



माँ शाकुम्भरी विश्वविद्यालय, सहारनपुर
Maa Shakumbhari University, Saharanpur

National Education Policy-2020

SUBJECT: HOME SCIENCE

Semester-wise Titles of the Papers in U.G Programme (HOME-SCIENCE)

Year	Semester.	Course Code	Paper Title	Theory/Practical	Credits
B.A-1	I	A130101T	Fundamentals of Nutrition and Human Development	THEORY	4
	I	A130102P	Cooking Skills and Healthy Recipe Development	PRACTICAL	2
	II	A130201T	Introduction to Clothing and Textile & Family Resource Management	THEORY	4
	II	A130202P	Clothing and Textile	PRACTICAL	2
B.A-2	III	A130301T	Advance Nutrition and Human Development	THEORY	4
	III	A130302P	Human Development	PRACTICAL	2
	IV	A130401T	Housing and Extension Education	THEORY	4
	IV	A130402P	Resource Planning and Decoration	PRACTICAL	2
B.A-3	V	A130501T	Surface Ornamentation of Fabrics	THEORY	4
	V	A130502T	Community Development & Programme Planning	THEORY	4
	V	A130503P	Community Transformation (Change)	PRACTICAL	2
	V	A130504R	Research Project-1	PROJECT	3
	VI	A130601T	Dietetics & Therapeutic Nutrition	THEORY	4
	VI	A130602T	Research Methodology and Gender Development	THEORY	4
	VI	A130603P	Therapeutic Diet Preparation & Nutrient Evaluation	PRACTICAL	2
	VI	A130604R	Research Project-2	PROJECT	3

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 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
Subject: Home Science		
Course Code: A130101T	Course Title: Fundamentals of Nutrition and Human Development	
Course outcomes: The student at the completion of the course will be able to: <ul style="list-style-type: none"> ▪ Prepare the students to understand physiology based courses ▪ Students will get familiar with different methods of cooking ▪ Acquaint students with practical knowledge of nutrient rich foods • Explain the need and importance of studying human growth and development across life span • Identify the biological and environmental factors affecting human development. • Learn about the characteristics, needs and developmental tasks of infancy & early childhood years 		
Credits: 4	Core Compulsory / Elective	
Max. Marks: 25+75	Min. Passing Marks:	
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.	03
II	Structure and function of 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. Methods of enhancing nutritional value of foods by germination, fermentation, Food spoilage, Food preservation, Food adulteration, Food laws and standards.	08
PART B		
V	Introduction to Human Development: <ul style="list-style-type: none"> • Concept, Definition and need to study of Human Development • Domains, Stages and contexts of development Principles of Growth and Development	8

	Determinants of Development- heredity and environment	
VI	<p>Prenatal Development and Birth Process:</p> <ul style="list-style-type: none"> • Conception, Pregnancy and Childbirth Stages of birth • Types of delivery (natural, c-section, breech, home vs. assisted delivery) • Physical appearance and capacities of the new-born • Factors affecting Pre-natal development. 	6
VII	<p>Infancy:</p> <ul style="list-style-type: none"> • Developmental tasks during Infancy and Preschool Stage. • Physical and Motor Development. • Social and emotional development • Cognitive and language development 	8
VIII	<p>Early Childhood (Pre School) years:</p> <ul style="list-style-type: none"> • Developmental Tasks during Early childhood. • Physical and Motor Development • Social and emotional development • Cognitive and language development 	8

Suggested Readings:

- Dr. Brinda Singh, Manav Sharir evam Kriya Vigyan Panchsheel Prakashan, Jaipur;2015 ,15th 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 , 6th Ed. (2018)
- Punita Sethi and Poonam Lakda , “Aahar Vigyan, Suraksha evam Poshan” ; Elite Publishing House, New Delhi ;2015
- Dr. Anita Singh, AaharEvamPoshanVigyan, Star Publications, Agra
- Dr.DevinaSahai, AaharVigyan, New Age International Publishers, New Delhi
- 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 3rd 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 in class12 th . 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
Subject: Home Science (Practical)		
Course Code: A130102P	Course Title: Cooking skills and healthy recipe development	
Course outcomes:		
<ul style="list-style-type: none"> ▪ Students will get familiar with different methods of cooking ▪ Acquaint students with practical knowledge of nutrient rich foods 		
Credits: 2		Core Compulsory / Elective
Max. Marks: 25+75		Min. Passing Marks:
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 and food preservation-Boiling, steaming, Roasting, Frying- Deep/shallow, Pressure cooking, Hot air cooking/Baking, pickling, jam, jellies and murabba preparation	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, ManavSharirevamKriyaVigyanPanchsheelPrakashan, Jaipur;2015 ,15th Ed.
- ❖ Dr.Nitu Singh, PrayogikGrihVigyan, SahityaPrakashan, Agra
- ❖ 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 , 6th 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

