

Syllabus for Undergraduate Programme

B.A. / B. Sc. In Home Science



Manipur University, Canchipur

Imphal-795003

SEMESTER-1

Bachelor of Home Science

FOOD SCIENCE AND NUTRITION

Paper: Hs (E) 101

- **Unit-1 Food groups and Nutrition** 15 Marks
Function and basic terms of Food and Nutrition, its relation to health, physical development and well-being. Balance diet meaning and definition. Classification, function, sources, deficiency, digestion, absorption and metabolism of Carbohydrates, Fats and Proteins, Function, requirement, sources and deficiency of vitamins, minerals and water.
- **Unit-2 Food Preparation and Study of Food Groups** 15 Marks
Basic terminology used in food preparation, objective, objectives, methods and effect of cooking for improving nutritional quality of food – Combination of food, germination, fermentation and supplementation food group: Basic five and Basic seven food consumer protection : food legislation in India. Standards for ensuring quality of products.
- **Unit-3 Meal planning and nutritional** 15 Marks
Principles, factors and importance of meal planning. Nutrition for mother – Nutritional requirements and diet during normal pregnancy and lactation. Nutrition during infancy – nutritional requirements, weaning and supplementary foods. Nutrition for specific age groups – pre-schoolers, school children, adolescents and elderly.
- **Unit-4 Food Habits and Nutritional education** 15 Marks
Factors affecting food habits, Food adulteration – type of adulteration and common adulteration and common adulterants, effect of adulteration. Food Poisoning, food allergy, food fads and fallacies, malnutrition – definition, types, courses and importance of nutrition education. National organizations (ICAR, ICMR) and international organization (FAO, WHO, UNICEF, CARE) in community nutrition and health.
- **Unit-5 Study of Energy** 15 Marks
Body's need for energy – definition of Calories – determination of energy value of food by bomb Calorimeter – physiological fuel value – of food by bomb Calorimeter – physiological fuel values – B.M.R – Factors influencing measurement of B.M.R – Factors influencing measurement of B.M.R – Total energy requirement and factors influencing – estimation of energy requirements – Indian reference man and women.

PRACTICAL

Paper: Hs (E) 101

Full Marks – 25

1. Finding out deficiency symptoms of kwashiorkor, marasmus, beri-beri, goitre, rickets
4 Marks
2. Simple cooking – preparation, serving and calculation of cost – cereals, pulses, vegetables, fruits, milk, egg, etc. 4 Marks
3. Planning, Calculation and preparation of low cost diet for under nourished groups childhood stage –early and late childhood
4 Marks
4. Planning, Calculation and preparation of low cost diet for under nourished groups childhood stage – early and late childhood.
4 Marks
5. Height – Weight measurement: Record your height and weight and score your general nutritional condition by comparison with standards. 4 Marks
6. Notebook. 3 Marks
7. Viva – Voce 2 Marks

BACELOR OF HOME SCIENCE SEMESTOR 2

Family Resource Management

Theory Full Mark 75

- Unit-1

Meaning and definition of Home Management – function of house, selection of site. Principle of House planning. House planning for different income group. Factors affecting house planning. Building materials for construction, low cost building material and economy in constructing a house. House wiring electrical fitting and fixtures. Kitchen arrangement – Principles of planning kitchen, types of Kitchen. Functional designing of work areas and storage space management.

15 Marks

- Unit- 2

Resource in the family – Definition, types, factors affecting use of resources guide to increasing satisfaction from resources. Management process – Meaning and element of management process, stages of family life cycles, types of family, life style. Qualities of an efficient home maker.

15 Marks

- Unit – 3

Motivation in Management – Philosophy, definition, formation, significance, type. Values – importance, sources of values, classification, characteristics, changing of values. Goals: definition, types, goal setting, changing of goals. Standards –definition, significance, classification. Decision making – definition types of decisions steps in decision making.

15 Marks

- Unit – 4

Interior decoration: Elements of Art, Types of design, Principles of design. Colour qualities of colour, Prang colour system, colour schemes, emotional effects of colour, use of colour in interior decoration for different rooms. Study of light in interior decoration, types of lighting. Floor Arrangement – different type of styles, shapes, principles, method of drying flower and foliage – Floor decoration – Rangoli Aplana Kolam.

15 Marks

- Unit – 5

Equipment for the home – Classification of equipment: Factor affecting the selection, use and care of house hold equipment such as cooking ranges, oven, stoves, pressure cooker, refrigerator, washing machine, water heater, vacuum cleaner, smokeless chulah and solar cooker.

