

Annexure - I
Fifth Semester

Core Course 11: THERAPEUTIC NUTRITION

(CREDITS: THEORY-4, PRATICAL-2)

THEORY

LECTURES:60

Objectives:

- To promote good health by teaching the public and other health professionals about and nutrition.
- To know the nutritional management of different diseases.

Out Comes:

- The department of nutrition and dietetics is to establish and encourage good nutritional practice and standards as an integral part of the health care.

Unit I Principles of nutrition care-

- Nutrition Care Process
- Therapeutic adaptations of normal diet
- Progressive diets- Clean fluid, full fluid, soft and regular

Unit II Etiology, clinical features and nutritional management of infection and fevers

- Typhoid
- Tuberculosis
- HIV

Unit III Etiology, Clinical features and nutritional management of the following

- Diarrhoea
- Constipation
- Lactose intolerance
- Celiac disease
- Liver: infective Hepatitis

Unit IV Etiology clinical features and nutritional management of

- Weight Imbalances- Over weight and obesity: Under weight
- Eating disorder- anorexia nervosa and bulimia

Unit V: Etiology clinical features, basic diagnosis and nutritional management of the following

- Type 1 and Type 2 Diabetes Mellitus
- Hypertension and Coronary Heart Disease

PRATICAL

Planning of Diets for the following

Therapeutic Diet- Normal, soft, clear and full fluid

- (i) Fever : acute and chronic
- (ii) Obesity
- (iii) Type 2 Diabetes
- (iv) Hypertension and CHD

RECOMMEDED READING

- Khanna, K . Gupta S, Seth R, Passi, S.J. Mahan, R. PuriS(2013), Text book of Nutrition and Dietetics Phoenix Publishing House Pvt Ltd.

Core Course 12: PHYSIOLOGY AND PROMOTIVE HEALTH

(CREDITS: THEORY-4, PRACTICAL-2)

THEORY

LECTURES; 60

Objectives:

- To give students a general knowledge of the principles of health promotion.
- A practice management section dedicated to prevention, fitness, health promotion and wellness.

Outcomes:

- Health is a resource for everyday life, not the objective of living; it is a positive concept, emphasizing social and personal resources as well as physical capacities.

Unit I; Physiology

- Blood- Composition and Function , Anemia, Jaundice
- Blood circulation (Systemic, pulmonary, Coronary and portal)
- Cardiac cycle, Blood pressure
- Structure of Lungs and its function

Unit II: Gastrointestinal Physiology

- Structure of stomach, liver, gallbladder, pancreas and their functions
- Composition , function and of GI secretions and digestion

Unit III:Endocrine Physiology

- Actions and disorders of pituitary, thyroid, adrenal and pancreatic hormones.

Unit IV: Renal and Reproductive physiology

- Structure of Kidney and its function
- Physiology of Menstruation and Menopause

Unit V: Promotive Health

- Concept of Health, Disease and its prevention
- Family planning and contraception

Therapeutic Diets Normal Soft clear and full fluid

- i. Fevers : Acute and Chronic
- ii. Obesity
- iii. Types 2 Diabetes
- iv. Hypertensions and CHD
- v. Drug abuse and alcoholism

PRACTICAL

1. Case study of Iron deficiency Anemia, Investigation and diagnosis, Blood indices
2. Measurement of blood pressure by using sphygmomanometer.
3. Demonstration of procedures of clinical examination to see for pallor, jaundice, edema and dehydration and their importance.
4. Basic first aid procedures CPR, Burns.
5. Visit to a DOTS center.
6. Preparation of a project on Antenatal care for women.

RECOMMENDED READINGS

- Ganong WF (2003). Review of Medical Physiology, 21sted Mc Graw Hill.
- J.E. Park and K. Park (2009). Park's textbook of preventive and Social Medicine, 20th edition. M/s BanarsiDas , Jabalpur.

- Ross and Wilson (1973). Foundation of Anatomy and physiology, medical division of Longman Group Ltd.
- Yash Pal Bedi (1980). A Handbook of social and preventive medicine ,Atma Ram and Sons.