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 subjectin class/12th/ 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 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"> • Learn about scope of textile and clothing • Understanding why fabrics are different • Learn how fabrics can be manufactured • Understand basic clothing concepts and garment making • Learn the family resource management as a whole. • Understand the Decision making and use of resources throughout the Family life cycle. • Gain knowledge about Time, Money & Energy as a Resource. • Appreciate Household Equipments for work simplification 		
Credits: 4	Core Compulsory / Elective	
Max. Marks: 25+75	Min. Passing Marks:	
Total No. of Lectures- 60		
Unit	Topic	No. of Lectures
	PART A	
I	Introduction 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	Knowing Fibers -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	Yarn to Fabrics (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	Clothing Construction (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
	PART B	
V	Introduction to Home Management: 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	Resources, Decision making & Family life cycle: Meaning, Characteristics, Types and Factors affecting the use of Resources. Steps and Role of Decision Making in Management. Stages of Family Life Cycle.	8
	Time, Energy and Money Management: Time as a Resource, Steps in making Time Plan, Tools and Aids in Time Management.	7

VII	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 of Work Simplification, Use and Care of time and energy saving Household equipments such as Pressure Cooker, Mixer and Grinder, Refrigerator, Washing Machine, Vacuum Cleaner, air fryer, microwave & 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.
- Khanuja, 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, Rlnehart & 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 weblinks-
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
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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.
- Attendance

Courseprerequisites:Tostudythiscourse,astudentmusthavehadthesubject ALL . inclass12th.
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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 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)	
Course outcomes: <ul style="list-style-type: none"> • Ability to identify fibers and fabrics • Understanding why fabrics are different • Learning basic Sewing skills • Learn how garments are stitched 		
Credits: 2	Core Compulsory / Elective	
Max. Marks: 25+75	Min. Passing Marks:	
Total No. of lab.periods- 30 (60 hours)		
Unit	Topic	No. of lab.periods
I	Identify fibers and fabrics (a)Fibre identification tests- Visual burning and microscopic- natural and synthetic, pure and blended fibres. (b) Weaves identification and understanding their usage.	7
II	Learning to stitch (a) Knowing the functions of various parts of sewing machine and trouble shooting of major problems during stitching, 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	Basic sewing (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	Visit -Visit to garment factory/industry/apparel unit/silai Kendra to gain awareness on various types of sewing machines, manufacturing processes like drafting, finishing and packing, report writing.	8

Suggested Readings:

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

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

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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 in class 12th.

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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>Course outcomes: The student at the completion of the course will be able to:</p> <ul style="list-style-type: none"> • Create an awareness about importance of healthy meal at various stages of life cycle • Inculcate healthy eating practices among students • Develop skill of meal planning for different physiological groups • Explain the Physical & Psychological changes during middle childhood, adolescent and adulthood stage. • Identify the biological and environmental factors affecting personality. • Learn about the characteristics, needs and developmental tasks of Middle childhood years, Adolescent & Adulthood stage. 		
Credits: 4	Core Compulsory / Elective	
Max. Marks: 25+75	Min. Passing Marks:	
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 <ul style="list-style-type: none"> • Physical and motor development • Social & emotional development • Cognitive development • Language development 	8
VI	Puberty and Adolescence <ul style="list-style-type: none"> • Development tasks and characteristics • Significant Physical physiological and hormonal changes in puberty. • Self and Identity, Factors influencing Identity & Personality 	8

