DEPARTMENT OF HOME SCIENCE

(B.Sc NUTRITITION, FOOD SERVICE MANAGEMENT AND DIETETICS)

SHIFT – I

LEARNING OBJECTIVES & OUTCOMES

ACADEMIC YEAR 2020-2021

Anna Adarsh College for Women

Department of Home Science

Name of the Subject : Human Physiology Semester :I

Staff Name: Dr.Shahana Mubeen Subject Code:SL21A

OBJECTIVES

a) To enable students to understand the structure and physiology of various organs in the body.

b) To help students to obtain a better understanding of the principles of nutrition and dietetics through the study of physiology.

SYLLABUS:

UNIT I

CELL----Cell structure and functions of the organelles, cell division

TISSUES----Classification, structure and functions of epithelial tissue, connective tissue, muscular tissue and nervous tissue

SENSE ORGANS-----Structure of eye and physiology of vision

UNIT II

BLOOD---Functions of Blood, Erythropoeisis. Classification of WBC and its functions, Structure of RBC and its functions, functions of lymph, blood groups.

HEART AND CIRCULATION---- Anatomy of the heart, conducting system of the heart, types of circulation, cardiac cycle, cardiac output, heart sounds, blood pressure - definition and physical factors affecting blood pressure, ECG.

UNIT III

RESPIRATORY SYSTEM

Anatomy and physiology of respiratory organs, Gaseous exchange in the lungs

DIGESTIVE SYSTEM

Anatomy of gastro-intestinal tract; functions of accessory glands-- salivary glands, gall bladder, pancreas and liver. Digestion and absorption of carbohydrates, proteins and fats.

UNIT IV

EXCRETORY SYSTEM

Structure of kidney, structure of nephron, physiology of urine formation, water and electrolyte balance,acid-base balance

NERVOUS SYSTEM

Nervous system ----neuron, neuroglia, action potential,synapse, central nervous system: Meninges,structure and functions of brain (cerebrum, brain stem, cerebellum),spinal cord structure, functions, functions of cranial nerves, reflexes, autonomic nervous system.

UNIT IV

ENDOCRINOLOGY-----Pituitary, thyroid, parathyroid, adrenal and pancreas functions, hypo and hypersecretions.

REPRODUCTIVE SYSTEM----Anatomy of the male Reproductive System, Anatomy of the Female Reproductive System, menstruation, fertilization, pregnancy.

LEARNING OUTCOMES

At the end of the course students should:

1. Recognize the ways the body undergoes change throughout the life span related to cell and organ development

2. Analyze the functions of important physiological systems including the cardio-respiratory, renal, reproductive and metabolic systems

3. Interpret how these separate systems interact to yield integrated physiological responses to challenges such as exercise, muscle contraction and reflex actions

4. Evaluate between organ systems of the body and their various functions

5. Recall how the development and progression of structural systems contributes to the body's overall function

TEXT BOOK:

Guyton AC and Hall JE,Text book of medical physiology.

REFERENCE BOOKS:

1. Chatterjee, C.C - Human Physiology – Volume I & II, 11th edition, 1992.
2. Ross and Wilson Anatomy and Physiology in Health and Illness, Anne Waugh, Allison
   Wynn Grant, Janet S. Ross, 11th edition.
3. Saradha Subramaniam. Text book of human physiology.

4. Lecture notes on human physiology, M. M. Muthiah Vol II, 1991.

5. Human Anatomy, B. D. Chaurasia (Vol 1, 2, 3)

6.JOHNSON, Leonard R,Essential Medical Physiology

ANNA ADARSH COLLEGE FOR WOMEN
DEPARTMENT OF HOMESCIENCE

CORE-II: MICROBIOLOGY

(B.Sc. Home Science – Nutrition, Food Service Management and Dietetics)

Time/Hrs: Theory: 4Hrs, Practical: 2 Hrs **Year : I**
Credits: 4 **Semester: I**
Subject Code:SL21B

OBJECTIVES

To enable the students to:

1. Gain knowledge on the role of microorganisms in health and disease
2. Understand the diversity in microbiology and the scope of Microbiology
3. Acquire knowledge about the role of microorganisms in contamination and spoilage of various foods.

LEARNING OUTCOMES

At the end of the course, students will be able to

1. Know the different types of microorganisms and their characteristics.
2. Understand the factors affecting the growth curve of microorganisms.
3. Learn to prevent the contamination and spoilage of different types of foods.
4. Able to take measures to prevent microbial food poisoning.
5. Explore the beneficial effects of microorganisms in soil, air, water and sewage.

SYLLABUS

UNIT I

Introduction to microbiology and its relevance to everyday life-general characteristics of microorganisms-bacteria, virus, yeasts, moulds, algae, protozoa- Morphology, classification, motility, nutrition, respiration and reproduction.

UNIT II

DESTRUCTION OF BACTERIA a) Sterilization i) Application of dry heat- burning, flaming and hot air oven. ii) Application of moist heat- boiling, pasteurization, steam steriliser and autoclave. iii) Sterilization with the use of filters iv) Electromagnetic radiation b) Disinfection -properties and various types of disinfecting agents.

UNIT III

FOOD MICROBIOLOGY

GENERAL PRINCIPLES UNDERLYING SPOILAGE Principles of food spoilage by microbiological, physical and biological factors Chemical changes caused by Microorganisms, fit or unfit food for consumption -causes of spoilage - classification of food by the case of spoilage - factors affecting -kinds and numbers of micro-organisms in food - growth and chemical changes - caused by microorganisms.

CONTAMINATION AND SPOILAGE FOODS: a) Cereal and Cereal products and baked products. . b) Fruits and vegetables and their products c) Fleshy food 1. Meat, 2.Poultry, 3. Fish d) Eggs e) Milk and Milk Products f)fats and oils.

UNIT IV

MICRO-ORGANISM CAUSING INFECTION, RESISTANCE AND IMMUNITY i) Different modes of spread of infection. ii) Reaction of the body to infection cellular and chemical defences - phagocytoses -antigens - antibody- 2 examples of antigen antibody reactions. iii) Immunity - active and passive immunity. Antibiotics - use of antibiotics, spectrum of activity, mode of administration, complication arising due to constant use of antibiotics. Brief knowledge of any four common antibiotics

UNIT V

MICRO-BIOLOGY OF FOOD POISONING, FOOD INFECTIONS AND FOOD BORNE DISEASES, i) Microbial food poisoning by Staphylococci, Salmonella food poisoning group and clostridium botulinum (Botulism).Measures to prevent microbial food poisoning. ii) Food infections -food borne diseases - Dysenteries, Typhoid, Cholera.

PRACTICALS

1. Know the parts of microscope, type and its principle
2. Identification of prepared slides-- Algae, Yeast, moulds, Protozoa and Bacteria.
3. Examination of Unstained Organisms, wet methods and hanging drop preparations.
4. Examination of stained Organisms- Simple Staining and gram staining.
5. Common culture media and uses.
6. Direct microscopic count of Organisms in milk. Standard plate count in milk.Reductase test for milk.Methylene Blue Reduction test.

DEMONSTRATIONS

1. Study of sterilising equipment.
2. Cultivation of Organisms in the laboratory methods and equipment.

RELATED EXPERIENCES A field trip to a dairy and food industry.

REFERENCES

1. Pelczar J. Michael : (2013) Micro-biology concepts and Application
2. Salie. A.J. : Fundamental principles of Bacteriology (2007)- McGraw Hill Book Co.,
3. R.C. Dubey& D.K. Maheshwari (2013) A Textbook of Micro-biology
4. Ananthanarayan. R. &Panicker C.K.J: (2010)Textbook of Microbiology.
5. Frazier. W.C.: (2017)Food Micro-biology - McGraw Hill Book and Co; New York.
6. Prescott and Dunn: (2004) Industrial Microbiology
7. Pelczar, Chan and Krieg: (1996) Microbiology
8. Adams MR and Moss MO. (1995). Food Microbiology, The Royal Society oSf Chemistry, Cambridge.
9. Banwart GJ. (1989), Basic food microbiology, Chapman & Hall, New York.
10. Hobbs BC and Roberts D. (1993) Food poisoning and food hygiene, Edward Arnold

(A division of Hodder and Stoughton), London
11. S. Rajan, R.Selvi Christy (2016) CBS Publishers & Distributors Pvt Ltd
12. https://microbiologysociety.org/why-microbiology-matters/what-is-microbiology.html
13. https://bio.libretexts.org/Bookshelves/Microbiology/Book%3A_Microbiology_(Kaise
r)/Unit_1%3A_Introduction_to_Microbiology_and_Prokaryotic_Cell_Anatomy/1%3A_Fundamentals_of_Microbiology

UNIVERSITY OF MADRAS
U.G. DEGREE COURSES
SYLLABUS WITH EFFECT FROM 2020-2021

BCY-CSA1B

ALLIED CHEMISTRY - I (THEORY)

(Branches other than Maths and Physics)
(60 Hours) - 4 Credits

Learning Outcome

1. To know the fundamentals of nuclear chemistry
2. To understand the industrial application of fuels, fertilizers and polymers
3. To understand the basic concepts of Organic Chemistry
4. To study the various laws of thermodynamics
5. To learn basics of photochemistry

Unit I: NUCLEAR CHEMISTRY (10 Hours)

Fundamental particles of Nuclear Isotopes, Isobars, Isotones and Isomers -Differences between chemical reactions and nuclear reactions: Fusion and fission - Radioactive series, group displacement law - Mass defect - Applications of radio isotopes- carbon dating, rock dating and in medicine.

Unit II: INDUSTRIAL CHEMISTRY (15 Hours)

Fuels- Classification-gaseous fuels like water gas, producer gas, liquefied petroleum gas, gobar gas, compressed natural gas - Fertilizers- Classification - urea, ammonium sulphate, superphosphate, Triple super phosphate, potassium nitrate- manufacture and uses - Silicones - Preparation, properties and applications . Hardness of water: temporary and permanent hardness, disadvantages of hard water - Softening of hard water - Definition and determinations of BOD and COD.

Unit III: FUNDAMENTALS OF ORGANIC CHEMISTRY (15 Hours)

Classification of organic compounds - Hybridization in methane, ethane, ethylene, acetylene, benzene -Classification of reagents - electrophiles, nucleophiles and free radicals - Classification of reactions - addition, substitution, elimination, condensation and polymerisation.

Unit IV: CHEMISTRY OF SOME USEFUL ORGANIC AND INORGANIC COMPOUNDS (10 Hours)

Preparation and uses of CH_2Cl_2, $CHCl_3$,polyethylene, PVC, Nylon and Terylene, phenol – formaldehyde resin, Bakelite, rubber and vulcanisation.

