

**STATE MODEL SYLLABUS  
FOR  
UNDER-GRADUATE  
COURSE IN HOME SCIENCE  
(Bachelor of Arts Examination)**

**UNDER  
UGC  
CHOICE BASED CREDIT SYSTEM  
2019**

### B.A. Home Science

Semester	Course Opted	Course Name	Credits
I	Ability Enhancement Course	English Communications/ Environmental Science	2
	CC-1 Theory	Human Development I: The Childhood Years	4
	CC -I Practical	Human Development I: The Childhood Years Practical	2
	CC -2 Theory	Food and Nutrition	4
	CC -2 Practical	Food and Nutrition Practical	2
	GE -I Theory	Human Nutrition	6
II	Ability Enhancement Course	English Communications/ Environmental Science	2
	CC-3 Theory	Extension Education	4
	CC-3 Practical	Extension Education	2
	CC-4 Theory	Family Resource Management Practical	4
	CC-4 Practical	Family Resource Management Practical	2
	GE -2 Theory	Human Development and Family Studies	6
III	CC-5 Theory	Textiles	4
	CC-5 Practical	Textiles Practical	2
	CC-6 Theory	Dynamics of Communication	4
	CC-6 Practical	Dynamics of Communication Practical	2
	CC-7 Theory	Personal Finance & Consumer Studies	4
	CC-7 Practical	Personal Finance & Consumer Studies Practical	2
	SEC-I	Home based catering / Maternal and Child nutrition	2
	GE -3 Theory	Family Resource Management	6
IV	CC-8 Theory	Human Development II: Development in Adolescence and Adulthood	4
	CC-8 Practical	Human Development II: Development in Adolescence and Adulthood Practical	2
	CC-9 Theory	Nutrition: A Life Cycle Approach	4
	CC-9 Practical	Nutrition: A Life Cycle Approach Practical	2
	CC-10 Theory	Fashion Design	4
	CC-10 Practical	Fashion Design Practical	2
	SEC-2		2
	GE -4 Theory	Family Resource Management	6
V	CC-11 Theory	Therapeutic Nutrition	4
	CC-11 Practical	Therapeutic Nutrition Practical	2
	CC-12 Theory	Physiology and Promotive Health	4
	CC-12 Practical	Physiology and Promotive Health Practical	2
	DSE -I Theory	Indian Textiles Heritage	4
	DSE -I Practical	Indian Textiles Heritage Practical	2
	DSE -2 Theory	Communication Systems and Mass Media	4
	DSE -2 Practical	Communication Systems and Mass Media practical	2

Contd ...

VI	CC-I 3 Theory	Research Methodology in Home Science	4
	CC-13 Practical	Research Methodology in Home Science Practical	2
	CC-14 Theory	Socio Economic Environment	4
	CC-14 Practical	Socio Economic Environment Practical	2
	DSE -3 Theory	Marriage and family relationship	4
	DSE -3 Practical	Practical Marriage and family relationship	2
	DSE -4 Theory	Public Nutrition	4
	DSE -4 Practical	Public Nutrition Practical	2
		<b>Total</b>	<b>140</b>

### **HONOURS PAPERS:**

**Core course** – 14 papers

**Discipline Specific Elective** – 4 papers

Generic Elective for Non Home Science students – 4 papers.

Total – 100 marks

Credit per paper – 6

Teaching hours per paper – 50 hours + 10 hours tutorial

Marks per paper with practical – Midterm : 15 marks, End term: 60 marks, Practical: 25 marks

### **Generic Elective**

Marks per paper – Mid term : 20 marks, End term : 80 marks

### **HOME SCIENCE PASS**

**Core course** – 4 papers

**Discipline Specific Elective** – 2 papers

**Generic Elective** -1 paper

**SEC-** 3 papers

## **BA HOME SCIENCE (HONS)**

### **CORE COURSES**

#### **Core Course 1: HUMAN DEVELOPMENT 1: THE CHILDHOOD YEARS**

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

#### **THEORY**

**LECTURES:60**

#### **Objective**

1. To understand importance of Human development & principles involved in it.
2. To study the developmental pattern of children starting from prenatal period up to middle childhood years in the areas of physical ,motor, social , emotional & language development.

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

- Definition of growth and development, scope of child development
- Scientific methods of Studies of Child Development
- Principles of Growth and Development
- Stages of human Development

#### **Unit II: Prenatal Development, Birth and the Neonate**

- Conception, Pregnancy
- Stages of Prenatal Development and factors affecting prenatal Development
- Capacities of the new born

#### **Unit III: Infancy and Preschool years (0-5 years)**

- Physical and motor development
- Social and Emotional development
- Language development

#### **Unit IV: Late **Childhood** years (6-10 years)**

- Physical and motor development
- Social and emotional development
- Language development

#### **PRACTICAL**

1. Prepare poster showing different emotions (pleasant and unpleasant).
2. Plan and develop activities to facilitate cognitive development through preparation of materials such as Posters, toys etc.

3. Study the role of familial (parents) and non familial (peers/teachers/neighbors) people in a child's life

## **RECOMMENDED READINGS**

### **Text book:**

- Hurlock, E.B. (2008). Developmental Psychology. Tata McGraw-Hill. New Delhi
- Singh, A. (Ed). (2015). Foundations of Human Development: A life span approach. New Delhi: Orient Black Swan.

### **Reference book:**

- Bee. H.(1995). The developing child. Harper Collins.
- Berk, L.E. (2007). Development through the lifespan Delhi: Pearson Education.
- Rice. F.P. (1998). Human development: A lifespan approach. New Jersey: prentice Hall.
- Santrok, J.W. (2007). A topical approach to life-span development. New Delhi: Tata McGraw- Hill.

## **Core course 2: FOOD AND NUTRITION**

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

### **THEORY**

**LECTURES: 60**

#### **Objectives:**

- To understand basic concepts of food, nutrition and their related terms
- To study the functions, requirement & deficiency of macro & micronutrients in the human body.
- To examine the difference between weights & measures of raw & cooked foods.
- To gain knowledge on nutritional contribution of various foods and principles involved in its cooking.

### **Unit I: Basic concepts in food and nutrition**

- Basic terms used in study of food and nutrition.
- Understanding relationship between food, nutrition and health.
- Classification of food
- Functions of food- physiological, psychological and social.

### **Unit II: Nutrients**

- Classification, Functions, dietary sources, daily requirement and clinical manifestations in deficiency/ excess of the following nutrients:
- Carbohydrates, Proteins and Lipids
- Fat soluble vitamins- A, D, E and K
- Water soluble vitamins- Thiamin, Riboflavin, Niacin, Folate, Vitamin B12 and Vitamin C,
- Minerals- Calcium, Iron, Zinc and Iodine.

### **Unit III: Food groups**

Nutritional contribution and changes during cooking of the following food groups:

- Cereal
- Pulses
- Fruits and vegetables
- Milk & milk products
- Meat, poultry and fish

### **Unit IV: Methods of cooking and enhancing the nutritional quality of foods-**

- Methods of cooking- Dry, moist, frying and microwave cooking---their advantages and disadvantages.
- Enhancing the nutritional quality of foods ---Supplementation, germination, fermentation, fortification and GM foods.

### **PRACTICAL**

1. Weights and measures- Raw and Cooked food (Rice, dal, chapatti, egg, seasonal vegetables)
2. Understanding the principles of cooking involved and nutritional quality of following foods

- Cereals: Boiled rice, pulao, chapatti, paratha, puri, pastas
  - Pulses: whole, dehusked
  - Vegetables: curries, dry preparations
  - Milk and milk products: Kheer, custard
3. Understanding the principles of cooking involved and nutritional quality of the following foods.
- Baked products: Biscuits, cookies, cakes, tarts and pies
  - Snacks: pakoras, cutlets, samosas, upma, poha, and sandwiches
  - Salads: salads and salad dressings.
  - Fermented products : Idli, dosa, appam, kulcha, dhokla etc.

### **RECOMMENDED READINGS**

#### **Text Book:**

- Sri lakshmi (2007) .Food science .4<sup>th</sup> edition. New age international Ltd.
- Swaminathan,M. -Essentials of Food and Nutrition. Ganesh and Company

#### **Reference book:**

- Bamji MS, KrishnaswamyK.Brahman GNV (2009). Textbook of Human Nutrition 3<sup>rd</sup> edition. Oxford and IBH publish Co Pvt Ltd.
- Wardlaw and insel MG Insel PM (2004). Perspectives in Nutrition's sixth edition Mosby.
- Chadha R and Mathur P (eds) Nutrition: a lifecycle approach. Orient Blackswan, New Delhi. 2015
- Khanna K, Gupta S, Seth R, Mahhna R, Rekhi T (2004). The art and science of cooking; a practical manual revised edition elite publishing house pvt Ltd.
- Raina U. Kashyap S, Narula V, Thomas S, Suvira, Vir S, Chopra S (2010). Basic food preparation -A complete manual, fourth edition. Orient black swan Ltd.