	<p>development.</p> <ul style="list-style-type: none"> • Family and peer relationship <p>Problems – Drug and Alcohol abuse, STD, HIV/AIDS, Teenage pregnancy.</p>	
VII	<p>Cognitive, Language and Moral Development during Adolescence:</p> <ul style="list-style-type: none"> • Perspective on cognitive development, development of intelligence and Creativity • Adolescent language • Adolescent Morality 	7
VIII	<p>Introduction to adulthood:</p> <ul style="list-style-type: none"> • Concept, transition from adolescence to adulthood • Developmental tasks of Adulthood • Physical and physiological changes from young adulthood to late adulthood <p>Responsibilities and adjustments-educational, occupational, marital and parenthood</p>	7
<p>• Suggested Readings:</p> <ul style="list-style-type: none"> • 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, 7th 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 3rd 2015 • Harpalani. Aahar Vigyaan avam Upcharatmak Poshan, Star Publications, Agra. • Suggestive digital platforms web links- IGNOU & UPRTOU online study material <p>Svayam Portal, http://heecontent.upsdc.gov.in/Home.aspx</p>		
<p>Suggested Continuous Evaluation Methods:</p> <ul style="list-style-type: none"> • Seminar on any topic of the above syllabus. • Test with multiple choice questions/ short and long answer questions. • Attendance 		
<p>Course prerequisites: To study this course, a student must have had the subjectin class/12th/ certificate/diploma. </p>		
<p>Suggested equivalent online courses:</p> <ul style="list-style-type: none"> • IGNOU and other centrally/state operated Universities/MOOC platforms such as “SWAYAM” in India and abroad 		
<p>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.</p>		

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

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**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"> • Learn to cope up with adolescent and adulthood problems. • Understand and handle development related issues more efficiently. • Able to know human behaviour. • Understand individual differences. 		
Credits: 2	Core Compulsory / Elective	
Max. Marks: 25+75	Min. Passing Marks:	
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
Suggested Readings: <ol style="list-style-type: none"> 1. Monaster G.J. 1 Adolescent Development Life Tasks. Mc.Graw Hill (1977). 2. Ambron S.R. Child Development Holt, Renhart and Winston 1978 (IInd Edition). 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. 4. Boeknek G. Human Development Brook and Cole Publishing Company 1980. 		

5. Aadhunik Vikasatmak Manovigyan , Shri Vinod Pustak Mandir Agra Edition 3rd 2015

Suggestive digital platforms web links- ePG- Pathshala, inflibnet,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:

- Assessment of observation report.
- Preparation of questionnaire.
- Visits Records.
- Attendance.

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

**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"> ● Grasp knowledge of Housing need & selection of site in real life situations. ● Comprehending Housing plans for residential purpose. ● Appreciate principles of design and the contributing factors to refine personal aesthetic senses. ● Learn the widening concepts of Extension Education. ● Develop understanding for Effective teaching and learning. ● Comprehend the various effective communication methods. ● Gain skills to use technologically advanced Audio-visual aids. 		
Credits: 4	Core Compulsory / Elective	
Max. Marks: 25+75	Min. Passing Marks:	
Total No. of Lectures- 60		
Unit	Topic	No. of Lectures
I	Housing: 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	House Planning: Principles of house planning, Planning different residential spaces in a house. Planning house for different income groups.	7
III	Interior Designing: 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	Home Decors: Furniture, Furnishings (Curtain, Draperies, Floor coverings, Wall ceiling, Lighting, Accessories (Wall painting, Mirrors, wall art, Sculpture & Antiques, Flower arrangements) etc.	7
	PART B	
V	Extension Education: Meaning, Concepts, Objectives, Scope, Principles, Philosophy of Extension Education. Early Extension Efforts in India. Formal & Non-formal Education.	8
VI	Extension Teaching & Learning: Role and Qualities of an Extension worker. Steps in Extension Teaching Process, Criteria for Effective Teaching & Learning.	7
	Communication & Extension Teaching Methods: 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, Reena (2018) Grah Vyavastha avam Grah Sajja. Agrawal Publications, Agra ISBN: 978-93-81124-96-3
- Patni Manju & Sharma Lalita, Grah Prabandh, Star PublicationsAgra.
- 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, Rlnehart & 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 weblinks-

<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 in class 12th.