Unit V: PHOTOCHEMISTRY (10 Hours)

Introduction to Photochemistry - statement of Grotthus- Draper Law, Stark- Einstein's Law, Quantum yield. Hydrogen-Chlorine reaction (Elementary idea only) Photosynthesis, photosensitization, phosphorescence, Fluorescence, Chemiluminiscence- Definition with examples.

BOOKS FOR REFERENCE

1. Gopalan R. and Sundaram S., Allied Chemistry, Sultan Chand & Sons Publishers, New Delhi2nded.
2. Soni P.L. and Mohan Katyal, Text Book of Inorganic Chemistry, Sultan Chand and Company Pvt. Ltd, New Delhi, 20thed.
3. Bahl B.S. and ArunBahl, A text book of Organic Chemistry 21st ed., S. Chand and Company Pvt. Ltd.

UNIVERSITY OF MADRAS

UG – NON-MAJOR ELECTIVE COURSE

OFFERED IN THE DEPARTMENT OF CHEMISTRY

SYLLABUS WITH EFFECT FROM 2020-2021

BCY-NME01

CHEMISTRY IN EVERY DAYLIFE

(30 hours)

Learning outcomes

1. To understand the importance of chemicals in everyday life and causes of air and water pollution and their impact.
2. To understand the chemistry of building materials and various polymers.
3. To understand the role of chemistry in food and cosmetics.
4. To understand the role of chemistry in fertilizers and fuels.
5. To learn about the chemistry of drugs and explosives

Unit-I

1.1 General survey of chemicals used in everyday life.

1.2 Air-Components and their importance; photosynthetic reaction, air pollution, green house effect and their impact on our lifestyle.

1.3 Water - Sources of water, qualities of potable water, soft and hard water, methods of removal of hardness-water pollution.

Unit-II

2.1 Building materials - cement, ceramics, glass and refractories - definition, composition and application only.

2.2 Plastics, polythene, PVC, bake lite, polyesters, melamine formaldehyde resins - preparation and uses only.

Unit-III

3.1 Food and Nutrition - Carbohydrates, Proteins, Fats - definition and their importance as food constituents- balanced diet- Calorie- minerals and vitamins (sources and their physiological importance).

3.2 Cosmetics - Tooth pastes, face powder, soaps and detergents, shampoos, nail polish, perfumes - general formulation and preparations- possible hazards of cosmetics use.

Unit-lV

4.1 Chemicals in food production - fertilizers - need, natural sources; urea, NPK fertilizers and superphosphate.

4.2 Fuel - classification - solid, liquid and gaseous; nuclear fuel - examples and uses.

Unit-V

5.1 Pharmaceutical drugs - analgesics and antipyretics - paracetamol and aspirin.

5.2 Colour chemicals - pigments and dyes - examples and applications.

5.3 Explosives - classification and examples.

REFERENCES

1. Chemical Process Industries (4^{th} Edition) R. Norris Shreve, Joseph A. Brink,Jr.
2. Perfumes, Cosmetics and Soaps V. V. A. Poucher(Vol.3)
3. Drugs, G L David Krupadanam;D Vijaya Prasad;K Varaprasad Rao;K L N Reddy; C Sudhakar, Universities Press Private Limited, Chennai,2001

UNIVERSITY OF MADRAS

UG – NON-MAJOR ELECTIVE COURSE

OFFERED IN THE DEPARTMENT OF COMMERCE

SYLLABUS WITH EFFECT FROM 2020-2021

BASICS OF RETAIL MARKETING

Course Objectives

1. To enable the students to understand the concepts of retail marketing.

2. To teach the students on aspects branding and labelling in retail trade.

3. To enable the students the use of Information Technology in retail trade.

UNIT – I

Retailing – Definition – Retail Marketing – Growth of organized retailing in India – Importance of retailing

UNIT – II

Functions of Retailing – characteristics of Retailing – Types of Retailing – store retailing – Non-store retailing

UNIT – III

Retail location factors – Branding in retailing – private labeling – Franchising concept.

UNIT – IV

Communication tools used in Retailing – Sales promotion, e-tailing- window display

UNIT - V

Supply chain management – definition – importance – Role of information Technology in retailing.

OUTCOME:

1.Equip the students to get the knowledge of retail marketing.

2.Enable the students to know about the aspects of branding and labelling.

3.Stdents understand the use of Information Technology in retail trade.

TEXT BOOKS

1.P.K Madhavan – Introduction to Retailing –Vijay Nicole Imprints Private Limited Chennai.

2. John J.Coyle , C. John Langley .JR., Robert A. Novack , Brian J.Gibson – Supply Chain Management A Logisticss Perspective – CENGAGE, New Delhi

3.Joel D.Wisner , Keah – Choon Tan , G.Keong Leong – Principles of Supply Chain Management A Balanced Approach– CENGAGE, New Delhi

Reference Books:

1. Modern Retail Management – J.N.Jain & P.P.Singh Regal Publications , New delhi

2. Retail Management – Suja Nair, Himalaya Publishing house.

DEPARTMENT OF HOMESCIENCE-N&D

Learning Objectives, Syllabus, Learning Outcomes and References

Subject: Food Science
Subject Code: SL22A
Class: I N&D
Semester: Even (II)
Hours: Theory 4 Hrs, Practicals 2 Hrs

FOOD SCIENCE

LEARNING OBJECTIVES

1. To enable students to obtain knowledge of different food groups and their contribution to nutrition.
2. To help them study the different methods of cooking and their advantages and disadvantages.
3. To enable them gain experience in the preparation of foods with attention to preservation of their nutritive value-oriented to Indian cooking.
4. To help them understand the scientific principles governing the acceptability of food preparations.

UNIT I

Definition, Classification, and Functions of foods- Functions of food in relation to health - classification of foods based on nutrients- MyPlate. Preliminary preparation of foods - different methods of cooking - Dry methods - frying, broiling, parching, and baking. Moist methods - boiling, stewing, cooking under pressure. Solar cooking, Microwave cooking - advantages and disadvantages.

UNIT II

Cereal and Cereal products – Structure, Composition and Nutritive value of Rice, Wheat and locally available millets. Effect of cooking on the nutritive value of cereals. Gelatinisation, Dextrinization and gluten formation.

Pulses and nuts - Composition, Nutritive value of grams, dhals - some common nuts - meat substitutes - soya products. Effect of soaking, germination, cooking on pulses, toxic constituents of pulses. Textured Vegetable Protein (TVP).

Vegetables and Fruits - Classification, composition and Nutritive value - methods to minimize the loss of nutrients, types of pigments, effects of cooking, alkali & acid on color, texture and flavor. Post harvest losses and changes during ripening. Browning reaction and changes during cooking.

UNIT III

Milk and milk products – Composition and Nutritive value, Principles of milk cookery, Milk protein, coagulation, problems in milk cookery. Effect of cooking on milk.

Eggs - Structure, composition, Nutritive value, selection - principles of egg cookery -uses of eggs in cookery, methods of cooking eggs.

UNIT IV

Meat - Nutritive value, methods of cooking - Post mortem changes in meat, factors affecting tenderness - organ meat.
Fish - Classification, Nutritive value - selection, Methods of cooking
Poultry - Nutritive value, economic aspects. Principles and methods of cooking poultry.

UNIT V

Fats and Oils - Types - Hydrogenation - Invisible fats - uses of fat in cookery - factors affecting absorption of fats - smoking point - Rancidity.
Spices and Condiments - Importance, composition and classification, Uses in Indian cookery. Sugar and Sugar Products - Jaggery - uses in Indian cookery - Stages in sugar cookery and its applications in the preparation of Indian Sweets.
Beverages - Classification, Nutritive value and uses – processing of coffee, tea, cocoa.

PRACTICALS

I. Gluten formation and gelatinisation of starch
II. Germination and factors affecting cooking of pulses.
III. Effect of cooking and addition of acid & alkali on the colour, flavour and texture of vegetables. Enzymatic browning in fruits and vegetables. Pectin extraction.
IV. Preparation of white sauce and paneer. Factors affecting coagulation of milk.
V. Determination of smoking point of various fats and oils. Effect of oil temperature on frying.
VI. Ferrous sulphide formation in boiled eggs. Factors affecting egg foam formation. Factors affecting coagulation of eggs. Tests to determine quality of eggs.
VII. Stages of sugar cookery
VIII. Various methods of preparation for tea and coffee.
IX. Market of the available food additives.
X. Common tests to detect adulteration in foods.

LEARNING OUTCOMES

At the end of the course, the student will be able to
1. Identify the different food groups and examine the nutritive value.
2. Analyse the scientific principles underlying food preparation.
3. Identify the best method of cooking foods from different food groups.
4. Develop skills and techniques in food preparation with retention of nutrients and palatability.
5. Gain insight into the chemistry of cooking food.

REFERENCES

1. Shakunthala Manay. N; Shadaksharaswamy, M; *Food Facts and Principles*, 3rd edition, New Age International (P) Limited Publishers, 2014.
2. Srilakshmi, B., *Food Science*, 6th edition, New Age International (P) Limited Publishers, 2015.
3. Arindam Ramaswamy, *Elements of Food Science*, Oxford Book Company, 2010.
4. Norman. N. Potter, Joseph H. Hotchkiss, *Food Science*, 5th edition, CBS Publishers and Distributors, 1996.
5. Sivasankar, B; *Food Processing and Preservation*, PHI Learning Private Limited, 2011.

Name of the Subject : Human Nutrition-I **Semester :II**

Staff Name: Dr. Shahana Mubeen **Subject Code: SL22B**

OBJECTIVES

1. To introduce the students to the principle of Human Nutrition.

2. Assess the importance of various macronutrients in relation to health.

SYLLABUS:

UNIT I

History of Nutrition – Development of Nutrition as a Science – Definition of Nutrition – Under nutrition, over nutrition and malnutrition. Introduction to nutrition – food as a source of nutrients, function of foods, definition of nutrients, adequate , optimum and good nutrition. Inter relationship between nutrition and health.

UNIT II

Energy units----Introduction, Units, determination of energy value of food, physiological fuel value,
Benedict's Oxy-calorimeter, relation between oxygen required and calorimeter value. Respiratory quotient , Specific dynamic action of food (Thermic effect of food). Definition of BMR and factors affecting BMR – determination of energymetabolism, during work – energy requirements for various types of activities, factorialmethods for calculation of the daily energy requirements of an adult for varying degreesof physical activity, RDA.