Sixth Semester

Core Course 13 : RESEARCH METHODOLOGY IN HOME SCIENCE

(CREDITS: THEORY-4 PRATICAL-2)

THEORY

LECTURES: 60

Objectives:

- To achieve within a time frame and with available resources.
- It is a way to systematically solve a research problem.

Outcomes:

- It helps the students to deal with ethical and practical problems in research work.

Unit1: Research Meaning, purpose and approaches

- Exploration, Description, Explanation
- Scientific method and research
- Research Designs- Experimental and Observation
- Quantitative and Quantitative approaches

Conceptualization and Measurement

- Variable, Concepts and Measurement
- Levels of Measurement

Unit 11: Sampling & Tools

- Role of sampling in research
- Types of sampling

Research Tools and Techniques

- Validity and reliability
- Interviewing and observational methods

Unit III : The Research Process

- Defining the problem, research questions, objectives hypotheses
- Review of related literature and originality in writing
- Planning the research
- Subjects context and ethics
- Methodology and tools
- Citation formats: in medical sciences , social sciences

PRATICAL

1. Exercise in sampling random number table
2. Exercise in designing tools and their analysis: interview, questionnaire
3. Data collection process: conducting interview, FGDs , case studies

RECOMMENDED READINGS

- Kumar R. (2006) Research Methodology: A step by step Guide for Beginners, Sage Publication , New Delhi.
- Kelinger F.N. and Lee, H.B (2000) Foundations of Behavioral Research 4th Ed. Harcourt College Publishers.
- Kothari C.R. (2008) Research Methodology: Methods and Techniques 2nd Ed. New Age International Pvt Ltd. New Delhi.

- Black J.A & Champion D.J. (1976); Methods and issues in Social Research New York: John Wiley and Sons.

Core Course 14: SOCIO ECONOMIC ENVIRONMENT

(CREDITS: THEORY:-4, PRACTICAL -2)

THEORY

LECTURES: 60

Objectives:

- To know the relationship between society, economy and environment.
- Improve awareness to help social groups and individuals related to environment and development.

Outcomes:

- The natural and environmental resource input function is central to understanding the relationship between economic growth and environment.

Unit -1: Sociological Concerns and Orientation

Sociological Orientation

- Society, Culture and institutions
- Family, Kinship and Relationships
- Cultural diversity in contemporary life.

Unit-II: Economics Theory and Environment

- Definition, Scope and Economics,
- Wants- Classification and Characteristics
- Utility- Law of Diminishing, Marginal Utility, Law of Equi- Marginal Utility
- Demand- Law Demand, Elasticity of Demand.
- Engel's Law of Consumption,
- Types and function of money, inflation ,
- Types and functions of banks
- Public Revenue.

UNIT IV: INDIAN ECONOMIC ENVIRONMENT

- Constraints on growth: Issue of population, income, distribution, poverty, unemployment, and migration food security.
- Recent development programmes of the Government of India : Jana DhanaYojana, SarvaSikhaYojana.
- Planning: Objective and Achievement

PART 1

PRACTICAL

- Changing families & Relations in Society
- Individuals facing and Conflicts and consensus in Society
- Changing status and roles in varied spaces in family, work the elderly and its implication on the individuals and society across cultures.
- Experience of exclusion on the individual, caste, minority , disability, violence, immigration.
- Religion and Culture
- Caste studies, narrative, films , fieldtrips to different regions, communities like tribal, rural, urban.

