

M. A. (Home Science) -2019

Semester based course framework

Department of home Science, Kumaon University, Nainital

Semester I

Course Type	Name of Course	Course Code	Marks
			External + internal
Core-Course	Family Economics	HMC-101	75+25
	Research Methods and Statistic	HMC-102	75+25
	Textile Science	HMC-103	75+25
	Food Science	HMC-104	75+25
Practical	Course based practical work	HMP-105	100

Semester II

Core-Course	Fashion Illustrations	HMC-201	50+50
Major	Community Organization & Home Science	HMC-202	75+25
	Extension Education Theories of Human Development	HMC-203	75+25
	Human Physiology	HMC-204	75+25
Practical	Course based practical work	HMP-205	100

Semester III

Core-Course	Human Nutrition and Diet	HMC-301	75+25
Major	Therapy		75+25
	Communication Process	HMC-302	75+25
	Apparel Designing	HMC-303	75+25
	Life Span Development	HMC-304	75+25
Practical	Course based practical work	HMP-205	100

Semester IV

Core-Course	Indian Embroidery & Textile	HMC-401	50+50
Major	Housing & Interior Decoration	HMC-402	75+25
	Entrepreneurship Development	HMC-403	75+25
	or		
	Project (Dissertation) and Seminar	HMC-404	75+25
	Community Nutrition & Public Health	HMC- 405	100
	Course based practical work	HMP-407	100

Semester I
Course Code – HMC-101
Family Economics

Term End Exam: Marks 75

Internal Assessment 25 (by Class test)

Total Marks 100

Unit I classification and characteristics of resources, human, material, economics and non economic, national and global, role and scope of resources principles in the use of resource, resource managements as a dynamic process, importance and relationship of economics to resource.

Unit II Income concepts, economics contribution of household production to family income, methods of estimation of income, planning of expenditure (account-keeping),

Unit III consumption functions and consumption pattern of families, theory of consumer behavior, central problem of choice and (utility, solution, law of diminishing and marginal utility and equi marginal utility.

Units IV Elements of market, marketing its types, function, importance and market devices-labels, packaging guarantee and brands. Techniques of financial assessment, taxes, saving insurance.

Unit V consumer protection: Government, public and private protection, consumer rights and responsibilities, consumer and environment, role of consumer education, standardization of consumer goods and testing methods.

Recommended Book

HMC-101

1. Consumer Buyer in Market, Colets Tessie
2. Economics of the household, B, r, A drew, Mc Millan company, New York.
3. Consumer Economics, Dr. Richard, Irwin, Illinois (1983)
4. Indian Economy, R. Dutta & K. P.H. Sundaran

Semester I

Course Code-HMC-102

Research Methods and Statistics

Term End Exam: Marks – 75 (by Class test and assignment)

Internal Assessment - 25

Total Marks -100

Unit I Research in Home Science-concept need and approaches, Research approaches-problem oriented and interdisciplinary. Type of research Historical survey, experimental and case study

Unit II Definition and identification of research problem selection Hypothesis, basis assumption and limitation of research problems

Unit II Sampling: Types of samples and selection of samples, data collection techniques: cross-selection and longitudinal, studies: questionnaire, interview schedule, observation, lab-techniques.

Unit IV Editing of statistical data, classification and tabulation, role of statistics in research, elementary statistics: classification, tabulation and frequency distribution of data.

Unit V Mean, Median and Mode, Probability, normal distribution and use of normal distribution, probability tables, t-test for small sample, use of computer for analysis of data

Recommended book

HMC-102

1. Promcopies of Statistics-Daryab Singh
2. Statistics in Behavioural Science-Dr. B.B. Asthana

Semester I

Course Code-HMC-103

Textile - Science

Term End Exam: Marks – 75 (by Class test)

Internal Assessment - 25

Total Marks -100

Unit I Manufacturing of natural and synthetic fabrics and their physical and chemical properties, molecular structure- longitudinal and cross sectional view, action of acid alkalis and other chemicals on fibers.

Unit II Special finishes-bleaching scouring, mercerizing, sanforizing, beetling, creping, glazing, calandring, degumming, delustering, crease resisting, water proofing, moth-proofing and fire proofing.

Unit III blends and mixture, yarn classification, basic weaves, Non woven fabric construction –fells, knitted fabrics, looms.