UNIT III
CARBOHYDRATES
Definition ,composition, classification, functions of carbohydrates in the body, food sources, short chain carohydrates definition, digestion, absorption and utilization of carbohydrates, regulation of blood glucose concentration by hormones. Glycaemic index, glycaemic load, types of resistant starch.
Dietary fibre – Definition, types, sources, RDA, physiological effects of dietary fibre

UNIT IV
LIPIDS
Classification, functions of EFA, MUFA, PUFA, SFA, food sources , Requirements, RDA, digestion and absorption. Characteristics of animal and vegetable fats, cholesterol– function, food sources, phospholipids – functions.
Omega fatty acids functions, role in good health, food sources. Role of dietary lipids and CVD

UNIT V
PROTEINS---classification, functions of proteins, Food sources, Requirements and RDA. Digestion, absorption and metabolic utilization of protein . Amino acids –Indispensable and dispensable amino acids – Therapeutic applications ofspecific amino acids. Protein Energy Malnutrition – KWASHIORKOR and MARASUMS –etiology, clinical features, treatment

and prevention . Evaluation of protein quality –PER, BV, NPU and NPR, chemical score, nitrogen balance, mutual amino acid supplementation of proteins.

LEARNING OUTCOMES

At the end of the course students should:

1.Apply knowledge of biochemistry and physiology to human nutrient metabolism.

2.Compute critical thinking skills and analytical abilities to identify and solve problems in the nutritional sciences.

3. Understand nutrition-related conditions and diseases by applying knowledge of metabolism and nutrient functions, food sources and physiologic systems.

4.Effective communication of nutrition information on food labels.

5.Identify and apply food principles to food and nutrition systems

6. Select medical nutrition therapy for a variety of advanced medical conditions

TEXT BOOKS:

1.M. Swaminathan "Principles of Nutrition and Dietectics", 1993, Bappeo 88, Mysore Road, Bangalore - 560 018

2.Srilakshmi.B “Nutrition Science”, ISBN 10: 8122432239 / ISBN 13: 9788122432237

Published by New Age International (P) Limited, 2015

REFERENCE BOOKS:

1. Gordon. M. Wardlaw et.al; Contemporary Nutrition, 2nd edition, Publishing by Mosby, 2004.

2. Srilakshmi. B; Dietetics, 7th edition,New Age International (P) Limited Publishers, 2014.

3. William's; Nix; Basic Nutirtion and Diet therapy, 14th edition, Publishing by Mosby, 2013.

4. Mahtab S.Bamji, Prasad Rao, N.Vinodini Reddy; Textbook of Human Nutrition, Second Edition Oxford and IBH Publishing Co. Pvt .Ltd, 2003.

5. Nutrient Requirement and Recommend Dietary Allowances for Indians by Indian council of Medical research, National Institute of nutrition, Hyderabad.

6. Judith E. Brown., Nutrition New, 2nd edition, West / Wadswroth west / Wadsworth, An International Thomson publishing company, 1998

UNIVERSITY OF MADRAS
U.G. DEGREE COURSES
SYLLABUS WITH EFFECT FROM 2020-2021

BCY-CSA2B

ALLIED CHEMISTRY - II (THEORY)

(Branches other than Maths and Physics)
(60 Hours) - 4 Credits

Learning Outcome

1. To understand the fundamentals of coordination chemistry and its applications
2. To learn the structural aspects of biologically important compounds
3. To know the applications of phase rule and freezing mixtures
4. To explain the basics of electrochemistry
5. To understand the basics of Analytical chemistry

UNIT I: COORDINATION CHEMISTRY (12 Hours)

Definition of terms-classification of ligands-Nomenclature-chelation-EDTA and its applications–Werner's Theory-Effective Atomic Number-Pauling's Theory-Postulates-Biological role of haemoglobin and chlorophyll, (Elementary idea only

UNIT II: CARBOHYDRATES (10 Hours)

Classification, preparation and reactions of glucose and fructose.Interconversion of glucose to fructose and vice versa.Structure of starch. Cellulose and derivatives of cellulose - Diabetes - Causes and control measures.

UNIT III: PROTEINS (15 Hours)

Amino acids-Classification, Preparation and properties of alanine - Preparation of dipeptide using Bergman method - Proteins -Classification according to composition, biological functions and shape - Denaturation and colour reactions of Proteins - Primary and secondary structure of Proteins Nucleic acids: DNA and RNA-Their components and biologicalfunctions.

UNIT IV: ELECTROCHEMISTRY (10 Hours)

Electrolytic conductance in metals and in electrolytic solution – specific conductance and equivalent conductance – Arrhenius theory of electrolytic dissociation and its limitations - weak and strong electrolytes according to Arrhenius theory – ostwald's dilution law – applications and limitations – Conductometric titrations – strong acid vs strong base only.

CATALYSIS (5 Hours)

Characteristics of catalytic reaction, auto catalysis, promoters, catalytic poisons – Types of catalysis – homogeneous and heterogeneous - Enzyme catalysis (no derivation, elementary idea only)

UNIT V: ANALYTICALCHEMISTRY (8 Hours)

Introduction to Qualitative and Quantitative Analysis - Principle of volumetric analysis - Separation techniques - extraction - distillation - crystallization - Chromatographic separations - Principles and application of column, paper, thin layer.

BOOKS FOR REFERENCE

1. Gopalan R. and Sundaram S., Allied Chemistry, Sultan Chand & Sons Publishers, New Delhi 2nd ed.
2. Bahl B.S. and ArunBahl, A text book of Organic Chemistry 21st ed., S. Chand and Company Pvt. Ltd.
3. Puri B.R., Sharma L.R. and Pathania M.S., Principles of Physical Chemistry, 47th ed., Vishal Publishing Company,2016.

UNIVERSITY OF MADRAS

UG – NON-MAJOR ELECTIVE COURSE
OFFERED IN THE DEPARTMENT OF CHEMISTRY
SYLLABUS WITH EFFECT FROM 2020-2021

BCY-NME06

FOOD CHEMISTRY
(30 hours)

Learning outcomes

1. To learn about the adulterants in food and methods to remove.
2. To know about the usage of pesticides and their effect.
3. To know about the types of food additives used in food industry.
4. To learn about the various beverages and their effect.
5. To know about the chemistry of fats and oils and their properties.

Unit I: FOOD ADULTERATION

Sources of food, types, advantages and disadvantages. Food adulteration - contamination of Wheat, Rice Alial, Milk, Butter etc.with clay stones, water and toxic chemicals - Common adulterants. Common adulterants Ghee adulterants and their detection. Detection of adultered Foods by simple analytical techniques.

Unit II: FOOD POISON

Food Poisons - natural poisons (alkaloids - nephrotoxin) - pesticides, (DDT, BHC, Malathion)- Chemical poisons - First aid for Poison consumed victims.

Unit III: FOOD ADDITIVES

Food additives - artificial sweeteners- Saccharin - Cyclamate and aspartame. Food flavours - esters, aldehydes and heterocyclic compound. Food colours - Emulsifying agents- preservatives - leavening agents. Baking powder - yeast - taste makers - MSG vinegar.

Unit IV: BEVERAGES

Beverages - soft drinks - soda - fruit juices - alcoholic beverages examples. Carbonation - addiction to alcohol - diseases of liver and social problems.

Unit V: EDIBLE OILS

Fats, Oils - Sources of oils - Production of refined vegetable oils - Preservation. Saturated and unsaturated fats - iodine value - role of MUFA and PUFA in preventing heart diseases - determination of iodine value, RM value, saponification values and their significance.

BOOKS FOR REFERENCE

1. Swaminathan M., Food Science and Experimental foods, Ganesh and Company.
2. Jayashree Ghosh, Fundamental concepts of Applied chemistry, S. Chand & Co. Publishers.
3. Thangamma Jacob, Text Books of applied chemistry for Home Science andAllied Sciences,Macmillan.

NME - BASICS OF BUSINESS INSURANCE

Learning Objectives

1. To enable the students to understand the need and importance of insurance.
2. To enable students to understand the types of Insurance.
3. To make the students aware about the role of Government in insurance business and IRDA Act.

Unit – I

Introduction to Insurance – Type of Insurance – Principles of Insurance.

Unit – II

Salient features of IRDA Act – Administration of IRDA Act – Regulatory measures of IRDA

Unit – III

Life insurance products – Term, Whole life, Endowment.

Unit – IV

Introduction to general Insurance – fire, marine and motor insurance.

Unit – V

Government and insurance companies – LIC India- private players in Insurance in India.

Text Books Recommended:

1. M.N.Mishra – Insurance, Principles and practice, S. Chand & Co. Ltd., New Delhi
2. Dr.N.Premavathy – Elements of Insurance, Sri Vishnu Publications, Chennai. Dr.A.Murthy – Elements of Insurance, Margham Publications, Chennai

References

1. Nalini Prava Tripathy, Prabir Paal – Insurance Theory & Practice, Prentice Hall of India Anand Ganguly – Insurance Management, New Age International Publishers.

LEARNING OUTCOMES

1. Students will understand the concept of Insurance.
2. Students will be able to differentiate the types of Insurance and it's uses.
3. Students will understand the Government role in streamlining the insurance business in india through IRDA Act.

ANNA ADARSH COLLEGE FOR WOMEN

DEPARTMENT OF HOMESCIENCE

CORE PAPER V - FAMILY MEAL MANAGEMENT

Hours : Theory: 4 Hrs , Practicals : 2 Hrs Year :2

Subject Code: TAL3A Semester: 3

OBJECTIVES:

To enable the students to:

a. Acquire knowledge of the principles of planning diets for various stages of life cycle.

b. Develop ability to plan balanced diets for various activity groups and for various socioeconomic levels.

Syllabus

1 Introduction to meal management. Balanced diet - food guide, food pyramid

2. Basic principles of meal planning - objectives - steps in meal planning - food cost

3. Nutrition in pregnancy - physiological stages, food selection - complications of pregnancy

4. Nutrition during lactation - Physiology of lactation - nutrition requirements, special foods given during lactations.

5. Nutrition during infancy - Growth and development - nutrition requirements - Breast feeding - Infant formula - Introduction of supplementary foods.

6. Nutrition during early childhood (Toddler/ Pre school) Growth and Nutritional needs - nutrition related problems. Feeding patterns - acceptance,

7. Nutrition of school children - Nutritional requirement -Importance of snacks - school lunch.

8. Nutrition during Adolescence Growth development and nutrient needs - food choices, eating habits - factors influencing them.

9. Geriatric nutrition - Factors affecting food intake and nutrient use - nutrient needs -nutrition related problems

PRACTICAL

Objectives: To enable the students to:

1. Learn the principles of meal planning.

2. Plan & prepare meals for the family members at different income levels.

3. Plan meals for special groups - infants, preschoolers, adolescents, pregnant & nursing mothers and the aged.

Syllabus

1. Basic principles of meal and menu planning

2. Daily food guide - The 5 food groups, the use of the food groups. Food Costing.

3. Planning for adult man and woman during different physical activities - sedentary, moderate, heavy worker. Preparation of above diet.

