

**Syllabus**  
**HOME SCIENCE**

**For**  
**U.G. Programme**  
**And**  
**P.G. Programme**

**Effective from session 2024-25 onwards**



**MAHARAJA SUHEL DEV UNIVERSITY, AZAMGARH**  
**(U.P.)-276128, INDIA**

**Prepared by**

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# Maharaja Suhel Dev University, Azamgarh, UP- 276128

NEP-2020-Semester wise title of the paper in UG and PG Programme

(Home Science)

Year	Sem.	Course Code	Paper Title	Theory/ Practical	Credits
B.A. 1	I	A130101T	Fundamentals of Nutrition & Human Development	Theory	4
	I	A130102P	Cooking skills & Healthy Recipe development	Practical	2
	II	A130201T	Introduction to clothing and textile & Family resource Management	Theory	4
	II	A130202P	Clothing & Textile	Practical	2
B.A. 2	III	A130301T	Advance Nutrition & human development	Theory	4
	III	A130302P	Human Development	Practical	2
	IV	A130401T	Housing & Extension Education	Theory	4
	IV	A130402P	Resource Panning & Decoration	Practical	2
	IV	A130403R	Research Project	Project	3
B.A. 3	V	A130501T	Surface orientation of fabrics	Theory	4
	V	A130502T	Community Development & Programme Planning	Theory	4
	V	A130503P	Community Transformation (Change)	Practical	2
	VI	A130601T	Dietetics & Therapeutic Nutrition	Theory	4
	VI	A130602T	Research Methodology & Gender Development	Theory	4
	VI	A130603P	Therapeutic Diet preparation & Nutrient Evaluation	Practical	2

## Syllabus Developed by:

S. No.	Name	Designation	Department	College/ University
1	Dr. Nitu Singh Supervisor	Associate Professor	Home Science	Hemvati Nandan Bahuguna Govt. P.G College Naini, Prayagraj
2	Prof. Sangita Saini Subject Expert	Professor	Home Science	Dayalbagh Educational Institute, Dayalbagh, Agra
3	Dr. Rashmi Bishnoi Subject Expert	Associate Professor	Home Science	Netaji Subash Chandra Bose Government Girls P.G College, Aliganj, Lucknow
4	Dr. Monika Subject Expert	Associate Professor	Home Science	Sri Tilka Ram Kanya Mahavidyalaya, Aligarh

### Proposed Year wise Structure of UG Program in Home Science

#### Program Outcomes (POs)

The program has been framed in such a manner that students receive real feel of quality education by touching all aspects of human lifecycle.

Designed to enhance the capacity of students to understand universal and domain-specific values in Home Science

Develop the ability to address the complexities and interface among of self, societal and national priorities

Inculcate both generic and subject-specific skills to succeed in the employment market and standards of life  
Promote research, innovation and design (product) development favouring all the disciplines in Home Science.

This programme develops scientific and practical approach among the students which helps in their day to day life.

#### Certificate in Fundamentals of Home Science

##### B.A. First Year

#### Program Specific Outcomes (PSOs)

At the end of program following outcomes are expected from students:

Learn about the discipline of Home Science as a holistic field of study covering multiple facets and requirements of human beings in day to day living, for example, achievement of appropriate milestones in personal development; awareness, need and use of family resources; access to adequate nutrition for wholesome development; clothing fundamentals.

May have capabilities to start earning by enhancing their skills in the field of Nutrition and Textiles.

Semester I	Name of Paper	Credits	No of Lectures
	Fundamentals of Nutrition and Human Development (Theory)	4	60
	Cooking Skills and Healthy Recipe Development (Practical)	2	30
	Total	6	90
Semester II	Name of Paper	Credits	Lectures
	Introduction to Clothing and Textile & Family Resource Management (Theory)	4	60

	Clothing and Textile (Practical)	2	30
	Total	6	90

### B.A. Second Year : Diploma in Interior Design & Human Development

#### Program Specific Outcomes (PSOs)

At the end of program following outcomes are expected from students:

Develop sensitivity, resourcefulness, and competence to render service to enhance development of individuals, families, communities, and the nation at large.

Enhance abilities involved in acting as proactive agents of change in promoting the discipline of Family and Community Sciences .

Explore and decide upon viable avenues of self-employment and entrepreneurship.

Learn more about human and community & relationship.

Semester III	Name of Paper	Credits	No of Lectures
	Advance Nutrition and Human Development (Theory)	4	60
	Human Development (Practical)	2	30
	Total	6	90
Semester IV	Name of Paper	Credits	No of Lectures
	Housing and Extension Education (Theory)	4	60
	Resource planning & Decoration (Practical)	2	30
	Total	6	90

### B.A. Third Year: Degree in Bachelor of Arts

#### Program Specific Outcomes (PSOs)

- Programme is framed to Encourage a genre of responsible students with a passion for lifelong learning and entrepreneurship, it also generate multi-skilled leaders with a holistic perspective that cuts across disciplines.
- Promote research, innovation and design (product) development favouring all the disciplines in Home Science.
- Enhance digital literacy and apply them to engage in real time problem solving and ideation related to all fields of Home Science.
- Appreciate and benefit from the symbiotic relationship among the five core disciplines of Home Science – Resource Management, Food Science and Nutrition, Textiles and Clothing, Human Development and Family Studies and Extension and Communication.
- After this degree programme students can be benefitted by getting jobs in various fields like government sector, working with NGOs, jobs as an extension worker, Education etc. and also they can feel the sense of entrepreneurship as well.

Semester V	Name of Paper	Credits	No. of
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			Lectures
	Surface Ornamentation of Fabrics (Theory)	4	60
	Community Development & programme planning (Theory)	4	60
	Community Transformation (Change) Practical	2	30
	Research Project 1	3	45
	Total	13	195
Semester VI	Name of Paper	Credits	No. of Lectures
	Dietetics and Therapeutic Nutrition (Theory)	4	60
	Research Methodology and Gender Development (Theory)	4	60
	Therapeutic Diet Preparation and Nutrient Evaluation (Practical)	2	30
	Research Project 2	3	45
	Total	13	195

**B.A. I Semester I Home Science Paper 1  
Fundamentals of Nutrition and Human Development (Theory)**

Programme/Class: Certificate	Year: 1	Semester: 1
<b>Subject: Home Science</b>		
Course Code: A130101T	Course Title: Fundamentals of Nutrition and Human Development	
<b>Course outcomes:</b> The student at the completion of the course will be able to: <ul style="list-style-type: none"> <li>▪ Prepare the students to understand physiology based courses</li> <li>▪ Students will get familiar with different methods of cooking</li> <li>▪ Acquaint students with practical knowledge of nutrient rich foods</li> <li>• Explain the need and importance of studying human growth and development across life span</li> <li>• Identify the biological and environmental factors affecting human development.</li> <li>• Learn about the characteristics, needs and developmental tasks of infancy &amp; early childhood years</li> </ul>		
Credits: 4	Core Compulsory	
Max. Marks: 25+75	Min. Passing Marks:33	
Total No. of Lectures-60		
Units	Topic	No of Lectures
I	Traditional Home Science and its Relevance in current era Contribution made by Indian Home Scientists i.e. M Swaminathan, C V Gopalan, S K Day, Ravindra Nath Tagore etc.	03
II	Cell and Digestive System Respiratory and Cardiovascular system	10

III	Food and Nutrition Food- Meaning, Classification and function Nutrition- Concept of Nutrition Nutrients-Macro and Micro, sources and deficiency diseases.	09
IV	Cooking Methods- Methods, Advantages and Disadvantages Preservation of Nutrients while Cooking	08
PART B		
V	Introduction to Human Development: <ul style="list-style-type: none"> <li>• Concept, Definition and need to study of Human Development</li> <li>• Domains, Stages and contexts of development</li> </ul> Principles of Growth and Development Determinants of Development- heredity and environment	8
VI	Prenatal Development and Birth Process: <ul style="list-style-type: none"> <li>• Conception, Pregnancy and Childbirth</li> <li>Stages of birth</li> <li>• Types of delivery (natural, c-section, breech, home vs. assisted delivery)</li> <li>• Physical appearance and capacities of the new-born</li> <li>• Factors affecting Pre-natal development.</li> </ul>	6
VII	Infancy: <ul style="list-style-type: none"> <li>• Developmental tasks during Infancy and Preschool Stage.</li> <li>• Physical and Motor Development.</li> <li>• Social and emotional development</li> <li>• Cognitive and language development</li> </ul>	8
VIII	Early Childhood (Pre School) years: <ul style="list-style-type: none"> <li>• Developmental Tasks during Early childhood.</li> <li>• Physical and Motor Development</li> <li>• Social and emotional development</li> <li>• Cognitive and language development</li> </ul>	8

**Suggested Readings:**

- Dr. Brinda Singh, Manav Sharir evam Kriya Vigyan Panchsheel Prakashan, Jaipur;2015 ,15<sup>th</sup> Ed.
- Chatterjee, C.C , "Human Physiology" Medical Allied Agency ; Vol I , II .
- Text Book of Biology for 10+2 Students (NCERT)
- Sumati R Mudami, "Fundamentals of food Nutrition and Diet Therapy" , New Age International Pvt. Ltd, New Delhi , 6<sup>th</sup> Ed. (2018)
- Punita Sethi and Poonam Lakda , "Aahar Vigyan, Suraksha evam Poshan" ; Elite Publishing House, New Delhi ;2015
- Berk, L.E. *Child development* New Delhi: Prentice Hall (2005) (5th ed.).
- Berk L.E. *Child Development* Allyn and Bacon 1992 (6th) Edition.
- Keenan, T., Evans, S., & Crowley, K. *An introduction to child development*, Sage (2016)

- Hurlock E. Child Development.
- Aadhunik Vikasatmak Manovigyan , Shri Vinod Pustak Mandir Agra Edition 3<sup>rd</sup> 2015
  - Suggestive digital platforms web links-ePG-Pathshala, IGNOU & UPRTOU online study material
  - Svayam Portal
  - <http://heecontent.upsdc.gov.in/Home.aspx>

This course can be opted as an elective by the students of following subjects: Open for all  
The eligibility for this paper is 10+2 with any subject

Suggested Continuous Evaluation Methods:

- Seminar/ Presentation on any topic of the above syllabus
- Test with multiple choice questions/ short and long answer questions

Attendance

Course prerequisites: To study this course, a student must have had the subject ALL in class 12<sup>th</sup>.  
The eligibility for this paper is 10+2 with any subject

Further Suggestions:

It widens the scope for students to join Government and Non-Government organization upskilling the people at different levels as per their socio-economic structure.

At the End of the whole syllabus any remarks/ suggestions:

**B.A. I Semester I Home Science Paper 2**  
**Cooking skills and healthy recipe development (Practical)**

Programme/Class: Certificate	Year: 1	Semester: 1
<b>Subject: Home Science (Practical)</b>		
Course Code: A130102P	Course Title: Cooking skills and healthy recipe development	
<b>Course outcomes:</b>		
<ul style="list-style-type: none"> <li>▪ Students will get familiar with different methods of cooking</li> <li>▪ Acquaint students with practical knowledge of nutrient rich foods</li> </ul>		
Credits: 2	Core Compulsory	
Max. Marks: 25+75	Min. Passing Marks:40	
Total No. of Lab Periods-30 (60 hours)		
Unit	Topic	No. of lab.periods
I	Basic cooking skills - Weighing of raw materials - Preparing of different food items before cooking	06
II	Preparation of various dishes using different methods of cooking - Boiling /steaming - Roasting - Frying – Deep/shallow - Pressure cooking - Hot air cooking/Baking	08

III	Different styles of cutting fruits and vegetables - Salad Decoration/Dressings	06
IV	Preparation of nutrient rich dishes - Protein rich dish - Carbohydrate rich dish - Fat rich dish - Vitamins rich dish - Minerals - Fibers	10

**Suggested Readings:**

- ❖ Dr. Brinda Singh, Manav Sharir evam Kriya Vigyan Panchsheel Prakashan, Jaipur;2015 ,15<sup>th</sup> Ed.
- ❖ Chatterjee, C.C , "Human Physiology" Medical Allied Agency ; Vol I , II .
- ❖ Text Book of Biology for 10+2 Students (NCERT)
- ❖ Sumati R Mudami, "Fundamentals of food Nutrition and Diet Therapy" , New Age International Pvt. Ltd, New Delhi , 6<sup>th</sup> Ed. (2018)
- ❖ Punita Sethi and Poonam Lakda , "Aahar Vigyan, Suraksha evam Poshan" ; Elite Publishing House, New Delhi ;2015

This course can be opted as an elective by the students of following subjects: Open for all

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**Suggested Continuous Evaluation Methods:**

- Test with multiple choice questions/short and long answer questions
- Menu planning and calculation of nutrient requirement
- Nutritive value calculation of various nutrient rich dishes

Course prerequisites: To study this course, a student must have had the subject ..... in class/12<sup>th</sup>/ certificate/diploma.

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**Suggested equivalent online courses**

- IGNOU and other centrally/state operated Universities/MOOC platforms such as "SWAYAM" in India and abroad.,  
<http://heecontent.upsdc.gov.in/Home.aspx>

**Further Suggestions:**

Students may develop their cooking skills with new healthy recipe development after completion of this course and even start their own food service center.

**B.A. I Semester 2 Home Science Paper 1**  
**Introduction to Clothing & Textiles & Family Resource Management (Theory)**

Programme/Class: Certificate		Year: 1	Semester: 2
Subject: Home Science			
Course Code: A130201T		Course Title: Introduction to Clothing and Textiles & Family Resource Management (Theory)	
Course outcomes:			
<ul style="list-style-type: none"> <li>• Learn about scope of textile and clothing</li> <li>• Understanding why fabrics are different</li> <li>• Learn how fabrics can be manufactured</li> <li>• Understand basic clothing concepts and garment making</li> <li>• Learn the family resource management as a whole.</li> <li>• Understand the Decision making and use of resources throughout the Family life cycle.</li> <li>• Gain knowledge about Time, Money &amp; Energy as a Resource.</li> <li>• Appreciate Household Equipments for work simplification</li> </ul>			
Credits: 4		Core Compulsory	
Max. Marks: 25+75		Min. Passing Marks:33	
Total No. of Lectures- 60			
Unit	Topic	No. of Lectures	
<b>PART A</b>			
I	<b>Introduction</b> a) Introduction to Clothing and Textile (b) Its importance in day-to-day life (c) Scope (d) Classification of textile fiber on the basis of their source (e) General properties of fibers- primary and secondary	7	
II	<b>Knowing Fibers</b> -Manufacture, processing, properties and uses of (a) Cellulosic Fibers-cotton, Linen (b) Protein Fibers-Wool, Silk (c) Synthetic/Manmade fibers-Nylon, Polyester, Acrylic, Rayon.	8	
III	<b>Yarn to Fabrics</b> (a) Definition of Yarn, Manufacture of Yarn and Yarn Properties (b) Different fabric construction techniques (Weaving, Knitting, Felting, Braiding, Non-woven) (c) Weaving of Cloth-Terminologies and Steps in Weaving. (d) Types of weaves-Basic and Decorative	8	
IV	<b>Clothing Construction</b> (a)Tools for Clothing construction (b) Introduction to sewing machines, its parts and maintenance, (c) Importance of Drafting, Draping, Flat pattern techniques - advantages & disadvantages (d) fabric preparatory steps for stitching a garment - preshrinking, straightening, layout, pinning, marking and cutting.	7	
<b>PART B</b>			
V	<b>Introduction to Home Management:</b> Basic Concepts, Purpose and Obstacles of Management. Process of Management – Planning, Organizing, Controlling and Evaluation. Motivating Factors in Management – Values, Goals and Standards – Definition and Classification.	8	
VI	<b>Resources, Decision making &amp; Family life cycle:</b> Meaning, Characteristics, Types and Factors affecting the use of Resources. Steps and Role of Decision Making in Management. Stages of Family Life Cycle.	8	
VII	<b>Time, Energy and Money Management:</b> Time as a Resource, Steps in making Time Plan, Tools and Aids in Time Management.	7	

Energy as a Resource, Work Curve, Fatigue- Types, Causative Factors and Alleviating Techniques. Family income as a Resource, Sources of Income and Expenditure and Saving. Preparation of Family budget in view of family income.

VIII

**Work Simplification and Household Equipments:** Meaning and Techniques of Work Simplification, Mundell's Classes of Change. Principle, Use and Care of Household Equipments such as Pressure Cooker, Mixer and Grinder, Refrigerator, Washing Machine, Vacuum Cleaner & Solar Cooker.

7

**Suggested Readings:**

- Colbmen P Bernard: Textiles Fiber To Fabric
- Hollen & Saddler: Introduction To Textile
- Joseph M: Introduction To Textiles
- Trotman: Textile Fiber Science

Cutting Tailoring And Dress Making: National open School, B-31-B Kailash Colony, New Delhi – 1100048.