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. 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:

**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"> • Developing skills for making time plan for effective balance of work & leisure. • Plan & prepare budget for the family. • Incorporate appropriate work simplification in using household equipments. • Develop understanding for house planning & decoration. 		
Credits: 2	Core Compulsory / Elective	
Max. Marks: 25+75	Min. Passing Marks:	
Total No. of lab.periods-30 (60 hours)		
Unit	Topic	No. of lab.periods
I	<ul style="list-style-type: none"> • Preparation of time plans for self and family. • Drafting family budget for different income groups. 	8
II	<ul style="list-style-type: none"> • Market Survey of Household Equipments- (Pressure cooker, Toaster, Gas Stove, Mixer & Grinder, Refrigerator, Washing machine, Microwave, Solar cooker) 	8
III	<ul style="list-style-type: none"> • Study of different house plans-designs and styles. Draw a house plan keeping in mind the principles of house planning with special emphasis on plantation, water harvesting and other environment friendly factors, also place appropriate furniture in the floor plan using elements of design 	7
IV	<ul style="list-style-type: none"> • Preparation of Color wheels & Color schemes. • Flower Arrangement & Floor Decoration (Rangoli)- 	7

	Application of Design principles and Elements of Art , Innovation of new styles.	
<p>Suggested Readings:</p> <ul style="list-style-type: none"> • 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 PublicationsAgra. <p>Suggestive digital platforms weblinks-</p> <ul style="list-style-type: none"> • bit.ly/3fJfghi • https://bit.ly/39mTwGQ • https://bit.ly/2JoXB2e • https://bit.ly/3ljkRwf. <p>Svayam Portal, http://heecontent.upsdc.gov.in/Home.aspx</p>		
<p>This course can be opted as an elective by the students of following subjects: Open for all</p>		
<p>Suggested Continuous Evaluation Methods:</p> <ul style="list-style-type: none"> • Assessment of Time-Energy, Budget &House Plans. • Assessment of Market Survey Records. • Assessment of Flower Arrangements and Rangoli. • Attendance. 		
<p>Course prerequisites: To study this course, a student must have had the subject in class 12th.</p>		
<p>Suggested equivalent online courses: IGNOU & Other centrally/state operated Universities/ MOOC platforms such as “SWAYAM” in India and Abroad</p>		
<p>Further Suggestions:</p> <ul style="list-style-type: none"> • 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. 		
<p>At the End of the whole syllabus any remarks/ suggestions:</p>		

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"> • Knowing why fabrics look differently • Identify the different techniques of fabric from surface • Learn about finishes done on fabrics • Knowing about dyeing fabrics • Learn how printing on fabrics is carried • Knowing the traditional embroideries of India • Identifying traditional textiles of different states • Knowing the importance of appropriate laundry method 		
Credits: 4	Core Compulsory / Elective	
Max. Marks: 25+75	Min. Passing Marks:	
Total No. of Lectures- 60		
Unit	Topics	No. of Lecture
I	Techniques of Creating variety on fabrics (a) weaving(b) finishing of fabrics(c) dyeing of fabrics(d) printing fabrics(a) embroidery and other decoration methods	8
II	Finishes (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	Dyeing -Classification and use of dyes-Natural v/s Synthetic, (Basic, Acidic, Direct, Azoic, Natural, Sulphur, Vat, Disperse and Reactive dyes) Resist Dying Techniques- Tie & Dye, Batik.	8
IV	Printing (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	Traditional Embroideries: 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	Traditional Textiles: 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	Water (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	Laundry and dry cleaning of fabrics and garments (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. Shailiaja:Traditional Embroideries Of India, New Age International Publishers, 1996
- Naik.D. Shailiaja, 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 weblinks-

Swayam Portal,

<http://heecontent.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 in class 12th.

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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"> • Understand the Community Development dynamics & organizing system for Development. • Create awareness about the various development programmes. • Identify the leadership pattern in the community. • Impart skills to implement, monitor & evaluate programmes. 		
Credits: 4	Core Compulsory / Elective	
Max. Marks: 25+75	Min. Passing Marks:	
Total No. of Lectures- 60		
Unit	Topic	No. of Lectures
I	Community Development: Meaning, Definition, Functions, Objectives, Philosophy, Principles of Community Development Programme in India.	8
II	Community Development Organization: Meaning, Types, Principles, Role & Administrative Structure at the National, State, District, Block & Village levels.	8
III	Home Science Extension Education in Community Development: Origin, Concept, Need, Importance and Contribution of Home Science Extension Education in National Development.	7
IV	Recent Development Programme for Women & Children: Support to Training & Employment for women (STEP), Swarn jayanti Gram Swarajgar Yogna (SGSY), Integrated Child Development Services (ICDS) etc.	7
V	Support Service of Youth Development: NCC, NSS, Youth Camp Youth Clubs etc.	7
VI	NGO & Others: Contribution towards community services, Types & Role of NGO - WHO, CARE, UNICEF, UNESCO, UNDP, CRY, HELP-AGE INDIA.	8
VII	Leadership: Concept, Definitions, Types, Importance, Function and Role of Community leaders. Methods of Identifying and Training of leaders.	7
VIII	Programme Planning: Programme planning component cycle and its components- (i) Designing the project – Defining the objectives, Identifying resources, approach, feasibility and Work plan.	8