4. Planning and Preparation of a balanced diet for a pregnant woman - Nutrient requirements, modifications of dietary pattern.

5. Planning and preparation of a balanced diet for a nursing mother - modification of normal meal pattern - nutritional requirements.

6. Nutrition during infancy - nutritional requirements during infancy-advantages of breast feeding - disadvantages of bottle feeding

7. Supplementary feeding-preparation of weaning foods

8. Planning and preparation of diet for a toddler, pre-school child-nutritional requirements - food pattern.

9. Nutrition during school age - nutritional considerations -planning and preparation of meals / packed lunch.

10. Nutrition during adolescence - nutritional requirements. Factors influencing food habits - preparation of meal.

11. Planning a diet for a senior citizen - factors affecting food intake and nutrient use - special needs - nutritional requirements - Preparation of meals.

LEARNING OUTCOME- At the end of the course student will

1. Create knowledge of the principles of planning diet.
2. Plan balanced diet for various stages of life cycle.
3. Plan balanced diet for various activity groups.
4. Plan balanced diet for various socioeconomic levels.
5. Outline awareness about World Alliance for Breast feeding Action.

REFERENCES

1. Guthrie H.A. & Others, "Introductory Nutrition", 1986, 6th ed. Times Mirror/Mosby College Pub Louis.

2. Anderson L. et al, "Nutrition in Health and Disease', 1982, 17th ed, J.B Lippincott Co Philadelphia.

3. Whitney E.N., Hamilton E.N. & Raffes S.R., "Understanding Nutrition", 5th ed. West Pub. Co. New York.

4. Recommended Dietary Intakes for Indians, I.C.M.R. 1989.

5. Mudambi, S.R. & M.N. Rajagopal - "Fundamentals of Food and Nutrition", 3rd ed. Wiley Eastern Ltc New Delhi-19.

6. Guthrie, H.A,, "Introductory Nutrition", 6th ed., Times Mirror/Mosby College Publ. - St Louis 1989.

7. Worthington Roberts, Bonnie S & others - "Nutrition in Pregnancy & Lactation", 3rd ed. Times Mirror Mosby College, St. Louis, 1985.

Web references:

https://www.slideshare.net/laiyah/meal-management-9267118
https://www.ncbi.nlm.nih.gov/books/NBK209825/
https://www.healthline.com/health/pregnancy/nutrition
https://www.nestle.co.nz/nhw/nutritionlifestage/babynutrition/nutritionalneedsofinfants

Name of the Subject : Human Nutrition-I **Semester :II**

Staff Name: Dr. Shahana Mubeen **Subject Code: SL22B**

OBJECTIVES

1. To introduce the students to the principle of Human Nutrition.

2. Assess the importance of various macronutrients in relation to health.

SYLLABUS:

UNIT I

History of Nutrition – Development of Nutrition as a Science – Definition of Nutrition – Under nutrition, over nutrition and malnutrition. Introduction to nutrition – food as a source of nutrients, function of foods, definition of nutrients, adequate , optimum and good nutrition. Inter relationship between nutrition and health.

UNIT II

Energy units----Introduction, Units, determination of energy value of food, physiological fuel value,
Benedict's Oxy-calorimeter, relation between oxygen required and calorimeter value. Respiratory quotient , Specific dynamic action of food (Thermic effect of food). Definition of BMR and factors affecting BMR – determination of energymetabolism, during work – energy requirements for various types of activities, factorialmethods for calculation of the daily energy requirements of an adult for varying degreesof physical activity, RDA.

UNIT III
CARBOHYDRATES
Definition ,composition, classification, functions of carbohydrates in the body, food sources, short chain carohydrates definition, digestion, absorption and utilization of carbohydrates, regulation of blood glucose concentration by hormones. Glycaemic index, glycaemic load, types of resistant starch.
Dietary fibre – Definition, types, sources, RDA, physiological effects of dietary fibre

UNIT IV
LIPIDS
Classification, functions of EFA, MUFA, PUFA, SFA, food sources , Requirements, RDA, digestion and absorption. Characteristics of animal and vegetable fats, cholesterol– function, food sources, phospholipids – functions.
Omega fatty acids functions, role in good health, food sources. Role of dietary lipids and CVD

UNIT V
PROTEINS---classification, functions of proteins, Food sources, Requirements and RDA. Digestion, absorption and metabolic utilization of protein . Amino acids –Indispensable and dispensable amino acids – Therapeutic applications ofspecific amino acids. Protein Energy Malnutrition – KWASHIORKOR and MARASUMS –etiology, clinical features, treatment

and prevention . Evaluation of protein quality –PER, BV, NPU and NPR, chemical score, nitrogen balance, mutual amino acid supplementation of proteins.

LEARNING OUTCOMES

At the end of the course students should:

1.Apply knowledge of biochemistry and physiology to human nutrient metabolism.

2.Compute critical thinking skills and analytical abilities to identify and solve problems in the nutritional sciences.

3. Understand nutrition-related conditions and diseases by applying knowledge of metabolism and nutrient functions, food sources and physiologic systems.

4.Effective communication of nutrition information on food labels.

5.Identify and apply food principles to food and nutrition systems

6. Select medical nutrition therapy for a variety of advanced medical conditions

TEXT BOOKS:

1.M. Swaminathan "Principles of Nutrition and Dietectics", 1993, Bappeo 88, Mysore Road, Bangalore - 560 018

2.Srilakshmi.B “Nutrition Science”, ISBN 10: 8122432239 / ISBN 13: 9788122432237

Published by New Age International (P) Limited, 2015

REFERENCE BOOKS:

1. Gordon. M. Wardlaw et.al; Contemporary Nutrition, 2nd edition, Publishing by Mosby, 2004.

2. Srilakshmi. B; Dietetics, 7th edition,New Age International (P) Limited Publishers, 2014.

3. William's; Nix; Basic Nutirtion and Diet therapy, 14th edition, Publishing by Mosby, 2013.

4. Mahtab S.Bamji, Prasad Rao, N.Vinodini Reddy; Textbook of Human Nutrition, Second Edition Oxford and IBH Publishing Co. Pvt .Ltd, 2003.

5. Nutrient Requirement and Recommend Dietary Allowances for Indians by Indian council of Medical research, National Institute of nutrition, Hyderabad.

6. Judith E. Brown., Nutrition New, 2nd edition, West / Wadswroth west / Wadsworth, An International Thomson publishing company, 1998

DEPARTMENT OF HOMESCIENCE-N&D

Learning Objectives, Syllabus, Learning Outcomes and References

Subject: Biochemistry
Subject Code: TBL3A
Class: II N&D
Semester: Odd (III)
Hours: 80

ALLIED PAPER III- BIO-CHEMISTRY

LEARNING OBJECTIVES

To introduce the students to

1. The principles of Biochemistry
2. A basic understanding of the functions of biological systems in relation to Nutritional biochemistry
3. The skills in qualitative tests and quantitative estimation of nutrients.

UNIT I

INTRODUCTION TO BOCHEMISTRY-

Definition and relation to nutrition, Enzyme classification, Nomenclature, Factors affecting enzymatic activity, Mechanism of action. Co-enzyme and prosthetic group- role of B vitamins.

UNIT II

CARBOHYDRATE – structure, general reaction of mono, di, tri and oligo saccharides, interconversion of sugars – metabolism of carbohydrate – glucose oxidation through glycolysis – Krebs – TCA cycle, pentose phosphate cycle – gluconeogenesis.

UNIT III

AMINO ACIDS – classification, chemical properties due to amino and carboxyl groups. Chromatographic separation. PROTEINS – primary, secondary, tertiary structure of proteins – Hydrolysis of proteins – Denaturation, precipitation, coagulation, metabolism of proteins, general pathways of metabolism of amino acids. Deamination, transamination, decarboxylation – urea cycle fate of carbon skeleton of amino acids. Peptides – structure and nomenclature, determination of amino acids sequence.

UNIT 1V

LIPIDS AND LIPID METABOLISM – chemical composition of fats, β-oxidation of fatty acids, metabolism of unsaturated fatty acids. Bio synthesis of fatty acids – formation of acetoacetate, ketogenesis. Cholesterol – Biosynthesis and metabolism.

UNIT V

Nucleic acids and protein biosynthesis, bases, nucleotides, purines and pyrimidines-structure and function.

UNIT VI

Inter relationship between carbohydrate, fat and protein metabolism – Hormonal regulation of metabolism.

Inborne errors of metabolism with reference to carbohydrate – Fructosuria and galactosemia; Protein – Phenyl ketonuria, Alkaptonuria, aminoaciduria.

PRACTICALS

1. Qualitative tests for sugars – glucose, fructose, lactose, maltose and sucrose.
2. Quantitative estimation of reducing sugar.
3. Qualitative tests for proteins
4. Demonstration Experiments.
    a. Estimation of total nitrogen in foods (Micro or MacroKjeldahl methods)
    b. Lipid extraction
    c. Determination of Iodine value

LEARNING OUTCOMES

1. Demonstrate an understanding of the fundamental principles of biochemistry,
2. Be able to integrate knowledge learned, in discipline specific courses.
3. Be able to access, search and use the chemical literature.
4. Be knowledgeable in classical laboratory techniques and be able to use modern instrumentation.
5. Be able to design and conduct scientific experiments and analyse the resulting data.
6. Be knowledgeable in proper procedures and regulations in handling and disposal of chemicals.

REFERENCES

1. Conn E E and Stump P.K. – Outlines of Biochemistry – Wiley Eastern (P) Ltd. New Delhi, 1981.
2. Canteron A and Schepertz B – Biochemistry – W.B. Saunders Co., Philadelphia London, 1967.
3. Pairely J.L. and Kilgous G.L. – Essentials of biological chemistry Reinhold publishing corporations, New York 1968.
4. Gerals Litwak – A Laboratory Manual John Wiley sons Inc., New York 1960.
5. Mazur A and Harrow B – Biochemistry – A Laboratory Manual, John Wiley Sons Inc., New York 1960.
6. Mahier and Corder E H – Basic biological chemistry, Kapes and Row, New York, 1968.
7. Varley – Practical clinical biochemistry – William Heinemann Medical books – London Ltd. Inter Science Books Inc, New York 1969.
8. West E.S., Todd W.R., Mosses R.S., and Van Bruggon J S – Textbook of Biochemistry – The Macmillan Co., New York 1968.

