



# PROF. RAJENDRA SINGH (RAJJU BHAIYA) UNIVERSITY, PRAYAGRAJ

## Structure of Syllabus for the Program: M.A. Subject: Home Science

Structure of Syllabus Developed by			
Name of BoS Convener/ BoS Member	Designation	Department	College/ University
Prof. (Dr.) Nitu Singh – Convener	Professor	Home Science	Hemwati Nandan Bahuguna Govt. P.G. College, Naini Prayagraj
Prof. (Dr.) Parvati Singh – Member	Professor	Home Science	Mahila Seva Sadan Degree College, Prayagraj
Dr. Jyoti Kumari – Member	Asst. Professor	Home Science	Dr. B.R.A. Govt. Girls PG College, Fatehpur
Prof.(Dr.) Abha Singh–Expert Member	Professor	Home Science	AND Agriculture University, Ayodhya
Prof.(Dr.) Vidhu Diwedi–Expert Member	Professor	Home Science	Sampurnanand Sanskrit University, Varanasi
Dr. Neetu Mishra –Expert-Member	Associate Professor	Home Science	University of Allahabad ,Prayagraj

Course Code		Course Title	Credits	T/P	Evaluation	
A	B	C	D	E	CIE	ETE
<b>SEMESTER I (YEAR I)</b>						
A130701T	CORE	Advance Human Development	5	T	25	75
A130702T	CORE	Theory of Management	5	T	25	75
A130703T	CORE	Fabric Construction and care	5	T	25	75
A130704T	FIRST ELECTIVE (Select any one)	Concepts of Nutrition	5	T	25	75
A130705T		Ergonomics in Home Science				
A130706P	SECOND ELECTIVE	Practical Based on Nutrition and Meal Planning	4	P	50	50

A130707P	(Select any one)	Practical Based on Ergonomics				
<b>SEMESTER II (YEAR I)</b>						
A130801T	CORE	Children with special Needs	5	T	25	75
A130802T	CORE	Food Science	5	T	25	75
A130803T	CORE	Research Methodology	5	T	25	75
A130804T	THIRD ELECTIVE (Select any one)	Extension and Communication Concepts in Community Development	5	T	25	75
A130805T		Fashion Dynamics				
A130806P	FOURTH ELECTIVE (Select any one)	Practical based on Extension and Community Development	4	P	50	50
A130807P		Practical Based on Fashion Dynamics				
<b>SEMESTER III (YEAR II)</b>						
A130901T	CORE	Therapeutic and Community Nutrition	5	T	25	75
A130902T	CORE	Communication Technologies in Extension	5	T	25	75
A130903T	CORE	Statistics and Computer Application	5	T	25	75
A130904T	FIFTH ELECTIVE (Select any one)	Fabric Ornamentation and Apparel Designing	5	T	25	75
A130905T		Advance Resource Management and Interior Design				
A130906P	SIXTH ELECTIVE (Select any one)	Practical Based on Fabric Ornamentation and Apparel Designing	4	P	50	50
A130907P		Practical Based on Resource management and interior design				
<b>SEMESTER IV (YEAR II)</b>						
A131001T	CORE	Entrepreneurship Management and Consumer Economics	5	T	25	75
A131002T	CORE	Institutional Food Administration	5	T	25	75
A131003T	SEVENTH ELECTIVE (Select any one)	Gender Sensitization	4	T	25	75
A131004T		Guidance and Counseling Across the Life Span				
A131005R	RESEARCH PROJECT/ DISSERTATION	Dissertation Based on Local Tradition Such as Food Culture and Food Habits, Life Style and its Impact on Community Health and Nutrition.  OR Dissertation may be Based on Exploring Traditional Local Resources (Fruits, Vegetables, Arts, Handicrafts etc.) and its	10	R	50	50

		Prospects in Community Development and Women Empowerment OR Dissertation May be Based on any Home Science and Community Development Related Topic. <b>(Note- 1-Dissertation should be Accompanied by Presentation and Interview</b> <b>2-Hard Bound Dissertation with Minimum 100 Pages )</b>				
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**NOTE:**

1. **Do not mark any Code/Information in Column-A, it will be indorsed by the University.**
2. **T/P** in Column-E stands for **Theory/Practical**.
3. **CIE** in Column-F stands for **'Continuous Internal Evaluation'** and depicts the maximum internal marks. Respective examination will be conducted by subject teacher.
4. **ETE** in Column-G stands for **'External Evaluation'** and depicts the maximum external marks. Respective Examination will be conducted by the University.
5. Column-B defines the nature of course/paper. The word **CORE** herein stands for **Compulsory Subject Paper**.
6. Column-D depicts the credits assigned for the corresponding course/paper.
7. **First Elective:** It will be a Subject Elective. Students may select one of the two subject papers under this category.
8. **Second Elective:** It will designate a Practical Paper or equivalently a Field Visit or Project Presentation. In case of Field Visit, student is required to submit a detailed report of the visit for the purpose of evaluation. The report should include the observational features and benefits of the visit. In case of Project Presentation, the student may be assigned to go for a survey/practical or theoretical project/assignment or seminar with presentation.
9. **Third Elective:** It will be a Subject Elective. Students may select one of the two subject papers under this category.
10. **Fourth Elective:** It will accommodate a practical paper or Industrial Training or Project Presentation. In case of Industrial Training, student may be allowed for the summer training and is required to submit a detailed training report including training certificate for the evaluation.
11. **Fifth Elective:** It will be a Subject Elective. Students may select one of the two subject papers under this category.
12. **Sixth Elective:** It will be a Practical Paper or equivalently a Project Presentation based on Survey/ Seminar/ Assignment. In case of Project Presentation, student has to submit an exhaustive report on respective topic and to face an open presentation for the evaluation.
13. **Seventh Elective:** It will be a Generic Elective. The student may study or receive training of the any subject of his interest (depends on the availability in his institution of enrollment).
14. **Master Research Project:** It will be a Major Research Project or equivalently a research-oriented Dissertation on the allotted topic. The student will have to complete his/her research project under any supervisor. The supervisor and the topic for research project shall be allotted in second semester. The student straight away will be awarded 05 credits if he publishes a research paper on the topic of Research Project or Dissertation.