15 Marks

BACHALOR OF HOME SCIENCE SEMESTER 2

Family resource management

Practical

Marks 25

1. House plan for different income groups i.e. low income / middle income / high income with diagrams. 4 Marks
2. Planning modals of different type of kitchen plans. 4 Marks
3. Visit to the families of rural and urban areas to study the work culture and writing a report. 4 Marks
4. Different types of floor decoration and flower arrangement. 4 Marks
5. Care and use of Household equipment. 4 Marks
6. Note books 3 Marks
7. Viva – Voce 2 Marks

BACHALOR OF HOME SCIENCE SEMESTER 3

Human Development

Paper: HS(E) 303

Theory: 75 Marks

- **Unit 1 : Introduction to Human Development**

Meaning and principle of Human Development, Factors affecting growth and development, influence of heredity and environment on development, stage of human Development- Prenatal, Infancy, Babyhood, Childhood, Puberty, Adolescence and Adulthood, Beginning of new life, Time table of Prenatal development.

15 Marks

- **Unit 2 : Development during babyhood**

Characteristic, Developmental task of babyhood, pattern of physical development, psychological functions, skills of babyhood, emotional behaviour, common play pattern of babyhood, physical and psychological hazards, educational and recreational value of toys, selection of toys for babyhood

15 Marks

- **Unit 3 : Early Childhood and Education:**

Characteristics, developmental task, physical development, psychological habits, skills of early childhood, emotion and emotional patterns, socialization, social and unsocial behaviour patterns, moral development, discipline in early childhood, Pre-school education – meaning, objectives, and goals, types of pre-school, programme planning for a Nursery school.

15 Marks

- **Unit 4 : Late Childhood and Children with special need**

Characteristics developmental task, common emotional pattern of late childhood, social grouping and social behaviour in late childhood, role of discipline in moral developing sex role typing and its effects: cause and categorization and educational provision for exceptional children.

15 Marks

- **Unit 5 : Child welfare Services**

Services for normal children pre-school education, crèche, day care centre services for children in difficult circumstances, institutional and non-institutional, services for economically and educationally handicapped children, different agencies working for children – Indian council for child welfare, Central social welfare Board, WHO, UNICEF, UNESCO, FAO.

15 Marks

BACELOR OF HOME SCIENCE SEMESTER 3

Human Development

Practical

25 marks

1. Anthropometrics measurement-height, weight head mid arm and chest circumference of an infant. Preparation of charts showing the 7 dimension of human development.4 Marks
2. Preparation of soft toys low cost and expensive one visit to a creche and writing a report.4 Marks
3. Planning a weekly programme for a Nursery school. Planning a lesson related to any activities.4 Marks
4. Visit to institutions dealing with exceptional children. Planning and implementing a simple project to any one of the special institution. 4 Marks
5. Participation in Balwadi /Nursing schools- Informal talk, story-telling.4 Marks
6. Records. 3 Marks
7. Viva 2 Marks

References:

- Hurlock, Elizabeth B. Departmental psychology, Tata Mcgraw Hill Publication Company, New Delhi.
- Diane E Papilia and Sally Wendkos Olds (2001), Human Development, Tata Mcgraw Hill Publisher Company, New Delhi.
- Suriyakanthi A, Child Development, Kavita Publication Gandhigram.
- Devadas, Rajmmal P, A Textbook on Child Development, Mac Millan India Ltd.
- Chaube S.P and Chaube A, Child Psychology, LaxmiNarainAgrowal Hospital Road, Agra.
- Vatsayayan, Departmental psychology, KedarNath Ram Nath, Delhi.

BACHELOR OF HOME SCIENCE SEMESTER 4

Textile, Clothing and Home Science Extension

Paper: HS (E) 404

Theory: 75 marks

- **Unit-1 Introduction to textiles**

Classification of textile fibres and their properties, yarns: Meaning and types. Process of yarn spinning mechanical and chemical. Fibre grain, fabric count, fabric length, fabric width, fabric weight, selvedge, Preparation / Manufacture of vegetable, animal and synthetic fibres. 15 Marks

- **Unit-2 Weaving and Stitches**

Weaving: Types of weaves, Loom and its different parts. Knitting, Non-Woven and decorative. Fabric construction, braiding lacing, Knotting and netting. Stitches – Basic and Embroidery. Selection of fabric according to age, Fashion, Climate, occupation and occasion. 15 Marks