9. William P.J., An introduction to biochemistry, Nostrand Co., Inc. London 1972.

10. Shanmugham Ambika – Fundamentals of Biochemistry to Medical Students. NVA Bharat Printers, and traders 56, Peters Road, Madras-86. 1985.

11. Karison and Peterson 1971 – Introduction to Modern Biochemistry. Academic press, New York, London.

12. Karison and Peterson 1975 – Introduction to Modern Biochemistry. Academic press, New York, London.

13. Talwar G.P., Sri Vatsava L.N. and Moudgil K.D. 1989 – Textbook of Biochemistry and Human biology – Prentice Hall of India (P) Ltd. New Delhi – 1.

14. Rama Rao A.V.S.S. 1990 – Textbook of biochemistry. 5^{th} edition, L K and Publishers, Visakhapatnam.

SUBJECT: DIET THERAPY, DIETETICS PRACTICALS

YEAR/SEMESTER: II/IV

HOURS: Theory 6 hrs, Practicals 3 hrs

OBJECTIVES

- Obtain knowledge on the role of diet in disease conditions.
- Gain experience in planning, preparing and serving therapeutic diets.
- Understand the role of dietitian in the hospital and community.

SYLLABUS

I. INTRODUCTION TO THERAPEUTIC DIETS

Principles of diet therapy-Routine hospital diets-Pre and Post operative diets Special feeding methods-Tube feeding and Total Parenteral nutrition Metabolic change in fevers-Modification of diet in Typhoid and Tuberculosis Diet in Burns and HIV Role and responsibilities of Dietician, Brief on Indian Dietetic Association.

II. DIET IN GASTRO INTESTINAL, LIVER AND GALL BLADDER DISEASES

Etiology and modification in gastro intestinal diseases (a) Peptic ulcer (b) Diarrhoea (c) Constipation (d) Malabsorption syndrome e) gluten enteropathy and lactose intolerance Etiology and modification of diet in Hepatitis, Cirrhosis and Hepatic coma, Wilson's Disease Etiology and modification of diet in Cholecystitis and Cholelithiasis

III.DIET IN METABOLIC DISEASES

Etiology, Diagnosis and modification of diet in Obesity and Underweight Diabetes mellitus-Prevalence, types, symptoms and metabolic changes, Diagnosis, treatment with diet and insulin, complications. Nutrition management in acute and chronic pancreatitis

IV. DIET IN DEGENERATIVE DISEASES

Etiology and modification of diet in Hypertension Prevalence, risk factors and modification of diet in atherosclerosis Risk factors and modification of diet in cancer-Nutritional problems of cancer therapy Role of antioxidants in the prevention of degenerative diseases

V. DIET IN KIDNEY DISORDERS

Etiology, symptoms and modification of diet in nephritis, nephritic syndrome, acute renal failure and chronic renal failure-Dialysis Etiology and modification of diet in urinary calculi, gout, phenylketonuria. Diet therapy in nutritional anemia

DIETETICS PRACTICALS

I. Planning and preparing diets for the following conditions:
   1. Clear fluid, full fluid and soft diet
   2. Typhoid and Tuberculosis
   3. Peptic ulcer, Diarrhea and Constipation
   4. Hepatitis and Cirrhosis
   5. Obesity and Underweight
   6. Type 1 and Type 2 Diabetes mellitus
   7. Hypertension and atherosclerosis
   8. Nephritis and Nephrotic syndrome
   9. Anemia
   10. Renal failure, renal calculi, cholelithiasis

II. Visit to a dietary department of a hospital

III. Dietary Internship for 1 month in a teaching hospital

LEARNING OUTCOMES

On successful completion of the course, the students will be able to:

1. Apply biological, biochemical and physiologic scientific principles to nutrition practice.
2. Apply nutrition concepts to evaluate and improve the nutritional health of individuals and medical conditions.
3. Demonstrate an understanding of the importance of incorporating healthy eating guidelines into dietary practices.
4. Assess the risk factors of diseases and educate people to follow healthy guidelines to prevent the incidence of non-communicable diseases.

REFERENCES

1. Gordon M. Wardlaw, Paul M.Insel,Perspectives in nutrition third edition, Mosbyyear Book,Inc.St.Louis,Missouri,2015
2. Krause, M.V. and Hunesher, M.A., Food, Nutrition and Diet Therapy, 14th Edition, W.B. Saunders Company, Philadelphia, London, 2013.
3. Maurice Edward Shils, Moshe. Shike Modern Nutrition in Health and Diseases 10th edition 2006.
4. Eleanor Ross Whitney & Sharon Rady Rolfes, Understanding nutrition, 9th edition, Wadsworth Group, 2002
5. B.Srilakshmi, Dietetics, 8th edition, New Age International Publishers, 2019.
6. Garrow, etal, Human Nutrition and Dietetics, 10th edition, Churchill Livingston, 2000
7. Joshi Y K, Basics of Clinical Nutrition, 2nd edition, JP Medical publishers Pvt Ltd, 2008
8. Sylvia Escott-Stump, Nutrition and Diagnosis related care, 7th edition, Jones and Barlett Publishers, 2008

Web resources

- American Dietetic Association- www.eatright.otg
- American Diabetes Association- www.diabetes.org
- American Heart Association- www.american.org
- World Health Organisation- www.who.org/nut

SUBJECT: NUTRITION PRACTICALS

YEAR/SEMESTER:II/IV

HOURS: Practicals 3 hours

OBJECTIVES

1.To gain skill in qualitative tests and quantitative estimation of nutrients.
2.To identify and analyse various minerals.
3.To acquaint with the knowledge about laboratory equipment and glassware.

SYLLABUS

1. Qualitative tests for minerals
2. Quantitative estimation of calcium
3. Quantitative estimation of phosphorus
4. Quantitative estimation of vitamin C
5. Demonstration Experiments.
    a) Estimation of Iron
    b) Qualitative tests for vitamin A
    c) Quantitative estimation of carotene

LEARNING OUTCOMES

1.Acquire scientific information and develop laboratory skills in the field of food analysis.
2. Develop an understanding of the different analytical instruments.

3.Know the difference between qualitative and quantitative analytical tests in foods.

REFERENCES

Text Books:
1. Varley, H., Gowenlak, A.H. and Hill, M. Practical Clinical Biochemistry, William Itinmaon Medical Books, London, 2010.
2. Oser, B.L., Harke's Physiological Chemistry XIV Edition Tata McGraw Hill Publishing Company Ltd., Bombay, 2011
Reference Books:
1. Sadasivam, S. and Manickam, A. Biochemical Method, Second Edition,New Age International P. Ltd., Publishers, New Delhi, 2013.
2. Raghuramulu, N., Madhavannair, K. and Kalyana Sundaram, National Institute of Nutrition, 2013, A Manual of Laboratory Techniques, Hyderabad, 50000

SUBJECT: COMMUNITY NUTRITION

YEAR/SEMESTER:II/IV

HOURS: Theory 6 hours

OBJECTIVES

1.To enable students to understand the importance of nutrition in national progress and the significance of assessment of nutritional statues.
2.To recognize the solutions to overcome problems of malnutrition in the community and the role of national and international agencies in this area.
3. To enable the students to learn and prepare different types of visual aid for the community, to gain practical experience in giving demonstration and conducting survey and other methods of assessments.

SYLLABUS

THEORY

1.(a) Nutrition and health in National development
(b) Nutritional problems confronting our country.The causes of malnutrition in India.Balances food production and population growth.

2.Methods of assessment of nutritional status

- Sampling techniques.
- Identification of risks groups.
- Direct assessment – Diet surveys, Anthropometry, Clinical and Biochemical estimations.
- Indirect assessment – food balance sheets and Agricultural data, Ecological parameters and vital statistics.
- Use of growth charts.

3.Nutrition intervention schemes in the community- lecture and demonstration, nutrition exhibitions and visual aids.

4.National and International agencies in community nutrition

ICDS, SNP, ANP, Midday meal programme, FAO, WHO, UNICEF, CARE, AID, ICMR, CSIR, NIN, CFTRI

5.Breast feeding and its implications, Hazards of bottle feeding – Review

6. Weaning foods-planning, formulating and preparing importance of correct and timely weaning – Review

7. Nutrition and infection-relationship, immunization and its importance.

8. Recent advances in community nutrition research-Fortification & enrichment of foods.

PRACTICALS

1.Diet and Nutrition surveys

a) Identifying vulnerable and at risk groups.

b) Diet survey and breast feeding and weaning practices of specific groups.

c) Use of anthropometric measurements in children.

2.Methods of Extension used in community-

a) Preparation of visual aids-charts, posters models, etc. for exhibition.

b) Lecture and Method Demonstrations to target groups.

3.Field visits to –

a) Observe the working of nutrition programmes.

b) Hospitals to observe nutritional deficiencies.

LEARNING OUTCOMES

1.To develop and prepare different types of visual aids suitable to community nutrition programmes.
2.To gain practical experience in imparting the knowledge of nutrition to the community.
3. Develop comprehensive skills and become professionals in public health nutrition.
4. To learn and excel in assessment of nutritional status of the community

REFERENCES

1. McLaren.D.S., ED-1983. Nutrition in the Community. John Weley and sons.
2. Jelliffe. D.B.-1996. The Assessment of Nutritional status on the community-WHOMonograph series No. 53-geneva.
3. Reh, Emma-1976. Manual on Household Food consumption surveys, FAO.Nutritional studies No.18 Rome
4. Shukla, P.K.- 1982. Nutritional problem of India-prentice Hall of India Pvt. Ltd., NewDelhi.
5. Shanti ghosh-1977. The feeding and care of infants and young children, voluntaryHealth Association of India-New Delhi.
6. Ibrahim. G.J-1983. Nutrition in mother and children Health. London, Macmillan.
7. Ritchey, S.J. and J. Taper-1983. Maternal and child Nutrition. Harper and Rowpublishers, New Delhi.

CORE PAPER IX - HUMAN DEVELOPMENT - I

(DEVELOPMENT FROM INFANCY TO ADOLESCENCE)

III YEAR/SEMESTER V **Hours: 6**

LEARNING OBJECTIVES :

To enable students

1. to understand the principles of growth and development.
2. to understand the various methods of studying human development.
3. to understand human development from infancy till adolescence.

UNIT I
Growth and development

a. Meaning and importance of growth and development, principles of governing growth and development – developmental tasks of different stages.

b. · Methods of study of human development.

UNIT II
Infancy and Babyhood (0-2 years)

a. Characteristics, physical, social, emotional , cognitive and language development

b. Effect of stimulation – Care of the infants - feeding, toilet training, bathing, clothing, sleeping and immunization,.

c. Importance of mothering ; Importance of psychological needs. ·

d. Common ailments and Safety measures.