### **Objectives:**

- To enable the student to understand the meaning, principles, philosophy of Home Science Extension Education.
- To enable the student to know about different methods used in Extension Education.
- To enrich the Knowledge of the students about teaching learning process in Extension education.

### **UNIT -I**

#### **Extension Education-**

- Definition needs and objectives.
- Principles of extension education.
- Behavioral changes brought about by extension education.

### **UNIT II**

#### **Role of Extension Education in Development –**

- Role of Home Science & its inter relationship with Community Development.
- Role & qualities of Home Science extension workers.

### **UNIT III**

#### **Methods of teaching in Extension Education-**

- Individual, group & mass methods. Individual Methods: Farm and Home Visits, Office Calls, Telephone Calls, Personal letters.
- Group Methods: Method Demonstration, Result Demonstration. Group Discussion, Field Trips, Lecture, Seminars and Workshop
- Mass Methods: Leaflets, Circular Letter, Radio, T.V. Bulletins, News Articles, Their advantages & disadvantages.

### **UNIT IV**

#### **Teaching-Learning process-**

- Meaning, principles & steps in teaching learning process.
- Criteria for effective extension teaching. Elements of teaching and learning situation.
- Criteria for effective learning. Principles of learning. Factors affecting learning.

### **Core paper III: Practical**

#### **Practical: 25 Marks**

- Prepare posters: women empowerment, violence against women, child &



- maternal health issues, environmental pollution.
- Prepare a project report within one thousand words on any one of the above issues.

**Text Book:**

- 1.Education and communication for development – O.P. Dahama and O.P. Bhatnagar.
- 2.Extension Education and Communication–V.K. Dubey and Indira Bishnoi

**Reference Books:**

- Extension communication and management – G.L. Ray.
- Extension Techniques for Rural Management - C. Satapathy & Sabita Mishra.
- Extension Education – A. Reddy

**Core course 4 FAMILY RESOURCE MANAGEMENT**

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

**THEORY**

**LECTURES: 60**

**Objectives:**

- To achieve goals in life through judicious resource management
- To utilize the available resources effectively.

**Unit I: Introduction to Family Resource Management and its application**

- Concept and scope of family resource management
- Processes in resource Management
- Decision Making

**Unit II: Resources**

- Meaning, classification and characteristics of family resources, factors affecting utilization of resources.
- Motivating factors in home management: values, standards and goals and their inter-relationship.

**Unit III: Availability and management of specific resources by an individual/ family**

- Money-Types of income, Supplementing family income
- Time-Concept, Factors and steps in time management

#### **Unit IV: Availability and management of specific resources by an individual/ family**

- Energy- Efforts, Fatigue, Work simplification
- Steps in successful event planning—Planning, Budgeting and Evaluating.

#### **PRACTICAL**

1. SWOC analysis
2. Building decision making abilities through management games (Any two)
3. Preparation of time plans for one day for self and family.  
Event planning for family occasion.(Any one).

#### **RECOMMENDED READINGS**

##### **Text Book**

- Rao V.S and Narayana P.S., Principles and practices of management, 2007, konark publishers Pvt Ltd.
- Nickell, P and Dorsey, J.M., Management in family living,2015,CBS Publishers and Distributors

##### **Reference Book**

- Management for Modern Families – I.H.Gross and E.W. Crandall.
- Home Management - Vergese, Ogale, Srinivasan
- Home Management for Indian Families. – M.K.Mann
- Home Management – Education Planning Group, Arya publishing house,Delhi.
- Text book of Home Science- Premlata Mallick.
- An Introduction to family Resource management-Premavathy Seetharaman, Sonia Batra & Preeti mehera
- Koontz H and O'Donnel C, 2005Management- A System and Contingency analysis of Managerial Functions. New York: Mc Graw – Hill Book Company
- Kretiner, 2009 , Management Theory and Applications , Cengage Larning : India

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

**THEORY**

**LECTURES: 60**

**Objectives:**

- To know the manufacturing process of different types of textile fibers, their structures and uses
- To know the manufacturing process of different types of fabrics.
- To impart knowledge on different textile finishes

**Unit I: Introduction to Textile Fibres**

- Meaning and classification of fibres
- Production, properties and usage of fibres  
Natural fibre: cotton, flax, silk and wool  
Man-made fibers: Rayon(Viscose)

**Unit II: Yarn construction and their properties**

- Yarn formation
- Mechanical spinning (cotton system, wool system, worsted system) chemical spinning (wet, dry, melt)
- Types of yarns: Staple and filament, simple yarn, complex yarns

**Unit III: Techniques of fabric construction, finishing, dyeing and printing**

- Parts of a loom
- Operations of a loom
- Classification of weaves (Plain, Basket, Ribbed, Twill, Satin, Sateen)- Structure, Properties, usages

**Unit IV: Finishing**

- Finishing-Mechanical finishes-Beetling, Calendaring, Embossing, Glazing, Napping.
- Chemical Finishes- Mercerization, Ammoniating.
- Dyeing - Types of dyes

**PRACTICAL**

1. Fiber identification tests- visuals, burning, microscopic  
Yarn identification- single, ply, cord, textured, elastic, monofilament, multifilament and spun yarn.
2. Thread count and balance, Dimensional stability,
3. Weaves- Identification and their design interpretation on graph (any three)

## **RECOMMENDED READINGS:**

### **Text Book:**

Corbman P.B. (1985) Textiles- Fiber to fabric (6<sup>th</sup> Edition) , Gregg Division /Mc Graw Hill Book Co, US.

### **Reference Book:**

- Joseph, M.L. (1988) Essentials of Textiles (6<sup>th</sup> Edition), Holt , Rinehart and Winston Inc, Florida.
- Vilensky G. (1983) Textile science, CBS Publishers and Distributors, Delhi.
- Tortora, G. Phyllis, Understanding Textiles, Mc Millanm Co. USA.
- Sekhri S. (2013) Textbook of Fabric Science: Fundamentals to finishing, PHI Learning, Delhi.

## **Core course 6: DYNAMICS OF COMMUNICATION**

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

### **THEORY**

**LECTURES: 60**

#### **Objectives:**

- To understand the different spheres of communication
- To understand the concept, process, models and process of communication

#### **Unit I: Communication:**

- Historical background, concept and nature
- Functions of communication

- Types of communication- formal and informal communication; verbal and non-verbal communication
- Scope of communication- education, corporate communication, management of organizations advertising and public relations.

### **Unit II: Principles, elements and models Communication**

- Signs, symbols and codes in communication
- Postulates / principles of communication
- Elements of communication and their characteristics
- Models of communication- -Aristotle, Losswell, Shannon & Weaver, Osgood and Schramm,
- Riley models
- Barriers to communication

### **Unit III: Effective communication**

- Concept, nature and relevance to communication process: Empathy, Persuasion, Perception, Listening

### **Unit IV: Diffusion, adoption & innovation-**

Concept & elements of diffusion

Adoption – Characteristics, stages& factors associated with adoption. Sources of information, characteristics of adopters.

### **PRACTICAL**

1. Developing skills of communication by forming small groups among the students.
2. Review of selected issues published in newspapers.
3. Writing short stories, related to health and nutrition for conveying messages to the society.

### **RECOMMENDED READINGS**

#### **Text book:**

- Devito. J. (1998) Human communication New York: Harper & Row.
- Extension communication and management – G.L.Ray.

#### **Reference Book:**

- Barker, L. (1990) “Communication” New Jersey prentice Hall Inc 171.
- Patri and Patri (2002); Essentials of communication Greenspan publication

**Core course 7: PERSONAL FINANCE AND CONSUMER STUDIES**

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

**THEORY**

**LECTURES: 60**

**Objectives:**

- To gain knowledge about the need of consumer education
- To create awareness among consumers through education

**Unit I: Income and expenditure**

- Budgets, maintaining household accounts
- Factors influencing expenditure
- Family savings and investments-objectives and types of savings.

**Unit II: Consumer in India: Consumer problems and education**

- Definition of a consumer
- Role of consumers - National income, per capita income.
- Changing nature of the business world, e- commerce, e-business.
- Consumer problems- products and service related problems and solution.

**Unit III: Consumer Protection**

- Consumer education and empowerment.
- Consumer protection

**Unit IV: Legislative Measures for Consumer Protection, Standardization and quality control measures:**

- Consumer organizations – Role and function
- Basic legislative framework for consumer protection in India- consumer protection Act 1986, alternative redressed mechanisms, mediation centers.
- ISI, FPO, AGMARK, ISO FSSAI, Eco mark, , handloom mark,.