- Khamuja, Reena (2018) Grah Vyavastha avam Grah Sajja. Agrawal Publications, Agra ISBN: 978-93-81124-96-3
- R Bhatia & C Arora (1999), Introduction To Clothing And Textile, Printed by Macho Printery, Raopura, Baroda.
- Complete Guide To Sewing By Reader's Digest: published by The Reader's Digest Association (Canada) Ltd. Montreal-Pleasantville, NY, 2002.
- Deacon R.E. and Firebaugh F.M. (1998) Family Resource Management- Principles and application. N. Delhi.: Roy Houghton Mifflin Company.
- Faulkner, R. & Faulkner, S. (1961) Inside Today's Home. Rev. ed. © Holt, Rinehart & Winston, Inc.
- Gross, I.H. and Crandall, E.H. (1967). Management for Modern Families. N. Delhi: Sterling Publishers Ltd?
- Moorthy G. (Ed.). (1985). Home Management. N. Delhi.: Arya Publishers, Mullick, P. Text book of Home science. Ludhiana.: Kalyani Publishers.
- Nickell, P., and Dorsey, J. M. (2002). *Management in Family Living*. New Delhi: CBS Publishers (ISBN13: 9788123908519)
  - Patni Manju & Sharma Lalita, Grah Prabandh, Star Publications Agra.
  - Varma , Pramila. Vastra Vigyaan Avam Paridhan:Madhya Pradesh Hindi Granth Academy,Bhopal.
- Varghese, M. A, Ogale, N. N and Srinivasan, K. (2001). Home Management. New Delhi. New Age International (P) Ltd.
- Varghese, M.A. Household Equipment Manual, S.N.D.T Women's University, Mumbai.
- Suggestive digital platforms web links-  
Svayam Portal,  
<http://heecontent.upsdc.gov.in/Home.aspx> ,

This course can be opted as an elective by the students of following subjects: Open for all

**Suggested Continuous Evaluation Methods:**

- Seminar on any topic of the above syllabus.
- Test with multiple choice questions/ short and long answer questions.
- Attendance

**Course prerequisites:** To study this course, a student must have had the subject ALL in class 12<sup>th</sup>.

**Suggested equivalent online courses:**

JNOU & Other centrally/state operated Universities/ MOOC platforms such as "SWAYAM" in India and Abroad

*Maharaja Suhel Dev University, Azamgarh, (UP)*

B.A. I Semester 2 Home Science (Minor Paper)

Introduction to Clothing & textile & Family Resource Management (Theory)

Course code: A130201T	Credit: 4	Maximum marks: 100 (75+25)
Core Compulsory	Total No of lecture: 60	Minimum Passing marks: 33

Unit	Topic	No. of Lectures
	<b>Part- A</b>	
I	<b>Introduction-</b> (a) Introduction to clothing and textile, (b) Its importance in day -to- day life, (C) Classification of Textile Fiber on the basis of their source	7
II	<b>Knowing Fibers-</b> Manufacture, processing, properties & uses of (a) Cellulosic fibers- Cotton, (b) Protein fibers- Wool, (c) Synthetic / manmade fibers- Rayon.	8
III	<b>Yarn to fabric-</b> Definition of Yarn, manufacture and properties of yarn.	8
IV	<b>Clothing Construction-</b> (a) Tools of clothing construction, (b) Introduction to sewing machine, its parts and maintenance.	7
	<b>Part- B</b>	
V	<b>Introduction to Home Management:</b> Basic concept, purpose and obstacles of Management. Process of management- Planning, Organizing, Controlling and Evaluation. Motivating factors in management- Value, Goals and Standards- Definition and classification.	8
VI	<b>Resource, Decision Making and Family life cycle:</b> Meaning Characteristics, Types and factor affecting the use of Resources. Steps of decision making in Management Stages of Family life cycle.	8
VII	<b>Time, Energy and Money Management:</b> Time as a Resource, Energy as a resource, Family income as a resource	7
VIII	<b>Work simplification and Household Equipment:</b> Meaning and Techniques of work simplification. Use and care of Household Equipments such as Pressure cooker, mixer/ Grinder, Refrigerator.	7

Further Suggestions:

- Students may develop their managerial skills after completion this course and may join any field. As Management of Resources is applicable everywhere.

At the End of the whole syllabus any remarks/ suggestions:

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**B.A. I Semester 2 Home Science Paper 2  
Clothing & Textiles (Practical)**

Programme/Class: Certificate	Year: 1	Semester: 2
Subject: Community and Life Science (Home Science)		
Course Code: A130202P	Course Title: Clothing and Textiles (Practical)	
<b>Course outcomes:</b> <ul style="list-style-type: none"> <li>• Ability to identify fibers and fabrics</li> <li>• Understanding why fabrics are different</li> <li>• Learning basic Sewing skills</li> <li>• Learn how garments are stitched</li> </ul>		
Credits: 2	Core Compulsory	
Max. Marks: 25+75	Min. Passing Marks:40	
Total No. of lab.periods- 30 (60 hours)		
Unit	Topic	No. of lab.periods
I	<b>Identify fibers and fabrics</b> (a)Fibre identification tests- Visual burning and microscopic- natural and synthetic, pure and blended fibres. (b) Weaves identification and understanding their usage.	7
II	<b>Learning to stitch</b> (a) Knowing how to stitch-an idea of straight-line stitching, stitching on curves and at corners (b) Basic Stitching-Temporary Stitching, Permanent and decorative stitching	7
III	<b>Basic sewing</b> (a) Seams-Plain seams and its finishing, run & fell seam, French seam (b) Attaching different Fasteners (c) Disposal of fullness-darts, gathers, tucks and pleats (d) Neckline Finishing-Facing & Binding	8
IV	<b>Preparing Frock</b> (a)Drafting, cutting and stitching of Childs' basic block and sleeve block. (b)adaptation to "Gathered frock" with Peter Pan collar and puff sleeves	8
<b>Suggested Readings:</b>		
<ul style="list-style-type: none"> <li>• Cutting Tailoring and Dress Making: National open School, B-31-B Kailash Colony, New Delhi - 1100048.</li> <li>• R Bhatia &amp; C Arora (1999), Introduction to Clothing and Textile, Printed by Macho Printery, Raopura, Baroda.</li> </ul>		

- Complete Guide to Sewing by Reader's Digest: published by The Reader's Digest Association (Canada) Ltd. Montreal-Pleasantville, NY, 2002.
  - Helen J Armstrong, Pattern Making for Fashion Design, Prentice Hall
  - Gerry Cooklin, Introduction to Clothing Manufacture, Blackwell Science, UK, 1991
  - Metric Pattern cutting & Grading by Winfred Aldrich.
  - Khanuja, Reena. Vastra Vigyaan ke Sidhant, Agrawal Publication, Agra.
1. Suggestive digital platforms web links-  
Svayam Portal,  
<http://heecontent.upsdc.gov.in/Home.aspx>

This course can be opted as an elective by the students of following subjects: Open for all

Suggested Continuous Evaluation Methods:

- Preparation of samples of various types on fabrics.
- Evaluation of Prepared garment.
- Record file preparation and evaluation, Attendance.

Course prerequisites: To study this course, a student must have had the subject ALL  
..... in class 12<sup>th</sup>.

**B.A. 2 Semester 3 Home Science Paper 1**  
**Advance Nutrition and Human Development (Theory)**

Programme/Class: Diploma	Year: 2	Semester: 3
Subject: Home Science		
Course Code: A130301T	Course Title: Advance Nutrition and Human Development (Theory)	
<p><b>Course outcomes:</b> The student at the completion of the course will be able to:</p> <ul style="list-style-type: none"> <li>• Create an awareness about importance of healthy meal at various stages of life cycle</li> <li>• Inculcate healthy eating practices among students</li> <li>• Develop skill of meal planning for different physiological groups</li> <li>• Explain the Physical &amp; Psychological changes during middle childhood, adolescent and adulthood stage.</li> <li>• Identify the biological and environmental factors affecting personality.</li> <li>• Learn about the characteristics, needs and developmental tasks of Middle childhood years, Adolescent &amp; Adulthood stage.</li> </ul>		
Credits: 4	Core Compulsory	
Max. Marks: 25+75	Min. Passing Marks:33	
Total No. of Lectures-60		
Unit	Topic	No of Lectures
I	Meal Planning- Definition , importance , factors affecting meal planning , Balanced Diet , RDA	07
II	Nutrition During Infancy and Childhood- Nutrition Requirement, RDA and Diet Plan	07
III	Nutrition During Adolescence, Adulthood and Old Age. Nutrition Requirement, RDA and Diet Plan	08
IV	Nutrition During special condition pregnancy and lactation Nutrition Requirement, RDA and Diet Plan.	08
PART B		
V	Middle Childhood Years Developmental tasks and characteristics of middle childhood period  • Physical and motor development	8

	<ul style="list-style-type: none"> <li>• Social &amp; emotional development</li> <li>• Cognitive development</li> <li>• Language development</li> </ul>	
VI	<b>Puberty and Adolescence</b> <ul style="list-style-type: none"> <li>• Development tasks and characteristics</li> <li>• Significant Physical physiological and hormonal changes in puberty.</li> <li>• Self and Identity, Factors influencing Identity &amp; Personality development.</li> <li>• Family and peer relationship</li> </ul> <b>Problems – Drug and Alcohol abuse, STD, HIV/AIDS, Teenage pregnancy.</b>	8
VII	<b>Cognitive, Language and Moral Development during Adolescence:</b> <ul style="list-style-type: none"> <li>• Perspective on cognitive development, development of intelligence and Creativity</li> <li>• Adolescent language</li> <li>• Adolescent Morality</li> </ul>	7
VIII	<b>Introduction to adulthood:</b> <ul style="list-style-type: none"> <li>• Concept, transition from adolescence to adulthood</li> <li>• Developmental tasks of Adulthood</li> <li>• Physical and physiological changes from young adulthood to late adulthood</li> </ul> <b>Responsibilities and adjustments-educational, occupational, marital and parenthood</b>	7

• **Suggested Readings:**

- Sheel Sharma , "Nutrition and Diet Therapy, Peepee Publishers , New Delhi ; 2014
- Ankita Gupta " Text book of Nutrition" Medico Refresher Publisher, Agra, 2018
- Subhangini A Joshi; Nutrition and Dietetics, Mc Graw Hill Education, Private Ltd.
- Kumud Khanna, "Text book of Nutrition and Dietetics", Elite Publishing House Pvt. Ltd, New Delhi, 2013, 7<sup>th</sup> Ed.
- Swaminathan M, " Essentials of Food and Nutrition Vol I and II
- Monaster G.J. 1 Adolescent Development Life Tasks. Mc.Graw Hill (1977).
- Ambron S.R. Child Development Holt, Rinehart and Winston 1978 (IInd Edition).
- Mussen P.H. Conger J.J. Kagan J and Huston A.C. 1990. Child Development and Personality (VI Edition) Harper and Row Publishers New York.
- Boeknek G. Human Development Brook and Cole Publishing Company 1980.
- Aadhunik Vikasatmak Manovigyan , Shri Vinod Pustak Mandir Agra Edition 3<sup>rd</sup> 2015
- Harpalani. Aahar Vigyaan avam Upcharatmak Poshan, Star Publications ,Agra.
- Suggestive digital platforms web links- IGNOU & UPRTOU online study material

Svayam Portal,

<http://hcecontent.upsdc.gov.in/Home.aspx>

**Suggested Continuous Evaluation Methods:**

- Seminar on any topic of the above syllabus.
- Test with multiple choice questions/ short and long answer questions.
- Attendance

Course prerequisites: To study this course, a student must have had the subject ..... in class/12<sup>th</sup>/ certificate/diploma.

**Suggested equivalent online courses:**

- IGNOU and other centrally/state operated Universities/MOOC platforms such as "SWAYAM" in India and abroad

**Further Suggestions:**

Students can opt. dietitian, nutrition advisor/ Nutritionist as a career in private and government sector as well as extend knowledge by joining advance course in same discipline.

It widens the scope for students to join Government and Non-Government organization upskilling the people at different levels as per their socio-economic structure.

At the End of the whole syllabus any remarks/ suggestions:

**B.A. 2 Semester 3 Home Science Paper 2  
Human Development ( Practical)**

Programme/Class: Diploma	Year: 2	Semester: 3
Subject: Community & Essential Science (Home Science)		
Course Code: A130302P	Course Title: Advance HUMAN development (Practical)	
Course outcomes:		
<ul style="list-style-type: none"> <li>• Learn to cope up with adolescent and adulthood problems.</li> <li>• Understand and handle development related issues more efficiently.</li> <li>• Able to know human behaviour.</li> <li>• Understand individual differences.</li> </ul>		
Credits: 2	Core Compulsory	
Max. Marks: 25+75	Min. Passing Marks:40	
Total No. of lab.periods-30(60 hours)		
Unit	Topic	No. of lab.periods
I	Preparation of an album on developmental milestones of children.  Prepare child literature.  Visit to Child Care Centres/ anganwadi	8
II	Study of physical, social, emotional, cognitive, language development (any two). Observations of child rearing practices in families from different social classes	8
III	Interviews of adolescent girls and boys to understand their life style, behaviour and problems.	7

IV	Carry out case studies to know more about the different life stages, e.g., school going children, adolescents, Young adults. (any two)	7
<p style="text-align: center;">Suggested Readings:</p> <ol style="list-style-type: none"> <li>1. Monaster G.J. 1 Adolescent Development Life Tasks. Mc.Graw Hill (1977).</li> <li>2. Ambron S.R. Child Development Holt, Renschart and Winston 1978 (IInd Edition).</li> <li>3. Mussen P.H. Conger J.J. Kagan J and Huston A.C. 1990. Child Development and Personality (VI Edition) Harper and Row Publishers New York.</li> <li>4. Boeknek G. Human Development Brook and Cole Publishing Company 1980.</li> <li>5. Aadhunik Vikasatmak Manovigyan , Shri Vinod Pustak Mandir Agra Edition 3<sup>rd</sup> 2015</li> </ol> <p>Suggestive digital platforms web links- ePG- Pathshala, inflibnet,IGNOU &amp; UPRTOU online study material.</p> <p style="text-align: center;">Svayam Portal, <a href="http://heeccontent.upsdc.gov.in/Home.aspx">http://heeccontent.upsdc.gov.in/Home.aspx</a></p>		
<p>This course can be opted as an elective by the students of following subjects: Open for all The eligibility for this paper is 10+2 with any subject</p> <p>.....</p>		
<p>Suggested Continuous Evaluation Methods:</p> <ul style="list-style-type: none"> <li>• Assessment of observation report.</li> <li>• Preparation of questionnaire.</li> <li>• Visits Records.</li> <li>• Attendance.</li> </ul>		
<p>Course prerequisites: To study this course, a student must have had the subject ALL in class 12<sup>th</sup>.</p> <p>The eligibility for this paper is 10+2 with any subject</p> <p>.....</p>		

**B.A. 2 Semester 4 Home Science Paper 1  
Housing & Extension Education ( Theory)**

Programme/Class: Diploma	Year: 2	Semester: 4
Subject: Home Science		
Course Code: A130401T	Course Title: Housing & Extension Education (Theory)	
Course outcomes:		
<ul style="list-style-type: none"> <li>• Grasp knowledge of Housing need &amp; selection of site in real life situations.</li> <li>• Comprehending Housing plans for residential purpose.</li> <li>• Appreciate principles of design and the contributing factors to refine personal aesthetic senses.</li> <li>• Learn the widening concepts of Extension Education.</li> <li>• Develop understanding for Effective teaching and learning.</li> <li>• Comprehend the various effective communication methods.</li> <li>• Gain skills to use technologically advanced Audio-visual aids.</li> </ul>		
Credits: 4	Core Compulsory	
Max. Marks: 25+75	Min. Passing Marks:33	
Total No. of Lectures- 60		
Unit	Topic	No. of Lectures
I	<b>Housing:</b> Needs of a House, Difference between House & Home, way to acquire house (Own & rented). Factors influencing selection and purchase of house and site for house building.	8
II	<b>House Planning:</b> Principles of house planning, Planning different residential spaces in a house. Planning house for different income groups.	7
III	<b>Interior Designing:</b> Introduction to Interior designing. Importance of good taste. Objective of Interior decoration. Elements of design – Line, Shape, Texture, Color, Pattern, Light & Space. Principle of design- Proportion, Balance, Rhythm, Emphasis, Harmony.	8
IV	<b>Home Decors:</b> Furniture, Furnishings (Curtain, Draperies, Floor coverings, Wall celing, Lighting, Accessories (Wall painting, Mirrors, wall art, Sculpture & Antiques, Flower arrangements) etc.	7
	<b>PART B</b>	
V	<b>Extension Education:</b> Meaning, Concepts, Objectives, Scope, Principles, Philosophy of Extension Education. Early Extension Efforts in India. Formal & Non-formal Education.	8
VI	<b>Extension Teaching &amp; Learning:</b> Role and Qualities of an Extension worker. Steps in Extension Teaching Process, Criteria for Effective Teaching & Learning.	7
	<b>Communication &amp; Extension Teaching Methods:</b> Definition, Importance, Characteristics, Elements, Models &	

VII	Challenges in communications. Relationship between Communication, Extension & Development. Extension Teaching Methods- Classification, Factors guiding the Selection & use of Extension teaching methods.	8
VIII	Audio- visual Aids: Definition, Importance, Classification, Selection, Preparation & Effective use of Audio-visual Aids.	7

**Suggested Readings:**

- Khanuja, Recna (2018) Grah Vyavastha avam Grah Sajja. Agrawal Publications, Agra ISBN: 978-93-81124-96-3
- Patni Manju & Sharma Lalita, Grah Prabandh, Star Publications Agra.
- Cherunilam, F., & Hedggade, O. D. (1987). *Housing in India*. Bombay: Himalaya Publishing House.
- Craig, H.T. and Rush, O.D. (1966). *Homes with Character*. Heath, 1966.
- Faulkner, R. & Faulkner, S. (1961) *Inside Today's Home*. Rev. ed. © Holt, Rinehart & Winston, Inc.
- Goldstein, H & Goldstein V. (1954). *Art in Everyday Life* Macmillan Publishers.
- Rutt, A.H. (1963) *Home furnishing*. John Wiley & Sons, Inc.;
- Supriya, K.B. (2004). *Landscape gardening and designing with plants*. Pointer Publishers.
- Teresa, P. Lanker. (1960). *Flower Arranging: Step-by-step Instructions for Everyday Designs*. Florist Review
- Aggarwal, R. (2008). "Communication- today and tomorrow", New Delhi.: Sublime Company
- Dubey V.K, Srivastava Archana, Agrawal Garima, Grah Vigyan Prasar Avam Sampreshan. Star Publications Agra.
- Harpalni B.D. Patni.Manju, ( Prasar Shiksha Avam Sanchar) Star Publications, Agra. ISBN 978-93-81246
- Shaw Geeta Pushp, Shaw Jois Sheela, Prasar Shiksha , Vinod Pustak Mandir Agra. ISBN 81-7457-104-3
- Dahama, O.P., & Bhatnagar, O.P.[1998]. "Education and Communication for Development". New Delhi. - Oxford and IBH Publishing Co. Pvt.Ltd.
- Jaipal Singh." Prasar Shiksha avam Gramin Vikas" SR Scientific Publications, Agra
- Reddy, A. [1987]. "Extension Education". Bapatha, Andra Pradesh, India.: Sreelekshmi Press.
- Supe A.N. (1983). *An introduction to Extension Education*. Delhi: Oxford IBH Publishing

**2. Suggestive digital platforms web links-**

<http://heecontent.upsdc.gov.in/Home.aspx>

This course can be opted as an elective by the students of following subjects: Open for all

**Suggested Continuous Evaluation Methods:**

- Seminar / presentation on any topic of the above syllabus.
- Test with multiple choice questions/ short and long answer questions.
- Preparation of Audio-visual aids.
- Attendance.

Course prerequisites: To study this course, a student must have had the subject ALL in class 12<sup>th</sup>.

**Suggested equivalent online courses:**

- IGNOU & Other centrally/state operated Universities/ MOOC platforms such as "SWAYAM" in India and Abroad.