Unit IV Design techniques for finished fabrics block printing, roller printing, screen printing.

Unit V Adding colour to textile : Natural dyes and synthetic dyes, classification of dyes-direct-dyes, acid dyes, basic dyes, vat dyes, sulphur dyes, azoic

dye, mordant dyes, disperse dyes reactive dyes and pigments. Dyeing techniques solution dyeing and yarn dyeing, stain removal.

Recommended Book

HMC 103

1. Fundamentals of Textiles and their care Sushila Dantyagi
2. Techniques of tie dye batic- Savitri Pandit
3. Textile, N. Hallen & Saddler
4. Textile fibre & their use – K. P. Hess.

Semester I

Course Code-HMC-104

Food Science

Term End Exam: Marks – 75 (by Class test)

Internal Assessment - 25

Total Marks -100

- Unit I**
- i. Cereal, Pulses and Millets
 - ii. Type, structure and composition
 - iii. Changes in nutritional quality as affected by pounding, milling, puffing, flaking, parboiling, fermentation, sprouting, malting.

Unit II (a) Milk and Milk Products

- i. Composition and nutritive value
- ii. Processing and packaging of milk and milk product and its effect on nutritional quality.

(b) Nuts and Oils seeds

- i. Types and composition
- ii. Processing and its effect on nutritional quality

iii. Fat spoilage.

Unit III (a) Meat, fish poultry and egg

- i. Composition and nutritive value
- ii. Different method of cooking and preservation of meat, fish & poultry, effect on nutritional quality and merits and demerits of various method of cooking

(b) Fruit & Vegetable

Classification composition and nutritive value, processing of fruit & vegetable and its effects on nutritional quality

Unit IV a. Sugar : Type of Sugar, Properties of sugar and its uses, processing of sugar and its product.

b. Spices and condiments, types and use in cooking

c. Beverages: Composition & Preparation of different product Tea, coffee, (Carbonated, non carbonated, fruit juices and alcoholic beverages)

Unit V a. Domestic food preservation principles and method Bottling canning, dehydration and drying, pickling, brining and syruring pasteurization in syrup, freezing, sterilization, pasteurization blanching, fermentation, irradiation, use of chemical preservative.

b. Improving nutritional quality of food (Supplementation) enrichment and fortification.

RECOMMENDED BOOK

HMC-104

1. Food: Facts and principles –N Shakuntla Manoj & M. Shudaksharaswy.
2. Advanced text book of foods and nutrition. VoI II M. Swaminathan.
3. Food Science: Mudambi Rao.

4. Foundation of food preparation by peckman
5. Experimental cookery by Grishwald
6. Experiment cookery by Lowe.

Semester I

Course Code-HMC-105

Practical Work

Term End Exam: Marks – 100

External Assessment -50

Internal Assessment - 50

Unit I Making family budget for different income groups while taking into consideration savings and Taxes

Income Tax calculation

Unit II Preparation of research proposal in home Science and its report writing.

Unit III Methods of dyeing, batik tie and dye, fabric painting. Dyeing cotton with basic, direct and natural dyes

Block printing, Screen printing

Stain removal and demonstration of dry cleaning.

Identification of fibers visual inspection, burning, microscopic and solubility test. Preparation of weaves on card board

Unit IV Important National and International food preparations using food groups

Semester II

Course Code-HMC-201

Fashion Illustration

Term End Exam: Marks – 50

Internal Assessment - 50

Total Marks -100

Unit I Sources of inspiration for apparel designing, fashion and current fashion trends, Principles of fashion, fashion cycle, factors influencing fashion, study of fashion figures

Unit II Study of costume designing and flat pattern making

Unit III Principles of pattern making rules in costume designing

Unit IV Basic pattern its fitting

Unit V Study of fitting problems in blouses sleeves and skirts.