PART II PRACTICAL

- Field Visit(to do the comparative economics studies)
- Case Studies related to current economics issues (Development and Environmental)
- Data interpretation and analysis (to see the trends of growth and development of certain sectors of vice versa)

RECOMMENDED READINGS

- Abraham, M. F. (2006). Contemporary Sociology: An introduction to concepts and theories: New York: Oxford University Press.
- Beattie, J. (1964). Other cultures. Cohen and West.
- Das, V. (Ed.) (2003) The Oxford companion to sociology and social anthropology: volume 1 and 2. New Delhi: Oxford University Press.
- Johnson, M.H. (2001). Sociology: A systematic introduction. New Delhi: Allied Publishers Limited.
- Rawat, H.K. (2007). Sociology: Basic concepts. New Delhi: Rawat Publications.
- Srinivas, M.N. (Ed.) (1996). Caste: Its twentieth century avatar. New Delhi: Viking Penguin
- Ahuja H.L., 2010, Modern Micro Economics. Sultan Chand & sons
- Dhingra IC and Garg VK, 2010, Introductory Economic Theory. Sultan Chand & Sons
- Mishra & Puri, Recent edition 2014, Indian Economy, Himalaya Publishing House.
- Mithani D.M., 2010 New Edition, Macro-Economics. Himalaya Publishing House
- Sundaram K.P.M., 2010, Introduction to Economics. RatanPrakash

DISCIPLINE SPECIFIC ELECTIVE (DSE)

DSE1: CHILDHOOD IN INDIA

(CREDITS; THEORY-4, PRACTICAL -2)

THEORY

LECTURES: 60

Objectives:

- To understand the childhood life in India.
- To understand the psycho- social dimension of childhood.
- To know the contemporary issues of childhood in India.

Outcomes:

- It enables the student to understand the effect of poverty caste, culture, religion and languages in childhood year.

Unit 1 : Introduction of Childhood in India

- Children in India: An overview
- Child hood in mythology, stories and films

Unit II: Multiple contexts of Childhood in India

- Childhood in families
- Growing up without the family
- Childhood in Schools
- Children in extra- familial setting
- Belonging to a minority community

Unit III: Psycho- Social dimensions of Childhood

- Growing up in tribal family
- Childhood in selected family occupations: artists , farmers , weavers

- Growing up in rural setting
- Childhood in urban India
- Being a girl in India

Unit IV: Contemporary Issues of Childhood in India

- Language, religion and culture
- Poverty and disadvantage
- Caste and Childhood
- Children on streets

PRACTICAL

1. Personal Social experiences of childhood families
2. Beliefs and practices related to children in different communities
3. Stories, Folk songs, toys and games from diverse ethnic groups
4. Depiction of Child hood in Media

RECOMMENDED READING

- Behera D.K. (Ed.) (2007) Childhood in South Asia : New Dehli , Pearson- longman
- Krinshna L. (1998), Child rearing : An India perspective In A.K. Srivastav (Ed.), Child Development: An Indian perspective Pp 25-55 New Delhi : National Council for Educational Research and Training.
- Sharma D. (2003) Infancy and Childhood in India, In D. Sharma(Ed.) Childhood, Family and Sociocultural changes in India(13-47) New, Delhi , Oxford.

OR

DSE-I- FOOD SCIENCE

Objectives:

- 1.To know about the composition of food.
- 2.To know about Preservation Techniques and evaluation of food.

Theory

Unit -I . Introduction to food science .

Definitions, importance and applications .

Basic Terminology used in food Science.

Unit-II- Basic food Microbiology .

Introduction to yeast, mould and bacteria - characteristics and their role in preservation and

Spoilage of food . Hygiene and Sanitation Practices in food Processing and waste disposal.

Unit – III - Preservation Techniques, Principles and their application. .

High temperature, low temperature, removal of moisture, irradiation and additives. .

- Food packaging and labeling : FSSAI, Codex

Unit -IV- Sensory Science .

