, Symptoms, Transmission and Prevention of:			
		<ul style="list-style-type: none"> • Bacterial Diseases: Typhoid, Tuberculosis • Viral Diseases: Hepatitis, Measles, Polio • Miscellaneous: Cancer 			
PRACTICALS					
		1	Study of Simple and Compound Microscope and their parts		
		2	Preparation of Slides: a) Onion peel Cells b) Starch grains		
		3	Study of Laboratory Instruments: Autoclave, Hot Air Oven, Incubator and Centrifuge		
		4	Study of yeast cells by wet mount preparation		
		5	Examination of permanent slides: a) Fungi: Aspergillus, Mucor, Rhizopus b) Protozoa: Amoeba, Euglena, Paramecium c) Algae: Spirogyra		

REFERENCES	
1	An introduction to Biology by A.R.Chavan
2	Outline of Botany by J F Alrnida and D.D. Mulan
3	A modern Introduction to Zoology by C.J. George
4	Microbiology by Pelczar and Reid

B. Sc (HOME SCIENCE)					
YEAR	I	BASIC COMPUTER & ITS APPLICATION		CREDIT	02 (00+02)
SEMESTER	I	CORE - PAPER NO. 7		HOURS/ WK	04
Total Marks: 50		Internal: 15	Theory: 00	Practical: 35	
OBJECTIVES		1. To know the basics of computers. 2. To be able to use computers for education, information and research.			
COURSE CONTENT: PRACTICAL					
	1	Prepare an application for the post of an English lecturer in Arts College in MS-Word.			
	2	Prepare your bio-data in MS-Word.			
	3	Prepare your timetable of semester-1 in MS-Word.			
	4	Prepare a pie chart of semester-1 of result of your class in MS-word			
	5	Prepare a bar chart of last 4 years results of home science sem-6 of your college in MS-Word			
	6	Prepare a layout for visiting card in MS-Word.			
	7	Prepare a layout for invitation card in MS-Word			
	8	Prepare a power point presentation about semester wise subjects and job opportunities in home-science			
	9	Prepare a power point presentation for your tuition class/hobby class/beauty parlor.			
REFERENCES					
	1	Microsoft office 2007 2 nd edition by computer world.			
	2	Bano computer expert 5 th edition by computer word.			
	3	Beginner's guide 2001 by Aptech Limited.			
	4	Computer application and I.-1 by C. Jamnadas & Company.			
	5	Computer application and I.-1 by C. Jamnadas & Company.			

B. Sc (HOME SCIENCE)					
YEAR	I	WOMEN EMPOWERMENT		CREDIT	04
SEMESTER	II	PAPER NO. 1		HOURS/ WK	05
Total Marks: 100		Internal: 30	Theory: 50	Practical: 20	
OBJECTIVES		To enable students to 1. To develop understanding about the status of women in India 2. To become aware of the issues and problems of women 3. To become acquainted with services available for women			
COURSE CONTENT: THEORY					
UNIT - I		Importance of women's study			
		<ul style="list-style-type: none"> • Women's Studies as an interdisciplinary area, as an emerging discipline--Definition, Scope and Controversies. 			
UNIT - II		Status of women			
		<ul style="list-style-type: none"> • Social • Educational • Economical • Legal • Domestic • Political 			
UNIT - III		Problems and issues of women in India			
		<ul style="list-style-type: none"> • Dowry • Suicide • Health • Sexual exploitation • Unwed mother • Rape/Gang rape • Divorce • Domestic violence • Live in relationship • Prostitution • Acid attack • Widow • Child marriage 			
UNIT - IV		Local organizations dealing with issues of women			
		<ul style="list-style-type: none"> • Legal and family counseling • Helpline 181 • Nari suraksha kendra • Mahila police station 			
PRACTICALS					
		1	Arrange a lecture of gynecologist		
		2	Arrange a lecture of a legal advisor		
		3	Visit to a mahila police station		