UNIT III
Early childhood period (2-6 years)

a. Characteristics, physical, social, emotional, intellectual and language development

UNIT IV
Late childhood period (6-12 years)

a**.** Characteristics, physical, social,emotional, intellectual, language and moral development.

b. Nursery School – Aims and objectives, building equipments, curriculum program and personnel.

UNIT V
Adolescence

a. Adolescence –physical and psychological changes, emotional, moral and social, development, Problems of adolescents.

b. Delinquency – causes, prevention and rehabilitation

c. Educational and vocational guidance, role of family and schools and colleges in guiding adolescents

LEARNING OUTCOMES:

On completion of this course, successful students will

1. understand the principles of development and developmental stages of the human lifespan.
2. develop an understanding of the physical and motor, emotional, social, cognitive, language and moral development of the human lifespan.
3. know the significance of preschool education.
4. gain knowledge and understanding on the transition of human beings from birth till maturity.
5. be prepared to enter the threshold of adulthood.

REFERENCE:

i. *Elizabeth B. Hurlock. Child development.*
ii. *Laura E. Berk. Child development.*
iii. *Alison Clarke Stewart. et al. Child development.*
iv. *Rajammal P. Devdas, Jaya N. Textbook of child development.*
v. *Dr. Sushila Srivatsav, Dr. K. Sudha Rani. Textbook of human development.*
vi. *Suriakanti A. Child development.*
vii. *Stephany Feeney. et al. Continuing issues in childhood education.*
viii. https://www.verywellmind.com/piagets-stages-of-cognitive-development-2795457

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CORE PAPER X- FOOD SERVICE MANAGEMENT – I – TAL5B

YEAR/ SEMESTER: III / V

HOURS: 4+2/ Week

LEARNING OBJECTIVES:

On completion of the course the students will be able to

1. Analyse the difference between the different types of food service establishments and their current trends.
2. Understand the concepts of management and its application in a food service.
3. Comprehend all the elements of Human Resource Management
4. Assess and apply costing techniques.
5. Identify the use of computers and software applications in hospitality management

UNIT 1:

Definition and scope of Food Industries – classification of Commercial and Non commercial food service and welfare food service institutions.

UNIT II

Management Definition, principles and functions of management Organization – Types and theories of organisation. Tools of management.

UNIT III

Staffing Manpower Planning Labour sources, Selection, Recruitment and training wages, salaries, incentives, promotion demotion, transfer, dismissal. Managerial Problems of Food Service Unit. Directing and direction, leadership, delegation and controlling decentralization, centralization, supervision, human relation industry, authority and responsibility, motivation, communication evaluation techniques. Leadership styles and qualities.

UNIT IV

Food cost and review of maintenance of accounts Accountability Daily, Weekly, Monthly accounts for food, labour equipment and furnishing, rent, water, fuel, light, licences, cleaning supplies, maintenance, miscellaneous. Double entry book keeping, ledger accounts journal and

balance sheet, budgetary control. Cost control, fixed, variable, average marginal and unit cost, break even analysis – production planning control

UNIT V

Application of Computers in catering.

References:

1. Dhawan, V. (2017) *Food and beverage service*. Chennai: Frank bros & co.

2. Seal, P.P. (2015) *Computers in hotels: Concepts and appplications*. New Delhi: Oxford university press.

3. West & Wood (2000) *Food service in insttitutions.* New york : Wiley esatern limited.

4. Sethi, M & Malhan, S. (2011) *Catering mangement – An integrated approach.* New Delhi: New age international publishers.

5. Cousins, J & Lillicrap, D & Weekes, S (2014) *Food and beverage service.* Hodder education.

6. Suganthi, V. & Premakumari. C (2017) *Textbook on Food service managemen*t. Chennai : Dipti publishers.

7. Arora, K (2008). *Theory of cooking*. Frank bros & co.

8. Palacio, J.P & Theis, M (2011). *Food service management : principles and practices. Food hygiene and sanitation.*Pearsons publishers.

9. Sudhir Andrews (2008). *Text book of Food and Beverage Management*. McGraw Hill Company Ltd.,New Delhi.

10. Singaravelan.R. (2013) *Food and Beverage service*. Oxford university Press. New delhi.

11. Ravi Aggarwal (2010) *Essential of Food and Beverage Service.* Subline publication, New delhi.

12. Roday, S (2011) *Food hygiene and sanitation*. Tata McGraw hills.

LEARNING OUTCOMES

1. Competent to plan menus for food service establishments.

2. Develop managerial skills

3. Develop human resource skills required in the management of food service operations

4. Sound knowledge of the costing and book keeping techniques.

5. Well equipped to understand the applications if computer technology in the catering sector.

SUBJECT: NUTRITION-II
YEAR/SEMESTER:III/V
HOURS: Theory 6 hours

OBJECTIVES

1.To learn the role of various micronutrients and water in body functions.
2.To gain skill in qualitative tests and quantitative estimation of nutrient
3. To acquaint with diagnosis and treatment of micronutrient deficiencies.

SYLLABUS

UNIT I

FAT SOLUBLE VITAMINS

Metabolism, Functions, effects of deficiency, food sources, requirements, unit of measurements and hypervitaminosis of vitamins A, D, E and K.

UNIT II

WATER SOLUBLE VITAMINS

Ascorbic acid and B Complex vitamins- Thiamine, Riboflavin and Niacin- Functions, effects of deficiency, food sources and requirements for different age groups.

Importance of folic acid, Pyridoxine, Vitamin B12, Biotin and Pantothenic acid to the body.

UNIT III

MACRO MINERALS- Calcium, Phosporous, Magnesium, Potassium, Sodium and Chloride- Distribution in the body; functions, effects of deficiency, food sources and RDA.

MICRO / TRACE MINERALS in human nutrition - Iron, Zinc, Fluoride and Copper

Distribution in the body; functions, effects of deficiency, food sources and requirements for different age groups.

UNIT IV

ULTRATRACE MINERALS- Iodine, Selenium, Manganese, Chromium, Molybdenum and Cobalt.

Distribution in the body; functions, effects of deficiency, food sources and requirements.

Selenium and Vitamin E relationship.

Chromium and glucose tolerance factor.

UNIT V

WATER – as a nutrient, functions, sources, requirements. Distribution of water in the body, exchange of water in the body, composition of body fluids, water exchange between plasma and interstitial fluid.Water imbalance – dehydration- water intoxication, water and electrolyte mechanism - ADH , vasopressin.

LEARNING OUTCOMES

1. Learn the nutritional importance of the water in human health.
2.Able to conceptualize, implement and evaluate the functions, metabolism, requirements and effects of deficiency of micronutrients.
3. Understand the role of food and nutrients in health and disease prevention.

REFERENCES

1. Guthrie H.A. – Introductory Nutrition C.V. Mosby Co. St. Louis.

2. Bogert, J.G.V. Briggs, D.H. Calloway Nutrition and physical fitness (1985), 11th edition – W.B. Saunders Co., Philadelphia, London, Toranto.

3. Wardlaw, G.M. Insel, P.H. – Perspectives in Nutrition (1990) Times Mirror / Mosby College Publishing Co. St. Louis, Toronto, Boston.

4. William, S.R. – Nutrition and Diet Therapy (1985) 5th edition, Mosbey Co. St. Louis.

5. M. Swaminathan “Principles of Nutrition and Dietetics”, 1993, Bappco 88, Mysore Road, Bangalore-560 018.

6. Maurice E. Shils, James A. Olson, Moshe Shike “Modern Nutrition in health and disease” (1994) eighth edition, Vol. I & II Lea & febiger Philadelphia, A waverly Company.

SUBJECT: SPORTS NUTRITION

YEAR/SEMESTER: III/V

HOURS:Theoryt-4 hrs Practicals-2 hrs

LEARNING OBJECTIVES

- To find out the sources of energy for muscle and force generation.
- To learn about the importance of nutrition in sports personnel
- to know about the ergogenic aids and supplements available in the market

SYLLABUS

UNIT 1

Fuel Sources for Muscle and Exercise Metabolism Sources of energy for muscle force generation – fuel stores on skeletal muscle – energy pathways – regulation of energy metabolism – metabolic response to exercise – metabolic adaptation to exercise training – factors influencing choice of fuels – Components of energy expenditure – energy balance.

UNIT 2

Macro and Micro Nutrients in Sports Nutrition Role of carbohydrates before, during and after exercise – carbohydrates loading – protein requirements for exercise – techniques to study protein and amino acid metabolism – effect of protein intake on protein synthesis – amino acids as ergogenic aids – health risks with excessive protein intake – Fat as a fuel during exercise – fat supplementation and exercise supplements that increase aft oxidation. Micronutrients – role of antioxidants – essential function of vitamins and minerals for athletes, ergogenic effect Water – thermoregulation and exercise in the heat – effect of dehydration in exercise performance – heat illness – fluid guidelines before, during and after exercise.

UNIT 3

Weight Management and Body Composition Weight management- Ideal body weight and composition – weight loss – making weight and rapid weight loss strategies Eating disorders – types, prevalence, risk factors, effect on sports performance, treatment and prevention Body composition analysis-importance of body composition, different techniques-normative values for comparison.

UNIT 4

Practical Sports Nutrition Pre event and post event meal- preparing for competition, dealing with cramps, stitch GI distresselctrolyte balance-sports drinks Eating for anaerobic power-aerobic power timing of meals and snacks-guidelines for the travelling athlete-recovery food Food for power sports, endurance sports, combined power Nutrition for special population: child athlete, ageing athlete, athletic diabetes, vegetarian and disabled athlete.

UNIT 5

Ergogenic aids and supplements Overview of supplements and sports foods – use of performance enhancing substances among athletes – finding proof of efficacy of supplements and sports foods-anabolic steroids-sports foods (cereal bar, sports drinks, carbohydrate gels, liquid meal replacements, vitamins)-different types of protein supplements, creatine,

glutamine, BCAA, HMB, caffeine, glycerol, bicarbonate, citrate – WADA-Anti doping rules and regulations.

PRACTICALS

1. Body fat analysis-learn to use skin fold calipers, bio electrical impedance analysis technique. Observe DEXA analysis.