## M.A. (HOME SCIENCE)

### SEMESTER-I

#### Paper-I Advance Human Development (CORE)

Credits: 5

MM: 100 (25 CIE + 75 ETE)

#### Unit-1:

**Human Development:** Concepts, Principles, Growth and Development.

**Pre-natal period and Birth:** Development, genetic and environmental factors, delivery and birth.

#### Unit-2:

**Infancy:** Physical and perceptual development: Cognitive, social and emotional development.

#### Unit-3:

**Early and Middle Childhood:** Physical and motor development: Cognitive development: Social and Emotional development.

#### Unit-4:

**Adolescence and Adulthood:** Physical development; Cognitive development; Social and Emotional development.

#### *Books and References*

1. Chaubey BK (1990) A handbook of education extension, Jyoti publication, Allahabad.
2. Singh R (1987) Text book of extension Sahityakala Prakashan, Ludhiana.
3. Extension programme planning, oxford and IBH publishing company Pvt Ltd. New Delhi.
4. Agrawal Neeta and Tripathi Akansha – Manav Vikas
5. Rice FP – Human development, A life span approach, NJ Prentice Hall-1965
6. Shrivastava DN and Verma Preeti- Bal Manovigyan Avam Bal Vikas.

**M.A. (HOME SCIENCE)**

**SEMESTER-I**

**Paper-II: Theory of Management (CORE)**

Credits: 5

MM: 100 (25 CIE + 75 ETE)

**Unit-1:**

**Management:** Concept, Objectives, Nature, Philosophy, Principles.

**Decision Making:** Concept, Types Modes of Decision Making, Tools and Techniques.

**Unit-2:**

**Planning:** Concept, Nature, Purpose, Principles.

**Organization:** Concept, Nature, Purpose, Principles and Types.

**Staffing:** Concept, Principles.

**Recruitment:** Concept, Types, Principles.

**Unit-3:**

**Directing:** Concept, Nature, Types and Significance.

**Controlling:** Concept, Objectives, Principles.

**Monitoring and Evaluation:** Concept, Tools and Techniques.

**Unit-4:**

**Personality:** Concept, Development, and Determinants.

**Attitudes:** Concept, Difference between Beliefs and Values

**Stress:** Concept and Management

***Books and References***

1. Gross IH and Crendall EW Knoll MM-Management for modern families, Prentice Hall Inc. New Jersey 1980.
2. Mamoria CB, Personnel management, Himalaya Publishing House, Mumbai, 1998
3. Vishwanath, worker's Participation in management, Mittal publications, New Delhi 1992.
4. Nickell and Dorsey- Management in family living
5. Bakshi BK- Gruh Prabandh
6. पाटनी मंजू-गृह प्रबन्ध

## M.A. (HOME SCIENCE)

### SEMESTER-I

#### Paper-III Fabric Construction and Care (CORE)

Credits: 5

MM: 100 (25 CIE + 75 ETE)

#### Unit-1:

**Principles of Fabric manufacture:** Characteristics and significance of different processes- Woven, Knitted, Laces and Braids.

**Weaving:** Types of Weaver- Basic and Decorative.

**Knitting:** Types of Knitting, Properties.

**Felts and Non-Woven:** Felting process, Knitting, Bonding and lace- making.

#### Unit-2:

**Fabric finishing Methods:** Classification of finishes. Singeing, beating, calendaring, weighing, shrinking, mercerization, Parchmentisation, Wash-N-Wear.

Special purpose finishes: Flame retardant, water resistant and repellent, antistatic & soil release finish.

#### Unit-3:

**Dyeing with Chemical dyes:** Dyes Classification, users. Theory of dyeing; Types of dyeing-Stock dyeing, Yarn dyeing, Piece dyeing.

#### Unit-4:

**Laundry Science:** Stains- Classification and methods of removal; Soaps and detergents- Composition, manufacturing, application, merits and limitations.