## B.A.2 Semester 4 Home Science (Minor Paper)

### Housing and Extension Education (Theory)

Course Code- A 130401T	Credit- 4	Maximum Marks 100 (75+25)
Core compulsory	Total no. of lecture- 60	Minimum Passing marks: 33

Unit	Topic	No. of lectures
<b>Part- A</b>		
I	<b>Housing-</b> Needs of a House, Difference between House and Home, Way to acquire house (Own & rented). Factors influencing selection & purchase of House and site for house building.	8
II	<b>House Planning-</b> Principles of house planning	7
III	<b>Interior Designing-</b> Introduction to interior designing. Element of design- Line, Shape, Texture, Color, Pattern, Light & Shape. Principle of Design- Proportion, Balance, Rhythm, Emphasis, Harmony.	8
IV	<b>Home Decores-</b> Furniture, Furnishing (Curtain, Draperies, Floor covering, Mirrors, Flower Arrangements) etc.	7
<b>Part-B</b>		
V	<b>Extension Education-</b> Meaning, concepts, Objectives, Scope and Principles of Extension Education. Early extension efforts in India.	8
VI	<b>Extension Teaching &amp; Learning-</b> Steps in extension teaching process, Criteria for effective teaching and learning.	7
VII	<b>Communication &amp; Extension Teaching Methods-</b> Definition, Importance, Characteristics and Challenges in communications. Relationship between communication extension & development. Extension teaching methods- use of extension teaching methods.	8
VIII	<b>Audio – Visual Aids-</b> Definition , Classification, selection & effective use of Audio- Visual Aids.	7

**Further Suggestions:**

It widens the scope for students to join Government and Non-Government organization upskilling the people at different levels as per their socio-economic structure. Extension work will speed up the (1) Man Environment; (2) Basic structures (Gram Panchayat, Village School and Cooperative Societies) etc.

At the End of the whole syllabus any remarks/ suggestions:

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**B.A. 2 Semester 4 Home Science Paper 2  
Resource Planning & Decoration (Practical)**

Programme/Class: Diploma	Year: 2	Semester: 4
Subject: Community and Essential Science (Home Science)		
Course Code: A130402P	Course Title: Resource Planning and Decoration (Practical)	
Course outcomes:		
<ul style="list-style-type: none"> <li>• Developing skills for making time plan for effective balance of work &amp; leisure.</li> <li>• Plan &amp; prepare budget for the family.</li> <li>• Incorporate appropriate work simplification in using household equipments.</li> <li>• Develop understanding for house planning &amp; decoration.</li> </ul>		
Credits: 2	Core Compulsory	
Max. Marks: 25+75	Min. Passing Marks:40	
Total No. of lab.periods-30 (60 hours)		
Unit	Topic	No. of lab.periods
I	<ul style="list-style-type: none"> <li>• Preparation of time plans for self and family.</li> <li>• Drafting family budget for different income groups.</li> </ul>	8
II	<ul style="list-style-type: none"> <li>• Market Survey of Household Equipments- (Pressure cooker, Toaster, Gas Stove, Mixer &amp; Grinder, Refrigerator, Washing machine, Microwave, Solar cooker)</li> </ul>	8
III	<ul style="list-style-type: none"> <li>• Draw House Plans Standard Specifications &amp; Furniture Layout.</li> </ul>	7
IV	<ul style="list-style-type: none"> <li>• Preparation of Color wheels &amp; Color schemes.</li> <li>• Flower Arrangement &amp; Floor Decoration (Rangoli)- Application of Design principles and Elements of Art , Innovation of new styles.</li> </ul>	7

### Suggested Readings:

- Alexander, N.J., (1972). Designing Interior Environment. New York: Harcourt Brace,
- Bhargava, B. (2005). Family Resource Management and Interior Decoration, Jaipur: Apple Printer and V. R. Printers.
- Faulkner, R., and Faulkner, S. (1975). Inside Today's Home, New York: Rinehart.
- Gandotra, V., and Jaiswal, N. (2008). Management of Work in Home, New Delhi: Dominant Publishers and Distributors. (ISBN No. 81-7888-526-3)
- Harmon, S., and Kennon, K. (2018). The Codes Guidebook for Interiors (5thEd.). New York: Wiley (ISBN: 978-1-119-34319-6)
- Johanovich Inc. Ball, V. K. (1982). Art of Interior Design. New York: John Wiley & Sons.
- Leach, S. D. (1978). Techniques of Interior Design Rendering and Presentation (1st Ed.). Architectural record Books (ISBN-13: 978-0070368057)
- Mohanty, A.B. (1985). Guide to House Buildings. New Delhi: Inter India Publications
- Patni Manju & Sharma Lalita, Grah Prabandh, Star Publications Agra.

### Suggestive digital platforms web links-

- [bit.ly/3fJfghi](https://bit.ly/3fJfghi)
- <https://bit.ly/39mTwGQ>
- <https://bit.ly/2JoXB2e>
- <https://bit.ly/3ljkRwf>.

Svayam Portal,

<http://heecontent.upsdc.gov.in/Home.aspx>

This course can be opted as an elective by the students of following subjects: Open for all

### Suggested Continuous Evaluation Methods:

- Assessment of Time-Energy, Budget & House Plans.
- Assessment of Market Survey Records.
- Assessment of Flower Arrangements and Rangoli.
- Attendance.

Course prerequisites: To study this course, a student must have had the subject ALL ..... in class/12<sup>th</sup>.

### Suggested equivalent online courses:

IGNOU & Other centrally/state operated Universities/ MOOC platforms such as "SWAYAM" in India and Abroad

### Further Suggestions:

- Students may develop their managerial skills & Interior designing skills after completion this course with the capability to opt for a job or start their own ventures. The program giving an opportunity to advancement their knowledge by enrolling for advanced specialized program of their own area of need & interest.

At the End of the whole syllabus any remarks/ suggestions:

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B.A.2 Semester 4 Home Science Paper (3)

Research Project

Course code-A130403R	Credits- 3	Maximum marks 100 (75+25)
Core /Optional	Total no. of lecture- 45 hours	Minimum Passing marks 40

Unit	Topics	No. of hours
I	Survey of community services surrounding living area of candidate. The candidate has to explore the surroundings and study/ identify problems in any one of the following. It may include Anganwadi/ Health services/ Market. Dairy/ Agricultural farmland/ NGO. Creche/ Nursery school/ Hospital/ Fitness center/ Diet councillor/ Boutique/ Balwadi/ Youth center/ Primary school/ Vriddha Ashram (Old age home)/ Divyang school/ Mentally challenged institution / Village panchayat/ School councillor/ Dyeing and printing Unit/ Cottage level embroidery or food processing unit / SHOs / Bank schemes/ Subsidies available/ Industry producing consumer goods.	12
II	Seek permission to carry the visits, Plan Visits to the area / site for developing an understanding.	11
III	Develop a tool for conducting a survey of the selected area and collect data from the area/ seek permission to conduct short training in the area.	12
IV	A detailed Report to be prepared and submitted	10

This course can be opted as an elective by the students of the following subjects: open for all.....

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**B.A. 3 Semester 5 Home Science Paper 1  
Surface Ornamentation of fabrics(Theory)**

Programme/Class: Graduation	Year: 3	Semester: 5
Subject: Home Science		
Course Code: A130501T	Course Title: Surface Ornamentation Of Fabrics (Theory)	
Course outcomes:		
<ul style="list-style-type: none"> <li>• Knowing why fabrics look differently</li> <li>• Identify the different techniques of fabric from surface</li> <li>• Learn about finishes done on fabrics</li> <li>• Knowing about dyeing fabrics</li> <li>• Learn how printing on fabrics is carried</li> <li>• Knowing the traditional embroideries of India</li> <li>• Identifying traditional textiles of different states</li> <li>• Knowing the importance of appropriate laundry method</li> </ul>		
Credits: 4	Core Compulsory	
Max. Marks: 25+75	Min. Passing Marks:33	
Total No. of Lectures- 60		
Unit	Topics	No. of Lecture
I	<b>Techniques of Creating variety on fabrics</b> (a) weaving (b) finishing of fabrics (c) dyeing of fabrics (d) printing fabrics (a) embroidery and other decoration methods	8
II	<b>Finishes</b> (a) Classification of fabric finishes (b) Study of purpose and process of finishes (i) General Purpose finishes-Bleaching, Mercerization, Calandring, Sanforization, Tentering, Singeing, Scouring (ii) Functional Finishes	8
III	<b>Dyeing</b> (a) Classification of dyes- Natural v/s Synthetic, advantages and limitations (b) Theory of dyeing (c) Properties and use of Dyes-Basic, Acidic, Direct, Azoic, Natural, Sulphur, Vat, Disperse and Reactive dyes (d) Resist Dying Techniques-	8

	Tie & Die, Batik.	
IV	<b>Printing</b> (a) Direct printing- Block, Screen, Stencil, Roller (b) Transfer printing (c) Discharge printing, Resist printing (d) Polychromatic, Inkjet and Digital printing techniques (e) After treatment of dyed and printed goods	8
V	<b>Traditional Embroideries:</b> Meaning and status of traditional craft India, Knowing about the Traditional Embroideries of different states Zardozi, Kashida of Kashmir, Phulkari of Punjab, Kantha of Ben Chikankari, Kasuti, of UP, Sindh and Kutch work of Gujarat.	6
VI	<b>Traditional Textiles:</b> Knowing the Traditional textiles of different states of India (a) Woven fabrics- Baluchars, brocades, Kashmir carpets, Patola, Ikat, Pochampalli, Chanderi (b) Printed, painted and dyed-Sanganeri, Bhagru, Kalamkari, Madhubani, Bandhani.	7
VII	<b>Water</b> (a) Water and its uses in textile industry , properties, (b)types of water used for processing (c) Hardness and removal of Hardness of water.	7
VIII	<b>Laundry and dry cleaning of fabrics and garments</b> (a) Methods of Laundry and Dry cleaning (b) Dry cleaning process (c) Reagents of Laundry-Blues, Bleaches, Optical Brighteners, Stiffening agents (d) Types of soaps and detergents (e) Cleaning action of soaps and detergents.	8

**Suggested Readings:**

- Marsh JT: Textile Finishes
- Trotman Er: Dyeing And Chemical Technology Of Fibres
- Joseph M: Introduction To Textiles
- Corbman P Bernard: Textiles- Fibre To Fabric
- Hollen & Saddler: Introduction To Textile
- J. Hall: The Standard Hand Book Of Textiles, Wood Head Publication, 2004
- J.E. Smith: Textile Processing –Printing, Dyeing, Abhishek Publishing, 2003
- Kate Broughton: Textile Dyeing, Rockport Publishers, 1996
- W.S. Murphy: Textile Finishing, Abhishek Publication, 2000
- Naik.D. Shailija:Traditional Embroideries Of India, New Age International Publishers, 1996
- Naik D. Shailija, Jacquie.A. Willson: Surface Designing Of Textile Fabrics, New Age International Publishers,2006
- Bhargav, Bela. Vastra Vigyaan, Univ. Book House Pvt. Avam Dhulai Kala,University Book House Pvt Ltd. Jaipur
- Patni .Manju, Vastra Vigyaan Avam Paridhan ka Parichay ,Star Publications, Agra.

Suggestive digital platforms web links-

Swayam Portal,

<http://hecontent.upsdc.gov.in/Home.aspx>

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This course can be opted as an elective by the students of following subjects: Open for all  
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**Suggested Continuous Evaluation Methods:**

- Seminar on any topic of the above syllabus.
- Test with multiple choice questions/ short and long answer questions.
- Subjective long questions

- Attendance.

Course prerequisites: To study this course, a student must have had the subject ALL in class/12<sup>th</sup>.

**B.A. 3 Semester 5 Home Science Paper 2  
Community Development & Programme Planning (Theory)**

Programme/Class: Degree	Year: 3	Semester: 5
Subject: Home Science		
Course Code: A130502T	Course Title: Community Development & Programme planning. (Theory)	
Course outcomes: <ul style="list-style-type: none"> <li>• Understand the Community Development dynamics &amp; organizing system for Development.</li> <li>• Create awareness about the various development programmes.</li> <li>• Identify the leadership pattern in the community.</li> <li>• Impart skills to implement, monitor &amp; evaluate programmes.</li> </ul>		
Credits: 4	Core Compulsory	
Max. Marks: 25+75	Min. Passing Marks:33	
Total No. of Lectures- 60		
Unit	Topic	No. of Lectures
I	<b>Community Development:</b> Meaning, Definition, Functions, Objectives, Philosophy, Principles of Community Development Programme in India.	8
II	<b>Community Development Organization:</b> Meaning, Types, Principles, Role & Administrative Structure at the National, State, District, Block & Village levels.	8
III	<b>Home Science Extension Education in Community Development:</b> Origin, Concept, Need, Importance and Contribution of Home Science Extension Education in National Development.	7

IV	<b>Recent Development Programme for Women &amp; Children:</b> Support to Training & Employment for women (STEP), Swarn jayanti Gram Swarojgar Yogna (SGSY), Integrated Child Development Services (ICDS) etc.	7
V	<b>Support Service of Youth Development:</b> NCC, NSS, Youth Camp Youth Clubs etc.	7
VI	<b>NGO &amp; Others:</b> Contribution towards community services, Types & Role of NGO - WHO, CARE, UNICEF, UNESCO, UNDP, CRY, HELP-AGE INDIA.	8
VII	<b>Leadership:</b> Concept, Definitions, Types, Importance, Function and Role of Community leaders. Methods of Identifying and Training of leaders.	7
VIII	<b>Programme Planning:</b> Programme planning component cycle and its components- (i) Designing the project – Defining the objectives, Identifying resources, approach, feasibility and Work plan. (ii) Implementation. (iii) Monitoring and Evaluation.	8

**Suggested Readings:**

- Clark John. (1991). Voluntary Organizations: Their Contribution to Development. London: Earth Scan
- Dahama, O.P., & Bhatnagar, O.P. "Extension & Rural Welfare". New Delhi: Oxford and IBH Publishing Co. Pvt. Ltd.
- Ghosh Bhola Nath, (1996), "Rural Leadership & Development" Mohit Publications, New Delhi.
- Julie Fisher. (2003). Governments, NGO's and the Political Development of the Third World. Jaipur: Rawat Publications
- Mohsionnadeem, (1985), "Rural Development through Government Program" Mittal Publications New Delhi.
- Manju Patni & Harpalini, (2018) Prasar Shiksha avam sanchar, Star Publications, Agra.
- Reddy, A [1987]. "Extension Education". Bapatha, Andra Pradesh, India.: Sreelekshmi Press.
- Ravi Shankar Kumar Singh. (2003). Role of NGO's in Developing Countries (Potentials, Constraints and Policies). New Delhi: Deep & Deep Publications (P) Ltd

**Suggestive digital platforms web links**

- <https://bit.ly/313Ayaj>
- <https://bit.ly/35RnyAi>
- <https://www.un.org/en/universal-declaration-human-rights/>
- <https://www.un.org/womenwatch/daw/ccdaw/text/econvention.htm>
- <https://www.ohchr.org/EN/ProfessionalInterest/Pages/CRC.aspx>
- <https://www.undp.org/content/undp/en/home/sustainable-development-goals.html>
- <https://bit.ly/39ROD8X>
- <https://www.unicef.org/>
- <https://www.who.int/about>
- <https://www.careindia.org/>

This course can be opted as an elective by the students of following subjects: Open for all

**Suggested Continuous Evaluation Methods:**

- Seminar on any topic of the above syllabus.
- Test with multiple choice questions/ short and long answer questions.

- Attendance.

Course prerequisites: To study this course, a student must have had the subject ALL ..... in class 12<sup>th</sup>

**B.A. 3 Semester 5 Home Science Paper 3  
Community Transforming (change) (Practical)**

Programme/Class: Degree	Year: 3	Semester: 5
Subject: Home Science		
Course Code: A130503P	Course Title: Community Transformation (Change). (Practical)	
Course outcomes:		
<ul style="list-style-type: none"> <li>• Address &amp; resolve women &amp; family related issues.</li> <li>• Make use of Audio-visual aids in planning &amp; conducting group communication</li> <li>• Understand the role of Government bodies in development of the community.</li> <li>• Organizing people for their own development.</li> </ul>		
Credits: 2	Core Compulsory	
Max. Marks: 25+75	Min. Passing Marks:40	
Total No. of lab.periods 30(60 hours)		
Unit	Topic	No. of lab.periods
I	<ul style="list-style-type: none"> <li>• Identify the target group &amp; their relevant issues i.e. help nutrition, Education, Women's &amp; Family issues followed by preparing a report.</li> </ul>	8
II	<ul style="list-style-type: none"> <li>• Observe &amp; Critical analysis nearby community of women &amp; children related welfare programme followed by the preparation of report.</li> </ul>	7
III	<ul style="list-style-type: none"> <li>• Prepare &amp; learn the use of Audio-visual Aids.</li> </ul>	7
IV	<ul style="list-style-type: none"> <li>• Identify to create an awareness on the existing contemporary issues.</li> <li>• Develop a script in the Folk drama (Nukkad Natak) format to perform in the target group.</li> </ul>	8

**Suggested Readings:**

- Mondal Sagar, Misra OP (2018) "Fundamentals of Extension education & Rural Development", Kalyani Publications, New Delhi.
- Mortiss PD (1988) Agricultural Extension- Practical Manual" Department of Primary Industries, Queens Land Government.
- Pradhan.K. Varaprasad.C (2018) Glimpses of Practical in Extension Education, New India Publishing Agency. New Delhi
- Jaipal Singh." Prasar Shiksha avam Gramin Vikas" SR Scientific Publications, Agra

**1. Suggestive digital platforms web links-**

<https://bit.ly/3922ZTH>

Svayam Portal,

<http://heecontent.upsdc.gov.in/Home.aspx>

This course can be opted as an elective by the students of following subjects: Open for all

**Suggested Continuous Evaluation Methods:**

- Assessment of Audio-visual Aids and their use.
- Assessment of techniques and communication skills.
- Assessment of Educational Plan and Visits Record.
- Attendance.

Course prerequisites: To study this course, a student must have had the subject ALL in class 12<sup>th</sup>.