2. Measurement of Blood pressure, heart rate, calculate METs, VO2 max

3. Learn to take whole body measurements from a certified fitness trainer using a measuring tape

4. Observe fitness testing methods by a sports physiotherapist or certified fitness trainer- to measure cardio vascular fitness, core strength, muscular endurance, explosive power, flexibility, agility, stability, strength, speed

5. Planning diets for strength sports, endurance sports, racquet sports, team games

6. Planning diets for competition, recovery (case studies)

7. Assignment on sports foods and supplements available in the market

8. Guest lecture by a sports nutritionist, fitness trainer, sports physician or physiotherapist on career opportunities

9. Attend a sports tournament-swimming or tennis or hockey or cricket or track and field sports etc.

LEARNING OUTCOMES

On completion of the course, the students will be able to:

- Demonstrate an understanding of the basic principles associated with sports nutrition.
- Use sports supplements judiciously to enhance sports performance.
- Identify particular dietary trends or eating behaviours to suit the individual athlete.
- Develop an understanding of the importance of incorporating healthy eating guidelines to select the right foods and supplements for specific sports, activities and health conditions.
- Apply a working knowledge of nutrition and food components and the beneficial or deleterious effects of food on the human body with particular emphasis on sporting performance and lifestyle.

REFERENCES

Jordan P (Ed), Fitness Theory and Practice- The comprehensive Resource for fitness Instructors, Sherman Oahs, California, 1997.
Crossley.J., Personal Training and Practice, Hodder Arnold, London, 2009.
Glendhill.A. Mulligan, C.Saffer#y, Sutton.J & Taylor.R., Sports and Exercise Sciences, McLanie Gray & Felicity Kendall, Heinemann, Oxford, 2007.
Macedinio. MA, Dunford M, The Athlete's Guide to making weight- Optimal weight for Optimal performance, Human kinetics, 2009.

Singh V & Bhadana OP, Physical Fitness and Training, Sports Publication, New Delhi, 2010.
Wadsworth A., Cardiovascular Training for Fitness, Anness publishing limited, 2010.
Lal Priti Rishi, Nutritional recommendations for sports persons- A Review, J.Indian Dietetic association,, 31, 2006.
Bean Anita, The Complete Guide to Sports Nutrition, A7C Black Publishers Limited, London, 2009.
Position of the American Dietetic association, Dietitians of Canada and the Americal College of Sports medicine: Nutrition and Athletic Performance, J Am diet Assc., 109, 2009.
B Srilakshmi, V Suganthi, C Kalaivani Ashok, Exercise Physiology and Sports Nutrition, New Age International publishers, 2017.

Web Resources

American College of Sports Medicine- www.acsm.org
Centre for disease control and prevention- www. cdc.gov/ncdphp/ndpa
Sports, cardiovascular and wellness Nutrition Dietetics Practice group- www.scandpg.org
Exercise Physiology www.ncbi.nim.nih.gov/PubMed/

Department of Home Science

Class: III Year/ V Semester Hours: 6/week

Subject: Fundamentals of Textiles (TEL5A)

Objectives:

To help the students

1. Study the science of Textiles and use this knowledge in wise buying
2. Learn how to operate sewing machine and also to repair it.
3. Learn different Embroidery stitches and other basic stitches for garment construction.
4. Learn different types of stitches using sewing machine and also hand stitch method.

UNIT - I Fiber study

(a) Classification of fibers – study of properties common to protein, cellulose, mineral and thermoplastic fibers.

(b) Manufacture, uses and properties of Cotton, Jute, Viscose Rayon, Wool, Silk, Nylon, Terylene and Acrylic.

U NIT – II

Yarn processing: Steps involved in processing cotton yarns – classification of yarns based on direction of twist, count – simple and novelty yarns.

UNIT – III

Techniques of clothing construction

a) Selection, use and care of sewing machine and sewing tools.

b) Study of basic hand stitches-temporary and permanent.

c) Seams and seam finishes.

d) Methods of introducing fullness into a fabric-darts, tucks, pleats and gathers.

UNIT IV –

Principles of Pattern Making:

a) Steps in preparing the basic bodice, sleeve and skirt pattern for children and adult women based on body measurements.

b) Steps in fabric preparation.

c) Pattern Layout.
d) Methods of transferring pattern markings on to a fabric.

UNIT V –
Fabric Embellishment a) Embroidery b) Applique c) Sequince and Zari work

PRACTICALS:
1. Sewing process: a) Hand stitches – temporary and permanent.
b) Seam and seam finishes
c) Preparation and application of true bias, bias facing, shaped facing & bias binding
d) Plackets and opening – continuous placket, bound & faced placket.
2. Garment construction: a) Saree petticoat b) Apron / Jabala.

Learning Outcome:
Student will be able to

- Identify and select fabric of their own choice for different use.
- Do Embroidery for their own use and can get orders to do the business and also teach others embroidery skills.
- Do the repair of sewing machine by themselves and construct garment using sewing machine.

REFERENCES:
1. Hess (1961). Textile Fiber and their use.Lippincot co., Newyork
2. Joseph, M.L., (1977). Introductory Textiles Science, Rinehart and Winston New York.3rd Edition.
3. Potter and Corbman, (1985). Fiber to Fabric. Mc. Graw Hill book Co. New York.
4. Harry Mathews-Practical Clothing Construction Part-I and Part-II, Cosmic press (1966)
5. Allyne Bane, "Creative Sewing", Mc .Graw and Hill book Company (1980)
6. Marry Mathews- Practical Clothing Construction-Part-I, Basic Sewing processes. (1974) Bhattarams Reprographics (p) Ltd. Chennai-41.
9. W.S.Murphy, (2000) preparation of Textile Fiber, Abhishek publications S.C.O.57-59, sector-17c Chandigarh-17, India.
10. Sara J.Kadolph (2009), Textiles Dorling Kindersley India Pvt Ltd, New Delhi.
11. DeepaliRastogi and Sheetal Chopra, Textile Science (2017), Orient Black swan Pvt Ltd, yashprintographics,Noida.

ANNA ADARSH COLLEGE FOR WOMEN
DEPARTMENT OF HOMESCIENCE

CORE-XIII: PRINCIPLES OF RESOURCE MANAGEMENT
(Common paper to B.Sc.Home Science – Interior Design and Décor)

Time/Hrs: Theory: 6 Hrs **Year : III**
Credits: 4 **Semester: VI**
Subject Code:TAL6A

COURSE OBJECTIVES:

To enable the students to
1. Understand the concepts, principles and significance of resource management.
2. Apply the principles in the management of resources.
3. Acquire Knowledge in work simplification

LEARNING OUTCOMES:

The student will be able to
1. Identify the resources and factors influencing the use of resources.
2. Understand use of tools in time management in day to day life.
3. Apply work simplification techniques while planning work.
4. Develop skills to draw a budget within the available income and to maintain accounts.
5. Manage efficiently the available resources during residence stay.

SYLLABUS

UNIT I

Concept of resource management- Definition, Management Process- Planning, Controlling- Energising, Adjusting, Checking- Supervision- Directing and Guiding, Evaluating, Qualities of A Good Manager.

UNIT II

Managerial Inputs - Values, Goals, Standards and Resources - Meaning and classification, optimizing the use of family resources, Factors affecting the use of resources. Decision making - Meaning and its importance, Types of decisions, Decision making process, Methods of resolving conflicts.

UNIT III

Time Management- Time plans, Tools in time management- Time norms, Peak loads, Work Curves and rest periods, Time management process - Planning - Steps in making time plans - Controlling the planning action - Evaluation.

UNIT IV

Energy Management - The efforts required in home-making activities, Energy requirements for household activities, Fatigue-concepts, Types - Physiological and Psychological fatigue and Managerial process applied to energy. Work Simplification - Definition, Importance, Techniques - Process chart, Operation chart, Multiman chart and cycle graph techniques - Mundel's Classes of change - Planning efficient work areas-kitchen.

UNIT V

Money Management - Family Income - Types, sources and methods of augmenting family income. Family Expenditure - Budget - Meaning - Types of budget, Planning a budget for a family of a fixed income, Hotel / Restaurant, advantages of budgeting, Factors affecting family budget, Engel's law of consumption, methods of handling money - Family financial records.

PRACTICALS

1. Identification of managerial activities performed at home.
2. Identification of personal and family values and goals.
3. Time expenditure pattern of selected groups.
4. Techniques to study work simplification.
5. Kitchen planning and storage - convenient work heights - types.
6. Formulation of budgets for family and for a department

REFERENCES

1. Rao, P.S., and Rao, V.S.P., (1997) Personnel Human Resource Management. New Delhi, Konark Publishers Pvt., Ltd.
2. Aswathappa, K. (1997) Human Resource and Personnel Management. New Delhi, Tata McGraw Hill Publishing Company
3. VenkataRatnam, C.S. and Srivatsava, B.K., (1999) Personnel Management and Human Resources New Delhi. Tata McGraw Hill Company.
4. Salyadain, M.S., (1999) Human Resource Management. New Delhi, Tata McGraw Hill Publishing Company Limited.
5. Deacon, R., and Fire Baugh, (1981) Family Resource Management, U.S.A.
6. Varghese M.A, Ogale N.N, Srinivasan.K, Home Management
7. Gross& Crandall, Management In Modern Families(1963)
8. PremavathySeetharaman, Sonia Batra, PreetiMehra, An Introduction To Family Resource Management(April 6, 2019)
9. Nickell Dorsey, Management And Family Living(June 1, 1976)

WEB LINKS:

- http://www.yourarticlelibrary.com/decision-making/decision-making-in-managementdefinition-and-features-explained/25657/
- http://www.familyresourcemanagement.org/services/goals/

- http://www.familyresourcemanagement.org/services/standards/
- http://www.nios.ac.in/media/documents/sechmscicour/english/home%20science%20(eng)%20ch-15.pdf
- https://books.google.co.in/books?id=NJkrzK3CgisC&pg=PA149&lpg=PA149&dq=time,+energy,+money+as+resource+in+management&source=bl&ots=xmSpLDkia&sig=57qLKHx2UX3sznBIJhm

CORE PAPER XIV- FOOD SERVICE MANAGEMENT – II (TAL6B)

YEAR/ SEMESTER: III/ VI

HOURS: 4 + 2 / Week

LEARNING OBJECTIVES:

1. To understand the applications of basic principles to bulk production of the food

2. To gain knowledge regarding selection and purchase of food

3. To develop skills in menu planning for quality preparation

4. To understand the different styles of food service in volume feeding

5. To gain knowledge of food service layout

6. To gain knowledge to develop skills in handling equipment and maintenance

UNIT I- Equipment in food service

Classification of equipment, factors affecting selection of equipments-electrical and nonelectrical equipment for food storage, preparation, service and dishwashing Base materials and insulating materials

UNIT II - Planning of Food Service unit

Layout of food plants, different work area, planning of storage, production and service areas. Lighting and ventilation.

UNIT III - Menu planning

Definition, types, menu planning for various sectors and institutions, health safety in menu planning, standardization of recipes, portion control. Types of food and beverage services.