**Whitening agents:** Types and functions. Dry cleaning agents, methods, advantage and disadvantage.

#### *Books and Reference*

1. Verma Pramila- Vastra Vigyan Avam Paridhan
2. Henry, Sapna and Patni Manju- Parivarik Paridhan Vyavastha
3. Singh Vrinda- Vastra Vigyan Avam Paridhan

**M.A. (Home Science) Semester-I**  
**Concepts of Nutrition**  
**(Subject Elective)**

Credits: 5

MM: 100 (25 CIE + 75 ETE)

**Unit- 1:**

Minimal Nutritional Requirements and RDA 2020 : Formulation of RDA and Dietary Guidelines; EAR, TUL, DRI – Concept and importance, Diet planning for population, diet planning for individual, risk of over nutrition.

Reference man and Reference Women;

Energy in Human Nutrition: energy content of foods, Energy Balance, Measurement of Energy expenditure- BMR, thermic effect of feeding and physical activity, Assessment of Energy Requirements, Deficiency and Excess.

Carbohydrates: sources, Classification, functions, brief idea about digestion, absorption and metabolism of glucose, elementary idea about glycolysis, gluconeogenesis; Regulation of Blood Sugar, Glycemic Index of Foods;

**Unit-2:**

Proteins: Sources, classification, functions, Protein digestion and elementary idea about assessment of protein quality (BV, PER).

Lipids: Sources, classification, functions, digestion of fat, brief idea about saturated and polyunsaturated fatty acids.

**Unit-3:**

Vitamins and Minerals : Sources, classification, Bioavailability , requirement, functions, deficiency toxicity and interaction with other nutrients are to be discussed.

Vitamins- Fat soluble vitamins A,D,E,K

Water soluble vitamins-Thiamine, Riboflavin, Niacin, Folic Acid, Ascorbic Acid

Minerals- Macro minerals- Calcium, Phosphorus, Sodium

Micro Minerals- Iron, iodine, zinc

**Unit-4:**

Meal Planning: Principles and objectives involved in meal planning at different developmental stages.

Factors to be considered while planning meals

**Unit-5:** Dietary Fiber- Sources, Composition and Nutritional significance

## **SUGGESTED READINGS:**

1. Text book of Human Nutrition : Bamji, Rao & Reddy
2. Essential of Food & Nutrition : M. Swaminathan
3. Advanced Text book on Foods & Nutrition Vol-I & II : M. Swaminathan
4. Normal & Therapeutic Nutrition : Proudfit & Robinson
5. Catering Management : An Integrated approach : Sethi M. malhans S (1993)
6. Applied Nutrition : R. Rajlaxmi
7. Food Science and Nutrition, Suneta Reddy, II Edition Oxford University Press
8. Mahan L.K. & Ecott-Stump, S. (2000): Krause's Food Nutrition and Diet Therapy, 10<sup>th</sup> Edition W.B Saunders Ltd.
9. Gopalan C. (eds.) (1993) Recent Trends in Nutrition, Oxford University press
10. Jallineek G (1985) Sensory Evaluation of Food theory and practices, Ellis Harwood Chicester.
11. M Swaminathan- Advanced textbook of Foods and Nutrition, Vol. I and II
12. R Rajlakshmi- Applied Nutrition
13. Rice FP- Human Development, A life Span approach. N.J. Prentice Hall, 1965
14. आहार पोषण एवं स्वच्छता (2021-22)-डॉ० नीतू सिंह, डा० सौम्या जिंदल, साहित्य प्रकाशन आगरा।
15. आहार एवं पोषण विज्ञान-डॉ० अनीता सिंह, स्टार पब्लिकेशन्स आगरा।



**M.A. (Home Science) Semester-I**  
**(Subject Elective)**  
**Ergonomics for Home Science**

Credits: 5

MM: 100 (25 CIE + 75 ETE)

**Unit- 1:**

- Definition, objective, scope and importance of ergonomics in home & other occupations.
- Nature of work in house hold and other occupations
- Study of different body postures used in various activities and their relationship to fatigue.

**Unit- 2:**

- Job Analysis Significance of Job analysis for occupational ergonomics; Fundamental elements of job analysis.
- Definition of Human Anthropometry, Static and Dynamic Anthropometry.
- Significance of Anthropometry in relation to occupational ergonomics.

**Unit- 3:**

- Environmental factors in relation to occupational ergonomics: Physical characteristics of task; Environmental Stress factors such as heat, Noise and Light; their effect on work efficiency.

**Unit-4:**

- Application of ergonomic Principles in tool evaluation and Design; work station evaluation and design.

**References:**

- 1- Gross I.H. and Crendall, E.W. and Knoll, M.M.- Management for Modern Families, Prentice Hall Inc. New Delhi.
- 2- Grand Jeen Ettiens (1978) – Ergonomics of the Home, Taylors and Francis Ltd. London.
- 3- Nickell and Dorsey, Management in Family Living.
- 4- Nag, P.K. (1996) Ergonomics and Work Design and Emerging Issues in Organizational Science, New Age International (P) Ltd, New Delhi.
- 5- Chaffinm D.B. and Anderson G.B. (1984) Occupational Bio-Mechanics, John Wiley & Sons.

**M.A. (Home Science) Semester-I**  
**(Subject Elective)**  
**Practical Based on Nutrition and meal planning**

Credits: 4

MM: 100 (50 CIE + 50 ETE)

- 1- Nutrition through the life span: Planning preparation and calculation of meal for different age groups/special condition and socio economic groups
  - Infancy
  - Pre School Age
  - School going
  - Adolescence
  - Adulthood
  - Old Age
  - Pregnancy
  - Lactation
- 2- Meal planning file for different age groups and socio economic conditions
- 3- Preparation of diet counseling aids
- 4- Table Setting and meal presentation
- 5- Group discussion and seminar presentation on nutrition concepts.