~~B.A. 3 Semester 5 Home Science Paper 4~~

~~Research Project~~

Programme/Class: Graduation	Year: 3	Semester: 5
Subject: Community and Life Science (Home Science)		
Course Code: A130504R	Course Title: Research project	
Course outcomes: Learns to communicate with community around Learns to prepare a survey/interview schedule Becomes sensitized to problems being faced in community Increases awareness of candidate.		
Credits: 3	Core Compulsory	
Max. Marks: 25+75	Min. Passing Marks:40	
Total No. of lectures-45 hours		
Unit	Topics	No. of hours
1	Survey of community services surrounding living area of candidate  The Candidate has to explore the surroundings and study / identify problem in any one of the following.	12

**B.A. 3 Semester 6 Home Science Paper 1  
Therapeutic Nutrition( Theory)**

Programme/Class: Certificate	Year: 3	Semester: 6
<b>Subject: Home Science</b>		
Course Code: A130601T	Course Title: Dietetics And Therapeutic Nutrition	
Course outcomes: 1- Gain knowledge of principles of diet therapy 2-Develop and understand modification of the normal diet for therapeutic purposes 3- Practical knowledge of dietary management in some common disorders		
Credits: 4	Core Compulsory	
Max. Marks: 25+75	Min. Passing Marks:33	
Total No. of Lectures-60		
Unit	Topics	No. of Lectures
I	Introduction a) Definition of Health Dietetics and Therapeutic Nutrition b) Importance of Diet Therapy c) Facts about fast foods/Junk foods d) Objectives of therapeutic Diet e) Principles of diet therapy	07
II	Diet and feeding methods a) Modification of normal diets for therapeutic purposes b) Methods of modification • On the basis of nutrients • On basis of consistency c) Different feeding methods • Oral feeding • Tube feeding	07
III	Energy Metabolism a) The calorific value of food b) Measurement of energy exchange in the body • Direct calorimeter • Indirect calorimeter c) Factors influencing the Basal Metabolic Rate d) Factors influencing the total energy requirement	08

IV	Diet during fevers and infections a) Introduction to fever –Acute fever –Chronic fever b) Important changes in nutrition during fever c) Modification of the diet	07
V	Diet during Digestive system disorders a) Peptic ulcers–Causes, symptoms and diet modification b) Diarrhea and Constipation –Causes, treatment and diet modification	08
VI	Weight Management a) Overweight and Obesity –Introduction to Obesity –Causes of Obesity –Diet Modification b) Underweight –Causes –Treatment –Diet Therapy	07
VII	Therapeutic Diets in Cardiac Diseases a) Atherosclerosis –Introduction –Dietary factors influencing lipid level in blood –Modification of diet and Meal Pattern b) Hypertension –Causes and symptoms –Diet in Hypertension	08
VIII	Endocrinal Disorders a) Introduction to endocrinology b) Various endocrine glands and their functions : Thyroid, Adrenal and Pancreas c) Diabetes Mellitus–occurrence types, symptoms, metabolic changes, dietary modification and educating the patient	08

#### Suggested Readings:

- ❖ Sumati R Mudambi – “Fundamentals of food, Nutrition and Diet Therapy”, New Age International Pvt. Ltd, New Delhi, 6<sup>th</sup> Edition (2018).
- ❖ B Srilakshmi- “Dietetics”, New Age International Publishers, New Delhi 2017
- ❖ Bamji MS, Krishnaswamy K and Brahmam GNV(Eds) (2009), Text book of Human Nutrition, 3<sup>rd</sup> Edition , Oxford & IBH Publishing Co. Pvt. Ltd. New Delhi
- ❖ Dr. Brinda Singh- Aahar Vigyan evam Poshan, , Panchsheel Prakashan, Jaipur, 2015; 13<sup>th</sup> Ed.
- ❖ Dr. Sheel Sharma, “Nutrition and Diet Therapy” PEEPEE Publishers and Distributers (P) Ltd. Delhi, 2014, 1st Ed.
- ❖ Shubhangini A Joshi, – “Nutrition and Dietetics”, Mc Graw Hill Education Private Ltd., New Delhi, 2013
- ❖ Kumud khanna– “Text book of Nutrition and Dietetics”, Elite Publishing House Pvt. Ltd, New Delhi, 7<sup>th</sup> Ed. 2013
- ❖ M Swaminathan – Essentials of food and Nutrition , Vol II, Applied Aspects, The

Bangalore Printing and Publishing Co. Ltd, Bangalore, 2<sup>nd</sup> Edition 1985, Reprint 1997.

This course can be opted as an elective by the students of following subjects: Open for all

**Suggested Continuous Evaluation Methods:**

- Test with multiple choice questions/short and long answer questions
- Menu planning and calculation of nutrient requirement
- Seminar on any above topics

Course prerequisites: To study this course, a student must have had the subject ..... in class/12<sup>th</sup>/ certificate/diploma.

**Suggested equivalent online courses:**

IGNOU and other centrally/state operated Universities/MOOC platforms such as "SWAYAM" in India and abroad  
<http://heecontent.upsdc.gov.in/Home.aspx>

**Further Suggestions:**

- Students can opt. dietitian, nutrition advisor/ Nutritionist as a career in private and government sector as well as extend knowledge by joining advance course in same discipline.

At the End of the whole syllabus any remarks/ suggestions:

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**B.A. 3 Semester 6 Home Science Paper 2**  
**Research Methodology and Gender Development ( Theory)**

Programme/Class: Degree	Year: 3	Semester: 6
Subject: Community & Essential Science (Home Science)		
Course Code: A130602T	Course Title: Research Methodology and Gender Development (Theory)	
<b>Course outcomes:</b> The student at the completion of the course will be able to: <ul style="list-style-type: none"> <li>• Explain the concept and use of Research.</li> <li>• Develop a research proposal.</li> <li>• Learn about the data, sample and report writing.</li> <li>• Conduct survey.</li> <li>• To develop insight into the General issues of women.</li> <li>• To understand strategies for empowerment of women.</li> </ul>		
Credits: 4		Core Compulsory
Max. Marks: 25+75		Min. Passing Marks:33
Total No. of Lectures-Tutorials- 60Lectures		
Unit	Topic	No. of Lectures
<b>PART A</b>		
I	Social Research: <ul style="list-style-type: none"> <li>• Concept,</li> <li>• Scope,</li> <li>• Steps of research</li> </ul>	6
II	Sampling <ul style="list-style-type: none"> <li>• Concept, Techniques, Principles and Limitations of sampling.</li> </ul>	6
III	Data Collection: <ul style="list-style-type: none"> <li>• Sources of Data Collection: Primary &amp; Secondary</li> <li>• Tools of Data collection: Interview schedule, Observation, Questionnaire</li> <li>• Methods of data collection</li> </ul>	8
IV	Report Writing <ul style="list-style-type: none"> <li>• Summary, Conclusion and Recommendations</li> <li>• Writing references</li> <li>• Writing process of research report: Formal Style of writing, Preface, Chapterization, Headings, Tables and</li> </ul>	10

	Figures, Appendices, Bibliography and Acknowledgement	
	PART B	
V	<b>Women in Development:</b> Capacity Building for women- Education, Decision Making abilities, Opportunities, Awareness & Information on social and legal issues.	8
VI	<b>Women's Organizations &amp; Collective Strength:</b> Women's action groups and women's participation in development initiative.	7
VII	<b>Employment Trends of women:</b> Need for self-employment, Opportunities & challenges in an organized and un-organized sector.	7
VIII	<b>Entrepreneurship Development to empower women:</b> Motivation, Development of women entrepreneurs in India, Schemes available to encourage women entrepreneurship. (a) Bhartiya Mahila Bank Business Loan (b) Annapurna Scheme. (c) Stree Shakti Package (d) <b>Mudra yojana scheme for women.</b> (e) <b>Mahila udyam nidhi scheme.</b>	8

#### Suggested Readings:

1. C. R. Kothari: Research Methodology- Method and Techniques
  2. R. Kumar: Research Methodology: A step by Step Guide for Beginners
  3. M. H. Gopal: Introduction to Research Methodology for Social Sciences
  4. Good, Carter, Scales and Douglas: Methods of Research
  5. Bhasin, Kamla (2000). Understanding Gender. New Delhi. Kaali for Women.
  6. Devi, Uma (1994). Women Work, Development and Ecology. New Delhi, Har-Anand Publications.
  7. Krishna, Sumi (2007). Women's Livelihood Rights: Recasting Citizenship for Development, New Delhi, Sage Publications.
  8. Sohoni, K Neerj, (1994), Status of Girls in Development Strategies, New Delhi, Har-Anand Publications.
  9. Gundry Lisa K. & Kickul Jill R., 2007, Entrepreneurship Strategy: Changing Patterns in New Venture
  10. Creation, Growth, and Reinvention, SAGE Publications, Inc.
  11. Taneja & Gupta, 2001, Entrepreneur Development- New Venture Creation, Galgotia Publishing Company
  12. Patni, Manju. Anusandhan Vigyaan, Star Publications, Agra.
  13. Sudha, G.S. Vyavsayik Prabandh ke Siddhant avam Udyamita, RBD Publications.
  14. Gupta, U.C. Udyamita Vikas, Kailash Pustak Sadan, Bhopal
- Suggestive digital platforms web links- e-PG Pathshala – Inflibnet

This course can be opted as an elective by the students of following subjects: Open for all

- The eligibility for this paper is 10+2 with any subject

**Suggested Continuous Evaluation Methods:**

- Seminar/ Presentation on any topic of the above syllabus
- Test with multiple choice questions/ short and long answer questions
- Attendance

**Course prerequisites:** To study this course, a student must have had the subject ALL in class12<sup>th</sup>.

- The eligibility for this paper is 10+2 with any subject

**Suggested equivalent online courses:**

- IGNOU & Other centrally/state operated Universities/ MOOC platforms such as "SWAYAM" in India and Abroad.

**Further Suggestions:**

It widens the scope for students to join Government and Non-Government organization upskilling the people at different levels as per their socio-economic structure.

At the End of the whole syllabus any remarks/ suggestions:

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**B.A. 3 Semester 6 Home Science Paper 3**  
**Therapeutic Diet Preparation and Nutrient Evaluation (Practical)**

Programme/Class: Certificate	Year: 3	Semester: 6
<b>Subject: Home Science(Practical)</b>		
Course Code: A130603P	Course Title: Therapeutic Diet Preparation and Nutrient Calculation	
Course outcomes: 1- Gain knowledge of principles of diet therapy 2-Develop and understand modification of the normal diet for therapeutic purposes 3- Practical knowledge of dietary management in some common disorders		
Credits: 2	Core Compulsory	
Max. Marks: 25+75	Min. Passing Marks:40	
Total No. of lab.periods -30(60 hours)		
Unit	Topic	No. of lab.periods
I	Modification of normal diet for therapeutic purposes- preparation and presentation	06
II	Therapeutic Diet Preparation and Nutrient Calculation of - Diet in fever - Diet in diarrhea - Diet in Constipation	08
III	Therapeutic Diet Preparation and Nutrient Calculation of some Common Disorders - Diet in diabetes Mellitus - Diet in Hypertension - Diet in Atherosclerosis	08
IV	Dietary Modification for weight management – Preparation and Nutrient Calculation of diet in- - Overweight & obesity - Underweight	08
<b>Suggested Readings:</b> ❖ Sumati R Mudambi – “Fundamentals of food, Nutrition and Diet Therapy”, New Age		

<p>International Pvt. Ltd, New Delhi, 6<sup>th</sup> Edition (2018).</p> <ul style="list-style-type: none"> <li>❖ B Srilakshmi- "Dietetics", New Age International Publishers, New Delhi 2017</li> <li>❖ Bamji MS, Krishnaswamy K and Brahmam GNV(Eds) (2009), Text book of Human Nutrition, 3<sup>rd</sup> Edition , Oxford &amp; IBH Publishing Co. Pvt. Ltd. New Delhi</li> <li>❖ Dr. Brinda Singh- Aahar Vigyan evam Poshan, , Panchsheel Prakashan, Jaipur, 2015; 13<sup>th</sup> Ed.</li> <li>❖ Dr. Sheel Sharma, "Nutrition and Diet Therapy" PEEPEE Publishers and Distributers (P) Ltd. Delhi, 2014, 1st Ed.</li> <li>❖</li> </ul>
<p>This course can be opted as an elective by the students of following subjects: Open for all .....</p>
<p><b>Suggested Continuous Evaluation Methods:</b></p> <ul style="list-style-type: none"> <li>• Test with multiple choice questions/short and long answer questions</li> <li>• Menu planning and calculation of nutrient requirement</li> </ul>
<p>Course prerequisites: To study this course, a student must have had the subject ..... in class/12<sup>th</sup>/ certificate/diploma.</p>
<p><b>Suggested equivalent online courses:</b>  IGNOU and other centrally/state operated Universities/MOOC platforms such as "SWAYAM" in India and abroad Svayam Portal,  <a href="http://heecontent.upsdc.gov.in/Home.aspx">http://heecontent.upsdc.gov.in/Home.aspx</a></p>
<p><b>Further Suggestions:</b>  Students can opt. dietitian, nutrition advisor/ Nutritionist as a career in private and government sector as well as extend knowledge by joining advance course in same discipline.</p>

~~RA 3 Semester 6 Home Science Paper 4~~

~~Research Project~~

Programme/Class: Graduation	Year:3	Semester: 6
Subject: Community and Life Science (Home Science)		
Course Code: AI30604R	Course Title: Research Project II	
Course outcomes: Learns to communicate with community around Becomes sensitive to needs of the society where she lives Tries with some intervention plan for problems faced in community Improves writing and presentation abilities of the candidate.		
Credits: 3	Core Compulsory	
Max. Marks: 25+75	Min. Passing Marks:40	
Total No. of Lectures- 45( hours)		
Unit	Topics	No. of Lecture

Syllabus

## HOME SCIENCE

For

4 Years U.G. (Honours) Programme

4 Years U.G. (Honours with Research) Programme

And

P.G. Programme

Effective from session 2024-25 onwards



**MAHARAJA SUHEL DEV UNIVERSITY, AZAMGARH  
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Prepared by

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Convenor of Home Science

**Maharaja Suhel Dev University, Azamgarh, (U.P.)- 276128 , India**



4<sup>th</sup> Year (Hons.) / 4<sup>th</sup> year UG (Hons. With Research) / M.A. (Home Science)

Year	Sem	Category/ Type of the course	Course code	Paper title	Theory/ Practical	Credit
4 <sup>th</sup> Year UG (Hons.) / 4 <sup>th</sup> year UG (Hons. With research) / M.A. (1st Year) / PG Diploma	VII	Major (Compulsory)	A130701T	Food Science	Theory	4
			A130702T	Extension and Communication in community development	Theory	4
			A130703T	Research Methodology	Theory	4
			A130704P	Practical	Practical	4
			<b>Major (Optional)</b>	Optional papers choose any one of the following		
		A130705T	(A) Theory of Management	Theory	4	
		A130706T	(B) Advance Nutrition Science	Theory	4	
		<b>Research Project</b> (To be chosen only by the students of 4 year UG Hons. With research instead of the above optional paper)	A130707R	Research Project (Home Science) Individual/ Progressive	Research Project	4

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## M.A. I Semester Home Science Paper I

Programme/Class	M.A.	
Subject	Home Science	
Course/Paper code	A130701T	
Nature of course	Theory (Compulsory)	
Course/Paper Title	Food Science	
Semester	✓ II	
Credit assigned	4	
Maximum marks	25+75	
Course objectives:		
<ul style="list-style-type: none"> <li>• Provide an understanding of composition of various food stuff.</li> <li>• Enable students to use the theoretical knowledge in various applications and food preparations.</li> </ul>		
Course outcomes:		
<ul style="list-style-type: none"> <li>• Students will get familiar with constituents of food.</li> <li>• Acquaint students with changes occurring in various food stuffs as a result of processing and cooking.</li> </ul>		
Total No. of lectures - 60		
Unit	Topic	No. of lectures
I	<b>Introduction to Food Science:</b> Constituents of foods- general, physical and chemical properties, colloidal system, gels, emulsions.  <b>Enzymes :</b> Importance of enzymes and their application in food industry.	10
II	<b>Cereals and cereal products :</b> Cereal grains- structure and composition, cereal products, wheat starch and gluten formation, properties of Amylase and Amylopectin.  <b>Fats and oils :</b> Types, sources, composition of fat; Functional properties and uses in cookery.	15

III	<p><b>Pulses and Legumes</b> : Composition and functional properties of pulses, toxic constituents.</p> <p><b>Vegetables and fruits</b> : Composition , pigments and flavour constituents , changes occurs during cooking.</p>	15
IV	<p><b>Milk and milk products</b> : Composition, physical &amp; chemical properties ; Effect of heat, acid and salts.</p> <p><b>Dairy products</b> – butter, cheese, yogurt, cultured milk etc.</p>	10
V	<p><b>Meat and poultry</b> : Muscles composition, characteristics, post mortem changes.</p> <p><b>Egg and fish</b>: structure, composition, changes during storage, uses in cookery.</p>	10

**Course pre-requisites** : To study this course a student must had the subject Home Science in UG class.

**Suggested readings :**

- N. Shakuntala Manay, Food: Facts and Principles, New Age International Pvt. Ltd. Publication, New Delhi.
- Dr. Anita Singh, Ahar Evam Poshan Vigyan, Star Publication, Agra
- Punita Sethi and Poonam Lakda, Ahar Vigyan, Suraksha Evam Poshan, Elite publishing House, New Delhi, 2015
- Dr. Devina Sahai, Aahar Vigyan, New Age International publishers, New Delhi.
- Ankita Gupta, " Text Book Of Nutrition." Medico Refresher Publisher, Agra, 2018.
  - ❖ Suggestive digital platforms web links- ePG-Pathshala, IGNOU & UPRTOU online study materials;
  - Swayam Portal;
  - <http://heecontent.upsdc.gov.in/Home.aspx>
  - [https://en.m.wikipedia.org/wiki/food\\_science](https://en.m.wikipedia.org/wiki/food_science)

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## M.A. I Semester ~~M~~ Home Science Paper II

Programme/Class	M.A.
Subject	Home Science
Course/Paper code	A130702T
Nature of course	Theory (Compulsory)
Course/Paper Title	Extension and Communication in Community Development
Semester	<del>M</del> I
Credit assigned	4
Maximum marks	25+75

**Course objectives:**

- To understand the process of communication in development work.
- Develop understanding for effective extension teaching and learning.
- Comprehend the various effective communication methods.

**Course outcomes:**

- Acquaint students write effective extension teaching methods.
- Students will aware about community development programme
- Enhance skills to use advance technology in extension programme.

Total No. of lectures - 60

Unit	Topic	No.of lectures
I	<b>Community</b> : Definition, concept & characteristics, social groups and organizations; Community leadership, role of leadership in community development.	10
II	<b>Extension</b> : Meaning , changing concept of extension, objective, principles, functions, component of extension, extension system in India.	15
III	<b>Extension teaching</b> : Methods and process, steps in extension teaching method, Teaching aids, cone of learning.	15

IV	<b>Communication</b> : Definition role & significance of communication, elements and classification of communication, communication models.	10
V	<b>Community development programs</b> : Meaning, principles, aims of community development, method of community development; C.D.P.	10

**Course pre-requisites** : To study this course a student must had the subject Home Science in UG class.

**Suggested readings :**

- Dahama , O.P. & Bhatnagar, O.P., "Education and communication for development," New Delhi – oxford and IBG publishing Co. Pvt. Ltd.
- Supe, A.N., An introduction to extension Education. Delhi; oxford IBH publishing.
- Reddy, A., " Extension education", Bapatha, Andhra Pradesh, India; Sreelakshmi press.
- Jaipal Singh., " Prasar Shiksha Avam Gramin Vikas" S.R scientific publication, Agra.
- Agrawal, R., " Communication- Today and Tomorrow", New Delhi; Sublime Company.
- Harpalani B.D., "Prasar Shiksha Avam Sanchar", Star Publications, Agra.
- Shaw, Geeta Pushp, Shaw Jois sheela, "Prasar Shiksha", Vinod Pustak Mandir Agra.
  - ❖ Suggestive digital platforms web links- ePG-Pathshala, IGNOU & UPRTOU online study materials;  
Swayam Portal;  
<http://heecontent.upsdc.gov.in/Home.aspx>  
<http://egyankosh.ac.in>

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## M.A. I Semester VII Home Science Paper III

Programme/Class	M.A.
Subject	Home Science
Course/Paper code	A130703T
Nature of course	Theory (Compulsory)
Course/Paper Title	Research Methodology
Semester	VII
Credit assigned	5
Maximum marks	25+75

### Course objectives:

- To understand the significance of statistics and research methodology in Home Science research.
- To understand the types, tools and methods of research.
- To develop the ability to construct data gathering instruments.
- To understand the appropriate statistical technique for the measurement scale and design

### Course outcomes:

- Students will be able to explain the concept and use of research.
- Students will be able to conduct survey.
- Students will be able to develop a research proposal.

