



KUVEMPU UNIVERSITY

Jnanasahyadri, Shankaraghatta – 577451

I SEMESTER

I Year B.A. Home Science as One Option

Paper – I: FOOD AND NUTRITION

Course Objectives:-

- 1) Understand the vital link between nutrition and health.
- 2) Gain knowledge on functions, metabolism and effect of deficiency of nutrients.

Unit 1: **15h**

Definition– Health, Nutrient, Food and Nutrition, Balance diet, Malnutrition. Importance and functions of food, Classification of Nutrients.

Unit 2: **15 h**

Nutrients - Classification, sources, functions and deficiency of carbohydrates, protein and fat.

Unit 3: **15h**

Minerals-Classification:

- a) Macrominerals - Calcium, Phosphorous, Sodium, Potassium & Chlorine.
- b) Micro Minerals - Iron and Iodine.
- c) Trace Elements – Zinc

Unit 4: **15h**

Vitamins:

- a) Introduction and Classification
- b) Functions, Sources, Requirement and deficiency of fat soluble vitamins (Vit A, D, E & K) and water-soluble vitamins (B₁, B₂, B₃, folic acid, B₁₂, and Vitamin C)
- c) Importance of sprouted pulses in diet.
- d) Incorporation of pulses and oil seeds to improve the nutritive value of food.

Unit 5: **15h**

Water:

- a) Functions, requirements, deficiency and sources.
- b) Dehydration and ORS
- c) Energy: BMR, factors affecting BMR. Determination of energy value of foods, gross value & physiological value of foods, Total energy requirement.

References:

- 1) Robinson. C.HandR.N.Lawer, Normal and Therapeutic Nutrition, MacMillan Pub. Co. N.Y. 1986.
- 2) Krause M.Y. and Huscher M.A. Food, Nutrition and Diet therapy, W.B. Saunders Company, Philadelphia, London, Toronto, 1983.
- 3) Davidson, S. Passmor, R. Book, J.P. and Truswell. Human Nutrition and Dietetics. The English Language Book Society, Livingstone 9th Edition, 1993.
- 4) Swaminathan, M. Essentials of Food and Nutrition. Vol, I & II. Ganesh and Co, Madras 1984. Latest Edition.

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II SEMESTER

I Year B.A. Home Science as One Option

Paper-2: DIETETICS

Objectives:

1. Understand the planning, selection and preparation of food in Health and deficiency
2. Gain knowledge in planning and preparation of therapeutic diets.

Unit 1

15h

R.D.A. - Definition, factors to be considered in R.D.A. Meal Planning- Balance diet, Basic five food groups, Factors to the considered while planning adequate diet.

Unit 2

15h

Principles of Diet Therapy: Modification of normal diet for therapeutic purpose–Soft diet, fluid diet, and bland diet.

Unit 3

15h

Diet in gastro intestinal disorders:
a. Diarrhea
b. Constipation
c. Peptic ulcer.

Unit 4

15h

Diet in Metabolic disorder:-Diabetes mellitus: Type and Causes, Signs and Symptoms, Dietary Management Etiology and Dietary Management in cardiovascular diseases: Hyper tension, Atherosclerosis

Unit 5

15h

Malnutrition- Causes and preventive measures. Diet in Deficiency disorders
a) Anemia b) PEM c) Kwashiorkar

References:

1. Robinson C.H. Normal and Therapeutic Nutrition 17th Edition. MacMillan Publishing Co. Inc N.Y. 1994.
2. SriLakshmi V. Dietetics. New Age International Private Ltd. N.D. 1995.
3. Antia F.P. Clinical Nutrition and Dietetics, Oxford University Press. Delhi 1989.
4. Krause M.V. and Mahan L.K. Food, Nutrition and Diet Therapy, 6th Ed. W.B. Saunders Company, Philadelphia 1994.


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III SEMESTER

**II Year B.A. Home Science as One Option
Paper 3: Resource Management**

**Credits 5:0:0=5
75 Hours**

Course Objectives:

By the end of this course, students will be able to:

1. Understand the concept, scope, and principles of family resource management.
2. Learn the decision-making process and its motivating factors.
3. Gain knowledge about time and energy management in households.
4. Understand work simplification techniques and ergonomics for efficient living.

Course Outcomes

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

1. Explain the classification and use of family resources and the management process.
2. Identify decision types and analyze factors influencing family decisions.
3. Apply time and energy management tools for household efficiency.
4. Describe work simplification methods and their application in home tasks.
5. Understand ergonomic principles for designing functional household workspaces.

