

2016 – 19
CHOICE BASED CREDIT SYSTEM

SYLLABUS IN

HOME SCIENCE

(+3 DEGREE)
(HONOURS & ELECTIVE)

+3 First Year – 2016 – 17
+3 Second Year – 2017 – 18
+3 Third Year – 2018 – 19

FAKIR MOHAN UNIVERSITY, VYASA VIHAR, BALASORE
ODISHA

SEMESTER – I – HOME SCIENCE (HONS)
Time – 3hrs F.M.: 100 [60(End sem)+15(Int)+25(Pr)] Credit- 6 (4 + 2)

CORE – I
(Theory)
H.Sc. - CC – I : PHYSIOLOGY

Objective:

(To understand the structure and functions of various organs of the body. To obtain better understanding of the body mechanism through the study of Physiology.

UNIT-I Basic Physiology:

- Cell – it's structure, functions and division.
- Blood – it's composition and functions.
- Blood groups and RH factor.

UNIT-II Circulatory System:

- Structure and Functions of Heart.
- Types of circulation – Systemic and pulmonary blood circulation.
- Portal, coronary and cardiac cycle.

UNIT-III Body System:

- Digestive System – Structure and functions of different parts of alimentary canal.
- Digestive glands – their location and secretion.

UNIT-IV Endocrine Glands:

- Location of glands in human body
- Functions of pituitary, thyroid, parathyroid, and adrenal glands.

UNIT-V

- Structure and functions of kidney.
- Formation of urine and regulation of body.

H.Sc. - CC – I : PRACTICAL

- Prepare a glands.
- Structure and functions of kidney.
- Formation of urine and regulation of body.

Practical Exam. – 20
Record & Class Work – 05

SEMESTER – I – HOME SCIENCE (HONS)
Time – 3hrs F.M.: 100 [60(End sem)+15(Int)+25(Pr)] Credit- 6
H.Sc. - CORE – II
(Theory)
FOOD AND NUTRITION

Objective:

To have a basic concepts in food and nutrition and to lead a healthy life.

UNIT-I Basic Concept:

- Basic terms used in study of Food and Nutrition.
- Understanding relationship between food, nutrition and health.
- Functions of food – Psychological, Physiological and Social.

UNIT-II Nutrients:

Functions, dietary sources, classification composition and deficiency of the following-

- Carbohydrate, Protein and Fat.
- Minerals – Calcium, Iron, Zinc & Iodine.

UNIT-III Vitamins –

Composition, classification, sources, functions and deficiencies.

- Lipids
- Vitamins – A, D, E, K (Fat soluble) and Thiamine, Riboflavin, Niacin, Vita 'B₁₂' and Vita 'C' (Water Soluble)

UNIT-IV Methods of Cooking:

- Dry, Moist, Frying and Microwave Cooking.
- Advantages and disadvantages of each method of cooking in relation to nutritive value.

UNIT-V Fleshy food and Beverages:

- Meat, Fish, Egg and Poultry – their composition, sources, nutritive values and effects of cooking on nutritive value.
- Beverage – Tea, Coffee, Cocoa and Fruit Juice and Shake.

H.Sc. - CC –II :PRACTICAL

- Preparation of different dishes for meal and snacks: (2 for each) using the following methods of cooking (Dry, Moist and Microwave) & Frying.
- Beverages: Cold and Hot (2 each) using milk and seasonal fruits.

Practical Exam. – 20
Record & Class Work – 05

SEMESTER – I /III – HOME SCIENCE (Inter-disciplinary)
Time – 3hrs F.M.: 100 [60(End sem)+15(Int)+25(Pr)] Credit- 6
H.Sc. - GE – I : FUNDAMENTAL NUTRITION
(Theory)

Objective:

To understand about the importance, need and requirements of nutrition in daily life.

UNIT-I General Concept:

- Meaning and importance of food and nutrition and basic terms used in Food and Nutrition.
- Function of food – Psychological, Physical and Social.
- Planning of Balanced diet – Important and factors influencing it.

UNIT-II Basic Food Groups:

- Cereals
- Pulses
- Fruits and vegetables
- Milk and milk products
- Fleshy foods
- Fats and oils
- Spices and condiments
- Beverages

UNIT-III Food Preservation:

- Meaning & importance
- Principle of food preservation
- Methods (Household & Commercial) (Dehydration, Refrigeration, Freezing Sterilization, Pasteurisation, Addition of Salt, Sugar, Pickling and use of Chemical Preservatives)

UNIT-IV Food Adulteration & Additives:

- Types of food adulteration
- Food laws and standards

UNIT-V Food Poisoning,

- Causes of food poisoning,
- Food standard, Flavouring agents and colouring agents

H.Sc. - GE – I : PRACTICAL

Food preparation with nutritional quality and method of cooking.

- Cereals: Boiled Rice, Paas, Paratha, Puri etc.
- Vegetables: Curries and dry preparation.
- Fermented products: Idly, dosa, kulcha, dhokla and batura.

Practical Exam. – 20
Record & Class Work – 05

SEM-I H. Sc.-DSC- I IS SAME AS SEM-I CORE -I

SEMESTER – II – HOME SCIENCE (HONS)

Time – 3hrs

F.M.: 100 [60(End sem)+15(Int)+25(Pr)]

Credit- 6

**H.Sc. - CORE – III
(HUMAN DEVELOPMENT)
(The Childhood Years)**

Objective:

To understand the importance of human development and growth pattern of children in early stage.

UNIT-I Introduction to Human Development:

- Definition, History and Inter Disciplinary Nature of Human Development.
- Scope of Human Development in Contemporary Society.
- Principles of Growth and Development and factors influencing them.