Total No. of lectures - 75

Unit	Topic	No. of lectures
I	<b>Research</b> : Concept, Scope, types of research recent trends in research in Home Science	15
II	<b>Research problem</b> : Definition & importance and source of research problem, Selection of research problem. <b>Hypothesis</b> : Concept, types of significance.	15
III	<b>Research design</b> : Purposes of research design: fundamental, applied and action, exploratory and descriptive, experimental, survey and case study, ex-post facto. <b>Sampling</b> : Definition, concept significance and types of sampling.	20
IV	<b>Source of data collection</b> : Primary and secondary data, methods and tools of data collection.	10

V	Measurement and scaling: Processing of data, analysis and interpretation of data; Report writing.	15
<p><b>Course pre-requisites :</b> To study this course a student must had the subject Home Science in UG class.</p>		
<p><b>Suggested readings :</b></p> <ul style="list-style-type: none"> <li>• Bhatnagar, G.L.: Research methods and measurements in behavioral and social sciences Agri Cole Publishing Academy, New Delhi.</li> <li>• C.R. Kothari: Research methodology- method and techniques .</li> <li>• M.H. Gopal: Introduction to research methodology for social Sciences.</li> <li>• Mukherjee, R: The quality of life : valuation in social research, saga publications, New Delhi.</li> <li>• Kerlinger : Foundation of educational research.</li> <li>• James Harold Fox, Criteria of Good Research, Phi Delta Kappan, Vol. 39 (March, 1958)</li> <li>• Danny N. Bellenger and Barnett, A. Greenberg, "Marketing Research—A Management Information Approach".</li> <li>• Robert M.W. Travers, An Introduction to Educational Research. <ul style="list-style-type: none"> <li>❖ Suggestive digital platforms web links- Swayam Portal; <a href="http://beecontent.upsdc.gov.in/Home.aspx">http://beecontent.upsdc.gov.in/Home.aspx</a> <a href="https://www.scribbr.com">https://www.scribbr.com</a></li> </ul> </li> </ul>		

*Book - Reference Page*

## M.A. I Semester VII Home Science Paper IV

Programme/Class	M.A.
Subject	Home Science
Course/Paper code	A130704P
Course/Paper Title	Practical (Compulsory)
Semester	VII
Credit assigned	2
Maximum marks	25+75

**Course objectives:**

- To aware students to used practical knowledge in various applications and food preparations.
- To gain knowledge about changes in food during cooking and processing.
- To know importance of extension and communication in development.
- To comprehend the various effective teaching materials in communication process.

**Course outcomes:**

- Students will familiarize with effect of cooking and processing on food stuffs.
- Acquaint students with the different stages of sugar cookery.
- Skills for making and using of extension teaching aids in students will be developed.

Total No. of lectures - 30

Unit	Topic	No.of lectures
I	<b>Sugar cookery</b> : Stages of sugar cookery	4
II	<b>Fruits &amp; vegetables</b> : Effects of cooking metal ions and PH on pigment.	5
III	<b>Pulses</b> : Effects of cooking & processing method.	4
IV	<b>Fats &amp; oils</b> : Melting point, smoking point.	3
V	<b>Preparation of extension teaching materials</b> : Chart, poster, flash, cards and literature.	6

VI Visit to nearby slum areas and other places and report writing.

8

**Course pre-requisites :** To study this course a student must had the subject Home Science in UG class.

**Suggested readings :**

- N. Shakuntala Manay, Food: Facts and Principles, New Age International Pvt. Ltd. Publication, New Delhi.
- Punita Sethi and Poonam Lakda, Ahar Vigyan, Suraksha Evam Poshan, Elite publishing House, New Delhi, 2015
- Dr. Devina Sahai, Aahar Vigyan, New Age International publishers, New Delhi.
- Dahama , O.P. & Bhatnagar, O.P., "Education and communication for development," New Delhi – oxford and IBG publishing Co. Pvt. Ltd.
- Supe, A.N., An introduction to extension Education. Delhi; oxford IBH publishing.
- Reddy, A., " Extension education", Bapatha, Andhra Pradesh, India; Sreelakshmi press.
- Jaipal Singh., " Prasar Shiksha Avam Gramin Vikas" S.R scientific publication, Agra.
- Agrawal, R., " Communication- Today and Tomorrow", New Delhi; Sublime Company.
- Harpalani B.D., "Prasar Shiksha Avam Sanchar", Star Publications, Agra.
- Shaw, Geeta Pushp, Shaw Jois sheela, "Prasar Shiksha", Vinod Pustak Mandir Agra.
- <http://epgp.inflibnet.ac.in>

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## M.A. I Semester ~~VII~~ Home Science Paper ~~VII~~

Programme/Class	M.A.
Subject	Home Science
Course/Paper code	A130: <del>705T</del>
Nature of course	Theory (Optional)
Course/Paper Title	Theory of Management
Semester	<del>VII</del>
Credit assigned	5
Maximum marks	25+75

**Course objectives:**

- To understand the significance of management in the organizations.
- To know the conceptual, human and scientific aspects of management functions.
- To develop the ability to evaluate the management efficiency and effectiveness in the organizations.

**Course outcomes:**

- Students will familiar with management process.
- Students will able to explain the concept of decision-making.
- Students will able to analyze human behaviour in organization.

Total No. of lectures - 75

Unit	Topic	No. of lectures
I	<b>Management:</b> Definition, concept, elements, Objective, principles. <b>Decision making:</b> Concept, types of decision, tools & techniques for decision making, cost- benefit analysis.	20
II	<b>Management functions and process:</b> Planning- concept objectives, principles. <b>Organizing :</b> Concept, principle. <b>Staffing :</b> Concept, principle, purpose, recruitment.	20
III	<b>Directing :</b> Concept, types, significance. <b>Controlling:</b> Concept , objectives. <b>Monitoring &amp; Evaluation :</b> Concept , types, tools & techniques.	15
IV	<b>Human behavior in organizations:</b> <b>Personality:</b> Concept of personality development and determinants. <b>Attitude:</b> Concept, difference between beliefs and values; Stress and conflict management.	20

**Course pre-requisites :** To study this course a student must had the subject Home Science in UG class.

**Suggested readings :**

- Kapur, S.K. (1996): Professional Management, S.K. Publishers, New Delhi.
  - Deacon, R.E. and Fire Baugh, F.M. (1975): Home Management Context and Concept Houghton Miffen, Boston.
  - Deacon, R.E. and Fire Baugh, F.M.(1981): Resources Management Principles and Applications, Allyn and Bacon & Bacon, Boston.
  - Sherman, A.W. et.al (1988): Managing Human Resources, South-Western Publication Co., Cincinnati.
  - Ivancevich, J.M. et.al (1980): Managing For Performance Business Publications, INC, Texas.
  - Dwivedi, R.S. (1981): Dynamics of Human Behaviour of Work, Oxford and 9BH, New Delhi.
  - Saiyadain, M.S. (1980): Human Resource Management, Tata Mc Graw Hill, New Delhi.
  - Dayal, R. (1996): Dynamics of Human Resource Development, Mittal Publication, New Delhi.
- ❖ Suggestive digital platforms web links-  
Swayam Portal;  
<http://heecontent.upsdc.gov.in/Home.aspx>

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# M.A. I Semester VII Home Science Paper VI

Programme/Class	M.A.
Subject	Home Science
Course/Paper code	A130706I
Nature of course	Theory (Optional)
Course/Paper Title	Advance Nutrition Science
Semester	VII
Credit assigned	5
Maximum marks	25+75

**Course objectives:**

- To aware students with the recent advances in nutrition.
- To provide knowledge of the physiological and metabolic role of various nutrients and their interactions in human nutrition.
- To understand the basis of human nutritional requirement and recommendations through life cycle.

**Course outcomes:**

- Students will familiarize with the recent advances in nutrition.
- Inculcate healthy eating practices among students.
- Students will aware about importance of healthy meal at various stages of life cycle.

Total No. of lectures - 75

Unit	Topic	No. of lectures
I	<b>RDA:</b> RDA & dietary guidelines, Nutritional requirement-reference man, reference woman, body composition. <b>Energy:</b> Energy balance, estimation of energy requirements, deficiency and excess.	20
II	<b>Carbohydrates:</b> Classification, digestion, absorption, metabolism, glycemic index of food, dietary fiber.	10
III	<b>Protein :</b> Types, digestion, absorption , metabolism assessment of protein quality, factors affecting bioavailability. <b>Lipid:</b> Digestion, absorption, metabolism, cholesterol, saturated and unsaturated fatty acids.	20
IV	<b>Vitamins and minerals :</b> Sources, Bioavailability, functions, requirement, deficiency and toxicity.	10

V	<b>Nutrition through life span :</b> Meal planning, factors affecting meal planning, meal planning during infancy, preschool , school age, adolescence, adulthood, old age and special condition (pregnancy & lactation).	15
<b>Course pre-requisites :</b> To study this course a student must had the subject Home Science in UG class.		
<b>Suggested readings :</b> <ul style="list-style-type: none"> <li>• Indian Council of Medical Research, Recommended Dietary intakes for Indians, Latest Recommendations.</li> <li>• World Reviews of Nutrition and Dietetics.</li> <li>• N.Shakunthala, Manay, Food: Facts and Principles, New Age International Publication, New Delhi</li> <li>• Ankita Gupta, "Text Book of Nutrition", Medico Refresher Publisher, Agra, (2018).</li> <li>• Shubhangini A. Joshi, Nutrition and Dietetics, Mc Graw Hill Education Private Limited.</li> <li>• Swaminathan M., "Essentials of Food and Nutrition," volume- I and II.</li> <li>• Kumud Khanna, "Textbook of Nutrition and Dietetics." Elite Publishing House Private Limited, New Delhi 2013, 7<sup>th</sup> Ed.           <ul style="list-style-type: none"> <li>❖ Suggestive digital platforms web links- ePG-Pathshala, IGNOU &amp; UPRTOU online study materials; Swayam Portal; <a href="http://heecontent.upsdc.gov.in/Home.aspx">http://heecontent.upsdc.gov.in/Home.aspx</a> <a href="https://kosmospublishers.com/advances-in-nutrition-and-food-science">https://kosmospublishers.com/advances-in-nutrition-and-food-science</a></li> </ul> </li> </ul>		

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Year	Sem.	Category/ Type of the Course	Course code	Paper title	Theory/ Practical	Credit	
4 <sup>th</sup> Year UG ( Hons.) / 4th Year UG (Hons. With Research)/ MA (1st Year) / PG Diploma	VIII	Major (Compulsory)	A130801T	Fabric Construction and care	Theory	4	
			A130802T	Early Child Care & Education	Theory	4	
			A130803T	Life Span Development	Theory	4	
			A130804P	Practical	Practical	4	
		Major (Optional)	Optional papers chose any one of the following				
			A130805T	(A)Statistics & computer application	Theory	4	
			A130806T	(B)Adolescence & Youth	Theory	4	
		Research Project	A130807R	Research project (Home Science) Individual/ Progressive	Research Project/ Dissertation	4	

## M.A. I Semester ~~MIF~~ Home Science Paper I

Programme/Class	M.A.
Subject	Home Science
Course/Paper code	A130801T
Nature of course	Theory (Compulsory)
Course/Paper Title	Fabric Construction and Care
Semester	III
Credit assigned	4
Maximum marks	25+75

**Course objectives:**

- To get knowledge about different fabric manufacture process.
- To gain knowledge and understanding of fundamentals of weaving process.
- To understand the theory of dyeing in relation to various classes of dyes.

**Course outcomes:**

- Students will able to analyze different weave patterns.
- Students will familiar with finishes done on fabrics.
- Students will acquaint with different kinds of eaves.
- Students will able to know the importance of laundry method.

Total No. of lectures - 60

Unit	Topic	No.of lectures
I	<b>Principles of fabric manufacture:</b> Characteristics and significance of different Fabric manufacture process- Woven, knitted, laces, braids.	10
II	<b>Wearing:</b> Parts and functions of loom, types of weaves – Basic and decorative. <b>Knitting :</b> Types of knitting, properties; Felting & non woven : felting process. Lace making.	15
III	<b>Fabric finishing :</b> Classification of finishes- Physical calendaring, tentering, weighing, beatling, singeing, napping, chemical-bleaching, mercerizing; Special purpose finishes – flame retardant, water proofing & water repellent, wrinkle resistant antistatic, stain and soil release finish.	15
IV	<b>Dyeing:</b> Theory of dyeing, Types of dyes, Dyeing method; Types of Dyeing – stock dyeing, yarn dyeing , piece dyeing , solvent dyeing, foam dyeing.	10

V	<b>Laundry Science:</b> Stains – classification, methods of removing stains; Methods of laundry, soap & detergent, whitening agent: Types & functions, dry cleaning agents.	10
<b>Course pre-requisites :</b> To study this course a student must had the subject Home Science in UG class.		
<b>Suggested readings :</b> <ul style="list-style-type: none"> <li>• Marsh J.T.: Textile Finishes.</li> <li>• Trotman Er: Dyeing and Chemical Technology of Fibres.</li> <li>• Joseph M; Introduction to Textiles.</li> <li>• Corbman P. Bernard: Textiles- Fibre to fabric.</li> <li>• Hollen and Saddler: Introduction to Textiles.</li> <li>• J. Hall: The Standard Handbook of Textiles, Wood Head Publication, 2004.</li> <li>• J.E. Smith: Textile Processing- Printing, Dyeing, Abhishek Publishing, 2003.</li> <li>• Kate Broughton: Textile Dyeing, Rockport Publishers, 1996.</li> <li>• W.S. Murphy: Textile Finishing, Abhishek Publication, 2000.</li> <li>• Naik D. Shailiaja, Jacqui A. Willson: Surface Designing Of Textiles Fabrics, New Age International Publisher, 2006</li> <li>• Bhargav, Bela. Vastra Vigyan, Univ. Book House Pvt. Avam Dhulai kala, University book House Pvt. Ltd. Jaipur.</li> <li>• Patni, Manju, Vastra Vigyan Avam Paridhan ka Parichay, Star Publication, Agra.           <ul style="list-style-type: none"> <li>❖ Suggestive digital platforms web links- Swayam Portal; <a href="http://heecontent.upsdc.gov.in/Home.aspx">http://heecontent.upsdc.gov.in/Home.aspx</a> <a href="http://www.britannica.com/topic/textile/production-of-fabric">http://www.britannica.com/topic/textile/production-of-fabric</a></li> </ul> </li> </ul>		

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## M.A. I Semester VIII Home Science Paper II

Programme/Class	M.A.	
Subject	Home Science	
Course/Paper code	A130802T	
Nature of course	Theory (Compulsory)	
Course/Paper Title	Early Child Care and Education	
Semester	VIII	
Credit assigned	4	
Maximum marks	25+75	
Course objectives:		
<ul style="list-style-type: none"> <li>• To gain knowledge and insight regarding principles of early childhood care and education.</li> <li>• To make them aware of basic setup &amp; a requirements of a preschool.</li> <li>• To develop the skills and techniques to plan activities in ECCE centers.</li> </ul>		
Course outcomes:		
<ul style="list-style-type: none"> <li>• Students can conduct activities effectively for preschool children.</li> <li>• Students will able to start own preschool centre.</li> </ul>		
Total No. of lectures - 60		
Unit	Topic	No.of lectures
I	<b>ECCE</b> : Importance, need and scope of ECCE, objective of ECCE; Types of preschool: play centers, day care, Montessori, Kindergarten, Balwadi, Anganwadi.	15
II	<b>Contribution of thinkers in ECCE</b> : Rousseou Frobel, Maria Montessori. M.K. Gandhi, Rabindranath Tagour.	10
III	<b>ECCE in India</b> : Pre independence period, post Independence-Kothari commission, contribution of the five year plans to ECCE, Yashpal committee.	10
IV	<b>Contribution of different agencies</b> : ICCW, IAPE, NCERT, ICDS, UNICEF, NCTE.  <b>Organization of preschool centers</b> : Concept, administrative set up, function Building & equipment staff, record and report.	10

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V	<b>Activities of ECCE : Activities &amp; related material for –</b> <ul style="list-style-type: none"> <li>- Language development</li> <li>- Mathematical concept</li> <li>- Art &amp; motor creative abilities</li> <li>- Science concepts</li> <li>- Physical &amp; motor activities</li> </ul>	15
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**Course pre-requisites :** To study this course a student must had the subject Home Science in UG class.

**Suggested readings :**

- Grewal , J. S. (1984), Early childhood Education, Agra, National psychological corporation pub.
- Bhatia & Bhatia (1995), Theory and Principles of Education, Doaba house, Delhi.
- Kaul, V. (1997), Early Childhood Education Programme, New Delhi, NCERT.
- Kulkarni, S. (1988), Parent Education, Perspectives and Approaches, Jaipur, ravat publications.
- Mohanthy, J., & Mohanthy, B. (2000). Early Childhood Care and Education (pp.1-10) New Delhi: Deep and Deep Publications PVT limited.
- Eliason, C., & Jenkins, L. (1990). A practical guide to early child curriculum, 4th edition, (pp.3-10). London: Merrill Publishing Company.
  - ❖ Suggestive digital platforms web links- ePG-Pathshala, IGNOU & UPRTOU online study materials;  
Swayam Portal;  
<http://heecontent.upsdc.gov.in/Home.aspx>  
<https://en.unesco.org/themes/earrly-childhood-care-and-education>  
<https://wcd.nic.in>

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## M.A. I Semester VIII Home Science Paper III

Programme/Class	M.A.
Subject	Home Science
Course/Paper code	A130803T
Nature of course	Theory (Compulsory)
Course/Paper Title	Life Span Development
Semester	VIII
Credit assigned	4
Maximum marks	25+75

**Course objectives:**

- To become acquainted with development stage from birth to old age.
- To develop awareness of important aspect of development during the whole life span.
- To understand the issues faced and adjustment required at each stage across the life span.

**Course outcomes:**

- Student will know about various development stage.
- Student will aware about aspect of development during whole life span.
- Acquaint students with principles and factors influencing human development in different stages.