## **PRACTICAL**

1. Evaluation of advertisements in the print media
2. Evaluation of labels on different types of food products (at least three).
3. Learning to fill up different forms of banks and post office. (at least three).

## **RECOMMENDED READING**

### **Text Book :**

- Khanna S.R. Hanspal S. Kapoor S. & Awashti H.K. 2007, Consumer affairs, Universities press India Pvt Ltd.

### **Reference Book :**

- Sawhney H.K & Mital, M, 2007, Family finance & consumer studies, Elite publishing House Pvt Ltd.
- Seetharaman P. and Sethi, M. 2001, Consumerism, Strength and Tactics, New Delhi CBS Publisher

## **Core Course 8: HUMAN DEVELOPMENT II**

### **DEVELOPMENT IN ADOLESCENCE AND ADULTHOOD**

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

#### **THEORY**

**LECTURES: 60**

#### **Objectives:**

- To know the different developmental tasks during adolescence.
- To know the socio-emotional and cognitive developments of adulthood.

#### **Unit I : Puberty**

Characteristic and age at puberty

Puberty growth spurt

Body changes at puberty

Effect of puberty

## **Unit II : Adolescence**

- Characteristics of adolescent years
- Developmental tasks during Adolescence
- Physical changes
- Emotional changes

## **Unit III : Early Adulthood**

- Developmental tasks of early adulthood
- Characteristics of early adulthood
- Changes in interest
- Social mobility

## **Unit IV : Early Adulthood and family adjustment**

- Marital adjustment
- Adjustment to parenthood  
Adjustment to singlehood

### **PRACTICAL**

1. To study creativity during adolescence
2. Use of the questionnaire method to study the responsibility of an adult in roles as :  
Father/ husband  
Mother/wife
3. Use of the questionnaire method to study the responsibility of an adult in roles as :
  - Single parent
  - Employed woman

### **RECOMMENDED READINGS**

#### **Text book:**

- Singh A. (Ed.) 2015 : Foundation of Human Development, A life span approach , New Delhi, Orient Black Swan.

#### **Reference Book:**

- Berk. L.E. (2007) Development through the lifespan, Delhi: Person Education.



- Rice F.P(1998) Human Development: A lifespan approach, New Jersey: Prentice Hall
- Rutter, M. and Rutter , M (1992) A topical approach to life-span, development, New Delhi Tata Mc Graw-Hill.
- Sntrock J.W. (2007) A tropical approach to life- spam development, New Delhi: Tata McGraw- Hill
- Tennant, M and Pogson, p. (1995) Learning and Change in the Adult year San Francisco, Jossey- Bass

## **Core Course 9: NUTRITION: A LIFE CYCLE APPROACH**

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

### **THEORY**

**LECTURES: 60**

#### **Objectives:**

- To know the importance of nutrition in different stages of life cycle.
- To study the nutritional need in special conditions.

#### **Unit I : Principle of meal planning**

- Food groups and food exchange list
- Factors affecting meal planning.
- Dietary guidelines for Indians-2017

#### **Unit II**

##### **Nutrition during childhood**

RDA, nutritional guidelines,  
and healthy food choices-

- Infants
- Preschool children
- School children
- Adolescents

##### **Unit III: Nutrition during adulthood**

RDA, nutritional guidelines, healthy food choices.

- Adult

- Pregnant woman
- Lactating mother
- Elderly

#### **Unit IV: Nutrition for special conditions**

- Nutrition for physical fitness and sports
- Feeding problems in fussy eaters. (children)
- Food Consideration during natural disasters e.g. floods,

#### **PRACTICAL**

1. Prepare a table on rich sources of different nutrients
2. Prepare a of food exchange list
3. Planning and preparation of diets for –
  - Preschooler
  - Pregnant and Lactating woman
  - Elderly

#### **RECOMMENDED READINGS**

##### **Text Book:**

- Human Nutrition-B. Srilaxmi , New age publication.
- Principles of Nutrition and Dietetics-Swaminathan M.

##### **Reference Book:**

- Gopalan C, Rama Sastri BV, Balasubramanian SC (1989)
- Nutritive Value of Indian Foods. National Institute of Nutrition, ICMR, Hyderabad.
- Seth V and Singh K (2006). Diet Planning through the Life Cycle: Part 1
- Bamji MS, Krishnaswamy , K. Brahman GNV(2009), Textbook of Human Nutrition 3<sup>rd</sup> Edition, Oxford and IBH Publishing Co. Pvt. Ltd
- Khanna K, Gupta S, Seth R, Passi SJ, Mahna R, Puri S (2013). Textbook of Nutrition and Dietetics. Phoenix Publishing House Pvt. Ltd.
- Wardlaw GM, Hampi JS, DiSilvestro RA (2004). Perspectives in Nutrition, 6th edition. McGraw Hill.
- Chadha R and Mathur P eds. Nutrition: A Lifecycle Approach. Orient Blackswan, New Delhi. 2015.

## **Core Course 10: FASHION DESIGN**

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

### **THEORY**

**LECTURES:60**

#### **Objectives:**

- To support and collaborate with fashion, textiles and design industry to achieve a sustainable progress.
- To give advance knowledge and pushing the boundaries in fashion, textile and designing.

#### **Unit I: Fashion**

Definition and background of fashion in India, fashion cycle

Factors favoring and retarding fashion

- Role of a designer
- Leading Fashion designing centers in India NIFT, NID, SID, NIIFT

#### **Unit II: Importance of clothing**

- Origin of clothing.
- Functions of Clothing
- Factors influencing selection of clothing
- Clothing related to various activities

#### **Unit III: Selection of Clothing**

- Selection of clothes according to body built
- Use of colours in clothing.
- Selection and evaluation of ready-made garments

#### **Unit IV: Aesthetics in Dress.**

- Elements and principles of design
- Structural and applied design
- Sleeves, necklines, collars, pockets

### **PRACTICAL**

1. Flat sketching of Sleeves, necklines,
2. Flat sketching of collars, pockets

3. Collections of dress designs of famous designers.

### **RECOMMENDED READINGS**

**Text Book:** Tata S.L., Edwards M.S., 1982, The Complete Book of Fashion Design, Harper and Row Publications, New York.

- The complete Book & Fashion Design, Harper and Row Publication, New York by Tate, S.L., Edwards, M.S 1982

### **Reference Book:**

- Brown, Patty, Rice J., 1998, Ready to Wear Apparel Analysis. Prentice Hall.
- Marshall S G, Jackson H O, Stanley MS, Kefgen M & Specht T, 2009, Individuality in Clothing & Personal Appearance, 6th Edition, Pearson Education, USA.

## **Core Course 11: THERAPEUTIC NUTRITION**

**(CREDITS: THEORY-4, PRATICAL-2)**

### **THEORY**

**LECTURES: 60**

#### **Objectives:**

- To study about principles of therapeutic nutrition
- To know the nutritional need during different disease conditions.

#### **Unit 1: Principles of nutrition care-**

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

#### **Unit II: Etiology, clinical features and nutritional management:**

- Weight Imbalances- Over weight and obesity, Under weight

- Eating disorder- anorexia nervosa and bulimia
- Type 1 and Type 2 -Diabetes Mellitus
- Hypertension and Coronary Heart Disease

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

- Diarrhea
- Lactose intolerance
- Liver: Infective Hepatitis

**Unit IV: Etiology clinical features and nutritional management of the following**

- Typhoid
- Tuberculosis
- HIV

**PRATICAL**

Planning of Diets for the following\_

1. Therapeutic Diet- Normal, soft, clear and full fluid
2. Obesity, Type 2 Diabetes
3. Hypertension and CHD

**RECOMMEDED READING**

**Text Book:**

- Antia,F.P Clinical Dietetics and Nutrition
- Srilakshmi.B (2014) Dietetics. New Age International Publishers

**Reference Book:**

- Khanna, K . Gupta S, Seth R, Passi, S.J. Mahan, R. PuriS(2013), Text book of Nutrition and Dietetics Phoenix Publishing House Pvt Ltd.
- Mahan L K and Escott Stump S (2013) Krause's food & Nutrition Therapy, 13<sup>th</sup>ed Saunders – Elsevier
- Stacy Nix (2009) Willam's Basic Nutrition and Diet Therapy 13th Edition , Elsevier Mosby

- Seth V and Sing K (2007) Diet Planning through the life Cycle Part 11 Diet Therapy A Practical Manual 4, edition, Elite Publishing House Pvt. Ltd.
- ICMR (2010) Nutritive value of Indian Foods. National Institute of Nutrition , Indian Council of Medical Research Hyderabad

## **Core Course 12: PHYSIOLOGY AND PROMOTIVE HEALTH**

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

**THEORY**

**LECTURES; 60**

**Objectives:**

- To understand the structure and functions of various organs of the body
- To focus on different mechanism of human body

### **Unit 1: Respiratory and Circulatory Physiology**

- Structure of Lungs and its function
- Structure of Heart and its function
- Different type of blood circulation and cardiac cycle

### **Unit II: Endocrine Physiology**

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

### **Unit III: Renal and Reproductive physiology**

- Structure of Kidney and its function
- Male reproductive organs and its function, Female reproductive organs and their functions,
- Physiology of Menstruation and Menopause

### **Unit IV: Promotive Health**

- Concept of Health, Disease and its prevention
- General risk factors and prevention of Anemia, Jaundice and Cancer
- Drug abuse and Alcoholism
- Family planning and contraception

## **PRATICAL**

1. Case study of Iron deficiency Anemia, Investigation and diagnosis, Blood indices  
Measurement of blood pressure by using sphygmomanometer.
2. Demonstration of procedures of clinical examination to see for pallor, jaundice, edema  
and dehydration and
3. Basic First Aid procedures CPR, Burns.