UNIT IV

Sanitation and safety in food service institutions, garbage disposal, pest control.

UNIT V

FSSAI (Food safety standard authority of India), HACCP , Entrepreneurial ship in catering.

LEARNING OUTCOMES

1. To assess the use of equipment in food service and make wise purchase decision.

2. Plan and sketch layouts for different types of establishments

3. Develop skills to become a successful entrepreneur in the food industry.

PRACTICALS

1. Standardization of four selected recipes from each of the following cuisines-South Indian North Indian, East Indian and West Indian.

2. Organizing, preparing and serving food for three different meals for 50 members or more (list attached)

3. Setting up the restaurant-laying of table cloth changing, setting up the silver and other table arrangements. Folding of serviettes correct use of waiter's cloth. Preparation for customers.

4. Serving and clearing practice, French and English Service.

5. Service of beverage tea, coffee, juices and alcoholic beverages.

6. Laying for breakfast.

7. Tray service.

8. Order taking, making out checks bills presentation of bills.

9. Up keep and cleaning of cutlery, crockery, other equipment.

REFERENCES:

1. Dhawan, V. (2017) *Food and beverage service*. Chennai: Frank bros & co.

2. Seal, P.P. (2015) *Computers in hotels: Concepts and appplications*. New Delhi: Oxford university press.

3. West & Wood (2000) *Food service in insttitutions.* New york : Wiley eastern limited.

4. Sethi, M & Malhan, S. (2011) *Catering mangement – An integrated approach.* New Delhi: New age international publishers.

5. Cousins, J & Lillicrap, D & Weekes, S (2014) *Food and beverage service.* Hodder education.

6. Suganthi, V. & Premakumari. C (2017) *Textbook on Food service management.* Chennai : Dipti publishers.

7. Palacio, J.P & Theis, M (2011). *Food service management : principles and practices. Food hygiene and sanitation.*Pearsons publishers.

8. Sudhir Andrews (2008). *Text book of Food and Beverage Management*. McGraw Hill Company Ltd.,New Delhi.

ANNA ADARSH COLLEGE FOR WOMEN

DEPARTMENT OF HOMESCIENCE

CORE PAPER XV- PRINCIPLES OF INTERIOR DECORATION

Hours : Theory: 6 Hrs Year :3

Subject Code: TAL6C Semester: 6

OBJECTIVES

To enable students to

1. Gain understanding of the basic art principles.

2. Learn to apply colour in the interiors.

3. Understand the basic Principles of House Keeping.

4. Prepare for housekeeping jobs.

Syllabus:

UNIT I

Art in daily living - importance of good taste objectives of interior design. Design - elements of design - line, shape, size, space, texture, pattern, colour and light, Types and Characteristics of design, Principles of design - Harmony, Balance, Rhythm, Proportion, Emphasis.

UNIT II

Colour - Qualities of colour - Hue, value, and intensity, Colour harmony, developing colour schemes for different rooms.

UNIT III

Furniture and Furnishings - selection and arrangement of furniture in different rooms. Different types of furnishing materials - Factors considered in their selection. Floor coverings,Curtains and draperies, Window treatment.

UNIT IV

Accessories - Selection, Use and Care of accessories, Types - traditional and modern - art objects - pictures, flower arrangement-Types,use and care-Flower arrangement for different rooms.Indoor plants-use and care

UNIT V

Lighting - Importance of lighting - Principles and types of Lighting - Lighting needs for various activities.

PRACTICAL

I. Analysis design for their qualities

II. Arranging various areas using the different principles of design 42

III. Special area arrangement-Hotels, Restaurant, Auditoriums, Airports etc.

IV. Harmonious combination of colour in different areas

LEARNING OUTCOME – At the end of the course the students will be able to

1. Create understanding of the basic art principles.
2. Apply color harmony in the interior.
3. Selection, Use and Care of Furniture, Furnishings and Accessories.
4. Understand the basic Principles of House Keeping.
5. Prepare for housekeeping jobs.

REFERENCES

1. Gilliat, M., Mix and Match Decorating Book. Dover Publishing Inc: New York, U.S.A.
2. Harry, N. The California Home Book. Pub, Abrams Inc (N.Y).
3. Form Design and More Attractive City Envirnment. Pub. Chamber of Commerce. U.S.A.
4. Mike Lawrence. The Complete Home Decorator by (Pub) Chat well Books New Jersy.
5. Goldstein. Art in Everyday Life. Oxford and IBH Publishing House.
6. Ray and Sarah Faulker. Inside Today's Home Harcourt Brace & Company, U.S.A.
7. Barbara Aria. Nursery Design-Pub. Bantam Book, New York.
8. Caroline Clifton . The Complete Home Decorator. Portland House, New York

Web references:

https://www.colormatters.com/color-and-design/basic-color-theory

https://artclever.com/books/The_Fundamentals_of_Interior_Design.pdf

https://extension.tennessee.edu/Rutherford/Documents/Homegrown%20Bouquets%20Principles_of_Floral_Arrangement%2008.05.16.pdf

https://bouqs.com/blog/flower-arrangement-basics/

https://www.resortdata.com/housekeeping-management/

Department of Home Science

Class: III Year/ VI Semester Hours: 6/week

Subject: Health Psychology (TEL6A)

Objectives:

To help the students:

OBJECTIVES:

1.To understand the basic concepts of Human behavior and Health Psychology

2. Study the psychological and other psycho social sectors that affect health

3.Understand the interrelationship between Nutrition and Psycho social disorders.

4.To understand the special needs and health challenges of the human life cycle.

5) To familiarize with the health promoting treatment and inventions in health psychology.

Syllabus:

UNIT I

Foundation of Health Psychology Health and health psychology-health and illness-trends that shape health psychology perspectives in health psychology.

UNIT II

Stress and Health Stress-measurement-

Physiology of stress-sources-psychological factors in stress-stress response factors affecting the ability to cope stress management.

UNIT III

Health psychology through life span Childhood and adolescence-childhood nutrition, childhood obesity, adolescents and risk taking interventions, adulthood and ageing theories of ageing life style and aging.

UNIT IV

Nutrition and Illness Nutrition-obesity-treatment-eating disorders-substance abuse-alcoholism and tobacco abuse, chronic and life threatening illness-Psychological factors in cardio vascular disease, managing stress following CVD, Health psychology and diabetes, coping with cancer, Intervention strategy for AIDS, Coping with AIDS or HIV

UNIT V Intervention Strategies Applications of principle of counseling and psychotherapy in disease management and health care. Relaxation technique, somatic oriented cognitive and behavioral skills in the management of diseases. Support group-family counseling, alternative healing systems.

Learning Outcome:

Student will be able to:

- Able to understand the psychological aspects of Health which will be able to understand and help others in holistic approach while prescribing diet to the patient.
- Know how to manage the stress using different techniques.
- Counsel the patient how to cope up with disease to lead life successfully.

REFERENCES

1) Taylor.S.E. (1995), Health Psychology", McGraw Hill Inc, New York.

2) Richard. 0: Straub (2002) "Health Psychology", Worth Publishers, New York.

3) Ogden. J. (2000). "Health Psychology", 2nd Ed., open University Press, U.K

4) Tones. K and Tillofrd. S (2001), "Health Promotopn Effectiveness-Efficiency ard

Equity", 3 Ed., Nelson theories Ltd., U.K.

ELECTIVE PAPER III - HUMAN DEVELOPMENT-II
(Development from Adulthood through Old age)

III YEAR/VI SEMESTER **Hours: 4+2**

LEARNING OBJECTIVES:

To enable students

1. to understand the developmental tasks and various developments during adulthood till oldage
2. to impart knowledge on family and its related issues and to create an awareness on marriage and adjustments in family life cycle

3. to create awareness about the differently abled.

UNIT I
Adulthood (18 - 60 years)

Characteristics and developmental tasks. All aspects of development and vocational adjustments.

UNIT II
Marriage and family

a. Characteristics and developmental tasks. - Types of family-Indian, traditional and modern.
b. Functions of family and marriage, motives of marriage, marriage and family as a basic social institution.
c. Adjustment in marriage-adjustment towards mate, sex, finance, society and in-laws
d. Family life cycle-Stages-beginning family, expanding family, contracting family; adjustment in different stages.
e. Crisis in the family-critical family situations and its impact on children.
f . Maternal and Paternal deprivation and their effect on child growth and development
g. Paternal attitudes and their influence on their children; styles of parenting.
h. Small family norms-concepts, advantages and limitations.

UNIT III
Pregnancy and Prenatal Development

a. Conception-test tube baby, periods of prenatal development, factors affecting prenatal development, prenatal care. '

b. Management of normal pregnancy - hygiene, diet and medical supervision. Common discomforts and hazards during pregnancy; birth process-signs of labour, stages of labour, types of birth, birth injuries.

c. Post natal care, normal peurperium; prevention of gynecological complications. Adjustments of the newborn to temperature, breathing, feeding and elimination.

UNIT IV
Introduction to Children with Special Needs

a. Gifted children
b. Mentally retarded
c. Visually handicapped
d. Orthopedically challenged
e . Hearing impaired
f. Learning disability

UNIT V
Old age

Characteristics of old age, Physical changes and Psychological changes.
Place of the aged in Indian Society.

PRACTICALS

1. Preparation of case study, observing various development-physical and motor, social emotional and intellectual-of a particular child.

2. Socio-metric study of adolescents.

3. A survey on preferences of adolescents in choosing a life partner.

4. Visit to an institution for exceptional children.

5. Survey on problems of old age.

LEARNING OUTCOMES:

On completion of this course, successful students will

1. have better knowledge and understanding of the developmental stages and problems faced during adulthood.
2. attain knowledge in life-span human development and family science
3. have the ability to plan and evaluate the interpersonal skills and intervention strategies to enhance the development of an effective relationship.
4. gain competence to lead a successful marital life.
5. develop awareness about the problems and role of the elderly in the society.

REFERENCE:

i. *John W. Santrock. Lifespan development.*
ii. *Prof. Chaube S. P. Developmental psychology.*
iii. *Carol K. Sigelmon. et al. Human development.*
iv. *Rajammal P. Devdas, Jaya N. Textbook of child development.*
v. *Dr. Sushila Srivatsav, Dr. K. Sudha Rani. Textbook of human development.*
vi. *Elizabeth B. Hurlock. Developmental psychology – A lifespan approach.*
vii. *Kapadia K. M. Marriage and family in India.*
viii. *Chintamani Kar. Exceptional children – Their Psychology and education.*
ix. *Dash M. Education of exceptional children.*
x. https://nijp.org/education-and-training-of-differently-abled-children/

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