Unit 1: Introduction to Family Resources and Management

20hrs

Chapter 1: Resource Management

- Definition, nature, and scope
- Classification of resources
- Characteristics of resources
- Factors affecting the use of resources
- Conservation and sustainability of resources

Chapter 2: Concepts of Management

- Definition and importance of management in the home and family
- Management process
- Types and importance of planning
- Controlling – steps in controlling
- Evaluation – Types and Importance
- Styles of management
- Importance of flexibility and adaptability in family management

Unit 2: Decision Making in Management

20hrs

Chapter 3: Decision Making in Management

- Definition and Importance
- Types of decisions
- Decision-making process
- Factors affecting decision making
- Barriers to effective decision-making
- Conflict: Types and methods of resolution

Chapter 4: Motivating Factors in Decision Making

- Values: Definition, classification, Parker's values
- Goals: Definition, Significance and Types
- Standards: Types and importance
- Interrelationship between values, goals, and standards
- Role of family, culture, and socio-economic status in shaping decisions

Unit 3: Management of Resources – Time and Energy

20hrs

Chapter 5: Time Management

- Importance of time as a resource
- Time management tools: Time logs, schedules, activity charts
- Time management process: Goal setting, prioritizing, planning
- Causes of time wastage and how to overcome them
- Time-saving devices and techniques for household efficiency

Chapter 6: Energy Management

- Energy as a human resource
- Types of efforts required for various activities
- Work curve and its interpretation
- Fatigue: Types, causes and remedies
- Techniques to reduce fatigue and conserve energy
- Role of good posture and body mechanics

Unit – 4: Work Simplification and Ergonomics

15hrs

Chapter 7: Work Simplification

- Definition and significance
- Techniques: Pathway charting, process charting, operation charting
- Mundell's classifications of work simplification
- Application in kitchen and household tasks
- Benefits of work simplification in home and professional settings

Chapter 8: Ergonomics

- Definition, scope, and importance of ergonomics
- Domains: Physical, cognitive, organizational ergonomics
- Man-Machine-Environment (MME) relationship
- Design of workspaces: Kitchen, laundry area, study room
- Ergonomic tools and aids in household work

References:

1. Nickell and Dorsey – Management of Family Living (2002) 4Th Edition, CBS Publishers and Distributers, New Delhi.
2. Shashi k, Gupta, Neeti Gupta, (2004), Management Concepts and Strategies, Kalyani Publishers, New Delhi.
3. Sushma Gupta and Anita Agarwal, (2005), Text Book of Family Resource Management – Hygiene and physiology, Kalyani Publishers, New Delhi.
4. TrupathiP. C, Reddy. (2006), Principles of Management, Tata McGraw Hills Publishing company Limited, New Delhi.
5. Verghese. M.A, Saha, P.N. Atreya. N, (2000), Ergonomics of Women at Works, Allied Publishers, Mumbai.


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III SEMESTER

II Year B.A. Home Science as One Option

Elective: Waste Management

Credits 3:0:0=3

**4 hrs/Week
60 Hours**

Course Objectives:

By the end of this course, students will be able to:

1. Understand the types, sources, and classification of waste.
2. Learn principles and methods of waste management and segregation.
3. Gain knowledge about solid waste disposal techniques.
4. Explore composting and vermi composting processes and benefits.

Course Outcomes

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

1. Define waste and classify types and sources.
2. Identify hazardous and non-hazardous waste characteristics.
3. Explain waste hierarchy, 4Rs, and segregation methods.
4. Describe solid waste disposal methods and energy recovery.
5. Understand composting techniques and vermi composting steps and materials.

Unit-I Waste

20 h

Chapter No. 1: Waste

Definition, Types of waste – Solid, Liquid and Gaseous waste, Solid waste generation. Sources of Municipal solid waste, Characteristics and Composition

Chapter No.2: Classification of waste:

Sources–Industrial, Commercial, Domestic and agricultural waste. Types Biodegradable and Non-biodegradable waste. Characteristics– Hazardous and Non-hazardous waste.

Unit-II Waste Management

20 h

Chapter No.3: Waste Management:

Definition, Waste hierarchy, 4'R principles, Waste segregation: Collection of MSW-Types –Community bins, Door to Door, Block and Communal Collection, Transportation, Ways of reducing waste at household level

Chapter No.4: Disposal of solid waste:

Methods of disposal of waste – open dump, Sanitary landfills, Incineration, Composting and Vermi composting. Processing of MSW- Recycling and Energy recovery.

Unit-III Composting and Vermi composting

20 h

Chapter No. 5: Composting:

Meaning, Benefits of composting, Composting methods – Aerobic composting-Static pile, Windrow and in- vessel composting, Factors affecting aerobic composting, Merits and Demerits, Anaerobic composting- Bokashi method and Trench method, Merits and Demerits.