## **RECOMMENDED READINGS**

### **Text Book:**

- J.E. Park and K. Park (2009). Park's textbook of preventive and Social  
Medicine, 20<sup>th</sup> edition. M/s Banarsi Das, Jabalpur.
- Ross and Wilson (1973). Foundation of Anatomy and physiology, medical  
division of Longman Group Ltd

### **Reference Book:**

- Ganong WF (2003). Review of Medical Physiology, 21<sup>st</sup>ed Mc Graw Hill.
- Yash Pal Bedi (1980). A Handbook of social and preventive medicine, Atma  
Ram and Sons.

## **Core Course 13: RESEARCH METHODOLOGY**

**(CREDITS: THEORY-4 PRATICAL-2)**

### **THEORY**

**LECTURES: 60**

### **Objectives:**

- To understand the meaning and process of research in social sciences.
- To know about the technique of collection, analysis and interpretation of data.
- To understand the meaning & process of research in social sciences.
- To have fundamental knowledge about analysis of data & the diagrammatic  
representation of data.
- To learn the techniques of interpretation of data & report writing.

### **Unit1: Research- Meaning, purpose and types**

- Theoretical, empirical
- Descriptive, analytical
- Applied, fundamental
- Qualitative, quantitative

## **Unit II: Research Design**

- Exploratory
- Explanatory
- and Experimental

## **Unit III: Sampling, Tools and techniques**

- Types of sampling
- Collection of data- primary and secondary data
- Tools and techniques of data collection - observation , interview schedule , questionnaire, case study, FGDs
- Measures of central tendency- Mean , Median and Mode

## **Unit IV: The Research Process**

- Identifying the problems
- Review of literature
- Formulation of objectives and hypothesis
- Preparing the research design
- Data collection
- Data analysis
- Interpretation and report writing
- Bibliography/reference

## **PRATICAL**

1. Prepare a schedule/questionnaire on a topic
2. Make a pilot study by applying the above schedule.
3. Solve a given problem by using mean

## **RECOMMENDED READINGS**

### **Text Book:**

- Kothari C.R. (2008) Research Methodology: Methods and Techniques 2<sup>nd</sup> Ed. New Age International Pvt Ltd. New Delhi.

### **Reference Book:**

- 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 4<sup>th</sup> Ed. Harcourt College Publishers.
- 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.
- Create awareness among people regarding constraints in economic environment and its consequences.

#### **Unit -1: Sociological Concerns and Orientation**

##### **Sociological Orientation**

- Society, Culture and institutions
- Family, Kinship and Relationships
- Social mobility and social change
- Cultural diversity in contemporary society.

#### **Unit-II: Economics Theory and Environment**

- Definition, Scope of Economics
- Wants- Classification and Characteristics
- Utility- Law of Diminishing Marginal Utility, Law of Equi- Marginal Utility , Demand- Law of Demand, Elasticity of Demand.
- Engel's Law of Consumption

#### **Unit III. Money, Banking and Public Revenue**

- 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 Dhana Yojana, Sarva Sikha Yojana , Objective and Achievement
- Issues related to gender discrimination: IMR, MMR, Sex Ratio, Literacy

## **PRACTICAL**

Do a project on any of the following topic

- Changing families & Relations in Society
- Changing status and roles at home and work place
- Gender discrimination.
- current economic issues (Development and Environmental)

## **RECOMMENDED READINGS**

### **Text Book:**

- 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.

### **Reference Book:**

- 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

- Mithani D.M., 2010 New Edition, Macro-Economics. Himalaya Publishing House
- Sundaram K.P.M., 2010, Introduction to Economics. RatanPrakashan

## **DISPLIINE SPECIFIC ELECTIVE (DSE)**

### **DSE 1: INDIAN TEXTILES HERITAGE**

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

**THEORY**

**LECTURES: 60**

#### **Objectives**

- To study about different traditional textile and crafts 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.

#### **Unit I: 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.

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

Embroidered Textiles-Kanthalas of Bengal, Kasuti of Karnataka, Phulkari of Punjab, Chikankari of Uttar Pradesh, Kashida of Kashmir, Gujarat embroideries.

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

- 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 IV. 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  
Batik  
Block Printing  
Stenciling
3. Visit to craft Centers.

#### **Recommended Readings.**

##### **Text Book:**

- Chattopadhyaya K.D. 1995, Handicrafts of India, Wiley Eastern Limited Delhi

##### **Reference Book:**

- Agrawal O.P. 1977 Care and Presentation of Museum Projects –II NRL
- Das Shukla, Fabric Art- Heritage of India, Abhinav Publications N.Delhi

## **DSE II: COMMUNICATION SYSTEMS AND MASS MEDIA**

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

### **THEORY**

**LECTURES:60**

#### **Objectives:**

- To achieve the target of the organization by motivating and influencing the audience.
- To inform the public locally or globally.

### **Unit I: Self and communication**

- Awareness of self in communication
- Intrapersonal communication
- Self-concept and self esteem

### **Unit II: Interpersonal communication**

- Concept, types and functions of interpersonal communication
- Dyadic, small and large group communication
- Stages in human relationship development
- Small group communication: types and functions

### **Unit III: Organization and public communication**

- Organizational communication: concept types, functions and networks
- Public communication- concept and techniques

### **Unit IV: Mass Communication and Mass media**

- Mass communication – concept, significance, functions and elements
- Print media: types, nature, characteristics, reach, access.
- Radio: types, nature, characteristics, reach, access.
- Television and cinema: types, nature, characteristics, reach, access.
- ICTs: types, characteristics, reach and access.

### **PRACTICAL**

1. Know yourself exercises.(Johari's window)
2. Studying group dynamics in organizations- formal and informal
3. Audience analysis- Leadership, listenership and viewership studies ,Content analysis of mass media

### **RECOMMENDED READINGS**

#### **Text Book:**

Roy, G.L. Extension, Communication and Management.

Devito, J. (1998) Human communication. New York: Harper & Row.

Baran Stanley J (2009). Introduction to mass communication, Mc Graw hill medical publishing.

#### **Reference Book:**

- Barker, Larry Lee (1990) communication. Eaglewood cliffs, New Jersey: Prentice Hall.
- Mc Quail, D. (2000) Mass communication theories London: sage Publications

- Vivian, J (2012). The Media of mass communication, Pearson.
- Dominick, Joseph R. (2012). Dynamics of mass communication: media in transition ,  
Mc Graw hill education
- Baran, Stanley J (2014). Mass communication theory, Wadsworth publishing

### **DSE 3: MARRIAGE & FAMILY RELATIONSHIP**

**(CREDITS: THEORY 4 AND PRACTICAL:2)**

#### **THEORY**

**LECTURE:60**

#### **Objectives:**

- To understand the concept of marriage & its importance in family life.
- To acquire knowledge about the different pattern of marriage rituals & ceremonies existing in Indian society.
- To understand the problems of Family & Marital life prevalent in the society.

#### **UNIT I: Marriage as an Institution**

- Meaning, definitions, functions& importance of marriage.
- Types of marriages- Monogamy, polygamy, Exogamy, Endogamy, polyandry, Polygyny.
- Marriage in contemporary society.

#### **UNIT II: Marriage Rituals & Ceremonies in different Indian Communities**

- Significance of marriage.
- Process of marriage among Hindu, Muslim & Christian Community.
- Adjustments in marriage- Sex, financial, in laws and among working couples.