Total No. of lectures - 75

Unit	Topic	No. of lectures
I	<b>Human development</b> : Definition, principles of growth and development. <b>Prenatal development &amp; birth process:</b> Stages of prenatal development, factors affecting prenatal period, delivery and birth process.	20
II	<b>Infancy</b> : Physical & motor development, cognitive development, emotional development early language development.	10
III	<b>Early and late childhood</b> : Physical and motor development, cognitive development, social and emotional development.	15
IV	<b>Adolescence</b> : Physiological changes, social and emotional development; Identity formations; Problems of adolescence- drugs, alcohol delinquency etc.	15

V	<p><b>Adulthood</b> : Young adulthood (18-35 years)- Significance of the period, responsibilities &amp; adjustment.          Middle adulthood (35-50 years)- Physical changes and changing roles in the family.          Late adulthood (50- 60 years)- Changes in personality, occupational changes, health issues.</p>	15
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**Course pre-requisites :** To study this course a student must had the subject Home Science in UG class.

**Suggested Readings:**

- F.P. Rice, Human Development, A life span approach, N.J. Prentice Hall- 1965.
  - Berk, L.E., Child Development, Allyn and Bacon (1992) (6<sup>th</sup>) edition.
  - Hurlock, E., Child Development.
  - Berk, L.E., Child Development, New Delhi, Prentice Hall.
  - Newman., & Newman . (2003). Development through life, A psycho social approach (pp. 252-284). United States of America: Wards worth.
  - Pikunas, J. (1976). Human Development, An emergent Science, United States of America: Mc. Graw Hill, Inc.
  - Owens, K. (2003), Child and Adolescent Development, An integrated Approach (pp 413-454). Wards worth: United States.
  - Fabes R., & Martin. C.L. (2003), Discovering Child Development, United States of America: Pearson Education Inc.
  - Fabes, R., & Martin. C.L. (2003), Discovering Child Development, United States of America: Pearson Education Inc.
- ❖ Suggestive digital platforms web links- ePG-Pathshala, IGNOU & UPRTOU online study materials;  
 Swayam Portal;  
<http://heecontent.upsdc.gov.in/Home.aspx>  
<http://egyankosh.ac.in>

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## M.A. I Semester VII // Home Science Paper VII

Programme/Class	M.A.
Subject	Home Science
Course/Paper code	A130804P
Course/Paper Title	Practical (Compulsory)
Semester	VII
Credit assigned	4
Maximum marks	25+75

**Course objectives:**

- To get knowledge about weaving process.
- To familiar with different kind of weaves.
- To study the methods of removing stains from fabrics.
- To provide knowledge about planning ECCE programme.
- To develop skills to conduct activities in early childhood care and education and to work effectively with the parents.

**Course outcomes:**

- Students will able to identify the different weaves.
- Acquaint students with methods of removing stains on different types of fabric.
- Students will understand individual differences.
- Students will be able to developing literature for child and parents.

Total No. of lectures - 30

Unit	Topic	No. of lectures
I	Identification of weaves by sample collection.	8
II	Removal of stains on cellulosic, silk and synthetic fabrics.	7
III	Planning ECCE programme including infrastructural facilities.	5
IV	Conducting interaction programmes with teachers and parents.	4

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V Developing literature for parents, preparing and using visual aids.

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**Course pre-requisites :** To study this course a student must had the subject Home Science in UG class.

**Suggested readings :**

- Marsh J.T.: Textile Finishes.
- Joseph M; Introduction to Textiles.
- Corbman P. Bernard: Textiles- Fibre to fabric.
- Hollen and Saddler: Introduction to Textiles.
- J. Hall: The Standard Handbook of Textiles, Wood Head Publication, 2004.
- W.S. Murphy: Textile Finishing, Abhishek Publication, 2000.
- Naik D. Shailiaja, Jacqui A. Willson: Surface Designing Of Textiles Fabrics, New Age International Publisher, 2006
- Bhargav, Bela. Vastra Vigyan, Univ. Book House Pvt. Avam Dhulai kala, University book House Pvt. Ltd. Jaipur.
- Patni, Manju, Vastra Vigyan Avam Paridhan ka Parichay, Star Publication, Agra.
- Grewal , J. S. (1984), Early childhood Education, Agra, National psychological corporation pub.
- Bhatia & Bhatia (1995), Theory and Principles of Education, Doaba house, Delhi.
- Kaul, V. (1997), Early Childhood Education Programme, New Delhi, NCERT.
- Kulkarni, S. (1988), Parent Education, Perspectives and Approaches, Jaipur, ravat publications.
- Mohanthy, J., & Mohanthy, B. (2000). Early Childhood Care and Education (pp.1-10) New Delhi: Deep and Deep Publications PVT limited.
- Eliason, C., & Jenkins, L. (1990). A practical guide to early child curriculum, 4th edition, (pp.3-10). London: Merril Publishing Company.
- <http://www.britannica.com/topic/textile/production-of-fabric>

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## M.A. I Semester VIII Home Science Paper V

Programme/Class	M.A.
Subject	Home Science
Course/Paper code	A130805T
Nature of course	Theory (Optional)
Course/Paper Title	Statistics and Computer Application
Semester	VIII
Credit assigned	4
Maximum marks	25+75

### Course objectives:

- To understand the role of statistics and computer applications in research.
- To apply statistical techniques to research data for analyzing and interpreting data meaningfully.

### Course outcomes:

- Students will be able to apply statistical techniques in research.
- Students will be know importance of computer applications in research.
- Students will be able to analyzing and interpreting data in research.

Total No. of lectures - 75

Unit	Topic	No.of lectures
I	<b>Statistics</b> : Meaning , tabulation of data, uses of diagrammatic representation of data; Measures of central tendency, measures of dispersion.	20
II	<b>Correlation</b> : coefficient of correlation, Rank correlation; Frequency distribution; Probability; Chi square; 't' test.	15
III	<b>Fundamental of computer</b> : History, Generation of computer, language, Components application of computers, Operating system and internet.	20
IV	<b>Experimental designs</b> : Completely randomized design, Randomized block design, Latin square design, Factorial design; Trend Analysis.	20

**Course pre-requisites :** To study this course a student must had the subject Home Science in UG class.

**Suggested readings :**

- Garrett, Henry E (1971). Statistics in Psychology and Education. David Heley and Co.
- Mukherjee, R.(1989) : The Quality of life: Valuation in Social Research, Sage publications, New Delhi.
- Edwards. Experimental design as Psychological Research.
- Kerlinger: Foundation of Education Research.
- SPSS/PC for the IBM PC/XT, SPSS Inc.
- ❖ Suggestive digital platforms web links-  
Swayam Portal;  
<http://heecontent.upsdc.gov.in/Home.aspx>  
<https://ecourseonline.iasri.res.in/course/view.php>

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## M.A. I Semester VII Home Science Paper VI

Programme/Class	M.A.
Subject	Home Science
Course/Paper code	A130806T
Nature of course	Theory (Optional)
Course/Paper Title	Adolescence and Youth
Semester	VII
Credit assigned	4
Maximum marks	25+75

**Course objectives:**

- To understand the stages of adolescence and youth in human development.
- To study the major developmental characteristics of these stages.
- To study the issues of identity, developmental tasks and problems associated with these stages.

**Course outcomes:**

- Students will be able to explain the concept of adolescence.
- Students will aware to physical and emotional changes during adolescence.
- Students will be identify problems and challenges related to adolescence and youth.

Total No. of lectures - 75

Unit	Topic	No.of lectures
I	<p><b>The adolescent stage:</b></p> <ul style="list-style-type: none"> <li>- Its link with middle childhood and youth.</li> <li>-The concept of adolescence in India.</li> <li>-Developmental tasks of adolescence</li> </ul> <p><b>Theoretical perspectives:</b> G. Stanley Hall, Anna Freud , Erik Erikson, James Marcia, Kagan and Margaret Mead, Indian perspectives.</p>	20
II	<p><b>Physical and sexual development:</b></p> <ul style="list-style-type: none"> <li>- Puberty, development of primary and secondary sex characteristics.</li> <li>- Psychological response to puberty.</li> <li>- Gender differences; Sexuality, Sexual needs and sex education.</li> </ul> <p><b>Cognitive development:</b></p> <ul style="list-style-type: none"> <li>- Formal operations – Piaget’s theory, Intellectual development at Adolescence and youth.</li> <li>- The information – Processing view.</li> <li>- Reasoning, thinking critically, reflective judgment, moral reasoning and judgment.</li> </ul>	20

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III	<p><b>Identity formation:</b></p> <ul style="list-style-type: none"> <li>- Different perspectives; construct of self and development of self – concept Daniel Offer.</li> <li>- Indian views on adolescent's identity.</li> </ul> <p><b>Social and emotional development:</b></p> <ul style="list-style-type: none"> <li>- Family, peers and friendships, interpersonal relations; Emotional competence.</li> <li>- Conflict with authority.</li> </ul>	10
IV	<p><b>School, college, work and career:</b></p> <ul style="list-style-type: none"> <li>- Adolescence and youth in the context of differential opportunities for education and formal training.</li> <li>- Importance of academic achievement and failure, related issues.</li> <li>- Training for career and work.</li> </ul> <p><b>Important agents of influence:</b></p> <ul style="list-style-type: none"> <li>- Family, community and culture</li> <li>- Electronic media.</li> </ul>	15
V	<p><b>Marriage:</b></p> <ul style="list-style-type: none"> <li>- Legal age and its relationship to development. Marriage as a family/individual issue.</li> <li>- Marriage choices and significance of marriage in human development.</li> </ul> <p><b>Delinquency and disturbance:</b></p> <ul style="list-style-type: none"> <li>- juvenile delinquency: causes and prevention.</li> <li>- Psychological disturbances: depression, suicide, substance abuse.</li> </ul>	10
<p><b>Course pre-requisites :</b> To study this course a student must had the subject Home Science in UG class.</p>		
<p><b>Suggested readings :</b></p> <ul style="list-style-type: none"> <li>• Balk, E.E. (1995), Adolescent Development. New York: Brooks/Cole.</li> <li>• Erikson, E.H. (1968), Identity: Youth and crisis, London: Faber &amp; Faber.</li> <li>• Kroger, J. (1996), Identity in Adolescence, London: Routledge.</li> <li>• Kakar, S. (1992), Identity and Adulthood, Delhi: Oxford University Press.</li> <li>• Sharma, N. (1996), Identity of the Adolescent Girl, New Delhi; Discovery Publishing House.</li> <li>• Saraswathi, T.S. &amp; Dutta, R. (1988), Invisible Boundaries: Grooming For Adult Roles, New Delhi, Northern Book Centre.</li> <li>❖ Suggestive digital platforms web links- ePG-Pathshala, IGNOU &amp; UPRTOU online study materials; Swayam Portal; <a href="http://heecontent.upsdc.gov.in/Home.aspx">http://heecontent.upsdc.gov.in/Home.aspx</a> <a href="https://www.britannica.com/science/adolescence">https://www.britannica.com/science/adolescence</a></li> </ul>		

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# M.A. I Semester VI // Home Science Paper VIII

Programme/Class	M.A.
Subject	Home Science
Course/Paper code	A130808R
Course/Paper Title	Research Project (Compulsory)
Semester	VIII
Credit assigned	4
Maximum marks	100
Total No. of lectures – 60	

**Note:-** The topic for the major research project will be opted by the students with consent of his/her research supervisor.

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## M.A. (Home Science) First Year

Year	Sem.	Category / Type of the course	Course Code	Paper Title	Theory/ Practical	Credit
First Year	IX	Major (compulsory)	A130901T	Clinical & therapeutic nutrition	Theory	4
			A130902T	Children with Special needs	Theory	4
			A130903P	Practical	Practical	4
		<b>Optional Courses</b>	<b>Students will be select any one courses from the optional Courses</b>			
			A130904T	(A) Entrepreneurship management	Theory	4
			A130905T	(B) Textile testing & quality control	Theory	4
			A130906T	(C) Food processing & technology	Theory	4
		<b>Research Project</b>	A130907R	Research Project / Dissertation ( Individual/ Progressive)	Research Project	4
First Year	X	<b>Optional Courses</b>	<b>Students will be select any three courses from the optional courses</b>			
			A131001T	(A) Gender in extension & development	Theory	4
			A131002T	(B) Family guidance & Counselling	Theory	4
			A131003T	(A) Food Quality analysis	Theory	4
			A131004T	(B) Media & Extension	Theory	4
			A131005T	(A) Community health management	Theory	4
			A131006T	(B) Consumer economics	Theory	4
			A131007P	Practical	Practical	4
		<b>Research Project</b>	A131008R	Research project / Dissertation ( Individual/ Progressive)	Research Project	4



## M.A. I Semester IX Home Science Paper I

Programme/Class	M.A.	
Subject	Home Science	
Course/Paper code	A130901T	
Nature of course	Theory (Compulsory)	
Course/Paper Title	Clinical and Therapeutic Nutrition	
Semester	<b>IX</b>	
Credit assigned	4	
Maximum marks	25+75	
Course objectives:	<ul style="list-style-type: none"> <li>To develop intellectual and practical skills of the students in the field of clinical and therapeutic nutrition.</li> <li>To identify patients at risk for major nutrition – related health problems.</li> <li>To identify the principles and explain the objectives of diet therapy.</li> <li>To identify most common therapeutic diets used in clinical care.</li> </ul>	
Course Outcomes:	<p>The students at the completion of the course will be able to:</p> <ul style="list-style-type: none"> <li>Describe the methods used to adapt a normal diet to treat a specific clinical nutritional disorder.</li> <li>Apply recent various methods and techniques in the field of therapeutic nutrition.</li> <li>Lists methods for preparation of normal food to adjust various pathological conditions.</li> <li>Recommend dietary adjustments leading to better health outcomes and improved quality of life.</li> </ul>	
Total No. of lectures - 60		
Unit	Topic	No.of lectures
1	<p><b>Basic concept of diet therapy:</b> New trends in delivery of nutritional care and dietary counseling.</p> <p><b>Weight management:</b> Identifying the overweight and obese, factors contributing to obesity. Low energy diet and behavioral modification; Underweight Etiology and assessment; High energy diets for weight gain; Nervosa and Bulimia.</p>	20

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II	<b>Diets for febrile infections and surgical conditions:</b> Etiological factors, symptoms, diagnostic tests dietary management. Stomach disease, gastric and duodenal ulcers, Diarrhea and constipation.	10
III	<b>Nutritional management of the Liver diseases :</b> viral hepatitis, Cirrhosis of liver; Diseases of the Gall Bladder. <b>Diabetes mellitus:</b> Types, symptoms, metabolic changes and management. <b>Disease of Cardiovascular system:</b> Atherosclerosis Hyperlipidemia, Hypertension.	15
IV	<b>Dietary management of the Kidney diseases:</b> Glomerulonephritis, Nephrotic syndrome and Renal failure. <b>Diseases of muscular skeletal system:</b> Rheumatic arthritis, Osteoarthritis, osteoporosis, gout.	15

**Course pre-requisites :** To study this course a student must had the subject Home Science in UG class.

**Suggested readings :**

- B. Srilakshmi- Dietetics, 8th ed.
- Gopalan, C. et. al: Nutritive value of Indian Foods, Indian Council of Medical Research.
- Clinical Nutrition & Dietetics- F. P. Antia and Philip Abraham, Oxford University Press.
- Anderson, L., Dibble, M.V., Tukki, P.R., Mitchall, H.S., and Rynbergin H.J.: Nutrition in Health and Disease, 17th edition, J. B. Lipincott & Co. Philadelphia.
- Robinson. C.H. Lawler, M.R. Chenoweth, W. L., and Garwick, A. E. (1986): Normal and Therapeutic Nutrition. 17th edition, MacMilian Publishing Co.
- ❖ Suggestive digital platforms web links- ePG-Pathshala, IGNOU & UPRTOU online study materials;  
 Swayam Portal;  
<http://beecontent.upsdc.gov.in/Home.aspx>  
<http://cgvankosh.ac.in>

## M.A. I Semester IX Home Science Paper II

Programme/Class	M.A.
Subject	Home Science
Course/Paper code	A130902T
Nature of course	Theory (Compulsory)
Course/Paper Title	Children with Special Needs
Semester	<b>IX</b>
Credit assigned	4
Maximum marks	25+75

**Course objectives:**

- To develop awareness of the critical development that occurs prenatal through early childhood.
- To gain knowledge of the major theories of human growth and development and interrelatedness of developmental domains in relation to children with disabilities.
- To acquire knowledge about change in the prevailing and emerging Indian society in view of recent trends in education and national development.
- To identify the special needs of children and develop confidence in them to realize their potentials and abilities to meet the national development with self respect, dignity and freedom.

**Course Outcomes:**

The students at the completion of the course will be able to:

- Discuss prenatal, perinatal, and postnatal risk factors and the resulting effects on child development, prenatal through early childhood.
- Apply major theoretical concepts to expectations for child development and implications for developing educational programs for young children with disabilities.
- Utilize a bio-ecological perspective in understanding the context, complexity, etiology, and outcome in relation to specific disorders and disabilities.

Total No. of lectures - 60

Unit	Topic	No.of lectures
1	<b>Special children</b> : Definition, types of special children, children at risk- poverty and gender issues, genetic and environmental factors in disability, effect of disability on the child, early detection, screening, identification, need for intervention, education, rehabilitation, role of family and child care worker; Policies and legislation for disabled.	20

II	<p><b>Child with mental retardation</b> : Definition and classification causes of mental retardation, identification, managing children with mental retardation at home; Special educational measures; Gifted children: Characteristics of gifted children, identification; Special educational measures; Role of parents.</p>	15
III	<p><b>Visually impaired children</b> : Definition, blind and partially sighted children, Identification, causes, effect of usual impairment on child's development; Special education and training.  <b>Hearing impaired children</b>: Classification, causes of impairment, identification, education of hearing impaired children, role of family in detection and child's language development.</p>	15
IV	<p><b>Children with cerebral palsy and Orthopedic disability</b>: Definition, classification, causes, identification and integrated education; Rehabilitation of children with physical disability; Role of family in care and early training; Children with behavioral disorders.</p>	10

**Course pre-requisites** : To study this course a student must had the subject Home Science in UG class.

**Suggested readings :**

- Batshaw, M. L., Roizen, N. J., & Lotrecchiano, G. R. L. (2013). Children with Disabilities (7th Edition). Baltimore, Maryland: Paul Brook Publishing.
- Best, S. J., Heller, K. W., & Bigge, J. L. (2009). Teaching individuals with physical or multiple disabilities. Pearson/Merrill Prentice Hall.
- Narayan, J. Educating Children with Learning Problems in Regular Schools, Secunderabad, NIMH.
- Subba Rao, T.A. (1992). Manual on Developing Communication Skills in Mentally Retarded Persons, NIMH, Secunderabad
- Taylor, R.L. (1993). Assessment of Exceptional Students Educational and Psychological Procedures. Boston : Allyn & Bacon.
- ❖ Suggestive digital platforms web links- ePG-Pathshala, IGNOU & UPRTOU online study materials;  
 Swayam Portal;  
<http://heccontent.upsdc.gov.in/Home.aspx>  
<https://weccapable.com/cwsm-categories-of-children-with-special-needs>

# M.A. I Semester IX Home Science Paper III

Programme/Class	M.A.
Subject	Home Science
Course/Paper code	A130903P
Course Paper Title	Practical (Compulsory)
Semester	IX
Credit assigned	4
Maximum marks	25+75

**Course objectives:**

- To understand importance of therapeutic nutrition.
- To develop intellectual and practical skills of the students in the field of clinical and therapeutic nutrition.
- To identify the most common therapeutic diets used in clinical care.