Chapter No. 6: Vermi composting:

Meaning,–Types, materials, steps – Selection of place, Container -Small barrel/drum composter, Large barrel/drum composter, Bedding material, organic waste, Aeration, Moisture, Ph, Earth worm, Covering materials, Harvesting and storing Vermi compost.

References:

1. Ackerman, F., 2000: Waste Management and Climate Change. Local Environment, **5** (2), pp. 223-229.
2. Daniel Hoornweg and Perinaz Bhada-Tata, March 2012, No. 15, WHAT A WASTE A Global Review of Solid Waste Management, Urban Development Series Knowledge Paper, World Bank
3. Antonis Mavropoulos et al., July 2012, Phase 1: Concepts & Facts, Globalization & Waste Management, International Solid Waste Association
4. UNEP Division of Technology, Industry and Economics International Environmental Technology Centre Osaka/Shiga, 2010, Waste and Climate Change - Global Trends and Strategy Framework, UNEP


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IV SEMESTER

II Year B.A. Home Science as One Option
Paper 4: FUNDAMENTALS OF HUMAN DEVELOPMENT

Credits -5:0:0=5
75 Hours

Course Objectives:

By the end of this course, students will be able to:

1. Understand the stages and principles of human growth and development.
2. Explore career opportunities in the field of human development.
3. Learn developmental needs and guidance during early and middle childhood.
4. Recognize the role of nutrition, health, safety, and child protection.
5. Understand parenting practices and behavioural aspects in children.

Course Outcomes

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

1. Define human development and explain its domains and stages.
2. Identify factors influencing development and methods to study it.
3. Understand early childhood and middle childhood development milestones.
4. Describe parenting styles, early intervention, and child safety laws.
5. Recognize and suggest strategies for common behavioural problems in children.

Unit – 1: Introduction to Human Development

20hrs

Chapter 1: Human Development

- Definition needs and scope.
- Domains of development: Physical, cognitive, emotional and social

Chapter 2: Career Opportunities in Human Development

- Fields: Education, research, counselling, clinical, medical, nursing, family and social services.

Chapter 3: Growth and Development

- Concepts and principles
- Factors influencing growth and development
- Methods of studying development: Observational, longitudinal and cross-sectional

Chapter 4: Prenatal Development

- Conception and pregnancy
- Stages of prenatal development
- Heredity and environmental influences
- Conditions affecting prenatal development

Chapter 5: Child birth

- Process of childbirth
- Types
- Birth complications

Unit – 2: Developmental Needs and Guidance in Early Years

20hrs

Chapter 6: Parenting and Child Rearing Practices

- Parenting styles: Authoritative, authoritarian, permissive and uninvolved
- Influence of culture, Socio Economic Status and family structure

Chapter 7: Early Identification and Intervention

- Developmental delays and disabilities
- Early signs and screening tools
- Importance of early intervention and inclusive practices

Chapter 8: Nutrition and Health in Early Years

- Nutritional requirements (infancy–early childhood)
- Common illnesses and immunization
- Hygiene and health promotion

Chapter 9: Child Safety and Protection

- Creating safe environments
- Child rights, POCSO Act and RTE
- Handling abuse and neglect

Unit – 3: Infancy and Early Childhood Years

15hrs

Chapter 10: Infancy

- Definition and Significance
- Developmental tasks and milestones
- Physical growth, Reflexes, perceptual development
- Immunization schedule

Chapter 11: Early Childhood

- Definition, Developmental Task
- Physical, motor, cognitive, language, emotional and social development
- Role of preschool education
- Importance of play
- Piaget's cognitive Theory and Erik Erickson's Personality Theory

Unit – 4: Middle Childhood Years

20hrs

Chapter 12: Development in Middle Childhood

- Definition, Developmental tasks and milestones
- Physical, intellectual, emotional, and social development
- Role of school and extracurricular activities
- Interest development

Chapter 13: Socialization and Behavioral Aspects

- Role of parents, siblings, and peers
- Disciplinary techniques and their effects
- Peer influence and social competence

Chapter 14: Behavioral Problems and Guidance

- Common behaviour problems
- Causes and management strategies
- Role of family and teachers in behaviour correction

References:

1. **Hurlock, E. B.** (2001). *Child Development*. McGraw Hill Education.
2. **Santrock, J. W.** (2018). *Life Span Development*. McGraw Hill Education.
3. **Berk, L. E.** (2017). *Child Development*. Pearson Education.
4. **Papalia, D. E., Olds, S. W., & Feldman, R. D.** (2010). *Human Development*. McGraw Hill.
5. **Bee, H., & Boyd, D.** (2003). *The Developing Child*. Pearson Education.
6. **Shaffer, D. R., & Kipp, K.** (2013). *Developmental Psychology: Childhood and Adolescence*. Cengage Learning.
7. **Kaul, V.** (2013). *Early Childhood Education Programme*. NCERT, New Delhi.
8. **Government of India (2012)**. *Protection of Children from Sexual Offences (POCSO) Act*.
9. **Ministry of Health and Family Welfare**. *Immunization Handbook for Medical Officers*. Government of India.
10. **NCERT Textbooks** on Human Development and Early Childhood Care and Education (ECCE).