- **Unit-3 Fashion designing and garment technology**

Fashion: Fashion cycle, Trends in India, Terminologies, Fashion Merchandising, Sales and marketing. Method of taking body measurements, Techniques of pattern making- principles and applications. Basic bodice block. Drafting of Jhangia, jabla, Saree – blouse and nighty. 15 Marks

- **Unit-4 Extension Education**

Principles and objectives of extensions. Difference between extension education and formal education. Quality of home science extension worker. Meaning, importance and function of communication. Models of communication, key elements in communication process. Meaning and importance of motivation in extension. Technique of motivation in extension work. Concept of need. Types of need – felt and unfelt needs. 15 Marks

- **Unit-5 Extension teaching method and aids**

Selection of effective teaching methods. Planning lessons, Classification of extension teaching methods according to form and use. Individual, group and mass approach. Lecture method, demonstration, discussion, workshop, assignment, special report and field trip. Their advantages and disadvantages. Selection of appropriate teaching aids and their classification – projected and on projected aids, three dimensional aids, display aids, graphic aids and auto aids. General objectives of adult education Teaching and evaluation method of adult education. 15 Marks

BACELOR OF HOME SCIENCE SEMESTER – 4

Paper: HS (E) 404

Practical

25 Marks

- Identification of different fabric by different methods. 4 Marks
- Preparing a scrap book on different basic and embroidery stitches. 4 Marks
- Drafting and stitching of jhangia, jabala, saree blouse and nighty. 4 Marks
- Visit to adult education centres in Manipur and writing a report. 4 Marks
- Demonstration on handling and operation of OPH and writing an assignment on it. 4 Marks
- Practical notebook 4 Marks
- Viva Voce 4 Marks

BACHELOR OF HOME SCIENCE SEMESTER – 5

Food science and nutrition

Paper: HS (H) 505

Theory: 100 Marks

- **Unit – 1 Food Microbiology**

Principle underlying food spoilage and food preservation Introduction to microbes, classification of microbes into their different types and food preservation, introduction to microbes: Classification of microbes into their different types and their characteristics – protozoa, algae, fungi, bacteria. Importance of food preservation.

General principle of food preservation for arresting microbial growth

- I. High or low temperature (pasteurization / refrigeration / deep freezing)
- II. Drying (Sun-drying)
- III. Radiation

20 Marks

- **Unit-2 Diet Therapy**

Introduction to diet therapy: therapeutic adaptation to normal diet

- a) Soft diet
- b) Liquid diet
- c) Bland diet
- d) Low fibre diet

Cause, symptoms and principles of dietary management of gastro intestinal disorders / liver disorders

- a) Gastro intestinal disorders:
 - I. Peptic ulcer
 - II. Ulcerative colitis
 - III. Diarrhoea and constipation
- b) Liver disorders
 - I. Viral hepatitis
 - II. Cirrhosis
 - III. Hepatic coma
- c) Gall bladder disorder
 - I. Cholecystitis
 - II. Cholelithiasis

20 Mark

- **Unit – 3 Weight Management and Diabetes Mellitus**

Cause, symptoms and principle of dietary management of obesity and overweight.

- a) Types and cause of obesity
- b) Criteria for obesity and overweight

- c) Dietary management of obesity – fat in diet, types of diet, desirable rate of loss of weight
- d) Role of exercise
- e) Effects of untreated obesity

Underweight – definition and problems associated

Cause, symptoms and principles of dietary management of hypertension
coronary heart disease and disorders

- a) Hypertension
 - I. Normal blood pressure and types of hyper tension
 - II. Role of sodium / salt in hypertension
 - III. Role of diet in management of hypertension
- b) Coronary heart disease
 - I. Hyperlipidemia
 - Types
 - Role of diet
 - II. Atherosclerotic heart disease
 - Types
 - Role of diet
 - Prevention, control of risk factor and life style changes
- c) Renal disorders
 - I. Glomerulonephritis
 - II. Nephritic syndrome
 - III. Acute and chronic failure
 - IV. Importance of dialysis
 - V. Renal calculi

20 Marks

- **Unit – 4 Condition requiring nutritional support**

Causes, symptoms and principle of dietary management of some of the special condition requiring nutritional support.

- a) Fevers : short and long
- b) Anaemia : types
- c) Surgery : pre and post-operative care
- d) Protein – energy malnutrition

20 Marks

- **Unit – 5 Human nutrition**

Human body composition – compositional changes in different stages of life, physiological influence, methods of determining body composition body composition in relation to basal metabolic rate

Dietetics – importance of dietetics, role of food service managers and dietitians. Therapeutic adaptation to normal diet for consistency, temperature, nutrient and quantity.