**M.A. (Home Science) Semester-I**  
**(Subject Elective)**  
**Practical Based on Ergonomics for Home Science**

Credits: 4

MM: 100 (50 CIE + 50 ETE)

- 1- Market survey and listing of ergonomic furniture and household tools (detail characteristics)
- 2- Anthropometry for household work.
- 3- Report on ergonomic assessment in the workplace/institution and presentation.
- 4- Preparing file and report writing

## M.A. (HOME SCIENCE)

### SEMESTER-II

#### Paper-I: Children with Special Needs (CORE)

Credits: 5

MM: 100 (25 CIE + 75 ETE)

#### Unit-1:

**Introduction to Children with Special Need:** Definition and terminology; Types of special children; Children at risk- poverty and gender issues; Genetic and environmental factors in disability; Effect of the disability on the child; Need for intervention, education, rehabilitation; Role of family and child care worker.

#### Unit-2:

**The Child with Mental Retardation:** Definition and classification; Causes of mental retardation; Identification; Characteristics; Managing children with mental retardation at home; Special educational measures.

#### Unit-3:

**The Children with communication disorders:** Definition and meaning; Classification; Causes; Management and education of children with communication disorders.

#### Unit-4:

**Children with behavioral Disorders:** Definition; General causes; Types; Behavioral problems associated with Autism.

#### *Books and References*

- 1- Kirk Samuel, Educating Exceptional children, TBH, New Delhi.
- 2- Bhargava M. (1994)- Introduction to exceptional children, Sterling Publishers, New Delhi.
- 3- Agarwal Neeta- Manav Vikas
- 4- Grewel JS (1998)- Early Childhood Education, foundation in Practices, Harprasad Bhargwa Publication, Agra
- 5- Soni Romila- Early Childhood care and Education.

**M.A. (HOME SCIENCE)**  
**SEMESTER-II**  
**Paper-II: Food Science (CORE)**

Credits: 5

MM: 100 (25 CIE + 75 ETE)

**Unit-1:**

**Introduction to Food Science:** Constituents of Foods- General, physical and chemical properties; Colloidal system; gels; emulsions.

**Enzymes:** Importance of enzymes and their application in Food Industry.

**Unit-2:**

**Cereals and Cereal Product:** Types, composition and structure; Functional properties of starch; Wheat starch and Gluten formation; Properties of amylase and amylopectin.

**Fats and Oils:** Types and sources (Animal and Vegetable), Functional properties and uses in cookery.

**Unit-3:**

**Milk and Milk Products:** Composition; Uses in cookery; Effects of Heat, Enzymes, Eggs: Structure, Composition and Grading; Changes during storage; functional properties.

Meat, fish and Poultry and composition.

**Unit-4:**

**Pulses and Legumes:** composition and structure; Selection and variety; Functional properties of pulses.

**Vegetables:** Composition and Classification; Changes occurring during cooking; Pigments and flavor constituents.

**Fruits:** Composition, changes occurring during maturation and ripening. Pigments and flavor constituents.

***Books and References***

1. Bealon GH and Bagos JM (eds.) (1996), Nutrition, in preventive medicine WHO
2. Charley H (1982). Food Science (2<sup>nd</sup> edition), John Wiley & sons, New York.
3. Mishra Usha and Agarwal Alka- Ahar Avam Poshan Vigyan
4. M Swaminathan- Advanced textbook on Food and Nutrition, Vol. I and II

**M.A. (HOME SCIENCE)**  
**SEMESTER-II**  
**Paper-IV: Research Methodology**

Credits: 5

MM: 100 (25 CIE + 75 ETE)

**Unit-I**

**Social Research:** Concept, Nature, Scope, Types of Researches in Home Science.

**Methods of Social Research:** Induction, Deduction, Qualitative, Quantitative. Historical, Comparative and Evaluative. Formulation and selection of the Research Problems Participatory Research.

**Unit-2:**

**Hypothesis:** Concept, Types and significance

**Research design:** Concept, Types and Significance.

**Sampling:** Concept, Types and Significance.

**Unit-3:**

**Sources of Data Collection:** Primary and Secondary, Field and Documentary.

**Tools of Data Collection:** Interview guide, Interview schedule, observation and questionnaire.

Methods of Data Collection: Interview, Questionnaire, observation, Case study and Projective techniques.

**Unit-4:**

**Measurement and Scaling.**

**Processing of Data.**

**Analysis and Interpretation of Data and Report Writing.**

**Books and References**

1. Asthana Vipin, Srivastava Vijay- Educational research and statistics
2. Shrivastava DN- Anusandhaan Vidhia
3. Kapil HK- Research methods in Behavioural Sciences
4. Goode and Halt- Methods of Social Research
5. Paras Nath Ryo- anusandhan Parichay
6. Jain Gopal- research Methodology, methods, tools and techniques, Mangal Deep Publication, Jaipur (1998)

**M.A. (Home Science) Semester-II**  
**(Subject Elective)**  
**Extension and Communication concepts in Community Development**

Credits: 5

MM: 100 (25 CIE + 75 ETE)

**Unit- 1:**

**Community:** Definition, concept and characteristics of a community; structure and organization of different types of communities: tribal, rural urban and slum.