4	Collect the information about the helpline 181
REFERENCES	
1	Doshi, D. (2017). <i>Aajni Nari: A Collection Of Articles On Women Empowerment</i> (First Ed.). Ahmedabad: Rang Dwar Prakashan.
2	Hay, L. L. (1997). <i>Empowering Women</i> (First Ed.). (V. Thakkar, Trans.) Ahmedabad: Rudra Publication.
3	Ila Pathak Bakula Ghasvala. (2003). <i>Strio Ane Hinsa: Vasami Vastaviktao</i> (First Ed.). (N. D. Thakkar, Ed.) Ahmedabad: R.R. Sheth & Co. Mumbai.
4	Jivani, N. (2011). <i>Atmahatya: Ek Samajik Samsya</i> . Rajkot: Pravin Prakashan.
5	Jivani, N. (2011). <i>Gharelu Hinsa</i> (First Ed.). Rajkot: Pravin Prakashan.
6	John, E. M. (2008). <i>Women's Study In India</i> . Delhi: Penguin.
7	Krishnaraj, D. N. (1987). <i>Women And Society In India</i> . Delhi.
8	Pande, D. (2003). <i>Stri Swasthyana Prashno</i> (First Ed.). (N. D. Thakkar, Ed.) Mumbai: R.R.Sheth & Co.
9	Patel, K. (2001). <i>Mahila Adhikar 2000</i> (First Ed.). Ahmedabad: Gurjar Granth Ratna Karyalaya.
10	Patel, K. (2001). <i>Mahila Adhikar 2000</i> (First Ed., Vol. 1). Ahmedabad: Gurjar Granth Ratna Karyalay.
11	Savitri, G. (2004). <i>Violence, Law And Women's Rights In South Asia</i> . New Delhi: Sage.
12	Shah, K. (2003). <i>Stri Shikshan: Vikas Ane Padkaro</i> (First Ed.). (N. D. Thakkar, Ed.) Mumbai: R.R.Sheth & Co.
13	Thakkar, U. (2003). <i>Simachihn Chukadao : Siddhant Ane Vastvikta</i> (First Ed.). (N. D. Thakkar, Ed.) Mumbai: R.R.Sheth & Co.

B. Sc (HOME SCIENCE)					
YEAR	I	FUNDAMENTALS OF FOOD AND NUTRITION - II		CREDIT	04 (03+01)
SEMESTER	II	PAPER NO. 2		HOURS/ WK	05
Total Marks: 100		Internal: 30	Theory: 50	Practical: 20	
OBJECTIVES		<ol style="list-style-type: none"> 1. The course enables the students to understand the functions of food and the role of various nutrients and the effects of deficiency and excess 2. To learn about the composition and nutritional contribution and selection of different food stuff 3. To be familiar with different methods of cooking, their advantages and disadvantages 4. To develop the ability to improve the nutritional value of food. 			
COURSE CONTENT: THEORY					
UNIT - I		The basic five food groups			
		<ul style="list-style-type: none"> • Cereals and Breads • Protein foods • Protective Vegetables and Fruits & Vitamin C rich Vegetables and Fruits • Other Vegetables and Fruits • Oils, Fats, Sugars 			
UNIT – II		Micro nutrients: Classification, sources, functions, RDA, deficiency and excess (in brief)			
		<ul style="list-style-type: none"> • Vitamins – Fat soluble vitamins A, D, E, K Water soluble vitamin C and B-Complex • Minerals _ Calcium, phosphorus, magnesium, sodium, potassium, chlorine, iron, fluorine, iodine, copper, selenium, zinc 			
UNIT – III		Water			
		Sources, water balance and requirement			
UNIT – IV		Basic terminology used in food preparation			
		<ul style="list-style-type: none"> • Pre-preparation – Peeling, scraping, paring, cutting, grating, steeping, centrifuging, emulsification, homogenization, germination, fermentation • Mixing terms – Beating, blending, cutting in, creaming, folding in 			
UNIT – V		Methods of food preparation			
		<ul style="list-style-type: none"> • Boiling • Pressure cooking • Stewing • Poaching • Brewing • Braising • Solar cooking • Baking • Frying 			