- Physiological basis of Sensory Evaluation and Sensory Attributes of food. .
- Sensory Evaluation: Assessment, Subjective and Objective.
- **Unit-V-**
- Food laws and Quality Assurance . National and International food laws –
- FSSAI,BIS,AGMARK,Codex and ISO: 22000, ISO:9000,ISO:14000 .
- Quality Assurance procedures-GMP,GHP,HACCP
- Practical
- **1.1** -Applications and factors affecting formation of Sols, Gels, Foams and emulsion

- II-Study of microscopic structure of different food starches and their gelatinization properties
- 2-I-Slide preparation and identification of bacteria, yeast and mould
- II-Assessment of hygiene practices of food handlers
- 3-I-Preservation of food using different methods (Blanching, Dehydration, Freezing)
- II-Basic Principle Involved in food preservation using additives.
- 4-I-Sensory evaluation method and their applications
- II-Food analysis (Moisture, PH, Acidity, total soluble solids by refractive index)
- 3-I-evaluation of food labels
- Recommended Readings 1-Mammy S & Bhadiksharawany M (2017)
- Foods-Facts and Principles, Wiley Eastern Ltd 2 Sriakami (2007)
- Food Science, 4th Edition, New Age International
- 3-Sethi Mohini and Rao P (2011) Food science (Experiments and Applications) 2nd edition CHN Publishers & Distributer Pvt
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DNE-2, TEXTILE PROCESSING

(CREDITS: THEORY -2 PRACTICAL-2)

THEORY

60

LECTURES

Objectives

- To know different type of dyes, techniques of dyeing, theory of dyeing
- To know different method of pretreating and adaption of improved technology of printing.
- To know different finishing process applied in dyeing and printed fabrics.

Outcomes:

- It enable the student to know different type of dyeing and printing used in fabric to make it more attractive and also expand their knowledge about the different process of dyeing and printing.

Unit 1 : Dyeing

- Terminology and theory of dyeing
- Classification of dyes
- Principles of colour fastness.

Unit 2: Printing

- Methods of Printing
- Block Printing
- Flat Plate and roller printing
- Stencil, Screen (Flat and rotary), Printing
- Transfer Printing
- Styles of Printing Direct, discharge, Digital printing etc
- Fixation of prints Ageing, Steaming, Baking wet development
- Washing of printed goods
- Auxiliaries
- Wetting agents, dispersing agents and solvents
- Hygroscopic agents

• Finishes

• Pickers and Thickeners

Unit 3: Finishing

• Classification of finishes

• Preparatory Finishes

• Finishes affecting appearance and texture

• Finishes for enhancing special characteristics

PRACTICAL

1. Dyeing

• On cotton using direct, reactive, azo and vat

• On wool/silk using acid, basic and reactive

• On acrylic using basic dyes.

2. Printing with blocks and screens

• Direct Printing- pigment colours

• Discharge printing- Direct dyes

• Resist Printing- Azo dyes

• Color fastness of dyed fabrics

• Wash fastness

• Cook Rub-fastness

• Perspiration fastness

RECOMMENDED READING

• Miles I. W. C. (1994) Textile Printing 2nd edition, England, Society of Dyers and Colourists

• Sekhon S. (2013) Textbook of Fabric Science : Fundamental to Finishing , PHI Learning Delhi

• Shenoi, V. A. (1987) Chemistry of Dyes and Principles of Dying , Vol. II Bombay, India, Sevak Publication.

DSE 3: INDIAN TEXTILES HERITAGE

(CREDITS: THEORY-4, PRACTICAL-2)

THEORY

Objectives

LECTURES: 60

- To study the different textile craft of India
- To know the care and storage techniques of different traditional textile.
- To study the socio- economic significance of Traditional textile and its popularity in modern India.

Outcomes:

- Enable student to understand the culture and heritage of India associated with textile.
- To encourage and motivate the use of handloom and handicraft product.

Study of Textile Crafts of India: with reference to history, production centers, techniques, designs, colours and products

- Woven Textiles: Benaras Brocades , Jamdanis and Baluchars of Bengal, Kani Shawls of Kashmir
- Embroidered Textiles: Kanchis of Bengal, Kasuti of Karnataka, Phulkari of Punjab, Chikankari of Uttar Pradesh, Kashida of Kashmir, Gujarat embroideries

- Painted and Printed textiles –Kalamkaris of Andhra Pradesh, Dabu printing of Rajasthan, Ajarakh prints of Gujarat
- Dyed textiles –Bandhnis of Rajasthan and Gujarat, Ikats- Patola of Gujarat.
- Bandhas of Orissa

Unit 2: Conservation of Traditional Textile

- Evolution and Socio- economic significance of Khadi, Handloom and Handicraft sector
- Sustenance of Traditional textile crafts

PRACTICAL

1. Traditional Embroideries
2. Tie and dye
3. Batik
4. Block Printing
5. Portfolio and product development
6. Visit to craft centres.