#### **UNIT III: Family, kinship and relationship**

- Meaning, definition, importance, characteristics & functions of family.
- Contemporary Family types prevalent in India.
- Family life Cycle: meaning, importance, & stages of family life cycle.
- Family- in- transition- Merits & demerits.

## **UNIT IV: Problems of Family**

- Prolonged sickness/illness, accidents widowhood, unemployment, economic distress /poverty, broken family, family with a disabled and suicide in the family.
- Marital problems-Marital disharmony& conflict, separation & divorce, single parenthood, loss of spouse.

### **Practical**

1. Do a Project work on a topic related to marriage and family.

## **RECOMMENDED READINGS**

### **Text Book:**

- Marriage and Family in India – Kapadia

### **Reference Books:**

- The Family – Goode, W.J.
- India Social Problems – Madan G.R.
- Sociology – Vidya Bhusan
- Indian Society and Social Institutions – Nukhi H. R. Surjeet.
- An Introduction to Sociology – Vidya Bhusan and Sachadeva.
- Indian Social Problems. Vol. I and II – G.R. Madan.

## **DSE-4: PUBLIC NUTRITION**

### **THEORY**

**LECTURES: 60**

### **Objectives:**

- To understand the importance of public health nutrition and its role
- To gain knowledge on different ongoing nutrition programmes.
- To study the different methods for assessment of nutritional status.

### **Unit 1 Concept and scope of public nutrition**

- Definition, Concept and Scope of public health nutrition
- Objectives , principles and scope of nutrition and health education and its promotion
- Role of Public nutritionist

## **Unit II: Nutritional problems and their implications**

Etiology, prevalence, clinical features and preventive strategies of

Under nutrition -

- Protein energy malnutrition, nutritional anemia, vitamin A deficiency, iodine deficiency disorders.
- Over nutrition- obesity, coronary heart disease, diabetes.
- Fluorosis

## **Unit III: Assessment of nutritional Status**

- Objectives and importance
  - Methods of Assessment
- A. Direct- Clinical signs, nutritional anthropometry, biophysical tests.
- B. Indirect- Diet Surveys, Statistics.

## **Unit IV -International and National Nutrition Policy and Programmes:**

- International Agencies and their functions – World Health Organization (WHO), Food and Agriculture Organization (FAO), United Nations International Children's Emergency Fund (UNICEF), Cooperatives for Assistance & Relief Everywhere (CARE).
- National Agencies and their functions , Indian Council of Agriculture (ICAR), Indian Council of Medical Research (ICMR), National Institute of Nutrition (NIN). National Institute of Public cooperation & child development(NIPCCD)

## **PRACTICAL**

1. Assessment of nutritional status:
- Anthropometry- weight and height measurements
  - Interpretation of data on the basis of BMI of ten numbers of adolescents

## **RECOMMENDED READINGS**

### **Text Book:**

- B Srilakshmi, Nutrition Science, New Age Publication
- Park K (2011) Park's Text book of Preventive and Social Medicine, 21<sup>st</sup> Edition, M/S Banarasidas Bhanot Publisher, Jabalpur, India

### **Reference Book:**

- 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, 21<sup>st</sup> Edition, M/S Banarasidas Bhanot Publisher, Jabalpur, India
- Bamji MS Krishnaswamy K and Brahman GNC (Eds) (2009), Text Book of Human Nutrition 3<sup>rd</sup> Edition, Oxford and IBH Publishing Co Pvt Ltd New Delhi,
- ICMR (2011) Dietary Guideline for Indian- A Manual National Institute of Nutrition, Indian Council of Medical Research Hyderabad.
- Bamji MS Krishnaswamy K and Brahman GNC (Eds) (2009), Text Book of Human Nutrition 3<sup>rd</sup> Edition, Oxford and IBH Publishing Co Pvt Ltd New Delhi,
- Jeliffe DB, Jeliffe ERP, Zarfar A and NeumananCG(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/child-growth/standards/en/))

## **SKILL ENHANCEMENT COURSES (SEC)**

### **SEC-A: HOME BASED CATERING**

**(CREDITS: THEORY 6)**

**THEORY**

**LECTURES: 60**

#### **Objectives:**

- To know different type food service unit.
- To study the different-step towards planning and execution of food service unit.

#### **Unit I: Introduction of food service**

Types of food service establishments

- State and local regulations related to catering.

#### **Unit II: Food production**

- Menu planning in food production units - Importance of menu
- Factors affecting menu planning in different kinds of food service units
- Quantity food production: Standardization of recipes, quantity food preparation techniques , recipe adjustments and portion control

#### **Unit III: Resource management in food service unit**

- Money
- Manpower
- Time
- Facilities and equipment

- Utilities

#### **Unit IV: Planning of food service unit**

- Preliminary planning - Survey of types of units, identifying clientele, menu, operations and delivery

#### **Unit V: Purchase and storage in food service unit**

- Food purchase and storage

#### **Unit VI: Maintenance of hygiene and sanitation in food service unit**

- Hygiene and sanitation
- Packaging

#### **Recommended readings:**

##### **Text Book:**

Taneja S and Gupta SL (2001) Entrepreneurship development, Galgotia publishing.

##### **Reference Book:**

- West B Besie & Wood Levelle (1988) Food service in institutions 6<sup>th</sup> Edition revised By Hargar FV, Shuggart & Palgne Palacio June, Macmillian publishing company.
- Sethi Mohini (2005) institution food management New age international publishers.
- Knight J.B & Kotschevar LH (2000) quantity food production planning & management 3<sup>rd</sup> edition John Wiley & Sons.
- Philip E Thangam (2008) Modern Cookery for teaching and Trade Part I & II orient Longman.

### **SEC-B: MATERNAL AND CHILD NUTRITION**

**(CREDIT: THEORY 6)**

#### **THEORY**

**LECTURERS: 60**

##### **Objectives:**

- To study the community based health and nutrition programmes for mothers and children.
- To improve the health status of mother and child.

#### **Unit-I:**

- Nutritional needs during pregnancy,
- Relationship between maternal diet and birth outcome.

**Unit II: Maternal nutritional status:**

- Nutritional needs of nursing mothers and infants,
- Determinants of birth weight and consequences of low birth weight,

**Unit III Child feeding and care-**

- Current feeding practices and nutritional concerns, guidelines for feeding, weaning and complementary feeding.
- Ongoing program me on maternal and child health

**Unit IV**

- Child health and morbidity, neonatal, infant and child mortality, IMR and U5MR, link between mortality and malnutrition
- Overview of maternal and child nutrition policies and programmes.

**Unit V**

- Common disorder during pregnancy:
- Anemia, pregnancy induced hypertension

**Unit VI**

- Causes and prevention of Maternal Mortality
- Issues relating to maternal health: Hemorrhage, infection, unsafe abortion

**RECOMMENDED READINGS**

**Text Book:**

- Wadhwa A and Sharma S (2003). Nutrition in the community- A Textbook. Elite publishing house Pvt Ltd New Delhi.

**Reference Book**

- Park K (2011). Park's textbook of preventive and social medicine, 21<sup>st</sup> edition M/s Banarasidas Bhanot publishers, Jabalpur, India.

- Bamji MS, Krishnaswamy K and Brahman GNV (Eds) (2009). Textbook of human nutrition 3<sup>rd</sup> edition. Oxford and IBH publishing Co. Pvt Ltd, New Delhi.
- National guidelines on infant and young child feeding (2006). Ministry of women and child development, Government of India.

## **Generic Elective Courses (GE)**

### **Generic Elective Paper I**

#### **HUMAN NUTRITION**

##### **Objectives:**

1. To gain knowledge about different nutrients, their classification, function, sources, requirement and deficiency diseases.

##### **UNIT-1 :**

###### **Basic Concepts of Nutrition:**

- Meaning and definition of Nutrients & Nutrition.
- Guidelines for good health.
- Food: Definition, Classification.
- Functions of Food- Physiological, psychological and socio-cultural. Understanding relationship between food, nutrition and health.
- Basic Food Groups: Basic four, Basic five, Basic seven and their importance.

##### **UNIT-II:**

###### **Study of Macro Nutrients**

- Classification, functions, sources, requirement and
- Deficiency diseases of Carbohydrates, proteins & fats.

### **UNIT-III: Study of Micro-Nutrients:**

- Vitamins- Classification, functions, sources, daily requirement & deficiency diseases of Fat-soluble & Water -Soluble Vitamins – B Complex Vitamins and Vitamin C.
- Minerals: Functions, sources, daily requirement & deficiency of Iron, calcium, phosphorous, sodium & Iodine.
- Water & roughage- Functions, sources & deficiency.