	<ul style="list-style-type: none"> • Microwave cooking • Steaming • Roasting • Puffing
PRACTICALS	
1	Preparation of following recipes rich in (One each) <ul style="list-style-type: none"> • Vitamin A • Vitamin C • VitaminB₁ • Vitamin B₂ • Vitamin B₃ • Folic acid • Calcium • Iron
2	Preparing recipes using different methods of cooking (One each) <ul style="list-style-type: none"> • Boiling • Pressure cooking • Steaming • Solar cooking • Baking • Frying <ol style="list-style-type: none"> i. Deep frying ii. Shallow frying
REFERENCES	
1	S.R.Mudambi and M..Rajagopal (2007) Fundamentals of Foods, Nutrition and Diet Therapy, New Age International Publishers
2	Neelam Buddhdev, Bhavana Vaid (2004) Fundamentals of Foods and Nutrition , Pravin Prakashan
3	R. Rajlaxmi (1978) Prayukta Poshan, University Granth Nirman Board, Gujarat
4	Thangam E. Philip (1984) Modern Cookery - Vol. I Orient Longman Limited
5	M. Swaminathan (1979) Food Science and Experimental Foods, Ganesh and Co., Madras
6	F.P. Antia (1982) Clinical Dietetics and Nutrition, Oxford University Press
7	Swaminathan M (2000). Advanced Textbook on Foods and Nutrition, Vol I (2 nd ed.). Bangalore Printing and Publishing Ltd, Bangalore
8	Swaminathan M (2008). Essentials of Foods and Nutrition, Vol II. BAPPCO
9	B. Srilakshmi (2006) Nutrition Science, New Age International Publishers

B. Sc (HOME SCIENCE)				
YEAR	I	INTRODUCTION TO CLOTHING AND TEXTILE – II		CREDIT
				04 (03+01)
SEMESTER	II	PAPER NO. 3		HOURS/ WK
				05
Total Marks: 100		Internal: 30	Theory: 50	Practical: 20
OBJECTIVES		1. Acquaint with various steps involved in the apparel making 2. To improve the skill in garment making		
COURSE CONTENT: THEORY				
UNIT – I	Seams			
	<ul style="list-style-type: none"> • Types of Seams • Seams Finishes 			
UNIT – II	Measurement			
	<ul style="list-style-type: none"> • Knowledge of various landmark on the body, required for making garment. • Techniques of taking body measurement 			
UNIT – III	Fullness Techniques			
	<ul style="list-style-type: none"> • Dart – Types of darts • Pleats – Types of pleats • Tucks – Types of tucks • Gathering – Types of gatherings 			
UNIT – IV	Manufacturing process, Properties, Types of following fibres			
	<ul style="list-style-type: none"> • Natural Cellulose Fibre: Cotton • Natural Protein Fibres (Animal Fibres): Silk, Wool. • Chemical Fibre: Nylon 			
UNIT – V	Yarn Construction			
	<ul style="list-style-type: none"> • History and Construction of yarn • Classification of yarn :(1) Simple Yarn (2) Complex Yarn (3) Textured Yarn 			
PRACTICALS				
	1	Make the Specimen : (1) Pleats (2) Tucks (3) Gatherings		
	2	Make a Sample: Types of Seams (Any Five)		
	3	Identification and Testing of Fibers : (1)Visual Test (2) Microscopic Test (3) Burning Test (4) Chemical Test		
	4	Drafting and Stitching : (1) Bib (2) Nappy		
REFERENCES				
	1	પરિધાન : સંતોષ બાટવિયા		
	2	વસ્ત્ર વિજ્ઞાન એવમ પરિધાન : પ્રમિલા વર્મા		
	3	વસ્ત્ર વિજ્ઞાન કે મૂલ સિધ્ધાંત : ડૉ. જી. પી. શેરી		
	4	પોષાક નિર્માણ કે મૂલ સિધ્ધાંત : દત્તાત્રેય રામચંદ્ર જોષી		
	5	વ્યવહારિક વસ્ત્ર વિજ્ઞાન :પૂષ્પા શો અને ગીતા શો		
	6	Textiles- Fiber to Fabric (6 th Edition), Corbman, P.B., (1985) Gregg Division/ McGraw Hill Book Co., US.		
	7	Essentials of Textiles (6 th Edition),Joseph, M.L., (1988) Holt, Rinehart		

	and Winston Inc., Florida.
8	Textbook of Fabric Science: Fundamentals to Finishing, Sekhri S., (2013) PHI Learning, Delhi.
9	Understanding Textiles, Tortora, G. Phyllis, McMillan Co. USA.