Recommended Readings.

1. Agrawal O.P. 1977 Care and Presentation of Museum Projects –II NRL
2. Chattopadhyaya K.D. 1995, Handicrafts of India, Wiley Eastern Limited Delhi
3. Das Shukla, Fabric Art- Heritage of India, Abhinav Publications, N. Delhi

DSE-4: PUBLIC NUTRITION AND DIETETICS (CREDITS: THEORY-4, PRACTICAL-2)

LECTURES: 60

THEORY

Objectives:

- To understand the importance of public nutrition and its role
- To know different nutritional problem faced by people
- To study the different method of assessment of nutritional statuses of people.

Out Comes:

- It helps the students to know the nutrition during life cycle.

Unit 1 Concept and scope of public nutrition

- Definition and multi-disciplinary nature of public nutrition
- Concept and Scope
- Role of Public nutritionist

Unit II: Nutritional problems, their implications and related nutrition programmes

- Etiology, prevalence, clinical features and preventive strategies of Under nutrition
- Protein energy malnutrition, nutritional anaemias, vitamin A deficiency, iodine deficiency disorders.
- Over nutrition- obesity, coronary heart disease, diabetes.
- Fluorosis
- National Nutrition Policy and Programme- integrated Child Development Services (ICDS), Scheme Mid day Meal Programme (MDMP), National programmes for prevention of Anemia, Vitamin A deficiency, Iodine Deficiency Disorders.

Unit III: Assessment of nutritional Status

- Objectives and importance
- Methods of Assessment

- A. Direct- Clinical signs, nutritional anthropology, biophysical tests.
B. Indirect- Diet Surveys, Statistics.

IV: NUTRITION EDUCATION

- Objectives , principles and scope of nutrition and health education and promotion
- Behavior change communication.

PRACTICAL

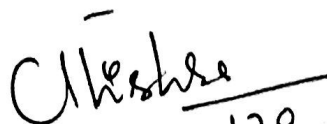
1. Planning of low cost nutritious recipes for infants, preschoolers, pregnant/ nursing mothers for nutrition education
2. Assessment of nutritional status:
 - Anthropometry- weight and height measurements
 - Plotting and interpretation of growth charts for children below 5 years
 - Identification of clinical signs of common nutritional disorders.
 - Dietary assessment- FFQ and 24hour diet recall
3. Planning and conduction a food demonstration
4. Visit to an ongoing nutrition and health promotion programme


RECOMMENDED READINGS


- Wadhwa A and Sharma S (2003) Nutrition in community – A Text book, Elite Publishing House Pvt. Ltd New Delhi
- Park K (2011) Park's Text book of Preventive and Social Medicine, 21st Edition, M/S Banarasidas Bhanot Publisher, Jabalpur, India
- Bamji MS Krishnaswamy K and Brahman GNC (Eds) (2009), Text Book of Human Nutrition 3rd Edition, Oxford and IBH Publishing Co Pvt Ltd New Delhi,
- ICMR (1989) Nutritive Value of Indian Foods, National Institute of Nutrition, Indian Council of Medical Research , Hyderabad.
- ICMR (2011) Dietary Guideline for Indian- A Manual National Institute of Nutrition, Indian Council of Medical Research Hyderabad.
- Jelliffe DB, Jelliffe ERP, Zarfar A and Neumanan CG (1989) Community Nutritional Assessment with special reference to less technically developed countries, Oxford University Press Oxford.
- World Health Organization (2006) WHO Child growth Standards. Methods and development , length/height for age, weight of age, weight-for length , weight for height and body mass index for age ([http:// who.int/child growth/standards/en/](http://who.int/childgrowth/standards/en/))

Recommended by BOS members :


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