**Course outcomes:**

- Students will able to battery management in various disorders students will be able to prepare different kind of diets.
- Students will know how to record information about special children.
- Students will understand individual differences.

Total No. of lectures - 30

Unit	Topic	No.of lectures
<b>I</b>	Planning and preparation of therapeutic diets for patients of different disorders: <ul style="list-style-type: none"> <li>- Diabetes mellitus</li> <li>- Hypertension</li> <li>- Atherosclerosis</li> <li>- Renal diseases</li> </ul>	10
<b>II</b>	Preparation of the following diets: <ul style="list-style-type: none"> <li>- Soft and low fibre diet</li> <li>- Low calorie diet</li> <li>- High calorie diet</li> <li>- High protein diet</li> <li>- Sodium restricted diet</li> </ul>	8

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III	Study etiology, characteristics; Diagnosis of children with different disabilities and recording information.	6
IV	Visit of centers or institutions for special children and recording information and writing a report.	6

**Course pre-requisites :** To study this course a student must had the subject Home Science in UG class.

**Suggested readings :**

- B. Srilakshmi- Dietetics, 8th ed.
- Gopalan, C. et. al: Nutritive value of Indian Foods, Indian Council of Medical Research.
- Clinical Nutrition & Dietetics- F. P. Antia and Philip Abraham, Oxford University Press.
- Anderson, L., Dibble, M.V., Tukki, P.R., Mitchall, H.S., and Rynbergin H.J.: Nutrition in Health and Disease, 17th edition, J. B. Lipincott & Co. Philadelphia.
- Robinson. C.H. Lawler, M.R. Chenoweth, W. L., and Garwick, A. E. (1986): Normal and Therapeutic Nutrition. 17th edition, MacMilian Publishing Co.
- Batshaw, M. L., Roizen, N. J., & Lotrecchiano, G. R. L. (2013). Children with Disabilities (7th Edition). Baltimore, Maryland: Paul Brook Publishing.
- Best, S. J., Heller, K. W., & Bigge, J. L. (2009). Teaching individuals with physical or multiple disabilities. Pearson/Merrill Prentice Hall.
- Narayan, J. Educating Children with Learning Problems in Regular Schools, Secunderabad, NIMH.
- Subba Rao, T.A. (1992). Manual on Developing Communication Skills in Mentally Retarded Persons, NIMH, Secunderabad
- Taylor, R.L. (1993). Assessment of Exceptional Students Educational and Psychological Procedures. Boston : Allyn & Bacon.
- <https://www.doc.wa.gov/information/policies/files>

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## M.A. I Semester IX Home Science Paper IV

Programme/Class	M.A.
Subject	Home Science
Course/Paper code	A130904
Nature of course	Theory (Optional)
Course/Paper Title	Entrepreneurship Management
Semester	IX
Credit assigned	4
Maximum marks	25+75

**Course objectives:**

- Provide conceptual inputs regarding Entrepreneurship management.
- To develop and strengthen the quality of entrepreneurship
- To sensitize and motivate the students towards Entrepreneurship management.
- To orient and impart knowledge towards identifying and implementing Entrepreneurship opportunities.
- To understand the process and procedure involved in setting up small units.

**Course outcomes:**

The students will be able to-

- Identify essential qualities of entrepreneurship
- Assess entrepreneurial opportunities in rural context
- Discuss procedures of setting up enterprises
- Develop awareness about enterprise management in terms of initiation, operation, finance and marketing.

Total No. of lectures - 75

Unit	Topic	No. of lectures
I	<b>Entrepreneurship management:</b> Concept, need, process of Entrepreneurship development, types of enterprise; Government policies and schemes for enterprise development.	20
II	<b>The entrepreneur:</b> Entrepreneurial motivation and competency; Important features of entrepreneurial personality.	15
III	<b>Launching an enterprise :</b> Environmental scanning, enterprise selection, market assessment.	15

IV	<b>Resource mobilization:</b> Costing and evaluation, performance appraisal & assessment, profitability & control measures.	10
V	<b>Market economy :</b> Definition, types of market, marketing steps : product development, promotion & distribution.	15
<b>Course pre-requisites :</b> To study this course a student must had the subject Home Science in UG class.		
<p><b>Suggested readings :</b></p> <ul style="list-style-type: none"> <li>• Meredith , G.G. et at (1982) : Practice of Entrepreneurship, ILO Geneva.</li> <li>• Kanitkar, A. (1995), Grassroots Entrepreneurship, Entrepreneurship and micro-Enterprises in rural India, New age International, New Delhi</li> <li>• S.K.G. Sundaram : Entrepreneurship: A Handbook For Beginners, S.N.D.T, Women's University, Mumbai.</li> <li>• G.R. Jain and Debmuni Gupta, New Initiatives in Entrepreneurship Education and Training, Ed.</li> <li>• Abhauri, M.M.P. (1990), Entrepreneurship for Women in India, NIESUD, New Delhi.</li> </ul> <p>❖ Suggestive digital platforms web links- Swayam Portal; <a href="http://heecontent.upsdc.gov.in/Home.aspx">http://heecontent.upsdc.gov.in/Home.aspx</a> <a href="https://www.indeed.com/career-advice/career-development/entrepreneur-management">https://www.indeed.com/career-advice/career-development/entrepreneur-management</a></p>		

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## M.A. I Semester IX Home Science Paper V

Programme/Class	M.A.
Subject	Home Science
Course/Paper code	A130905I
Nature of course	Theory (Optional)
Course/Paper Title	Textile Testing and Quality Control
Semester	IX
Credit assigned	4
Maximum marks	25+75

### Course objectives:

- To develop an understanding of methods and techniques used to analyze textile fibre, yarns and fabrics for end-use performance.
- To acquire knowledge and understanding of various structural properties of textiles and relate to end use fabric performance and product.
- To be able to analyze and interpret the results and predict textile testing.

### Course outcomes:

The students will be able to-

- Familiarise with various quality parameters of fabrics for various end uses.
- Acquaint with testing methods involved in testing of textiles.
- Integrate knowledge, skills, and practices required for careers in textiles and apparel.
- Pursue careers in the field of textiles / apparel.

Total No. of lectures - 75

Unit	Topic	No. of lectures
I	<b>Introduction to textile testing</b> : Concept, scope, need and importance of textile testing.	15
II	<b>Standardization and quality control of textile products -</b> <b>Fiber properties:</b> length fineness, maturity strength: definition, importance. <b>Methods of determination of above properties:</b> Hand stapling method, fibriograph, gravimetric, micronaire (for fineness), direct and indirect, single fiber strength and bundle strength.	20

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III	<p><b>Study of yarn properties:</b> Yarn count, direct indirect and universal system of yarn numbering; Measuring yarn count.</p> <p><b>Yarn twist:</b> Types and amount of twist, effect of twist, determination of twist.</p> <p><b>Evenness of yarn:</b> Type of variations, measuring evenness, yarn strength.</p>	20
IV	<p><b>Study of fabric properties:</b> Testing of fabric length, width and thickness, fabric strength-</p> <ul style="list-style-type: none"> <li>-measuring tensile strength, tearing strength, bursting strength.</li> <li>-Fabric abrasion testing, pilling testing, stiffness testing, fabric colour fastness testing, colour fastness to sunlight, washing and crocking.</li> </ul>	20

**Course pre-requisites :** To study this course a student must had the subject Home Science in UG class.

**Suggested readings :**

- Booth, J.E., Principles of Textile Testing, Newness Butter Worth, London.
- John, H. Skinkle., Textile Testing, Brooklyn, New York.
- Billie, J. Collier and Helen, H. Epps., Textile Testing and Analysis, Prentice Hall, New Jersey.
- Grover and Hamby., Hand Book of Textile Testing and Quality Control, Wiles
- Handbook of Textile Testing and Quality Control by E. B. Grover and D. S. Hamby.

❖ Suggestive digital platforms web links-

Swayam Portal;

<http://heecontent.upsdc.gov.in/Home.aspx>

<https://textilevaluechain.in/in-depth-analysis/articles/textile-testing-and-quality-control>

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## M.A. II Semester IX Home Science Paper VI

Programme/Class	M.A.
Subject	Home Science
Course/Paper code	A130906T
Nature of course	Theory (Optional)
Course/Paper Title	Food Processing and Technology
Semester	<b>IX</b>
Credit assigned	<b>4</b>
Maximum marks	25+75

**Course objectives:**

- To enable student to acquire Knowledge of food preservation techniques in daily life.
- To prepare the product of food material by using natural preservative.
- To introduce the students to the fundamentals of food science and technology,
- To emphasize on the importance of food safety, food quality, food laws and regulations, plant sanitation, packaging, marketing and cost control in food industry.

**Course outcomes:**

- Students will able to apply knowledge of food science or food processing technology to the society.
- Students will learn about processing of raw material to edible food products by using technical knowledge.
- Students will learn about different methods of preservation and their principles.
- Students will learn about novel methods of food preservation and also difference between earlier methods and novel methods of preservations.

Total No. of lectures - 75

Unit	Topic	No.of lectures
I	<p><b>Introduction:</b> Brief review of main food crops grown in the country – their nutritional importance.</p> <p><b>Food and its preservation (Home and Community Level including commercial operations):</b> Cause of food spoilage; Needs and benefits of Food Processing and Technology for Food Preservation.</p> <p><b>Fresh food storage:</b> Principles; Plant product storage; Animal product storage.</p> <p><b>Physical principles in food processing operations:</b> Thermal processing (Use of heat); Types of heat treatments; Heat resistance of micro-organisms.</p>	20

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II	<p><b>Refrigeration (Use of low temperature):</b> Refrigeration and freezing – method, principles and applications; Freezing and its effects of food components and structure; Shelf life of frozen foods.</p> <p><b>Drying and dehydration:</b> Types of foods – traditional and new food products; principles and applications; Home, community and commercial methods of dehydration; Effect on food quality.</p> <p><b>Food Irradiation:</b> Technology and application.</p> <p><b>Pasteurization:</b> Methods and applications.</p>	15
III	<p><b>Chemical Principles of Food Processing:</b> Preservation/ processing by sugar, salt, curing, smoke, acids and chemicals; Principles and methods used for various products such as pickles, chutney, ketchup. Sauces, fruit juices, squashes, fruit syrups and cordials.</p>	10
IV	<p><b>Traditional methods of processing Cereals and pulses:</b> Products such as par-boiled rice, rice flakes, puffed rice, chana etc; Wheat processing- variety of baked products, baking process- basic concepts; Pulse processing methods- removal of toxic factors, fermentation and germination.</p>	15
V	<p><b>Milk Processing:</b> Classification, standardization, homogenization and packaging.</p> <p><b>Meat, fish and egg processing:</b> Methods and products; Ageing; tenderizing ; curing; smoking; Freezing.</p> <p><b>Food additives:</b> Classification and products</p> <p><b>Nutritional Implications of Food Processing:</b> Causes for loss of vitamins and minerals; Enrichment, restoration and fortification.</p> <p><b>Ecology and Environment:</b> Cause, effects and prevention of global warming; Concept of natural and man-made disasters.</p>	15
<p><b>Course pre-requisites :</b> To study this course a student must had the subject Home Science in UG class.</p>		

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Suggested readings :

- N.P. Norman and H.H. Joseph, 'Food Science', CBS Publishers & Distributors Pvt. Ltd., New Delhi, India.
- W.C. Frazier and D.C. Westhoff, 'Food Microbiology', Tata McGraw Hill Publishing Company Ltd., New Delhi, India.
- M. Kalia and S. Sangita, 'Food Preservation and Processing', Kalyani Publishers, New Delhi, India.
- B. Sivasankar, 'Food Processing and Preservation', Prentice Hall of India Pvt. Ltd., New Delhi, India.
- J.N. Desrosier and N.W. Desrosier, 'Technology of Food Preservation', CBS Publishers & Distributors Pvt. Ltd., New Delhi, India.
- P. Fellows, 'Food Process Technology: Principles and Technology', CRC Press, Cambridge, England.
- N. Khetarpaul, 'Food Processing and Preservation', Daya Publishing House, New Delhi, India
- Shubhangini Joshi, Textbook of food and nutrition, Tata Macgrohill Publishing Co., New Delhi.
- B. Shrilakshmi, Food Science, New Age International Publishers
- Muddambi S.R. and Rajgopal M. V., Fundamentals of Food and Nutrition, Wiley Eastern Ltd., New Delhi.
  - ❖ Suggestive digital platforms web links- ePG-Pathshala, IGNOU & UPRTOU online study materials;  
Swayam Portal;  
<http://hcecontent.upsdc.gov.in/Home.aspx>  
<https://ncert.nic.in/textbook/pdf/lche105.pdf>

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# M.A. I Semester IX Home Science Paper VII

Programme Class	M.A.
Subject	Home Science
Course Paper code	A130907R
Course Paper Title	Major Research Project/Dissertation (Compulsory)
Semester	IX
Credit assigned	4
Total No. of lectures – 60	

**Note:-** The topic for the major research project will be opted by the students with consent of his/her research supervisor.

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## M.A. I<sup>st</sup> Semester X Home Science Paper I

Programme/Class	M.A.	
Subject	Home Science	
Course/Paper code	A131001T	
Nature of course	Theory (Compulsory)	
Course/Paper Title	Gender in Extension and Development	
Semester	X	
Credit assigned	4	
Maximum marks	25+75	
Course objectives:		
<ul style="list-style-type: none"> <li>• To learn about concept of gender and role of gender.</li> <li>• To enhance the capability in students for identifying and analysing gender issues in agriculture and allied sectors.</li> </ul>		
Course outcomes:		
<ul style="list-style-type: none"> <li>• Students will learn about an overview of the concept of gender and gender balance on development and develop skills of identifying gender roles, rights, responsibilities and relationships on development.</li> <li>• Students will learn the attitudinal change to internalize gender equity concerns as fundamental human rights.</li> <li>• Students will learn about status of women policies for women development and women's support system.</li> </ul>		
Total No. of lectures - 75		
Unit	Topic	No. of lectures
I	<b>Gender and Development:</b> Concept of gender, gender roles, changing trends, gender analysis matrix; Shift from welfare to development and empowerment, gender in development, gender and development; National and international efforts for gender empowerment.	20

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II	<p><b>Status of Women:</b> Status- meaning, status of women –a situational analysis, demographic, education, employment, political and health (general, occupational and reproductive); Changing scenario.</p> <p><b>Violence Against Women:</b> Dowry, divorce, female foeticide and infanticide, domestic violence, sexual harassment and exploitation, portrayal of women in mass media; Efforts for elimination of all forms of discrimination.</p>	20
III	<p><b>Policies and Programmes for Women's Development:</b> National policy for Empowerment of women, policy perspectives, mainstreaming, a gender perspective in the development process; Economic empowerment: poverty eradication, micro-credit, self-help groups, women and agriculture, women and industry and support services; Social empowerment: education, health, nutrition, drinking water and sanitation, housing and shelter, environment; Legal empowerment: legal literacy on personal and family laws, role of family court and legal aid centers; Political empowerment: role of panchayatiraj in the political empowerment of women.</p>	20
IV	<p><b>Support System:</b> Role and functions of the Department of Women and Child Development, Central Social Welfare Board, State Social Welfare Board, National Commission for Women, Women's development Corporation.</p>	15

**Course pre-requisites :** To study this course a student must had the subject Home Science in UG class.

**Suggested readings :**

- National Perspective Plan for Women (1998): New Delhi, Department of Women and Child Development, Govt. of India.
  - Rehman, M.M. and Biswal, K.K.(1993). Education, Work and Women: Common Wealth Publishers.
  - Country Report.(1995)Department of women and Child Development. Govt. of India.
  - Sharma, O.C. (1994). Crime Against Women: New Delhi : Sterling Publishers Pvt. Limited.
  - Subbamma, M. (1985). Women, Tradition, Culture, New Delhi : Ashish publishing House.
  - H.S.Rout and P.K.Panda "Gender & Development in India" New Century Publications.
  - A. Mathu "Gender and Development" The Indian Scenario, Kalpaz Publications.
    - ❖ G. Pachouri "Gender, School and Society" R.Lall Educational Publishers.
- Suggestive digital platforms web links-  
Swayam Portal;  
<http://hcecontent.upsde.gov.in/Home.aspx>

## M.A. I Semester ✕ Home Science Paper II

Programme/Class	M.A.	
Subject	Home Science	
Course/Paper code	A131002T	
Nature of course	Theory (Compulsory)	
Course/Paper Title	Family Guidance and Counselling	
Semester	✕	
Credit assigned	4	
Maximum marks	25+75	
Course objectives:		
<ul style="list-style-type: none"> <li>To develop an understanding of the concepts of Family guidance and counselling</li> <li>To comprehend about different areas of counselling.</li> <li>To find ways to cope with the increasing pressures and demands of life from the theories of philosophy, psychology and sociology.</li> </ul>		
Course outcomes:		
<ul style="list-style-type: none"> <li>Students will able to explain the concept of Guidance and Counselling and its principles.</li> <li>Students will able to explore the philosophical and sociological values in counselling.</li> <li>Students will able to analyze about the different Counselling therapy.</li> </ul>		
Total No. of lectures - 75		
Unit	Topic	No.of lectures
I	Basic differences in guidance, advice, counselling and therapy; Basic concept, meaning, definition, nature, scope of family guidance and counselling; Guidance and counselling- need of individual, families and systems.	20
II	Principles and objectives of family guidance and counseling, types of counselling; Approaches of guidance and counselling.	15
III	The Indian approach- Meditation and yoga exercises; Qualities and skills of a counselor, the process of counselling : First contact, assessment, intervention, closure, follow - up.	15

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IV	Nature of psychological disorders and different stages that requires counselling: Childhood, adolescence and youth, adulthood, old age.	15
V	Principles of counselling and therapy: Approach to counselling and different developmental stages; Family therapy approach.	10
<p><b>Course pre-requisites :</b> To study this course a student must had the subject Home Science in UG class.</p>		
<p><b>Suggested readings :</b></p> <ul style="list-style-type: none"> <li>• Kinra, Asha K. (2012). Guidance and Counselling, Pearson Publication.</li> <li>• Sidhu S H (2013). Guidance and Counselling, Twenty First Century Publication</li> <li>• Susant Misra(2015). Essential of Guidance and Counselling, Lakshi Publishers.</li> <li>• Jan Sutton and William Stewart (2017). Learning To Counsel, Publisher: Little, Brown Book Group. <ul style="list-style-type: none"> <li>❖ Andrew Reeves (2018). An Introduction to Counselling and Psychotherapy, SAGE Publications Ltd.</li> <li>❖ Suggestive digital platforms web links- Swayam Portal:  <a href="http://heecontent.upsdc.gov.in/Home.aspx">http://heecontent.upsdc.gov.in/Home.aspx</a>  <a href="http://www.drbramedkarcollege.ac.in/sitesdefault/file/family">http://www.drbramedkarcollege.ac.in/sitesdefault/file/family</a></li> </ul> </li> </ul>		