B. Sc (HOME SCIENCE)					
YEAR	I	INTRODUCTION TO HUMAN DEVELOPMENT- II		CREDIT	04 (03+01)
SEMESTER	II	PAPER NO. 4		HOURS/ WK	05
Total Marks: 100		Internal: 30	Theory: 50	Practical: 20	
OBJECTIVES		1. To introduce the students to the field of Human development concepts, scope, dimensions and interrelations. 2. To sensitize the student to intervention in the field of human development.			
COURSE CONTENT: THEORY					
UNIT - I		Prenatal Development			
		<ul style="list-style-type: none"> • Course of prenatal development • Overview of birth process and complication • Condition affecting prenatal development 			
UNIT - II		Physical Growth & Development (0 to 6 years)			
		<ul style="list-style-type: none"> • Definition • Development task. • Factors affecting physical development 			
UNIT - III		Motor Development (0 to 6 years)			
		<ul style="list-style-type: none"> • Concept of motor Development • Motor development for infancy • Factors affecting Motor development 			
UNIT - IV		Social Development			
		<ul style="list-style-type: none"> • Meaning and definition • Social development process • Factors affecting social development 			
UNIT - V		Emotional Development			
		<ul style="list-style-type: none"> • Meaning and definition • Types of Emotions • Factors affecting emotional development 			
PRACTICALS					
		1	Visit to Balwadi		
		2	Visit to Hobby center		
		3	Create any one development chart		
		4	Make any one game		
REFERENCES					
		1	Child Development - Elizabeth Hurlock		
		2	બાળમાનસ પરિચય-ડૉ. બી. એ. પરીખ, ડૉ. આઈ. સી. જરીવાલા		
		3	વિકાસલક્ષી મનોવિજ્ઞાન ભાગ-૧-૨ એલીઝાબેથ હરલોક, એચ.બી.કાનાવાલ		

B. Sc (HOME SCIENCE)					
YEAR	I	COMMUNITY DEVELOPMENT AND EXTENSION		CREDIT	04 (03+01)
SEMESTER	II	PAPER NO. 5		HOURS/ WK	05
Total Marks: 100		Internal: 30	Theory: 50	Practical: 20	
OBJECTIVES		1. Make students aware of the approaches to development 2. Understand the existing support structure for development 3. Understand the role of Non Government Organization in community			
COURSE CONTENT: THEORY					
UNIT – I		Community Development			
		<ul style="list-style-type: none"> • Definition, Type – large scale and centrally planned, and small scale and locality planned. • Goals, the purpose of development process of development 			
UNIT – II		Community Development In India			
		<ul style="list-style-type: none"> • Evolution of community development in India since independence. • Structure and function of community development at different levels 			
UNIT – III		Home Science and community development			
		<ul style="list-style-type: none"> • Scope of Home Science Extension for meaningful participation in community development in India 			
UNIT – IV		Support structures and their functions			
		<ul style="list-style-type: none"> • Central Social Welfare Board • State social Welfare Board • National level voluntary agencies such as SEWA, KVIC 			
UNIT – V		Role of women’s self help group in community development			
		<ul style="list-style-type: none"> • Meaning and method of working • Advantages • Role of supporting agencies 			
UNIT – VI		National development programme in community development			
PRACTICALS					
	1	‘Anti poverty approach’- with Development method-plan, prepare and evaluate the women’s income generation programs for village women and their development.			
	2	Discuss with the Director/ President/ Manager of any voluntary agencies or NGOs regarding his/ her function and information of their institute.			
	3	To check the ‘Efficiency approach’ emphasis on women’s key role in production with the aim of this visit any one voluntary group which is run by only women and collect their information such as AKRSP’s – and any other self help group of women which is run by them only at the district, Taluka, Gram and State level.			
	4	Project work-NGO/National development programme			
REFERENCES					
	1	Dhama O.P. Bhatnager O.P. , Extension and Communication for development Second Addition , Oxford and IBH Publishing Co. Pvt. Ltd. New Dehli			

2	Ray G.L. Extension Communication and Management Oxford and IBH Publishing
3	Sandhu A., Extension Programme Planning Oxford and IBH Publishing
4	Sharma S.R. New Perspective on Extension Education , Book Enclave, Jaypur
5	Waghmare S.K. Teaching Extension Education Prashant Publisher V.V.Nagar , Gujarat