- (ii) Implementation.
- (iii) Monitoring and Evaluation.

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 weblinks

- <https://bit.ly/313Ayaj>
- <https://bit.ly/35RnyAi>
- <https://www.un.org/en/universal-declaration-human-rights/>
- <https://www.un.org/womenwatch/daw/cedaw/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

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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.
- Attendance.

Course prerequisites: To study this course, a student must have had the subject in class 12th

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**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"> • Address & resolve women & family related issues. • Make use of Audio-visual aids in planning & conducting group communication • Understand the role of Government bodies in development of the community. • Organizing people for their own development. 		
Credits: 2	Core Compulsory / Elective	
Max. Marks: 25+75	Min. Passing Marks:	
Total No. of lab.periods 30(60 hours)		
Unit	Topic	No. of lab.periods
I	<ul style="list-style-type: none"> • Identify the target group & their relevant issues i.e. poor health, malnutrition, illiteracy, poverty, domestic issues related to women and children. Observe and critical analysis of welfare programme followed by preparation of report. 	8
II	<ul style="list-style-type: none"> • Stimulation in nearby community for local economy through acquiring skills in surface ornamentation of fabric such as tie and dye, batik, block, stencil printing and spray (any three), Kashida of Kashmir, Phulkari of Punjab, Kantha of Bengal, chickenkari of Lucknow, kutch work of Gujrat Sindhi stitch, Kasuti of UP and zardozi work (any three) 	7
III	<ul style="list-style-type: none"> • Prepare & learn the use of Audio-visual Aids. 	7
IV	<ul style="list-style-type: none"> • Develop a script in the Folk drama (Nukkad Natak) format to perform in the target group. 	8
Suggested Readings:		
<ul style="list-style-type: none"> • 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 weblinks-		
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: <ul style="list-style-type: none"> • 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 in class 12 th

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 / Elective	
Max. Marks: 25+75	Min. Passing Marks:	
Total No. of lectures-45 hours		
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 problem in any one of the following. It may include Anganwadi/ Health services/ Market / Dairy/ Agricultural farmland / NGO / Crèche/ Nursery School/ Hospital/ Fitness center/ Diet councillor/ Boutique/Balwadi/ Youth center/ Primary school/ Vridha Ashram(old age home)/ Divang school/ Mentally challenged institution/ Village panchayat / School councillor/ Dyeing or printing Unit/ Cottage level embroidery or food processing unit / SHGs/ 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 following subjects: Open for all		
Suggested Continuous Evaluation Methods: Prepare Survey or tool on any one of the above areas Collection of data related to the area. A letter certifying the authenticity of work done from the mentor Report of the identified problems and survey conducted.		
Course prerequisites: To study this course, a student must have had cleared the 4th semester		

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

Programme/Class: Certificate	Year: 3	Semester: 6
Subject: Home Science		
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 / Elective	
Max. Marks: 25+75	Min. Passing Marks:	
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, 6th 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, 3rd Edition , Oxford & IBH Publishing Co. Pvt. Ltd. New Delhi
- ❖ Dr. Brinda Singh- Aahar Vigyan evam Poshan, , Panchsheel Prakashan, Jaipur, 2015; 13th Ed.
- ❖ Dr.DevinaSahai, SamanyaEvamUpcharatmakPoshan, New Age International Publishers.
- ❖ Dr. Sheel Sharma, “Nutrition and Diet Therapy” PEEPEE Publishers and Distributers (P) Ltd. Delhi, 2014, Ist 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, 7th Ed. 2013

- ❖ M Swaminathan – Essentials of food and Nutrition, Vol II, Applied Aspects, The Bangalore Printing and Publishing Co. Ltd, Bangalore, 2nd Edition 1985, Reprint 1997.