Mode of feeding – tube feeding and composition of tube feeding parenteral feeding. Nutrition and dietary counselling for other health condition – arthritis, cancer, gout, diet management for industrial worker, sports persons, diet and nutritional care during emergencies.

20 Marks

BACHELOR OF HOME SCIENCE SEMESTER 5

Family Resource Management

Paper: HS (H) 506

Theory: 100 Marks

- **Unit – 1 Management of time**

Importance; Time plans – Factors to consider, steps and guides controlling and evaluation, tools in time management – peak loads, work curve, leisure time, emergency period.

20 Marks

- **Unit – 2 Management of Energy**

Importance of energy, energy cost effort require in home making activities, Fatigue – types and method to overcome fatigue, work simplification principles and techniques, Mundel's classes change.

20 Marks

- **Unit – 3 Management of Money**

Family income, types and sources of income method of handling money, supplementing the family income. Family expenditure: Family budget – types, object, items in budget, steps in making family budget, Engel's law of consumption, Financial records of household: Savings and investment.

20 Marks

- **Unit – 4 Consumer Education – aim and purpose**

Consumer – definition and role, consumer problems in rural and urban areas, consumerism and its – growth, consumer's rights and responsibilities, unfair trade practices – Adulteration, Faulty weight and measures. Sources of consumer information, advertisements, printed information, consumer protection laws, consumer aids. Factors influencing human wants. Buying practices.

20 Marks

- **Unit – 5 Application of Management Principles – Experimental house.**

- a) Recognition of theory in action
- b) Objective
- c) Changes

d) Organization

- Position of manager
- Rotation of duties
- Group finance
- Menu planning and work simplification through menu planning
- Work plans
- Evaluation in residence course.

20 Marks

BACHELOR OF HOME SCIENCE SEMESTER – 5

Food Science and Nutrition, Family Resources Management

Paper: HS (H) 507

PRACTICAL 100 Marks

1. Preparation of the following 6 Marks
 - a) Jams
 - b) Sause
 - c) Pickles
 - d) Squash
2. Planning, Calculation and Preparation of meal (Lunch) 6 Marks
 - a) Adolescent girl / boys (16 – 18 years)
 - b) Pregnant Women
 - c) Lactating Women
3. Preparation and evaluation pf therapeutic adaptations of the normal 6 Marks
 - a) Liquid diet
 - b) Soft diet
 - c) Bland diet
4. Planning, preparation and calculation of the following therapeutic diets with emphasis according to related disorders
 - a) High protein
 - b) Low protein
 - c) high calorie
 - d) low calorie
 - e) high fibre
 - f) low fibre
 - g) low fat
 - h) high iron
 - i) low sodium

5. Planning and calculation for the following disorders 6 Marks
 - a) Gastro intestinal disorders: peptic ulcer, diarrhoea, constipation
 - b) Liver disorders: jaundice – mild / severe
 - c) Renal disorders : acute nephritis / acute nephrosis
 - d) Fever : short and long duration
6. Preparation of a model family budget for a family 6 Marks
7. Problem of consumers – adulteration of food detecting mal – practices in weight and measures. 6 Marks
8. Analysis activities in the house / lab, to study pathway chart, record of time study. 6 Marks
9. Planning of time for college student – weekly, daily 6 Marks
10. Residence stay for one week incorporating principles of resource management, housing and equipment, principles of interior decoration, as the practical with internal and external assessment 6 Marks
11. Notebook 10 Marks
12. Record and Report Writing 10 Marks
13. Classwork 10 Marks
14. Viva voce 10 Marks

BACHALOR OF HOME SCIENCE SEMESTER – 6
Adolescence, Dynamics of Marriage and Counselling
Paper: HS (H) 608
Theory: 100 Marks

- **Unit – 1 Adolescence**

Characteristics, developmental tasks, Emotionality during adolescence, social change during adolescence, sex interest and sex behaviour during adolescence, sex role typing and its effects on adolescence, sex education, family relationships during adolescence, body changes – change in body size, changes in body proportion, development of primary and secondary sex characteristics.

20 Marks

- **Unit – 2 Adulthood**

Early adulthood – characteristics, changes in interest, sex role adjustments personal and social hazards, success of adjustment to adulthood – characteristics, adjustment to physical changes, adjustment to mental changes, personal and social hazards, vocational and mental hazards; old age – characteristics, adjustment to physical changes, changes in physiological functions, adjustment to retirement and loss of spouse, problems of old age.