### **UNIT IV: Nutrition during different stages of lifecycle:**

- Infants,
- Preschool children,
- School going children,
- Adolescent boys and girls,
- Adult man and woman,
- Pregnant Woman and Lactating Mother.

#### **Text Book:**

1. Food & Nutrition- Educational Planning Group, Arya Publication, New Delhi.

#### **Reference Books:**

- Fundamental of food and Nutrition- by S.R.Mudambi.
- Srilakshmi B (2012) Nutrition Science 4<sup>th</sup> Revised Edition, New Age International Publishers.
- Khann K. Gupta , S. Seth R. Passi, SJ, Mahna , R. Puri S( 2013) Textbook of Nutrition and Dietetics, Phonenix Publishing House Pvt Ltd.
- ICMR (2010) Recommended Dietary Allowances for Indias, Published by National Institute of Nutrition, Hyderabad
- Chadha R and Mathur P. cds (2015) Nutrition: A lifecycle Approach, Orient Blackwan, New Delhi.
- Seet V and Singh K (2006) Diet Planning through the life Cycle : Part 1 Normal Nutrition A Practical Manual, Elite Publishing House Pvt. Ltd. New Delhi.

- Gopalan C. Rama Sastri BV. Balasubramanian SC (1989) Nutritive Value of Indian Foods, National Institute of Nutrition, ICMR , Hyderabad.
- Wardlaw and Insel, MG, Insel PM (2004) , Perspectives in Nutrition, Six Edition, Mr. Graw Hill

## **Generic Elective Paper II**

### **Human Development & Family Studies**

#### **Objectives:**

- To know the importance of child study and about pre-natal Development.
- To understand the importance of Breast feeding and artificial feeding.
- To know the causes and consequences of infant and maternal mortality in India.

#### **UNIT-I:**

- Study of Human Development – Meaning and importance of studying human development,
- Stages of Human Development – Infancy, early childhood, late childhood, adolescence, adulthood & old age.

#### **UNIT-II:**

- Pre-natal development-
- Conception,
- Symptoms
- Complication of pregnancy.
- Different stages of pre- natal development-period of ovum, embryo & foetus.

- Factors affecting pre-natal Development –Age of the Mother, Nutrition, Drugs and Smoking, X-ray, Infection and chronic diseases of mother, Rh-incompatibility, Maternal emotional state.

### **UNIT-III:**

- Neonatal Care – Immediate baby cleaning ,diet, temperature regulation , Daily Care of the new born baby, care of umbilicus ,care of the tongue and mouth ,massaging and exercise .
- Weaning, and care of the feeding equipment.
- Common childhood ailments -Vomiting, fever, thrush, Diarrhea, constipation Flatulence (wind), nappy rash.
- Maternal and Infant mortality - Causes and prevention

### **UNIT – IV:**

- Family: Meaning, definition, characteristics and functions of family.
- Types of family: Nuclear and joint family, their merits and demerits, causes of disintegration of joint family.

### **Text Book:**

1. Marriage and Family in India-K.M.Kapadia

### **Reference Books:**

- Child Development –E.B. Hurlock
- Child Development – by K.C. Panda
- Family-Goode
- Principles of sociology – R.N. Sahrma

## **Generic Elective Paper III**

### **TEXTILES**

**(CREDITS: THEORY-6)**

**THEORY**

**LECTURES: 60**



**Objectives:**

- To know the manufacturing process of different types of textile fibers, their structures and uses
- To know the manufacturing process of different types of fabrics.
- To impart knowledge on different textile finishes

**Unit I: Introduction to Textile Fibres**

- Meaning and classification of fibres
- Source, composition, manufacturing processes and properties :  
Natural fibers: cotton, flax, silk and wool

**Unit II: Yarn making**

- Twist in yarn-S, Z twist
- Types of yarns: Simple and novelty yarns

- **Unit III: Techniques of fabric construction**

- Parts of a loom
- Operations of a loom
- Classification of weaves (Plain, Basket, Ribbed, Twill, Satin, Sateen)- Structure, Properties, usages

**Unit IV: Finishing**

- Finishing-Mechanical finishes-Beetling, Calendaring, Embossing, Glazing, Napping.
- Chemical Finishes- Mercerization, waterproof and water repellent.
- Dyeing - Types of dyes

**RECOMMENDED READINGS:****Text Book:**

Corbman P.B. (1985) Textiles- Fiber to fabric (6<sup>th</sup> Edition) , Gregg Division /Mc Graw Hill Book Co, US.

**Reference Book:**

1. Joseph, M.L. (1988) Essentials of Textiles (6<sup>th</sup> Edition), Holt , Rinehart and Winston Inc, Florida.
2. Vilensky G. (1983) Textile science, CBS Publishers and Distributors, Delhi.
3. Tortora, G. Phyllis, Understanding Textiles, Mc Millanm Co. USA.
4. Sekhri S. (2013) Textbook of Fabric Science: Fundamentals to finishing, PHI Learning, Delhi.

**Generic Elective Paper -IV****FAMILY RESOURCE MANAGEMENT****(CREDITS: THEORY -6)****THEORY****LECTURES: 60****Objectives:**

- To achieve goals in life through judicious resource management
- To utilize the available resources effectively. .

**Unit I: Introduction to Family Resource Management and its application**

- Concept and scope of family resource management
- Processes in resource Management
- Decision Making

**Unit II: Resources**

- Meaning, classification and characteristics of family resources, factors affecting utilization of resources.
- Motivating factors in home management: values, standards and goals and their inter-relationship.

### **Unit III: Availability and management of specific resources by an individual/ family**

- Money-Types of income, Supplementing family income
- Time-Concept, Factors and steps in time management

### **Unit IV: Availability and management of specific resources by an individual/ family**

- Energy- Efforts, Fatigue, Work simplification
- Steps in successful event planning—Planning, Budgeting and Evaluating.

## **RECOMMENDED READINGS**

### **Text Book**

- Rao V.S and Narayana P.S., Principles and practices of management, 2007, konark publishers Pvt Ltd.
- Nickell, P and Dorsey, J.M., Management in family living, 2015, CBS Publishers and Distributors

### **Reference Book**

- Management for Modern Families – I.H.Gross and E.W. Crandall.
- Home Management - Vergese, Ogale, Srinivasan
- Home Management – Education Planning Group, Arya publishing house, Delhi.
- An Introduction to family Resource management-Premavathy Seetharaman, Sonia Batra & Preeti Mehera
- Koontz H and O'Donnell C, 2005 Management- A System and Contingency analysis of Managerial Functions. New York: Mc Graw – Hill Book Company
- Kretnier, 2009 , Management Theory and Applications , Cengage Learning : India

## **HOME SCIENCE (PASS) CBCS SYLLABUS**

### **FIRST SEMESTER**

#### **CORE-1 FOOD AND NUTRITION**

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

#### **THEORY**

#### **LECTURE 60**

##### **Objectives:**

- To understand basic concepts of food , nutrition and their related terms
- To study the functions, requirement& deficiency of macro & micro nutrients in the human body.
- To examine the difference between weights & measures of raw & cooked foods.
- To gain knowledge on nutritional contribution of various foods and principles involved in its cooking.

##### **Unit I: Basic concepts in food and nutrition**

- Basic terms used in study of food and nutrition.
- Understanding relationship between food, nutrition and health.
- Classification of food

- Functions of food- physiological, psychological and social.

### **Unit II: Nutrients**

- Classification, Functions, dietary sources, daily requirement and clinical manifestations in deficiency/ excess of the following nutrients:
- Carbohydrates, Proteins and Lipids
- Fat soluble vitamins- A, D, E and K
- Water soluble vitamins- Thiamin, Riboflavin, Niacin ,Folate, Vitamin B12 and Vitamin C,
- Minerals- Calcium, Iron, Zinc and Iodine.

### **Unit III: Food groups**

Nutritional contribution and changes during cooking of the following food groups:

- Cereal
- Pulses
- Fruits and vegetables
- Milk & milk products
- Eggs
- Meat, poultry and fish
- Fat and oils
- Spices and herbs

### **Unit IV: Cooking of food and enhancing the nutritional quality of foods-**

- Methods of cooking- Dry, moist, frying and microwave cooking---their advantages and disadvantages.
- Enhancing the nutritional quality of foods ---Supplementation, germination, fermentation, fortification and GM foods.

### **PRACTICAL**

1. **Weights and measures-** Raw and Cooked food (Rice .dal, chapatti, egg, seasonal vegetables)
2. **Understanding the principles involved and nutritional quality of following foods**
  - Cereals: Boiled rice, pulao, chapatti, paratha, puri, pastas

- Pulses: whole ,dehusked
- Vegetables: curries, dry preparations
- Milk and milk products: Kheer, custard

**3. Understanding the principles involved and nutritional quality of the following foods.**

- Baked products: Biscuits, cookies, cakes, tarts and pies
- Snacks: pakoras, cutlets, samosas ,upma, poha,and sandwiches
- Salads: salads and salad dressings.
- Fermented products : Idli, dosa, appam, kulcha, dhokla etc.