UNIT-II Prenatal Development, Birth and the Neonate:

- Conception – period of ovum, period of embryo and period of fetus.

UNIT-III Infancy and Pre School Years:

- Factors influencing development during the period of infancy and pre-school.
- Physical Development – Physical growth cycle, body size, body proportion bones, muscles, teeth and nervous system.
- Motor Development – (Principles, sequences and some common motor skills)

UNIT-IV Early Child Development:

- Emotional development:- Importance, characteristics, types and some common emotional pattern (fear, anger, jealousy, curiosity, joy, affection)
- Social development:- Meaning, importance of early social experiences, play-value, types and characteristics.
- Speech development:- Pre-speech forms of communication. Conditions contribute to learn speech to speak.

H.Sc. - CC – III : PRACTICAL

- Preparation of posters (educational) for the children.
- Building plays material – soft toys and other equipments.
- Methods of study – Narratives-story telling and observation of behaviour. (In any one play school).
- Interview method-to reflect parent child interaction.

**Practical Exam. – 20
Record & Class Work – 05**

RECOMMENDATION READINGS:

- Rice, F.P.(1998) Human Development: A lifespan approach, New Jersey Prentice Hall.
- Santrock. J.W. (2007) A topical approach to lifespan development, New Delhi, Tatal McGraw Hill.
- Singh A.(Ed)(2005) Foundations of Human Development. A lifespan approach. New Delhi, Orient Black Swan.
- A Chowdhury Text Book on Child Development & Family Relation Academic Excellence.

SEMESTER – II – HOME SCIENCE (HONS)
Time – 3hrs F.M.: 100 [60(End sem)+15(Int)+25(Pr)] Credit- 6

**H.Sc. - CORE – IV
(CLOTHING AND TEXTILE)**

Objective:

To gain basic knowledge about textile fibres, laundry work and care of clothing.

UNIT-I Introduction of Textile Fibres:

- Fibre classification – Natural & man made.
- Study of natural fibres – cotton, silk and wool – their sources, manufacturing process and physical chemical properties.
- Fibre Identification-visual, burning and under microscope.

UNIT-II Cleaning and Dyeing:

- Washing and finishing of Cotton, Silk and Woollen garments. (Methods and principles)
- Fundamentals of dyeing - Types and classification (Method of Home Dyeing)
- Dry cleaning – method, chemical used, advantages & disadvantages.

UNIT-III Basic Wet Finishes:

- Classification and use of finishes, objectives (calendaring, shearing, tentering, bleaching, sizing, glazing)
- Soap and detergents (types and methods of use)
- Water – hard and soft water, reasons and chemical properties.

UNIT-IV Glazing and Finishing Agents:

- Stiffening agent – (Purpose, types and methods of application)
- Bleaches – Oxidising and Reducing.
- Blue – Purpose, classification and methods of use.

H.Sc. - CC – IV : PRACTICAL

- Identification of cotton, silk and wool by visual, burning and microscopic test.
- Washing and finishing of cotton, silk and woollen garments.
- Preparation of two types of stiffening agents using two different method.
- Home dyeing (clothes, garments)

**Practical Exam. – 20
Record & Class Work – 05**

RECOMMENDED READINGS:

- Fibre to Fabric – carbman B.P.
- Fundamental of Textiles & their care – Dantyagi S.
- Textbook of clothing and textiles – Gupta S. Gang N and Saini R.
- Household textiles and Laundry Work Deulkar S.

SEMESTER – II / IV – HOME SCIENCE (Inter-disciplinary)
Time – 3hrs F.M.: 100 [60(End sem)+15(Int)+25(Pr)] Credit- 6

H.Sc. - GE – II : (FOOD SCIENCE ND DIETETICS)

Objective:

To have a general idea about Food Sciences, Balanced Diet.

To learn what is RDA and its importance and to study about nutrition during life cycle.

UNIT-I Introduction to Food Science:

- Food, Nutrition and Nutrients – definition, meaning, importance and need in daily life.
- Recommended Daily Allowances – need and factors influencing for its formulation.
- Guideline for Good Health.

UNIT-II Balanced Diet:

- Meaning, importance principles and significance.
- Factors affecting Balanced Diet.
- Dietary intake for General man/woman and special condition link pregnancy and lactation.

UNIT-III Meal Planning:

- Importance, need and significance.
- Meal planning for low, middle and high income level.
- Enhancing the nutritive value of foods – substitution, supplementation, fermentation and combination.

UNIT-IV Nutrition during life cycle:

- Preschool children
- Adult man/women
- Pregnancy and lactation
- Old age

H.Sc. - GE – II : PRACTICAL

- Prepare a dish from fermented, cereal + pulse combination.
- Prepare the whole day menu for a middle and high income family and prepare any one dish for snack and lunch.
- Plan a balanced diet during pregnancy and lactating period and prepare dinner for pregnant / lactating women.

Practical Exam. – 20
Record & Class Work – 05

REFERENCE BOOK:

- Principles of Nutrition and Dietetics, Bappes, Banglore-Vol-I. XII, Swaminathan.
- Text Book of Home Science – Premlata Mallik.
- Food & Nutrition – Arya Publication
- Food Science – B. Srilaxmi, New Age Publication.
- Nutrition Science – B. Srilaxmi, New Age Publication.
- Nutrition and diet therapy. S. R. Mudambi, M. V. Rajagopla, New Age Publication.
- Human Nutrition – B. Srilaxmi, New Age Publication.

SEM-II H. Sc.-DSC- II IS SAME AS SEM-I CORE -II