**Unit- 2:**

**Community Development:** Definition, concept, Principles and organization of community development. Community Development Programs in India.

**Unit- 3:**

**Extension:** Meaning, principles and functions. Extension system: Role of ICAR, KVKs, Panchayati Raj System, Role of state Government in Extension Programmes related to community health and other Policies, Central social welfare Board.

**Unit- 4:**

**Communication:** Meaning, Nature, role process and importance. Communication Models, Communication approaches- Individual, Group and Mass; factors affecting their selection and use; Barriers of Communication.

**Unit- 5:**

**Development communication-** Interrelation between development and development communication

**Books and References:**

1. Communication for development in the third world theory and practices (1991). Sage publication, New Delhi.
2. Chaubey BK (1990). A handbook of education system, Jyoti publication, Allahabad.
3. Dahama OP and Bhatnagar OP – Education and communication for development, Oxford Publication Company New Delhi
4. Harpanlani – Prasar Shiksha
5. Kupuswami B – Communication and Social Development in India, Media Promoters and Publishers Pvt. Ltd. Mumbai.
6. Shaw Pushpa Geeta, Sheela Jayas – Prasar Shiksha.
7. वृन्दा सिंह–प्रसार शिक्षा, पंचशील प्रकाशन जयपुर।

**M.A. (Home Science) Semester-II**  
**(Subject Elective)**  
**Fashion Dynamics**

Credits: 5

MM: 100 (25 CIE + 75 ETE)

**Unit- 1: Introduction to Fashion:**

- Fashion: Terminology, Characteristics, contrast with customs and role in modern society.
- Principles and Theories of Fashion adoption.
- Fashion cycle.
- Factors influencing fashion.

**Unit- 2: Design analysis with respect to fashion design.**

- Designs: structural, decorative, abstract.
- Introduction to applied art.
  - Elements of design.
  - Principles of design.

**Unit- 3: Fashion designers and centers**

- Sources of fashion
- Fashion centers
- Role of Designers
- Indian Designers

**Unit- 4: Fashion Marketing**

- Fashion market and marketing environment.

**Books and References**

- 1- Agarwal Rajni and Gupta Sanjula- Paridhan Nirman Avam Fashion Designing.
- 2- Patni Manju- Vastravigyan Avam Paridhan Vyavastha. Star publication Agra.
- 3- Tumter GL-Cutting and tailoring.
- 4- Verma Pramila- Vastravigyan Avam Paridhan.



**M.A. (Home Science) Semester-II**  
**(Subject Elective)**  
**Practical Based on Extension and Communication**  
**Concepts in Community Development**

Credits: 4

MM: 100 (50 CIE + 50 ETE)

- 1- Prepare a resource file and discuss the uses, advantages and limitations with the objective to community development-
  - Teaching Aids: Charts, Posters, flash Cards.
  - Folk media
  - Print Media
  - Electronic Media
  - Internet based Media
  
- 2- Comparison of rural, urban and Tribal communities for (a) Socio-economic groups (b) determinants of malnutrition and report writing.

Or

Visit to nearby slum area with an objective to study the problems faced by slum dwellers (using survey method) and report writing..

**M.A. (Home Science) Semester-II**  
**(Subject Elective)**  
**Practical Based on Fashion Dynamics**

Credits: 4

MM: 100 (50 CIE + 50 ETE)

- 1- Collecting samples of various fabric textures and preparing a “texture Sheet”.
- 2- Collecting various trimmings for making “Trimming Sheet”.
- 3- Dressing up of croquis in sketch file with the application of elements of Art in fashion Designing (lines, colour schemes etc.)
- 4- Dressing up of croquis in sketch file with the application of principles of Art in fashion Designing
  - Proportion
  - Balance
  - Rhythm
  - Emphasis
  - Harmony

## M.A. (HOME SCIENCE)

### SEMESTER-III

#### Paper-I: Therapeutic and Community Nutrition (CORE)

Credits: 5

MM: 100 (25 CIE + 75 ETE)

#### Unit-1:

**Basic concepts of Diet Therapy:** New trends in delivery of nutritional care and dietary counseling.

**Energy modifications and nutritional care for weight management:** Identifying the overweight and obese; Factors contributing to obesity; Low energy diet and behavioral modifications; Under Weight- etiology and assessment; High energy diets for weight gain.

#### Unit-2:

**Diets for Stomach diseases:** Gastric and duodenal ulcers; Diarrhoea and Constipation-symptom and dietary management.

**Diseases of the Liver:** Viral, Hepatitis, cirrhosis of liver.

**Diabetes Mellitus:** Classification, symptoms, metabolic changes and dietary management.

**Diseases of Musculo-skeletal System:** Rheumatoid Arthritis, Osteo-arthritis, gout.

#### Unit-3:

**Concept of Community nutrition:** Nutritional problems of the Community and its implications for public health. Causes, incidents, signs and symptoms and treatment of PEM, Iron deficiency, Iodine deficiency, Fluorosis and Lathyrism.