Recommended Book

Bane, Allyne, Flat pattern design. Mc Graw Hill Book. 1972 New York

Semester II

Course Code –HMC-202

Community Organization and Home Science Extension

Education

Term End Exam: Marks – 75

**Internal Assessment - 25 (By submitting Assignment and
Class test)**

Total Marks -100

- Unit I** Community organization, rural and urban, community, Basic concepts structure and organization of community, family, caste and their characteristics
- Unit II** Dynamics of changes in society, Impact of urbanization and industrialization on rural community, Factors contribution to change evolutionary and planned. Techniques of analyzing change.
- Unit III** Current problems of over-population, Family and community with reference to hill ecology, demographic indicators birthrate, mortality and morbidity.
- Unit IV** Home Science: Need , importance, areas of home science, contribution of home science in different fields of development
- Unit V** Home Science extension education, history, concepts principles psychology, characteristics of effective learning process, extension teaching, programme planning principle women empowerment and gender Studies.

RECOMMENDED BOOK

1. Teaching Extension Education, S.L. Waghmare
2. Empowerment of rural families/Women

Semester II **Course Code –HMC-203**

Theories of human development

Term End Exam: Marks – 75

Internal Assessment - 25 (By Class test)

Total Marks -100

Unit I Importance of Human development from a life span perspective, Issues in Human development, Stages of Human Development.

Unit II Early theories - Rousseau, Darwin, Lorenz.

Unit III Freud's psychoanalytical theory-Freudian theory, Neo Freudians, cross cultural relevance, current status. Psychosocial theory of Eric- Erikson
Learning theory-Pavloy, Watson, Skinner.

Unit IV Piaget's theory of cognitive development Social learning theories.
Kohlberg's theory of Moral development.

Unit V Theories of the self-Mead and Kooly Duskin

Course Code –HMC-204

Human Physiology

Term End Exam: Marks – 75

Internal Assessment - 25 (By Class test)

Total Marks -100

Unit I Physiological process, structural and functional basis of human body
Skeletal system, joints and muscular system

Unit II Composition and functions of blood and lymph, heart and course of
blood circulation, blood pressure, pulse and heart sounds

Unit III Physiology of digestion, digestive enzymes and their function,
function of liver, absorption from the intestine

Unit IV Respiratory apparatus, mechanism of respiration, respiratory rates, volume and transport of gases, physiology of kidney and skin

Unit V The location, secretion and functions of various endocrine glands, male female reproductive organs, pregnancy parturition and ,milk secretion

RECOMMENDED BOOK

1. Arthur J. Banders; Human Physiology- The mechanisms of body function, Tata Mc Grawaw-Hill Publishing
2. C. Guyton; Text book of Medical Physiology Vth edition, W.B. Sanders company- Philadelphia, London.

Semester II

Course Code –HMC-205

Practical Work

Term End Exam: Marks – 100

Internal Assessment - 50

External Assessment - 50

Unit I Sketching- Figure drawing with different elevations Sketching of accessories – Hats and head gears, footwear bags and purses, jewellery. Construction of different type of collars, sleeves and skirts, pleats, shirring, smoking and zips, gathers and tucks Lacing, macrames and patch work

Basic rendering techniques –colour matching using different mediums, stripes, checks and plaids, patterns and texture, shading.

Unit II Formulation of survey schedule for obtaining demographic information on village and profile of households- Collection of information through

survey schedules Formation of project based on felt needs of assigned house holds

Organizing and conducting group demonstrations.

Unit III Skeletal system of mammal

Hematology – R.B.C. Estimation of hemoglobin, Blood pressure measurement.

Semester III

Course Code –HMC-301

Human Nutrition and Diet Therapy

Term End Exam: Marks – 75

Internal Assessment - 25 (By Class test)

Total Marks -100

Unit I Nutrients in foods: their functions, requirements and sources digestion absorption and utilization of nutrients. Effect of low and excess intake of nutrients on human body Energy requirement, BMR, Water, its functions, sources and routes of excretion, recommended dietary allowances

Unit II Methods of assessment of nutritional status

Unit III BMR Diet therapy: History of dietetics, effect if illness on food acceptance and utilization, role of dietician, taking patients history, education of patient and dietetic counseling.