20 Marks

- **Unit – 3 Marriage and Family**

Meaning, definition, types, motives and functions of marriage; Readiness for marriage – Physiological, social psychological and economical, selection of life partner, marital adjustment, divorce and its effects on man and women; customs, traditions and marriage ritual in different community; Planning for parenthood; Family – main interpersonal relations in the family; parent and child relationships, husband and wife relationship.

20 Marks

- **Unit – 4 Guidance and counselling**

Definition, nature and need types of guidance, need for guidance at various levels of education, history of guidance movement in India, Description, application and utility of different technique of guidance – observation, questionnaire, interview and self-report technique; guidance services in schools with special reference to secondary level; characteristics of good counsellor.

20 Marks

- **Unit – 5 Intervention Programme for family and community**

Theoretical orientation in planning intervention programme for young children. Meaning, need, scope and objective of parents and community intervention. Method of parents education. Approaches and techniques in parent and community education. Need for family life education. Infant Stimulation – need

and scope for stimulation. Brain growth and effect of stimulation on development of infants. Factors to be considered in developing, implementing and evaluating intervention programmes.

20 Marks

BACHELOR OF HOME SCIENCE SEMESTER 6

Textile, Clothing and Science Extension

Paper: HS (H) 609

THEORY: 100 Marks

- **Unit – 1 Dyeing, Printing and Finishing**

Dyes: Meaning, history and classification. Suitability of different dyes to different fabrics. Dyeing; different method plain dyeing, different type of tie and dye. Difference between dyeing and printing. Types of printing – direct (block, stencil, screen) resist (batik), discharge printing. Finishing: meaning, needs and classification on the basis of degree of permanence (permanent, durable, semi durable and temporary) and on the basis of textile processing (chemical and mechanical).

20 Marks

- **Unit – 2 Traditional Textiles and Embroideries of India**

History of Indian textiles and embroideries. Textile – Muslins, Decca Sarees, Brocade, Chanderi Sarees. Baluchar Buttedar, Paithani and Pitambar, Patola Bandhanis, Kalamdar. Embroidered Fabric – Phulkari, Chamba Roomals, Kanthas, Kasheeda, Namdas, Chikankari. Some traditional textiles and embroideries of Manipur.

20 Marks

- **Unit – 3 Stain Removal and Laundry**

Stain classification, principals of stain removal stain removing reagents and its uses on different fabric. Identification and techniques of removal of various stain. Laundry agents: Definition, properties and effect of soaps and detergents on cleaning of different fabric. Laundering process of cotton, wool and silk.

20 Marks

- **Unit – 4 Leadership in Extension and Extension Program Planning**

Theories of leadership, identifying local leader in extension work. Community development – concepts objectives and essential elements. Panchayati Raj – concept structure and function. Extension programme planning – meaning, importance, principles and process. Developing plan of work and its factor to considered. Evaluation – meaning, purposes and characteristics.

20 Marks

- **Unit – 5 Social Survey and social organization**

Social survey – meaning, importance, types involved. Tools of data collection – questionnaire, observation, interview and schedule. Data analysis by calculating

percentage. Development programme - need, importance and objectives. IRDP, ICDS, NAEP, DWACRA, TRYSEM.

20 Marks

BACHELOR OF HOME SCIENCE SEMESTER – 6

Human Development, Textile Clothing and Extension Education

Paper: HS (H) 610

PRACTICAL: 100 Marks

1. Study of problems of old age. Visit to old aged home and writing reports. 6 Marks
2. Project work (on any one) 6 Marks
 - a) Counselling
 - b) Marriage
 - c) Family
3. Seminar on adolescent problems. 6 Marks
4. Classroom discussion with resources person on Marriage laws, Dowry laws, Family laws. 6 Marks
5. Study of interest, values and extracurricular activities, media consumption, prejudice / gender stereotype, self-concept of adolescence. 6 Marks
6. Study of different types of dying and printing. 6 Marks
7. Preparing an album on traditional textile and embroideries. 6 Marks
8. Removal of different types of stains on different fabrics. 6 Marks
9. Conduction of social survey in a village and writing a report. 6 Marks
10. Visit to difference home science colleges and writing a report. 6 Marks
11. Record. 10 Marks
12. Practical notebooks. 10 Marks
13. Articles prepared during the course. 10 Marks
14. Viva-voce. 10 Marks