#### Unit-4:

**Assessment of Nutritional Status:** Meaning, Need, Objectives and Techniques.

**Primary Methods:** Anthropometric measurement: Weight, Height, Skin Fold Thickness, Head Circumference, Chest Circumference: Use of Growth Chart, Diet Survey.

**Secondary Methods:** Vital Statistics; Mortality Rates- Crude death rate; Infant Mortality Rate; Maternal Mortality Rate; Survival Rate; Fertility rate.

#### *Books and References*

1. Potter N, and Hotchkiss JH (1996). Food science, Fifth edition CBS, Publishers and Distributors, New Delhi.
2. Park K. (2000). Park text book of preventive and social medicine, 18<sup>th</sup> edition, M/S Banarsidas Bhanot, Jabalpur.
3. WHO (1999). Nutrition for health and development progress and prospects. On the eve of the 21<sup>st</sup> century WHO INHD, 99.9 Geneva.
4. Bakshi BK- Pathyapathay Avaum Upchararth Poshan
5. Davidson and Passmore- Human Nutrition and Dietetics
6. Jelliffe- Clinical nutrition.
7. Proudfit and Robinson- Nutrition and Diet Therapy.

## M.A. (HOME SCIENCE)

### SEMESTER-III

#### Paper II: Communication Technologies in Extension (CORE)

Credits: 5

MM: 100 (25 CIE + 75 ETE)

#### Unit-1:

**Communication Systems:** Types of communication systems- concept, functions and significance interpersonal, organizational, public and mass communication. Elements, character and scope of mass communication. Mass communication- models and theories; Visual communication- elements of visual design- colour, line, form, texture and space; Principles of visual design- rhythm, harmony, proportion, balance and emphasis; Visual composition and editing.

#### Unit-2:

**Media Systems: Trends and Techniques:** Concepts, scope and relevance of media in society; Functions, reach and influence of media; Media science in India, issues in reaching out to target groups; Contemporary issue in media: women and media, human rights and media, consumerism and media.

#### Unit-3:

**Advertising:** Definition, concept and role of advertising in modern marketing system and national economy.

#### Unit-4:

**Elementary Computer application in Communication:** Introduction to Basics of Computers; Report preparations and presentations; Scanning, Designing and Printing.

#### *Books and References*

1. Dahama OP and Bhatnagar OP- education and communication for development, Oxford Pub, company, New Delhi.
2. Chaubey BK (1990)- A handbook of extension education, Jyoti Publication Allahabad.
3. Joshi Umer (1997)- Textbook of Mass communication and Media, Anmol Publication, New Delhi.
4. Shaw, Pushpa Geeta, Shaw Sheela Jayas- Prasar Shiksha.

**M.A. (HOME SCIENCE)**

**SEMESTER-III**

**Paper III- Statistics and Computer Applications (CORE)**

Credits: 5

MM: 100 (25 CIE + 75 ETE)

**Unit-1:**

**Statistics:** Meaning, Uses and Diagrammatic representation of Data Measures on Central Tendency.

**Unit-2:**

**Correlation:** Karl Pearson's Rank Correction Coefficient

**Index Number**

**Probability:** concept and Theory

**Chi Square**

**"t" test**

**Unit-3:**

**Fundamental of Computer:** History of Computers, Generation of Computer, Language, Components, Applications of Computers.

**Operating System and Internet:** MS-Windows and Internet.

**Unit-4:**

**MS-Office:** MS-Word, MS Excel and Power Point.

***Books and References***

1. Laudon Kenneth C. and London Jane Price, management information system: A complementary perspective, Macmillan Publishing company, New Delhi.
2. Banerjee Utpal K and Sachdeva RK. Management information system: A New framework, Vikas Publishing House,Pvt Ltd, New Delhi.
3. Ethens DN-Fundamentals and Statistics.

**M.A. (Home Science) Semester-III**  
**(Subject Elective)**  
**Fabric Ornamentation and Apparel Designing**

Credits: 5

MM: 100 (25CIE + 75 ETE)

**Unit- 1:**

Dyeing and printing- Classification, methods of Block Printing, Stencil, Screen, Roller, Rotary; Printing styles-direct, resist, discharge, photographic and digitized printing, Dyeing- Tie and Dye and Batik; Dyeing with natural dyes, use of pigments; Dyeing auxiliaries and their use; Dyeing defects and their remedies.

**Unit- 2:**

Embroidery: General embroidery techniques; Hand embroidery Indian embroidery- Chikankari, Zardozi, Kasuti, Phulkari, Kashida, Kantha, Kutch, Kathiyawad, Chamba Rumal, Sujini and Khatwa (Study of above traditional embroideries with emphasis to fabric, threads, motifs and colour).

Applique work and Quilting: Applique work- basic, hand appliqué; Machine appliqué. Quilting- tools, designs, basic technique.

**Unit- 3:**

Layout planning: Calculation and estimation of fabric for garment construction, definition and types of layout.

Fittings of different garments: Principles, common fitting problems for different figure types.

Drafting and Pattern making.