Unit IV Therapeutic modifications of normal diet, food exchange lists feeding methods, principles of dietetic management of chronically ill patients

Unit V Causes, symptoms and principles of deictic management of

- Fevers (Long and short duration)
- Peptic ulcer, gastritis
- Jaundice, hepatitis cirrhosis and infantile cirrhosis
- Diarrhea, constipation
- Cardiovascular diseases, hyper lipidemia, hypertension, congestive heart failure
- Nephritis (acute and chronic) renal stone, gout, arthritis
- Diabetes mellitus, obesity and under weight (PCM)
- Diet in surgery, fractures, burns injury, allergy and AIDS

RECOMMENDED BOOK

HMC-202

1. A Text book of food and nutrition by M. Swami Natha, Ganesh Publishers, Bo1 I & II.
2. Clinical Dietetics and Nutrtnon by F.P. Antia, Oxford Univer sity Press. New Delhi, London & New York
3. Human Nutrition and Diest by S. Deevidoon, R. Pasamore, J.F. Brock and A.S. Truwell, Cjhurchile and Livingstone.
4. Modern Nutritions in Health & Disease, Yong & Shails Normel & Therapeutic Nutrition by F.T. Proudfit & C.H. Robinson.

Semester III

Course Code –HMC-302

Communication Process

Term End Exam: Marks – 75

Internal Assessment - 25 (By Class test)

Total Marks -100

Unit I Concept of communication-meaning, functions, problems and barriers, elements of communication process, mass media of communication.

Unit II Projected and non projected communication aids-chalkboard, flat picture, photograph, diagrams, charts, poster, cards, transparencies and slides.

Unit III Formal and non-formal education, Adult education, adult education programmes in India and Other Countries.

Unit IV Elements of diffusion of innovation, decision making process, types and attributes of innovation, role of change, agencies in decision process, communication strategies for improving standard of living.

Unit V Programme planning- Needs benefits, principles process of programme planning and evaluation. Government sponsored programme for family development – IRDP, DWCRA, NREP, TRYSEM etc.

RECOMMENDED BOOK

HMC302

1. Teaching Extension Education, S.L. Waghmare
2. Education and communication for development, Dahama O.P. and Bhatnagar.
3. Fundamental of Teaching Home Science, Chandra A. Shah A. and Joshi U.
4. Communication and Development, Dahama O.P. and Bhatnagar P.
5. Communication of innovation, Rogers E.M. and Shoemaker P.
6. प्रसार शिक्षा, बी० एस० हरपानी
7. प्रसार शिक्षा, गीता पुष्प शॉ एवं जायस शीला सॉ।
8. प्रसार शिक्षा, दुधनाथ सिंह

Semester III

Course Code –HMC-303

Apparel Designing

Term End Exam: Marks – 75

Internal Assessment - 25 (By Class test)

Total Marks -100

Unit I Sewing equipments and other tools required for drafting, cutting and stitching, sewing machine. Fabric terms and definitions, straightening of fabric, fabric preparation

Unit II General construction techniques of garment, layout marking and cutting of pattern pieces.

Unit III Design of clothes principle and elements of design, design and figure type. Standard functional design of garment: requirements for individuals clothing comfort, safety, self help room for growth, economy, appearance, easy care fabrics.

Unit IV Techniques of pattern making: pattern making: flat pattern drafting their applications and limitation in clothing construction. Physiological and social influence of dress.

Unit V Basic principles of construction of garment of garment for different ages

RECOMMENDED BOOK

1. Carson, Byrta; How you look and dress 4th Ed. Webster Division, McGraw Hill Book Company, 1969 London
2. Mansfield, Evelyn a. and Lueas, Ethl L. Clothing Construction 2nd Ed. Houghton Mifflin company, 1974 London.
3. Deongaji, Sherrie and Desponded, Rust ham Basic Process and Clothing Construction 2nd Ed. New Raj Book Dept, New Delhi.
4. Erwin, Mabel, D. and K Inche, A. Lila, Clothing for Moders 6th Ed. Mac Millan Publishing Co. 1979 New York.

Semester III

Course Code –HMC-304

Life Span Development 1

Term End Exam: Marks – 75

Internal Assessment - 25 (By Class test)

Total Marks -100

Unit I Prenatal development stages; Genetic and Environmental factors, critical influences, birth process and complications

Unit II Infancy: The neonate up to 4 weeks –physical, cognitive and social capabilities four weeks up to 2 years physical and motor, social and emotional, cognitive and language development, early environment and its importance, need for desirable child rearing practices, growth monitoring, effects of environment deprivation.

Unit III Early childhood years: Development milestones of physical, motor, social, emotional, cognitive and language development.