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IV SEMESTER

II Year B.A. Home Science as One Option
Elective: Adolescent Health and Welfare

Credits -3:0:0=3
4hrs/Week
60 Hours

Course Objectives

By the end of this course, the students will be able to:

1. Understand adolescence and its importance in health and wellbeing.
2. Identify risks, vulnerabilities, and common health issues in adolescents.
3. Recognize the role of parents, teachers, counsellors, and health workers.
4. Learn about adolescent health policies and welfare programs in India.

Course Outcomes

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

1. Define adolescence and explain its health significance.
2. Identify major risks and problem behaviours in adolescents.
3. Describe common adolescent health issues and their management.
4. Explain stakeholder roles in adolescent wellbeing.
5. Recall key policies and programs supporting adolescent health in India.

Unit 1: Introduction to Adolescents, Health, and Wellbeing

15 h

- Definition and concept of adolescence
- Importance and significance of adolescent health and wellbeing
- Adolescent health statistics: Global and Indian context
- Critical issues, needs, and concerns of adolescents (physical, emotional, social, and cognitive development)
- Factors influencing adolescent health and wellbeing (biological, environmental, socio-cultural, economic, and psychological)

Unit 2: Risks, Vulnerability, and Problem Behaviors in Adolescents 15 h

- Meaning and concept of risk and vulnerability in adolescence
- Outcomes of risk and vulnerability (educational failure, mental illness, substance abuse, etc.)
- Problem behaviours:
 - Definition and types (e.g., aggression, addiction, truancy, self-harm)
 - Signs and symptoms
 - Management strategies
- Roles and responsibilities of:
 - Parents
 - Teachers
 - Counsellors
 - Health workers

Unit 3: Health Problems of Adolescents

15 h

- Sexual and reproductive health problems:
 - Early pregnancy, STIs, lack of information and services
- Nutritional problems:
 - Malnutrition, obesity, anaemia
- Non-communicable diseases (NCDs):
 - Hypertension, diabetes, asthma
- Mental health problems:
 - Anxiety, depression, suicide, substance abuse
- Prevalence, signs and symptoms, and management strategies
- Role of parents, teachers, counsellors, and health workers

Unit 4: Health care policies and welfare program for adolescents in India 15 h

- Constitutional and legal provisions
- Balika Samridhhi Yojana (BSY)
- Kishori Shakti Yojana (KSY)
- Nutrition Programme for Adolescent Girls (NPAG)
- National Rural Health Mission (NRHM)
- Rashtriya Kishor Swasthya Karyakram (RKSK)
- National Programme for Youth Adolescent Development (NPYAD)
- National Adolescent Health Strategy
- Integrated Programme for Street Child
- Pradhan Mantri Poshan Shakti Nirman (PM POSHAN) scheme

References:

1. Carol K. Sigelman, Elizabeth A. Rider (2015), Human Development, Cengage Learning, ISBN: 9788131508220, 8131508226
2. Gomathi Jatin Shah, Sybil Thomas, 2021, Adolescence in India - An Interdisciplinary Perspective, Taylor & Francis Limited
3. Laura E, Adena.B. Meyers (2015) Infants, Children and Adolescents, 8th Edition Pearson Publisher.

4. Laurence Steinberg, Marc H. Bornstein, Deborah Lowe Vandell, Karen S. Rook (2010) Life-Span Development: Infancy through Adulthood, Wadsworth Cengage Learning
5. Mujibul Hasan Siddiqui (2008) Guidance & Counseling APH Publishing Company New Delhi
6. Naresh Gupta (2019), Human Development in India, Emerald Publisher
7. Robert V. Kail, John C. Cavanaugh (2012), Human Development: A Life Span View, 3rd Edition
8. Suhasis Bhandra, Sibnath Deb and Seema Sahay, (2019), Childhood to Adolescence Issues and Concerns-First Edition, Pearson Publisher
9. Ralph J. DiClemente, John S. Santelli, Richard Crosby · 2009 Adolescent Health: Understanding and Preventing Risk Behaviors, Jossey-Bass Publishers
10. Geeta Sethi, Shalini Bharat, 2019, Health and Wellbeing of India's Young People - Challenges and Prospects, Springer Singapore

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