**Suggested Readings:-**

- Helen Joseph Armstrong, 1987: Pattern making for Fashion Design.
- Francesca Sterlacci: Pattern making- Technique for Beginners, Laurence King Publishing.
- Danilo Attardi : fashion Draping Techniques (vol.1), Hoaki
- Allyne Bane: Pattern Design, McGraw- Hill Inc., U.S.
- Natalie Bray : Dress fitting – Basic Principles and practice, Wiley Blackwell Publishing
- Erwin, Mabel D. : Practical Dress Design –Principles of Fitting and Pattern making, Macmillan, New York.
- Mildred T. Tate, O. Glisson: Family clothing, John Wiley & Sons Inc.
- Mc Call and Marian Corey : Complete Book of Dressmaking, Greystone Press
- Jennifer Lyne Mathews- Fairbanks: Pattern Design-fundamentals- construction and pattern making for fashion design, Fairbanks publishing.
- Agarwal Rajni and Gupta Sanjula- Paridhan Nirman Avam Fashion Designing.
- Patni Manju- Vastravigyan Avam Paridhan Vyavastha. Star publication Agra.
- Tumter GL-Cutting and tailoring.
- Verma Pramila- Vastravigyan Avam Paridhan

**Suggested Digital Platforms, Web Links.**

- How patterns work- The fundamental Principles of Pattern Making and Sewing in Fashion Design by Assecmbil\_Scribd.
- <https://www.brainkart.com>  
Pattern Layout and types of Pattern layout-fabric preparation for sewing-Brainkar

**M.A. (Home Science) Semester-III**  
**(Subject Elective)**  
**Advance Resource Management and Interior Design**

Credits: 5

MM: 100 (25 CIE + 75 ETE)

**Unit- 1:**

**Home Management:** Definition and Philosophy of home management, elements involved in management process and decision making, Classification of resources, factors affecting their uses, Motivation theories- Maslow's theory, Herzberg's theory.

**Unit- 2:**

**Waste and natural resource management:** Definition of natural resources, forest, air, water and water harvesting; municipal solid waste management, Concept of sustainable development, Sustainable development goals (SDGs), Meaning and sources of conventional and non-conventional energy.

**Unit- 3:**

**Interior design and furnishing:** Elements of art and principles of design with reference to interior designing, colour scheme and psychological effects of colours,

**Unit- 4:**

**Furniture and Furnishing:** Furniture- types, construction, selection, purchase and arrangement.

Furnishing: Selection and maintenance of soft furnishing, types of curtains and draperies, fixture and lightings

**Suggested Readings:**

- Koontz. H. and O' Donnel C., 2005, Management – A systems and contingency analysis of managerial functions. New York: McGraw-Hill Book Company.
- Rao V.S. and Narayana P.S., Principles and Practices of Management, 2007, Konark Publishers Pvt. Ltd.
- Adler, David. 2004, Metric Hand Book planning & Design, Architectural press.
- Deacon R.E. and Firebaugh F.M. (1998) Family Resource Management- Principles and application. N. Delhi.: Roy Houghton Mifflin Company.
- 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.
- Lawrence M, (1987), Interior Decoration, New Jersey: Chartwell Books.
- Riley & Bayen., (2003), The Elements of Design, Mitchell Beazley.
- 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
  
- जी० पी० शैरी, गृह व्यवस्था एवं गृह कला(2013), अग्रवाल पब्लिकेशन्स, आगरा।

**M.A. (Home Science) Semester-III**  
**(Subject Elective)**  
**Practical Based on Fabric Ornamentation and Apparel Designing**

Credits: 4

MM : 100 (50 CIE + 50 ETE)

- 1- Make hand embroidered samples of traditional Indian embroidery
  - Embroideries of Uttar Pradesh: Chikankari and Zardozi
  - Kashida of Kashmir
  - Phulkari of Punjab
  - Kantha of Bengal
  - Embroideries of Gujrat: Kutch, Kathiyawad and Sindh
  - Embroideries of Himanchal Pradesh
  - Embroideries of Manipur
  - Embroideries of Bihar
  
- 2- Collect samples of traditional Indian Textile
- 3- Dyeing and Printing-Tie and dye, Batik, block and screen/stencil printing.
- 4- Article- appliqué work.
- 5- Anthropometric Measurements
- 6- Drafting and stitching- Basic child's Bodice Block and sleeve Block (Age 2 years)

**Note-** Make a file of collected textile samples, embroideries, dyeing & printing, applique work & drafting.



**M.A. (Home Science) Semester-III**  
**(Subject Elective)**  
**Practical Based on Resource Management and Interior Design**

Credits: 4

MM: 100 (50 CIE + 50 ETE)

1) - Report on housing finance agencies.

2) - Report on space saving furniture.

Or

- Report on housing construction problem in urban areas.

3) - Market survey and Report writing on- Accessories in interior Design.

Or

Fixture and lighting.

Or

Wall and floor finishing.

**M.A. (Home Science) Semester-III**

**SEMESTER-IV**

**Paper-I: Entrepreneurship management and consumer economics (CORE)**

Credits: 5

MM: 100 (25 CIE + 75 ETE)

**Unit-1:**

**Entrepreneurship management:** concept need and process of entrepreneurship development enterprise. Types and role.

**Entrepreneurship Motivation and competency:** Important feature of entrepreneurship personality.

**Unit-2:**

**Concept of consumer economies:** consumer and his wants: origin of human wants characteristics of wants, classification of wants; demand: determinants elasticity.