**RECOMMENDED READINGS**

**Text Book:**

- Sri lakshmi (2007) .Food science .4<sup>th</sup> edition. New age international Ltd.
- Swaminathan,M. -Essentials of Food and Nutrition. Ganesh and Company

**Reference books:**

- Bamji MS, KrishnaswamyK.Brahman GNV (2009). Textbook of Human Nutrition 3<sup>rd</sup> edition. Oxford and IBH publish Co Pvt Ltd.
- Wardlaw and insel MG Insel PM (2004). Perspectives in Nutrition's sixth edition Mosby.
- Chadha R and Mathur P (eds) Nutrition: a lifecycle approach. Orient Blackswan, New Delhi. 2015
- Khanna K, Gupta S, Seth R, Mahhna R, Rekhi T (2004). The art and science of cooking; a practical manual revised edition elite publishing house pvt Ltd.
- Raina U. Kashyap S, Narula V, Thomas S, Suvira, Vir S, Chopra S (2010). Basic food preparation -A complete manual, fourth edition. Orient black swan Ltd.

**SECOND SEMESTER**

**CORE 2: RESOURCE MANAGEMENT**  
**(CREDITS: THEORY -4 PRACTICAL-2)**

**THEORY**

**LECTURES: 60**

**Objectives:**

- To achieve efficiency and effectiveness in life through resource management
- To utilize the available resources effectively.

**Unit I: Introduction to Resource Management and its application**

- Concept, universality and scope of resource management
- Steps in resource Management
- Decision Making
- Event planning and execution

**Unit II: Resources**

- Understanding meaning, classification and characteristics of family resources, factors affecting utilization of resources.
- Motivating factors in home management: values, standards and goals and their inter-relationship.

**Unit III: Availability and management of specific resources by an individual/ family**

- Money
- Time

**Unit IV: Availability and management of specific resources by an individual/ family**

- Energy
- Space

**PRACTICAL**

1. SWOC analyses  
Building decision making abilities through management games
2. Preparation of time plan of a day for self and family.
3. Event planning management of a birthday party.

**RECOMMENDED READINGS**

### **Text Book**

- Rao V.S and Narayana P.S., Principles and practices of management, 2007, Konark publishers Pvt Ltd.
- Nickell, P and Dorsey, J.M., Management in family living

### **Reference Book**

- Koontz H and O'Donnel C, 2005 Management- A System and Contingency analysis of Managerial Functions. New York: Mc Graw – Hill Book Company
- Kretiner, 2009, Management Theory and Applications, Cengage Larning : India

## **THIRD SEMESTER**

### **CORE 03: TEXTILES**

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

### **THEORY**

**LECTURES: 60**

#### **Objectives:**

- To know the manufacturing process of different types of textile fibers, their structures and uses
- To know the manufacturing process of different types of fabrics.
- To impart knowledge on different textile finishes

### **Unit I: Introduction to Textile Fibres**

- Meaning and classification of fibres
- Production, properties and usage of fibres  
Natural fibre: cotton, flax, silk and wool



Man-made fibers: Rayon(Viscose)

## **Unit II: Yarn construction and their properties**

- Yarn formation
- Mechanical spinning (cotton system, wool system, worsted system) chemical spinning (wet, dry, melt)
- Types of yarns: Staple and filament, simple yarn, complex yarns

## **Unit III: Techniques of fabric construction, finishing, dyeing and printing**

- Parts of a loom
- Operations of a loom
- Classification of weaves (Plain, Basket, Ribbed, Twill, Satin, Sateen)- Structure, Properties, usages

## **Unit IV: Finishing**

- Finishing-Mechanical finishes -Beetling, Calendaring, Embossing, Glazing, Napping.
- Chemical Finishes- Mercerization, Ammoniating.
- Dyeing - Types of dyes

## **PRACTICAL**

3. Fiber identification tests- visuals, burning, microscopic  
Yarn identification- single, ply, cord, textured, elastic, monofilament, multifilament and spun yarn.
4. Thread count and balance, Dimensional stability,
3. Weaves- Identification and their design interpretation on graph (any three)

## **RECOMMENDED READINGS:**

### **Text Book:**

Corbman P.B. (1985) Textiles- Fiber to fabric (6<sup>th</sup> Edition) , Gregg Division /Mc Graw Hill Book Co, US.

### **Reference Book:**

- Joseph, M.L. (1988) Essentials of Textiles (6<sup>th</sup> Edition), Holt, Rinehart and Winston Inc, Florida.
- Vilensky G. (1983) Textile science, CBS Publishers and Distributors, Delhi.
- Tortora, G. Phyllis, Understanding Textiles, Mc Millanm Co. USA.
- Sekhri S. (2013) Textbook of Fabric Science: Fundamentals to finishing, PHI Learning, Delhi.

## **FOURTH SEMESTER**

### **CORE 04: EXTENSION EDUCATION**

#### **THOERY**

#### **LECTURES 60**

##### **Objectives:**

- To enable the student to understand the meaning, principles, philosophy of Home Science Extension Education.
- To enable the student to know about different methods used in Extension Education.
- To enrich the Knowledge of the students about teaching learning process in Extension education.

#### **UNIT -I**

##### **Extension Education-**

- Definition needs and objectives.
- Principles of extension education.
- Behavioral changes brought about by extension education.

#### **UNIT II**

##### **Role of Extension Education in Development –**

- Role of Home Science & its inter relationship with Community Development.
- Role & qualities of Home Science extension workers.

#### **UNIT III**

##### **Methods of teaching in Extension Education-**

- Individual, group & mass methods. Individual Methods: Farm and Home Visits, Office Calls, Telephone Calls, Personal letters.
- Group Methods: Method Demonstration, Result Demonstration. Group Discussion, Field Trips, Lecture, Seminars and Workshop

- Mass Methods: Leaflets, Circular Letter, Radio, T.V. Bulletins, News Articles, Their advantages & disadvantages.

#### **UNIT IV**

##### **Teaching-Learning process-**

- Meaning, principles & steps in teaching learning process.
- Criteria for effective extension teaching. Elements of teaching and learning situation.
- Criteria for effective learning. Principles of learning. Factors affecting learning.

#### **Core paper III: Practical**

##### **Practical: 25 Marks**

- Prepare posters: women empowerment, violence against women, child & maternal health issues, environmental pollution.
- Prepare a project report within one thousand words on any one of the above issues.

##### **Text Book:**

- 1.Education and communication for development – O.P. Dahama and O.P. Bhatnagar.
- 2.Extension Education and Communication–V.K. Dubey and Indira Bishnoi

##### **Reference Books:**

- Extension communication and management – G.L. Ray.
- Extension Techniques for Rural Management - C. Satapathy & Sabita Mishra.
- Extension Education – A. Reddy

#### **FIFTH SEMESTER**

##### **DISCIPLINE SPECIFIC ELECTIVE (DSE)**

##### **DSE1: INDIAN TEXTILES HERITAGE**

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

##### **THEORY**

**LECTURES: 60**

##### **Objectives**

- To study about different traditional textile and crafts 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.

**Unit I: 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.

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

Embroidered Textiles-Kanthas of Bengal, Kasuti of Karnataka, Phulkari of Punjab, Chikankari of Uttar Pradesh, Kashida of Kashmir, Gujarat embroideries.

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

- 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 IV. Conservation of Traditional Textile**

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

**PRACTICAL**

4. Traditional Embroideries
5. Tie and dye  
Batik  
Block Printing  
Stenciling
6. Visit to craft Centers.

**Recommended Readings.**

**Text Book:**

- Chattopadhyaya K.D. 1995, Handicrafts of India, Wiley Eastern Limited Delhi

**Reference Book:**

- Agrawal O.P. 1977 Care and Presentation of Museum Projects –II NRL
- Das Shukla, Fabric Art- Heritage of India, AbhinavPublicatons N.Delhi

**SIXTH SEMESTER****DSE-02 : PUBLIC NUTRITION****(CREDITS: THEORY-4, PRACTICAL-2)****THEORY****LECTURES:60**

- **Objectives:** To understand the importance of public health nutrition and its role
- To gain knowledge on different ongoing nutrition programmes.
- To study the different methods for assessment of nutritional status.