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
- Seminar on any above topics

Course prerequisites: To study this course, a student must have had the subjectin class/12th/ 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 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)	
<p>Course outcomes:</p> <p>The student at the completion of the course will be able to:</p> <ul style="list-style-type: none"> • Explain the concept and use of Research. • Develop a research proposal. • Learn about the data, sample and report writing. • Conduct survey. • To develop insight into the General issues of women. • To understand strategies for empowerment of women. 		
Credits: 4		Core Compulsory / Elective
Max. Marks: 25+75		Min. Passing Marks:
Total No. of Lectures-Tutorials- 60Lectures		
Unit	Topic	No. of Lectures
	PART A	
I	Social Research: <ul style="list-style-type: none"> • Concept, • Scope, • Steps of research 	6
II	Sampling <ul style="list-style-type: none"> • Concept, Techniques, Principles and Limitations of sampling. 	6
III	Data Collection: <ul style="list-style-type: none"> • Sources of Data Collection: Primary & Secondary • Tools of Data collection: Interview schedule, Observation, Questionnaire • Methods of data collection 	8
IV	Report Writing <ul style="list-style-type: none"> • Summary, Conclusion and Recommendations • Writing references • Writing process of research report: Formal Style of writing, Preface, Chapterization, Headings, Tables and 	10

	Figures, Appendices, Bibliography and Acknowledgement	
	PART B	
V	Women in Development: Capacity Building for women- Education, Decision Making abilities, Opportunities, Awareness & Information on social and legal issues.	8
VI	Women's Organizations & Collective Strength: Women's action groups and women's participation in development initiative.	7
VII	Employment Trends of women: Need for self-employment, Opportunities & challenges in an organized and un-organized sector.	7
VIII	Entrepreneurship Development to empower women: 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) Mudra yojana scheme for women. (e) Mahila udyam nidhi scheme.	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 in class 12th.

- 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
Subject: Home Science(Practical)		
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 / Elective	
Max. Marks: 25+75	Min. Passing Marks:	
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
Suggested Readings: ❖ Sumati R Mudambi – “Fundamentals of food, Nutrition and Diet Therapy”, New Age		

International Pvt. Ltd, New Delhi, 6th 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, 3rd Edition , Oxford & IBH Publishing Co. Pvt. Ltd. New Delhi
- ❖ Dr. Brinda Singh- Aahar Vigyan evam Poshan, , Panchsheel Prakashan, Jaipur, 2015; 13th Ed.
- ❖ Dr. Sheel Sharma, “Nutrition and Diet Therapy” PEEPEE Publishers and Distributers (P) Ltd. Delhi, 2014, Ist Ed.

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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:

- Test with multiple choice questions/short and long answer questions
- Menu planning and calculation of nutrient requirement

Course prerequisites: To study this course, a student must have had the subjectin class/12th/ 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 Svayam Portal,

<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.

B.A. 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: A130604R	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 / Elective	
Max. Marks: 25+75	Min. Passing Marks:	
Total No. of Lectures- 45(hours)		
Unit	Topics	No. of Lectures (hours)
I	The Candidate has to select and give inputs in any one of the following. It many include Anganwadi/ Health services/ Market / Dairy/ Agricultural farmland / NGO / Crèche/ Nursery School/ Hospital/ Fitness center/ Diet councillor/ Boutique/Balwadi/ Youth center/ Primary school/ Vridha Ashram(old age home)/ Divang school/ Mentally challenged institution/ Village panchayat / School councillor/ Dyeing or printing Unit/ Cottage level embroidery or food processing unit / SHGs/ Bank schemes/ Subsidies available/ Industry producing consumer goods	12
II	An intervention plan would be developed based on problem identified in the area/ a field visit is mandatory to develop an understanding of the whole process.	11
III	The planned intervention to be carried in the selected area Based on the intervention, the pre-intervention state and post intervention data has to be collected and compared / based on visit and interaction the detailed indepth data has to be collected.	12
IV	A detailed Report is to be submitted and evaluated.	10

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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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| <p>Suggested Continuous Evaluation Methods:</p> <ul style="list-style-type: none">• Prepared intervention plan on any one of the above areas• Collection of data related to the area.• A letter certifying the authenticity of work done from the mentor• Report of the implemented plan and impact/experience of intervention. |
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Course prerequisites: To study this course, a student must have had cleared the 4th semester
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