**Unit-3:**

**Consumer protection:** Government protection; public protection; standardization of consumer goods and testing methods.

**Unit-4:**

**Market and Marketing:** Concept classification- function, types, wholesale, retail etc.; Marketing environment, Marketing Strategies-concepts, type based on protection, seller, demand.

**Market and Market prices:** Definition and types of market prices: Pricing under perfect and imperfect competition and monopoly.

***Books and Reference***

1. Patel V, women entrepreneurship developing new entrepreneurs Ahmedabad 1987.
2. East Robert (1990) Changing consumer behavior, Cassal education limited. Artillery House artillery row London.
3. Garman and Thomas et al (1974) the consumers, world buying, Money management and issue, Tata Mcgraw Hills books Co., New York.

**M.A. (Home Science)**  
**Semester-IV**  
**Paper II- Institutional Food administration (CORE)**

Credits: 5

MM: 100 (25 CIE + 75 ETE)

**Unit-1:**

**Introduction to food service systems:** characteristics of various types of food service units.

**Unit-2:**

**Management of resources: Finance;** determining the finance need to establish or run a unit; budgets; sources of finance; planning adequate cash flow.

**Space for equipment:** Steps in planning layouts; determining equipment selection and placement; maintenance of equipment, lay out analysis.

**Unit-3:**

**Material:** Menu planning established to different system; Recipe development and standardization of yield.

**Staff:** Man power planning, man power placement, recruitment, introduction motivation in performance appraisal.

**Unit-4:**

**Cost accounting/analysis:** Food cost analysis; record to maintain: report and trend analysis, marketing in sales management; marketing strategies, sales analysis, market promotion.

***Books and References***

1. WHO (1999) nutrition for health and development progress and prospects on the eve of the 21<sup>st</sup> century WHO INHD, Geneva.
2. Gopalan C. (eds) (1993) Recent trends in Nutrition
3. Mohini Sethi- Institutional management
4. M Swaminathan- Advanced textbook on Food and Nutrition, Vol. I and II.
5. Mishra Usha and Agarwal Alka- Ahar Avam Poshan Vigyan.

**M.A. (Home Science) Semester-IV**  
**(Subject Elective)**  
**Gender Sensitization (Generic Elective)**

Credits: 4

MM : 100 (25 CIE + 75 ETE)

**Unit- 1: Gender**

- Gender role perceptions.
- Concept, definition, difference between gender and sex, changing trends.
- Gender stereotype.
- Gender main streaming.
- Gender sensitization – concept and methods.

**Unit- 2: Gender Empowerment**

- History of women empowerment and role of education
- National and International policies for women empowerment.
- Economic empowerment.
- Social empowerment.
- Legal empowerment.
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**Unit- 3: Policies and Legislations**

- CEDAW(convention on Elimination of all forms of discrimination against women)
- Women’s Right to life & health(WRLH)
- 

**Unit- 4: Support system**

- Role and functions of the department of women and child development, central social welfare board, state social welfare board, national commission for women.

**Suggested Readings:**

- ❖ Stree shahktikaran K ayam-Kavita sharma-Rajat
- ❖ Akhauri MMP: 1990, Entrepreneurship for women in India, NIESBUD, New Delhi.
- ❖ Patel V. Women Enterpreneurship, Ahmdabad.
- ❖ Chaudhary,D. Paul- Child welfare and Development

**M.A. (Home Science) Semester-IV**  
**(Generic Elective)**  
**Guidance and Counseling Across the life Span**

Credits: 4

MM: 100 (25CIE + 75 ETE)

**Unit- 1:**

Family Guidance and Counseling - Basic concept, meaning, nature, types, process, principles, objectives and scope of family guidance and counseling.

**Unit- 2:**

Nature of psychological disorders at different stages that require counseling and therapy:

- Childhood, adolescence & youth, adulthood and old age

**Unit- 3:**

Theories and approaches of guidance and counseling. The Indian approach-Meditation and Yoga exercises, Family Therapy approach.

**Unit- 4:**

Qualities and skills of counselor

Evaluation of Guidance and counseling

**Books and References**

- 1- Nichols M.P., Schwartz R.C.; Family Therapy (2004) Allyn and Bacon Boston.
- 2- Nelson-Jones, Richard (1999) Introduction to counseling skills, Sage publication New Delhi.
- 3- Palmer Stephen (1999) Introduction to counseling and psychotherapy Sage publication, New Delhi.
- 4- Street Eddy (1994) counseling for family problems, Sage publication New Delhi.
- 5- Bernard, P. (1999). Counseling skills training, New Delhi: Viva Books.
- 6- Manthel, R. (1997) Counseling: The skills of finding solutions to problems, London, Routledge.
- 7- Nicolson, D & Ayers. H (1995). Individual Counseling: Therapy and practice, London: David Fulton.
- 8- आज का विकासात्मक मनोविज्ञान—डा० पी० सी० मिश्रा साहित्य प्रकाशन आगरा।
- 9- निर्देशन एवं परामर्श—डा० सुधा पान्डेय साहित्य प्रकाशन आगरा।