**Unit 1 Concept and scope of public nutrition**

- Definition, Concept and Scope of public health nutrition
- Objectives principles and scope of nutrition and health education and its promotion
- Role of Public nutritionist

**Unit II: Nutritional problems and their implications**

- 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

**Unit III: Assessment of nutritional Status**

- Objectives and importance
  - Methods of Assessment
- C. Direct- Clinical signs, nutritional anthropometry, biophysical tests.
- D. Indirect- Diet Surveys, Statistics.

**Unit IV -International and National Nutrition Policy and Programmes:**

- International Agencies and their functions – World Health Organization (WHO),

Food and Agriculture Organization (FAO), United Nations International Children's Emergency Fund (UNICEF), Cooperatives for Assistance & Relief Everywhere (CARE).

- National Agencies and their functions , Indian Council of Agriculture (ICAR), Indian Council of Medical Research (ICMR), National Institute of Nutrition (NIN). National Institute of Public cooperation & child development (NIPCCD)

## **PRACTICAL**

2. Assessment of nutritional status:
  - Anthropometry- weight and height measurements
  - Plotting and interpretation of growth charts for children below 5 years
2. Identification of clinical signs of common nutritional disorders.
3. Dietary assessment- FFQ and 24hour diet recall

## **RECOMMENDED READINGS**

### **Text Book:**

- Park K (2011) Park's Text book of Preventive and Social Medicine, 21<sup>st</sup> Edition, M/S Banarasidas Bhanot Publisher, Jabalpur, India
- Bamji MS Krishnaswamy K and Brahman GNC (Eds) (2009), Text Book of Human Nutrition 3<sup>rd</sup> Edition, Oxford and IBH Publishing Co Pvt Ltd New Delhi,

### **Reference Book:**

Wadhwa, A and Sharma, S (2003) Nutrition in community – A Text book, Elite Publishing House Pvt. Ltd New Delhi

Park, S K (2011) Park's Text book of Preventive and Social Medicine, 21<sup>st</sup> Edition, M/S Banarasidas Bhanot Publisher, Jabalpur, India

Bamji MS Krishnaswamy K and Brahman GNC (Eds) (2009), Text Book of Human Nutrition 3<sup>rd</sup> Edition, Oxford and IBH Publishing Co Pvt Ltd New Delhi,

Jeliffe, D.B, Jeliffe, 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/child-growth/standards/en/))

## **GENERIC ELECTIVES (GE)**

### **GE 1: HUMAN NUTRITION (CREDITS: THEORY 6)**

#### **THEORY**

**LECTURES:60**

#### **Objectives**

- To understand the relationship between food, nutrition and health.
- To understand the importance of food and nutrition in different life stages.

#### **unit-1 : Basic Concepts in Nutrition**

- Basics terms used in nutrition
- Understanding relationship between food, nutrition and health
- Functions of Food- Physiological, psychological and social
- Basic food groups and concept and balanced diet.

#### **Unit II: Nutrients**

- Functions, Recommended Dietary Allowances, dietary sources, effect of deficiency and or excess consumption on health of the following nutrients.
- Carbohydrates and dietary fiber
- Lipids
- Proteins
- Fat soluble vitamins- A,D,E, and K
- Water soluble vitamins- Thiamin, Riboflavin, Niacin, Pyridoxine, Folate, Vitamin B 12 and Vitamin C
- Minerals- Calcium, Iron, Zinc and Iodine

#### **Unit III: Nutrition during lifecycle**

Physiological considerations and nutritional concerns for following life stages.

- Adult Man/ Woman
- Preschool children
- Adolescent Children
- Pregnant Woman

Nursing Woman and infant

### **RECOMMENDED READINGS**

#### **Text Book:**

- Srilakshmi B (2012) Nutrition Science 4<sup>th</sup> Revised Edition, New Age International Publishers.

#### **Reference Book:**

- Wardlaw and Insle, MG, Insel PM (2004), Perspectives in Nutrition, Six Edition, McGraw Hill
- Khann K. Gupta, S. Seth R. Passi, SJ, Mahna, R. Puri S (2013) Textbook of Nutrition and Dietetics, Phonenix Publishing House Pvt Ltd.
- ICMR (2010) Recommended Dietary Allowances for Indias, Published by National Institute of Nutrition, Hyderabad
- Chadha R and Mathur P. cds (2015) Nutrition : A lifecycle Approach, Orient Blackwan, New Delhi.

## **SKILL ENHANCEMENT COURSES (SEC)**

### **THIRD SEMESTER**

#### **SEC-A : HOME BASED CATERING**

**(CREDITS: THEORY 2)**

**THEORY**

**LECTURES:60**

#### **Objectives:**

- To know different type food service unit.
- To study the different-step towards planning and execution of food service un

#### **Unit I: Introduction to food service**

- factors contributing to the growth of food service industry



- kinds of food service establishments

### **Unit II: Food production**

- Menu planning importance of menu, factors affecting menu planning, menu planning for different kinds of food service units
- Food purchase and storage
- Quantity food production: Standardization of recipes, quantity food preparation techniques, recipe adjustments and portion control
- Hygiene and sanitation

### **Unit III: Resources**

- Money
- Manpower
- Time
- Facilities and equipment
- Utilities

### **Unit IV: Planning of A food service Unit**

- Preliminary planning - Survey of types of units, identifying clientele, menu, operations and delivery

### **RECOMMENDED READINGS:**

#### **Text Book:**

- Sethi Mohini (2005) institution food management New age international publishers.

#### **Reference Book:**

- West B Besie & Wood Levelle (1988) Food service in institutions 6<sup>th</sup> Edition revised By Hargar FV, Shuggart & Palgne Palacio June, Macmillian publishing company.
- Knight J.B & Kotschevar LH (2000) quantity food production planning & management 3<sup>rd</sup> edition John Wiley & Sons.
- Philip E Thangam (2008) Modern Cookery for teaching and Trade Part I & II orient Longman.
- Taneja S and Gupta SL (2001) Entrepreneurship development, Galgotia publishing.

## **FOURTH SEMESTER**

### **SEC-B: MATERNAL AND CHILD NUTRITION**

**(CREDIT: THEORY 2)**

**THEORY**

**LECTURERS: 30**

**Objectives:**

- To improve utilization of community based health and nutrition for pregnant women and children.
- To improve the health status of mother and child.

**Unit-I**

- Nutritional needs during pregnancy, common disorder of pregnancy (Anaemia, HIV infection, pregnancy induced hypertension), relationship between maternal diet and birth outcome.
- Maternal health and nutritional status, maternal mortality and issue relating to maternal health.

**Unit-II**

- Nutritional needs of nursing mothers and infants determinants of birth weight and consequences of low birth weight, breastfeeding support and counseling.

**Unit-III**

- Infant and young child feeding and care- current feeding practices and nutritional concerns, guidelines for infant and young child feeding, Breast feeding, weaning and complementary feeding.
- Assessment and management of moderate and severe malnutrition among children, Micronutrient malnutrition among preschool children.
- Child health and morbidity, neonatal, infant and child mortality, IMR and U5MR, link between mortality and malnutrition.

**Unit-IV**

- Overview of maternal and child nutrition policies and programmes.

**RECOMMENDED READINGS**

**Text Book:**

- Park, (2011). Park's textbook of preventive and social medicine, 21<sup>st</sup> edition M/s Banarasidas Bhanot publishers, Jabalpur, India.

**Reference Book:**

- Wadhwa, A. and Sharma, S. (2003) . Nutrition in the community- A Textbook. Elite publishing house Pvt Ltd New Delhi.
- Bamji, M.S, Krishnaswamy, K and Brahman, GNV (Eds) (2009). Textbook of human nutrition 3<sup>rd</sup> edition. Oxford and IBH publishing Co. Pvt Ltd, New Delhi.
- National guidelines on infant and young child feeding (2006). Ministry of women and child development, Government of India.

**FIFTH SEMESTER****SEC – C: SELF DEVELOPMENT AND WELL-BEING****(CREDITS: PRACTICAL -6)****PRACTICAL**

1. Understanding the self – Theatre approach
2. Interview of two adolescents – 1 male, 1 female, about his/ her sense of self
3. An exercise In self-reflection from early childhood to adolescence
4. Case profile of an adolescent
5. Workshop on self – development
6. Analyzing images in media to understand the self
7. Organize small group discussions to arrive at indicators of self of well- being
8. Learning about assessment of well-being using a standardized test

### **RECOMMENDED READINGS**

- Kakar, S. (1978). The inner world. Delhi: Oxford University Press
- Kakar, S. and Kakar, K (2007). The Indian: The portraits of a people. London: Penguin/Viking.
- Rice, F.P. (2007). Adolescent: Development, Relationship and Culture.
- Santrock, J. (2010). Life Span Development: A Tropical Approach, New Delhi: Tata McGraw Hill.