Unit IV Middle childhood : physical and motor skills, development factors, language and intellectual development, growth trends emotional development, development of positive and negative emotion, factors influencing emotions social and moral development, growth trends, function of the family, role of school and community in the growth of children during middle childhood.

Unit V Family relationships: parent child relationships, role of family, school and community in child development, Exceptional children, Physical, mental and other abnormalities.

RECOMMENDED BOOK

HMC – 304

1. Child Development, G.P. Hurlock
2. An Introduction to child development, Nirmala Kher
3. Child Growth and Development, E.P. Hurlock
4. Modern Child Psychology, Chand
5. Psychology of Child Development, Bhattacharya.

Semester III

Course Code –HMC-305

Practical III

Term End Exam: Marks – 100

Internal Assessment - 50

External Assessment - 50

Unit I Assessment of dietary and nutritional status of some families

Unit II Planning and preparation of diet during normal and diseased condition

Unit III Construction of following garments with drafting techniques, using seams seams and seam finishes pleats, tucks, gathers bias, binding, plackets and fasteners

- Ladies kameez
- Churidar Salwar
- Frock
- Six gored petticoat
- Garments of Infants
- Pre-School Knickers (half-pants)
- Sweaters
- Gloves and socks

Unit IV Preparation and use of instructional media: charts, posters, flash cards. Flannel graphs, models, Use of black board, Use of Bulletin board. Preparation and use of slides use and handling of instructional aids Demonstration as an instructional technology-method and result demonstration. Group discussion, lesson planning.

Semester IV

Course Code –HMC-401

Indian Embroidery & Textile

Term End Exam: Marks – 50

Internal Assessment - 50

Total Marks -100

Unit I Traditional woven textile of India: Dacca muslin & jamdani saree, patola and ikat sarees, kanchipuram sarees, chanderi sarees, maheswai

sarees, vichetrapuri saress and brocades, woven shawls of Kashmir, himachal Pradesh and North Eastern states

Unit II Printed and painted textiles: Block Printed textiles, tie and dyed textiles
Kalamkani madhubani

Unit III Embroideries of states of India : Kashida of Kashmir, Chamba rumal, Phulkari Bagh of Punjab, Embroideries of Gujarat Chikankari and Zari work of Uttar Pradesh, Kanthas of Bengal, Manipuri Embroidery, Kasuti of Karnataka, Embroidery and patchwork of Bihar.

Unit IV Traditional costumes of India; Kashmir, Punjab, Uttar Pradesh, West Bengal, NE States, Rajasthan, Gujarat, Maharashtra, South Indian States.

Unit V Importance of traditional costumes and textiles and apparel industry:
a. Impact of adaptation of traditional motifs and designs for modern textiles
b. Revival of traditional costumes and style through contemporary dresses.

RECOMMENDED BOOK

Pndit, Savitri, Indian Embroidery, Its variegated charms, 1976 Baroda
Bhavani, Enakshi, Decorative Designs and Crafts man ship of India;
Tarporevla, 1974, Bombay

Semester IV

Course Code –HMC-402

Housing & interior Decoration

Term End Exam: Marks – 75

Internal Assessment - 25 (By Class test)

Total Marks -100

Unit I Factors affecting housing needs and demand in India population, income, occupation, family mobility and technological development. Solving India's housing problems, needs obstacles setting goals, standards, role of central and state Government and local housing agencies, rent control policies housing schemes.

Units II Introduction to interior decoration, importance of interior planning and decoration, planning principles for specific areas.

Unit III Element and principles of design and their application in interiors, principles of Harmony, proportion, balance and rhythm, application of elements and principles of design in interior planning and decoration.

Units IV Factors for developing furnishing plans characteristics of the rooms, family needs; Styles, usage and available type of furniture etc. furnishing cost and budget, planning for background areas and their treatment, floors walls ceilings and their structural characteristics, material, finishes and techniques of preparation and decoration.

Units V Furniture arrangement, types of furniture and selection criteria, window treatment, types of window and its parts, functional and decorative treatment, Light sources and colour scheme, Developing light plans for different areas, Functional and decorative accessories for interiors.

Recommended Book

1. Drothy Stepat-Devan And Others- Introduction to interior Design, N.Y. Macmillan 1980.
2. Mike Lawrence: The Complete interior Decorator U.K. Macdanald, 1986.