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## M.A. I Semester X Home Science Paper III

Programme/Class	M.A.	
Subject	Home Science	
Course/Paper code	A131003T	
Nature of course	Theory (Optional)	
Course/Paper Title	Food Quality Analysis	
Semester	X	
Credit assigned	4	
Maximum marks	25+75	
Course objectives:		
<ul style="list-style-type: none"> <li>To impart knowledge of food analysis and quality assurance.</li> <li>To enable the students to understand food composition and its chemical, microbiological and sensory aspects.</li> <li>To familiarize the students about the food analysis</li> <li>To emphasize the importance of food safety, food quality, food laws and regulations</li> <li>To develop skills required in various industries, food analytical labs and in the field of food</li> </ul>		
Course outcomes:		
<ul style="list-style-type: none"> <li>Students will able to understand food composition and its chemical, microbiological and sensory aspects.</li> <li>Student will get familiarized about the food analysis</li> <li>Students will able to understand the importance of food safety, food quality, food laws and regulations</li> <li>Students will able to develop skills required in various industries, food analytical labs and in the field of food.</li> </ul>		
Total No. of lectures - 75		
Unit	Topic	No.of lectures
I	<b>Importance of food standard:</b> Quality control and assurance. <b>Food standard, laws and regulations to ensure safety of food:</b> Prevention of Food Adulteration Act, 1954; Essential Commodities Act, 1955; Fruit Product Order, 1946; Directorate of Grading, Marketing and Inspection of Agricultural Products; Bureau of Indian standards, 1952; Standards Weights & Measures Act 1976.	20



II	<p><b>Product Evaluation:</b> Sampling for product evaluation; Sample preparation.</p> <p><b>Tests for specific raw food ingredients:</b> Proximate Principles; Nutrient Analysis.</p>	20
III	<p><b>Hazards to Food Products:</b> Micro-biological, environmental, natural. Toxicant. Pesticide residues and food additives.</p> <p><b>Food Adulteration:</b> Common Adulterants; Methods and Tests for detecting adulterants.</p>	15
IV	<p><b>Sensory Analysis:</b> Definition; Use in Product Evaluation.</p> <p><b>Types of Test:</b> Discrimination/Difference test-Paired test, Triangle test and duo-trio test; Tests for multiple samples, difference from control/ reference.</p> <p><b>Quantitative Difference Tests:</b> Ranking; Numerical Scoring Test; Magnitude Estimation.</p> <p><b>Descriptive Tests:</b> Threshold Tests Acceptance; Tests Determining consumer acceptability using sensory evaluation.</p>	20

**Course pre-requisites :** To study this course a student must had the subject Home Science in UG class.

**Suggested readings :**

- Hand book of analysis and quality control for fruit and vegetable products, S. Ranganna, IIEd., Tata McGraw Hill Publishing Co. New Delhi.
- The Food Chemistry Laboratory: A Manual for Experimental Foods Dietetics, and Food Scientists, Second Edition-Connie M. Weaver, James R.Daniel
- Food Chemistry: A Laboratory Manual -Dennis D.Miller
- The chemical analysis of foods and food products, Morris B. Jacobs IIIrd Edition, CBS Publishers and distributors New Delhi.
- Food Chemistry,Fennema, Owen R, 3rd Ed., Marcell Dekker, New York,1996
- B. Shrilakshmi, Food Science, New Age International Publishers.
  - ❖ Suggestive digital platforms web links- ePG-Pathshala, IGNOU & UPRTOU online study materials;
  - Swayam Portal;
  - <http://heecontent.upsdc.gov.in/Home.aspx>

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## M.A. I: Semester X Home Science Paper IV

Programme/Class	M.A.	
Subject	Home Science	
Course/Paper code	A131004T	
Nature of course	Theory (Optional)	
Course/Paper Title	Media and Extension	
Semester	X	
Credit assigned	4	
Maximum marks	25+75	
Course objectives:		
<ul style="list-style-type: none"> <li>• To learn about the concept, meaning and process of communication and various methods and modern media of communication.</li> <li>• To learn the information management and journalistic writing of various information materials and also study their readability.</li> <li>• To exposes the students to various Digitized video material in multimedia and also enable to design visuals for print, TV and knowhow about scanning of visuals.</li> </ul>		
Course outcomes:		
<ul style="list-style-type: none"> <li>• Student will familiarize the students with the working of print, electronic, New Media &amp; Traditional folk media.</li> <li>• Student will be working skills needed for Print, Radio and T.V. Journalism to reach community.</li> <li>• An understanding between the students will be developed regarding Mass Communication Process and Media Management its impact on the society.</li> <li>• To develop writing skills for different media.</li> </ul>		
Total No. of lectures - 75		
Unit	Topic	No. of lectures
I	<b>Theories, types and roles of Media:</b> Theories and models of mass communication; Role of media in communication process; Various types of media for communication; Various constraints in the use of media; Criteria in selection and use of various media.	20
II	<b>Media planning for social advertising:</b> Social advertising and commercial advertising- definitions, need and scope; Social advertising- programme designing. Selection of media, impact assessment of each mass media for different campaign types for different target groups, economic, technical and social considerations in social advertising.	15

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III	<b>Development Journalism:</b> Growth, nature, scope and significance; Need for development journalism; Issues and problems for media professionals.	15
IV	<b>Print Media:</b> Trends in print media; Role of press as mass media; Press Laws in India- History and present scenario; News –its meaning, concept, news agencies, writing of news.	10
V	<b>Electronic Media:</b> Trends in Radio, Television and Cyber Media; Impact and policies; Future challenges and scope of electronic media. <b>Media Research:</b> Need rationale, scope and approaches.	15

**Course pre-requisites :** To study this course a student must had the subject Home Science in UG class.

Suggested readings :

- Dahama O.P. & Bhatnagar O.P. 2005. Education and Communication for Development. Oxford & IBH.
  - Grover I., Kaushik S., Yadav L. & Varma S.K. 2002. Communication and Instructional Technology. Agrotech Publ. Academy.
  - Jana, B.L. & Mitra K.P. 2005. Farm Journalism. Agrotech Publ. Academy.
  - Ray, G.L. 2006. Extension Communication and Management. Kalyani Publ. Rayudu Post Graduate Syllabus, Department of Agril. Extension, UBKV.
  - C.S. 2002. Communication, Himalaya Publ. House.
  - Reddy, A.A. 1987. Extension Education. Sree Lakshmi Press, Bapatla.
  - Sandhu A.S. 2004. Textbook on Agricultural Communication Process and Methods. Oxford & IBH.
- ❖ Suggestive digital platforms web links- ePG-Pathshala, IGNOU & UPRTOU online study materials;  
Swayam Portal;  
<http://becccontent.upsdc.gov.in/Home.aspx>

*Yadav Kaushik Pappu*

## M.A. I<sup>st</sup> Semester ~~X~~ Home Science Paper V

Programme/Class	M.A.	
Subject	Home Science	
Course/Paper code	A131005T	
Nature of course	Theory (Optional)	
Course/Paper Title	Community Health Management	
Semester	<del>X</del>	
Credit assigned	4	
Maximum marks	25+75	
Course objectives:		
<ul style="list-style-type: none"> <li>To realize the problems of the community.</li> <li>Be familiar with various approaches to nutrition and health interventions, programmes and policies.</li> <li>To familiarize about health care services managing information system in health sector.</li> <li>To understand effect of environment on health.</li> </ul>		
Course outcomes:		
<ul style="list-style-type: none"> <li>Students will be able to understand the concept of health care, community needs and problems.</li> <li>Students will be familiarize about health care services managing information system in health sector and effect of environment on health.</li> </ul>		
Total No. of lectures - 75		
Unit	Topic	No. of lectures
I	<b>Concept of Health and Health Care:</b> Concepts of health and positive health, definitions of health; Health – factors affecting health, health as a human right; Concept of community health, health for all; Primary health care-definitions, Principles, components, comprehensive health care, levels of prevention, concept of reproductive health.	15
II	<b>Health and Development Indices:</b> Health indices and related indices in community health, fertility indicators, demographic indicators- sex ratio, social and mental health indicators; Human Development Index; Reproductive Health Index.	15



III	<p><b>Community Health needs and Problems:</b> Health needs and problems related to sanitation and environment, protected water, personal hygiene and pollution control; Health needs of special groups-women, infants, children; Major health problems in India; Communicable and non- communicable diseases; Population problem and its impact; Problems of malnutrition; Reproductive health problems.</p>	15
IV	<p><b>Health Care Service:</b> Health administrative set up-state, national, urban, rural, private; Role of NGOs in health services; Importance of National Health Programmes; Child survival and safe motherhood; Importance of Child Health and related programmes; Health in relation to community development; Important National and International Health Agencies; Health Information, education, communication.</p>	20
V	<p><b>Management of Information System in Health Sector:</b> health surveys; Monitoring health; Health regulations and acts, health legislation; Census; Evaluation of health services.</p>	10

**Course pre-requisites :** To study this course a student must had the subject Home Science in UG class.

**Suggested readings :**

- James F. Mc Kenzie, Robert R. Pinger, Jerome E. Kotecki (2005) An Introduction to Community Health-5th ed
- An introduction to community health / James F. McKenzie, Robert R. Pinger, Jerome E. Kotecki.—5th ed. p.; cm. Includes bibliographical references and index. ISBN 0-7637-2953-1
- Gastrell, P. & Edwards, J., ED. Community health nursing: frameworks for practice. London, Balliere Tindall, 1996.
- Stevens, A. & Raftery, J. Health care needs assessment. Oxford, Radcliffe Medical Press, 1994.
- Twinn, S. Et. al. Community health care nursing: principles for practice. Oxford, Butterworth Heinemann, 1996.
- G.L. Ray, "Extension Communication and Management".
- R.C. Gupta, "Management Information System", CDS Publishers, New Delhi.
- National Nutrition Policy (1993): Dept. of WCD, Govt. of India.
  - ❖ Suggestive digital platforms web links- Swayam Portal; <http://heecontent.upsdc.gov.in/Home.aspx>

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## M.A. I Semester X Home Science Paper VI

Programme/Class	M.A.
Subject	Home Science
Course/Paper code	A131006T
Nature of course	Theory (Optional)
Course/Paper Title	Consumer Economics
Semester	X
Credit assigned	4
Maximum marks	25+75

**Course objectives:**

- To help the students learn skills in buying and consuming goods and services.
- To offer the information on banking, investing and saving.
- The student may learn skillful budgeting strategies, the economics of buying and selling homes, and appropriate and adequate insurance options offered in our global economy.
- To understand Economic Principles and consumer rights.
- To understand the fundamentals of demand theory.

**Course outcomes:**

- Students will co-relate consumer economics to basic economic decisions.
- Students will identify the role of the consumer in the economy.
- Students will use sources of information that will be beneficial throughout life.
- Students will identify the problems in family financial management within different income groups, social groups, and at various stages in the financial life cycle.

Total No. of lectures - 75

Unit	Topic	No. of lectures
I	<b>Concept of consumer economics- consumption, field of consumer economics:</b> Consumer and his wants; Origin of human wants; Characteristics of wants; Classification of wants; Demand: Determinants, elasticity.	15
II	<b>The theory of consumer behavior:</b> The central problem of choice; The utility solution; Diminishing marginal utility and law of equi-marginal utility; Factors affecting choice are decision making. <b>Economy system:</b> Purpose; Type economic system; Indian economy- characteristics.	15

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III	<b>Market and marketing:</b> Concept, classification-function, types-wholesale, retail etc.; Marketing environment, Marketing theories-models Marketing strategies-concept, types based on product, seller, demand, media mix, price promotion and policy. <b>Market and Market prices:</b> Definition and types of Market Prices; Pricing under perfect and imperfect competition and monopoly.	20
IV	<b>Consumer credit:</b> Definition; types of credits; Factors affecting consumer credit decisions; Sources of consumer credit.	10
V	<b>Consumer protection:</b> Government protection; Public protection; Standardization of consumer goods and testing methods.	15

**Course pre-requisites :** To study this course a student must had the subject Home Science in UG class.

Suggested readings :

- Del Hawkins, Roger J. Best, Kenneth A. Cony and Anith Mukergy Consumer Behaviour Building Marketing Strategy Tata Mc Grew- Hill Publishing Company Ltd New Delhi.
- Seetharamn.Premavathy and Sethi, Mohini (2002) Consumerism; Strategies and Tactics.
- Rajlakshmi Rao (2008), Consumer is King-Know your rights and remedies, Universal Law Publishing Company, New Delhi.
- Varghese, M. A., Ogale N. N. and Srinivasan K. 1985, Home Management, New Age International (P) Limited, Publishers New Delhi.
- D.R. Sachdeva and Vidya Bhushan, An Introduction to Sociology, Hissar. Kitab mahal, Allahabad Delhi.
- M. Y. Khan and P. K. Jain , Financial Management-Text, problems and cases (2007) Fifth edition Tata McGraw- Hill Publishing company Limited.
  - ❖ Suggestive digital platforms web links- Swayam Portal:  
<http://hcecontent.upsdc.gov.in/Home.aspx>  
[https://en.n.wikipedia.org/wiki/consumer\\_economics](https://en.n.wikipedia.org/wiki/consumer_economics)  
<https://www.britannica.com/topic/consumer-economics>

*Kalyan*  
*Khabib*  
*Rajan*

## M.A. I Semester ✕ Home Science Paper VII

Programme/Class	M.A.	
Subject	Home Science	
Course/Paper code	A131007P	
Course/Paper Title	Practical (Compulsory)	
Semester	✕	
Credit assigned	4	
Maximum marks	25+75	
Course objectives:		
<ul style="list-style-type: none"> <li>• To study the status of women's in the community.</li> <li>• To comprehend about different areas of counselling.</li> <li>• To familiarize the students about the food analysis.</li> <li>• To develop writing skills for different media.</li> <li>• To realize about the health problems of the community.</li> <li>• To understand about various types of markets.</li> </ul>		
Course outcomes: Students will be able to-		
<ul style="list-style-type: none"> <li>• Identify problems of women's in the community.</li> <li>• Analyze about the different Counselling therapy.</li> <li>• Acquaint with common food adulterants.</li> <li>• Develop writing skills for different media.</li> <li>• Identify the health needs of special group and conduct health related survey.</li> <li>• Understand the working process of consumer forum.</li> </ul>		
Total No. of lectures - 60		
Unit	Topic	No.of lectures
I	<ul style="list-style-type: none"> <li>• Study of women's status in a community.</li> <li>• Identification of Women's Problems in a community.</li> <li>• Visit a woman welfare organisation.</li> </ul>	15
II	<ul style="list-style-type: none"> <li>• Identify Families with problems</li> <li>• learn about the counselling process- role play and mock sessions.</li> </ul>	15

Lab  
 Practical  
 Paper

III	<ul style="list-style-type: none"> <li>• Sensory evaluation of food products.</li> <li>• Testing of common adulterants in different foods.</li> </ul>	15
IV	<ul style="list-style-type: none"> <li>• Preparation of Non projected materials- Pamphlets, leaflets, folders etc.</li> <li>• Operations of various audio visual aids- Overhead projector, Slide projectors, LCD projector, tape recorders, computer etc.</li> </ul>	15
V	<ul style="list-style-type: none"> <li>• Identification of health needs of special groups, infants, young children and adolescents, women.</li> <li>• Preparation of health survey schedules for different groups.</li> </ul>	15
VI	<ul style="list-style-type: none"> <li>• Survey the consumer forum for learning the working of forum.</li> <li>• Visit to different types of markets- organized, inorganized, local &amp; weekly etc.</li> </ul>	15

**Note:-** Students will select any four practical units according to opted four optional courses.

**Course pre-requisites :** To study this course a student must had the subject Home Science in UG class.

**Suggested readings :**

- National Perspective Plan for Women (1998): New Delhi, Department of Women and Child Development, Govt. of India.
- Rehman, M.M. and Biswal, K.K.(1993). Education, Work and Women: Common Wealth Publishers.
- Sharma, O.C. (1994). Crime Against Women: New Delhi : Sterling Publishers Pvt. Limited.
- A. Mathu "Gender and Development" The Indian Scenario, Kalpaz Publications.
- Kinra, Asha K. (2012). Guidance and Counselling, Pearson Publication.
- Susant Misra(2015). Essential of Guidance and Counselling, Lakshi Publishers.
- Andrew Reeves (2018). An Introduction to Counselling and Psychotherapy, SAGE Publications Ltd.
- Hand book of analysis and quality control for fruit and vegetable products, S. Ranganna, IIEd., Tata McGraw Hill Publishing Co. New Delhi.
- The Food Chemistry Laboratory: A Manual for Experimental Foods Dietetics, and Food Scientists, Second Edition-Connie M. Weaver, James R.Daniel
- B. Shrilakshmi, Food Science, New Age International Publishers.
- Reddy, A.A. 1987. Extension Education. Sree Lakshmi Press, Bapatla.

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- Dahama , O.P. & Bhatnagar, O.P., "Education and communication for development," New Delhi – oxford and IBG publishing Co. Pvt. Ltd.
- Gastrell, P. & Edwards, J., ED, Community health nursing: frameworks for practice. London, Balliere Tindall, 1996.
- Stevens, A. & Raftery, J. Health care needs assessment. Oxford, Radcliffe Medical Press, 1994.
- Twinn, S. Et. al. Community health care nursing: principles for practice. Oxford, Butterworth Heinemann, 1996.
- Del Hawkins, Roger J. Best, Kenneth A. Cony and Anith Mukergy Consumer Behaviour Building Marketing Strategy Tata Mc Graw- Hill Publishing Company Ltd New Delhi.
- Seetharamn.Premavathy and Sethi, Mohini (2002) Consumerism; Strategies and Tactics.
- <https://www.state.gov/policy-issues/global-womens-issues2>
- <https://egyankosh.ac.in/bitstream>

*Salu*  
*Prabhakar*  
*Prasanna*

## M.A. I Semester ~~X~~ Home Science Paper VIII

Programme/Class	M.A.
Subject	Home Science
Course/Paper code	A131008R
Course/Paper Title	Major Research Project/Dissertation (Compulsory)
Semester	<del>X</del>
Credit assigned	<del>4</del>
Maximum marks	100
Total No. of lectures – 60	

**Note:-** The topic for the major research project will be opted by the students with consent of his/her research supervisor.

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Kellu  
Thakur  
Raj