

**UNIVERSITY DEPARTMENT OF HOME SCIENCE
B.R.A.BIHAR UNIVERSITY, MUZAFFARPUR**

SYLLABUS FOR PAT - 2019

There are two specialization courses in Home Science

- (1) Human Development and Child Welfare (Group-A)
- (2) Food Science and Nutrition (Group-B)

(1) Syllabus for Human Development and Child Welfare (Group-A)

UNIT-I Statistics and Research Methodology

1. Measures of Central tendency (Mean, Median, Mode)
2. Pie Chart, Histogram
3. Schedule, Interview (Limitations, Merits and Demerits)
4. Case study, Observation (Limitations, Merits and Demerits)

UNIT-II History and Theories of Human Development

1. Pavlov, Watson, Skinner, Cross-culture, Relevance and current status of learning theory.
2. Cognitive Development theory, Jean Piaget theory, Cross-cultural relevance and current status.
3. Erikson Psycho-Social Theory
4. Adler's theory

UNIT-III Study of Family in Society

1. Family as an evolving and dynamic institution functions of family.
2. Family structure - Traditional extended/joint family, Nuclear family, Alternate families - Single parent, Child less, female headed.
3. Family violence battered women child maltreatment.
4. Divorce and remarriage

UNIT-IV Early Childhood Care and Education

1. Principles of Early Childhood care and education.
2. Contribution of the agencies programmes to E.C.C.E. in India.
NCERT, ICDS, UNICEF, WHO, FAO, CARE, ANP, NNMP
3. Concept of organization and administration of early childhood centres.
4. Building and equipment - location and site arrangement of rooms, different types and size of rooms, Play ground, storage facilities, selection of different types of outdoor and indoor game equipment

UNIT-V The Child with special Needs

1. Mentally Retarded Children - Definition and classification, systems of education and rehabilitation.
2. Children with sensory deficits : Visual and auditory impairments, teaching methods and assessment.
3. Emotionally disturbed children common emotional, behaviour problems of childhood and adolescence.
4. Stammering and stuttering remedial measurement speech therapy.

UNIT-VI Nutrition for Children Health and Diseases

1. Nutritional status ^{of} the Child in India, Infant ^{mortality} ~~mortality~~, morbidity rate in India, nutrition and national development
2. Nutritional in infancy : Role of nutrition on Physical and mental development prenatal and postnatal, Nutritional requirements during infancy, feeding of infants value of breast feeding, breast feeding ^{and} ~~is~~ artificial feeding, weaning supplementary foods and infant weaning foods.
3. Nutritional disorders in infancy and childhood.
4. Protein and calorie malnutrition, Vitamin Deficiencies diseases.

UNIT-VII Child Guidance Psychology

1. Guidance : Nature, Functions and Scope, Aims and goals of guidance, factors influencing the growing needs for guidance, common principle or basic assumptions, Areas of Guidance : Educational guidance vocational guidance, Personal guidance health guidance.
2. Importance of guidance programme guidance personnel school and community, Role of parents or guardians in guidance programme, Role of teachers in guidance.
3. Organisation and administration of guidance programme, Basic organization patterns, Administration of guidance programme.
4. Techniques of Guidance : Individual counselling technique group guidance technique, Meaning Need of group guidance or counseling, Group guidance and counseling procedure.

UNIT-VIII Child Rearing practices

1. Method of Child study - types, limitation, Importance and merits demerits.
2. Maturation of Learning
3. Development of character-Moral values, effective factors of moral, discipline and social concept of moral.
4. Creativity development of children definition creative, Intelligence, Values effective factors.

UNIT-IX Social Interaction of Children

1. Socialization - definition, social activities (effective factor of socialization)
2. Group formation - Definition factors, structure of the group classification of group interaction of different group.
3. Principles of Social Behaviour.
4. Development of leadership in adolescents.

UNIT-X Research Method of Human Development Studying

1. **Observation methods** : Theoretical perspective, Use of check lists, establishing reliability in observation maintain an observation record, report writing and evaluation.
2. **Interview Method** : Theoretical perspective, development of different types of Interview.
3. **Questionnaire** : Different types of questionnaire.
4. **Case study method** : Theoretical perspectives, development of different types of case study.

(2) Syllabus for Food Science and Nutrition(Group-B)

UNIT-I Statistics and Research Methodology

1. Measures of Central tendency (Mean, Median, Mode)
2. Pie Chart, Histogram
3. Schedule, Interview (Limitations, Merits and Demerits)
4. Case study, Observation (Limitations, Merits and Demerits)

UNIT - II Applied Physiology

1. Cell Structure and Function
2. Sense Organs (Skin, Eye, Ear, Nose and Tongue)
3. Digestive System
4. Circulatory System

UNIT - III Nutrition for Children in Health and Disease

1. Nutritional Status of the Child in India : Infant mortality, Morbidity rate in India, Nutrition and national development.
2. Nutrition in Infancy : Nutritional requirement during infancy, feeding of infants, Breast feeding, artificial feeding, Supplementary foods.
3. Nutrition in preschool and school age, Nutritional requirements of preschool and school age.
4. Planning diets for childhood diseases : Gastro - Intestinal disorders, Liver disease, Protein and Calorie malnutrition.

UNIT - IV Advance in Food Microbiology :

1. Importance of Micro-organisms in food.
2. Factors affect's the growth of micro-organisms
3. Food Preservation
4. Food Spoilage and Food borne diseases

UNIT - V Advanced Nutritional Biochemistry

1. Plasma Protein
2. DNA
3. Hormones : Mechanism of action of hormones
4. Minerals : Biological role of trace elements

UNIT - VI Food Science

1. Starch structure, Gelatinization, Methods for Gelatinization changes.
2. Protein - Denaturation, Non-enzymatic browning and other chemical changes.
3. Fats, Oil and related products, Effects of composition on fat properties, Functional properties of fat and use in food preparations.
4. Enzymes - Nature of enzyme, Proteolytic enzyme, Oxidases Lipases

UNIT - VII Advance Human Nutrition

1. Carbohydrate : Classification, Sources functions, digestion and Absorption
2. Protein : Classification, Sources, Functions, Digestion and Absorption
3. Lipids
4. Micronutrients (Vitamins and Minerals)

UNIT - VIII Therapeutic Nutrition

1. Therapeutic Nutrition
2. Nutritional Management of Coronary Heart diseases
3. Nutritional Management of Diabetes Mellitus
4. Nutritional Management of Obesity.

UNIT - IX Advance Food Science

1. Milk & Milk Products
2. Meat and Poultry
3. Fish and Sea food
4. Spices and Condiments

UNIT - X Problem in Human Health and Nutrition

1. PEM
2. Vitamin A Deficiency
3. IDD (Iodine Deficiency Diseases)
4. Rickets, Osteomalacia, Osteoporosis