3. Faulker and Faulker, inside today's home, N.Y. Holt Rinehart and Winston, 1975
4. Ruth Morton : the home and its Furnishing U.S.A. Mc. Graw – hill 1970.

Appendix 3

Semester IV

Course Code – HMC- 403

Entrepreneurship Development

Term End Exam Marks- 75

Internal Assessment - 25 (based on)

- Unit I** Entrepreneurship – Definition, need, scope and characteristics of entrepreneurship development and employment promotion
Identification of Opportunities
- Unit II** Entrepreneur and enterprise, entrepreneurial qualities, assessing entrepreneurial qualities, environment scanning and opportunity identification. Methods source and type of opportunity, assessment criteria and profiling opportunities.
- Unit III** Infrastructure and support system, Industrial support agencies, Procedure and steps involved in setting up an enterprise, sources of information and industry organization.
- Unit IV** Project planning and formulation of project, identification and product selection, generating project ideas, short listing, final selection market survey, market alternatives, an overview of the future
Product development
Product Selection
Preparation of project report

Unit V Enterprise management

- Basic management concepts, personnel management, product management, material management, financial management and accounting, market management, crises management.

Unit VI (25 marks internal assessment to be based on Unit VI)

- Interaction with entrepreneurs

Visit to industry

Project planning formulation and report preparation

Case studies

Appendix 4

Semester IV

Course Code – HMC- 404

Community Nutrition and Public Health

Term End Exam Marks- 75

Internal Assessment - 25 (based on)

Unit I Nutrition education programme in eradication of malnutrition, improving amount and variety of food supply. Community nutrition as a field, public health nutrition, goals of nutrition programmes' dietary guidelines, present trends and focus on community, nutrition, methods of assessing nutritional status.

Unit II National Nutrition Programmes and Policies

- National programme for prevention of Nutritional blindness due to vitamin a deficiency.

- National Nutritional anemia prophylaxis programme
- National Iodine deficiency control programme
- ICDS, Mid- day meal, Special Nutrition programme, applied nutrition programme, Balwadi nutrition programme
- International agencies and programs
UNICEF, FAO, WHO, CARE

Unit III Food security: Food distribution system – PDS, FCI, Magnitude of nutritional problem in India: PEM, Vitamin A deficiency, endemic goiter, fluorosis etc.

Unit IV Concept of health and health care- definition factors affecting health, health education, primary health care. Vital statistics – health indices- sources of vital statistics – mortality morbidity and demographic indicators, fertility rate, net reproduction rate

Unit V Infection – source and reservoir of infection agents of contamination, mode of transmission prevention and control of infection and disease.

Recommended books

HMC-404

1. Obert J. C. (1986). Community Nutrition 2nd Edition Mac Millan Publishing Co. New York.
2. NIN-1988-90 National Nutrition Monitoring Bureau Report.
3. Nutrition Health and National Development 1989 Special Publication Series 4 NFI Publication.
4. Jelliffe D.B. 1966, The Assessment of Nutritional Status of Community WHO
5. Gibson R.S. 1990 Principles of Nutritional Assessment, Oxford Publishing Co.

6. Reddy V, Prahalad Rao N., Sastri J G. Kshinath K. 1993 Nutritional Trends in India. National Institute of Nutrition, ICMR, Hyderabad

Appendix 4

Semester IV

Course Code – HMC- 405

Dissertation and Seminar

Assessment - 100

Dissertation topic to be finalized in consultation with the instructor and will be based on the course studied in that semester.

Appendix 4

Semester IV

Course Code – HMC- 406

Practical Work IV

External Assessment - 50

Internal Assessment - 50

Total Marks - 100

Total Marks – 100

Unit I Sample preparation of traditional Indian embroideries and machine embroideries Preparation of two articles using different hand embroideries Preparation of two articles using machine embroideries, Documentation of Indian textile and costumes.

Unit II Graphical representation of interior of different rooms (floor plan), house plans for different income groups
Planning colour schemes of different rooms for different activities
Plans and elevation of different furniture pieces

Preparing drawing for different surface assignments of interiors.

- a. Arrangement of walls
- b. Arrangement of floors.
- c. Ceiling arrangements.

Unit III Identifying health and nutrition problems in a community Report writing.

Formulation of nutrition and health related messages for presentation to the community through charts, posters, flashcards, games and popular articles.