B. Sc (HOME SCIENCE)					
YEAR	I	GENERAL SCIENCE – II (HUMAN ANATOMY & PHYSIOLOGY)		CREDIT	04 (03+01)
SEMESTER	II	PAPER NO. 6		HOURS/ WK	05
Total Marks: 100		Internal: 30	Theory: 50	Practical: 20	
OBJECTIVES		This course will enable student to- 1. Understand general structure and functions of various systems in human body.			
COURSE CONTENT: THEORY					
UNIT - I		Skeleton System			
		Different Bones, Joints & its functions			
UNIT - II		Digestive System			
		<ul style="list-style-type: none"> • Organs of Digestive System and it's functions • Accessory digestive glands & it's functions-Salivary gland, Liver & pancreas • Digestion & absorption of food 			
UNIT - III		Respiratory System			
		<ul style="list-style-type: none"> • Structure & function of respiratory system • Mechanism of Respiration 			
UNIT - IV		Circulatory System			
		<ul style="list-style-type: none"> • Composition & functions of blood • Structure of Heart & its function 			
UNIT - V		Excretory System			
		<ul style="list-style-type: none"> • Structure and function of Urinary system • Urine formation • Composition of urine 			
UNIT - VI		Nervous System			
		<ul style="list-style-type: none"> • Central nervous System, different parts of Brain & its function. • Spinal cord & Reflex arch • General studies of all sensory organs 			
UNIT - VII		Endocrine Glands			
		<ul style="list-style-type: none"> • Hormones & function of. Pituitary Gland, Thyroid gland, Para Thyroid Gland, Adrenal Gland, Pancreas, Testis & Ovary 			
UNIT - VIII		Reproductive System			
		<ul style="list-style-type: none"> • Male & female reproductive system • Menstruation, puberty and menopause 			
PRACTICALS					
	1	Demonstration and preparation of stained fresh blood smear and identification of blood cell			
	2	Preparation of slide- oral epithelium			
	3	Identification of different bones of human skeleton			
	4	Identification of different organ and its function Digestive system			

	<ul style="list-style-type: none"> -Respiratory system -Urinary system -Brain - Reproductive system -Structure of Heart & its functions
REFERENCES	
1	Physiology and Anatomy –Evelyn Pearce
2	Physiology and anatomy –Winwood-
3	Biology teachers guide –NCERT
4	Manav sharir rachna ane kriya vigyan (Gujarati)- S.N.Parikh
5	Manav sharir rachana, sharir kriya ane swasthya vigyan (Gujarati)- Dr. Harit Derasari

B. Sc (HOME SCIENCE)					
YEAR	I	ENVIRONMENTAL SCIENCE PAPER NO. 7		CREDIT	02 (02+00)
SEMESTER	II			HOURS/ WK	02
Total Marks: 50		Internal: 15	Theory: 35	Practical: 00	
OBJECTIVES		<ol style="list-style-type: none"> 1. To be aware of the holistic ecological approaches to environment 2. To be aware of the environmental problems, hazards and risks 3. To understand the aspects of environmental pollution 4. To know our environmental resources and its conservation 5. To be aware of public duties for sustainable development of India 6. To be aware of the environmental policies, movements and ethics 			
COURSE CONTENT: THEORY					
UNIT 1		Environmental Science - Scope and Importance			
		<ul style="list-style-type: none"> • Introduction • Levels of Organization • Definition and Types of Environment • Components of Environment • Human Interference of Environment and Public Awareness 			
UNIT II		Natural Resources			
		<ul style="list-style-type: none"> • Introduction • Classification of natural resources • Principal Natural Resources and their associated problems and conservation in brief <ul style="list-style-type: none"> – Forest resources – Water Resources – Mineral Resources – Food Resources – Energy Resources – Land Resources 			
UNIT III		Ecosystem			
		<ul style="list-style-type: none"> • Introduction • Types of Ecosystem • Component, Structure and Functions of Forest Ecosystem • Food Chain and Food Web • Environmental laws and Protection Acts and Environmental Movements 			
UNIT IV		Environmental Pollution			
		<ul style="list-style-type: none"> • Introduction • Types of Pollutants <ul style="list-style-type: none"> – Air Pollution – Water Pollution – Soil Pollution 			

	<ul style="list-style-type: none"> – Radioactive Pollution – Noise Pollution • Role of individual in prevention of Pollution • Social Issues and Environment <ul style="list-style-type: none"> – Global Warming and Green House Effect – Depletion of Ozone layer – Nuclear Accidents
REFERENCES	
1	J.P. Sharma (1971) “Comprehensive Environmental Studies” New Delhi Laxmi Publication Pvt. Ltd.
2	Chetan Singh Mehta (2000), Environmental Protection and the Law, New Delhi: Ashish Publishing house.
3	M.H.Tyagi (2005), Global Environmental issues Jaipur: Raj Publishing House
4	M.H.Tyagi (2005), Global Environmental issues Jaipur: Raj Publishing House