M.A./M.Sc. HOME SCIENCE

(CHOICE BASED CREDIT SYSTEM) (2023-2024 onwards)

(2-Years P.G. Programme)
P.G. DEPARTMENT OF HOME SCIENCE
BERHAMPUR UNIVERSITY, 760007

COURSE PLAN: -

The syllabus of Master of Home Science is full time two years programme with four semesters. The uniform nature of credits specified for the Master's Program describe the equitable weightages of various courses of the program. The number of credits along with grade points that a student satisfactorily completed, measures the performance of the student. Satisfactory progress and completion of course are subject to a student's maintaining of a minimum Cumulative Grade Point Average (CGPA), as well as minimum grades in different subjects of the programme.

Total No. of Semesters: - 4

- In first semester all the courses are compulsory (mandatory with no choice).
- In second semester all the courses are compulsory (mandatory with no choice). In addition to this one non -credit value added course HOME VAC-206 (Nursery Teacher Training) is there and is also compulsory.
- In third semester two core (compulsory), three electives /specialization (a student can opt for any one elective as per choice) papers are there. One choice based open course (HSCT-300) is there and any student from other disciplines can opt for the same except Home Science students. In third semester one non -credit value added course HOME VAC-309 (Yoga and health) is there and is also compulsory.
- In fourth semester three core (compulsory), three electives / specialization (a student can opt for any one specialization as per choice opted in 3rd semester). In fourth semester one non -credit Addon course HOME AC-410 (CULTURAL HERITAGE OF SOUTH ODISHA (পমী পি ওটি গাঁও) থিক বিভিন্ন) is there and which is compulsory for all students.

PROGRAMME OUTCOME

The syllabus is designed on Choice Based Credit system in accordance with the guidelines provided by the University grand Commission. The syllabus of Master of Home Science is full time two years programme with four semesters. The uniform nature of credits specified for the master's programme describes the equitable weightages—of various courses of the programme the number of credits along with grade points that a student's satisfactorily completed, measures the performance of the students. Satisfactory progress and completion and completion of course are subject to a student's maintaining of a minimum Cumulative Grade Point Average (CGPA) as well as minimum grades in different subjects of the programme description and a lay out of Credit Distribution for the course programme is detailed—below.

M.A HOME SCIENCE Course Structure (2023-24)

	FIRST SEMESTER					
Course code	Title of the paper	Cre dit	Core/ Electi ve	Inter nal	Exte r nal	Mark
HOME C101	EXTENSION EDUCATION	4	Core	20	80	100
HOME C102	FOODS AND NUTRITION	4	Core	20	80	100
HOME C103	HUMAN DEVELOPMENT	4	Core	20	80	100
HOME C104	FAMILY SOCIOLOGY	4	Core	20	80	100
HOME C105	PRACTICAL	4	Core	20 (Record)	80	100
	Total	20	-	100	400	500

SECOND SEMESTER

Course Code	Title of the paper	Cre dit	Core/ Electiv	Internal	Exte rnal	Mark
HOME C201	FAMILY RESOURCE MANAGEMENT	4	Core	20	80	100
HOME C202	TEXTILES AND CLOTHIN G	4	Core	20	80	100
HOME C203	COMMUNITY HEALTH	4	Core	20	80	100
HOME C204	COUNSELING AND GUIDANCE	4	Core	20	80	100
HOME C205	PRACTICAL	4	Core	20 (Record)	80	100
HOME VAC- 206	NURSERY TEACHER TRAINING (NTT)			NONCR TCOU		Grade
	Total	$\begin{array}{c c} 2 \\ 0 \end{array}$	-	100	400	500

	THIRD SEMESTER					
Course Code	Title of the paper	Cre dit	Core/E lective	Internal	Exte rnal	Mark
HOME C-301	RESEARCH METHODOLOGY	4	Core	20	80	100
HOME C302	MENTAL HEALTH	4	Core	20	80	100
	ANDLIFE STYLE					
HOME E-303	EXTENSION	4	Elective	20	80	100
	AND					
	COMMUNICA TION					
	TECHNOLOGIES					
HOME E-304	COMMUNICATIO N IN RURAL	4	Elective	20	80	100
	DEVELOPMENT					
HOME E-305	EARLY	4	Elective	20	80	100
	CHILDHOOD					
	CARE AND EDUCATION					
HOME E 306	EXCEPTIO	4	Elective	20	80	100
	NAL CHILDREN					
HOME C-307	FOOD SERVICE	4	Core	20	80	100
	MANAGEM					
HOME C-308	ENT	4	Core	20	80	100
1101v1E C-306	CLINICAL NUTRITIONAND	+	Core	20	80	100
	DIETETICS					
HSCT-300	FAMILY AND COMMUNITY	4	CBCT	20	80	100
	SCIENCE					

HOME VAC-	YOGA AND	NON- CREDIT				Grade
309	HEALTH			400	400	
	Total	4		100	400	500
	FOURTH SEMESTER					
Course Code	Title of the paper	Credi t	Core/ Electiv e	Interna l	Exte rnal	Mark
HOME C-401	CHILD STUDY AND FAMILY RELATIONS	4	Core	20	80	100
HOME C- 402	NUTRITION THROUGHLIFE CYCLE	4	Core	20	80	100
HOME C-403	POPULATION STUDIES AND CONSUMER EDUCATION.	4	Core	20	80	100
HOME E-404	EXTENSION TRAINING AND ADMINISTRATION	4	Elective	20	80	100
HOME E 405	THEORIES OF CHILD DEVELOPMENT	4	Elective	20	80	100
HOME E-406	FOOD SCIENCE	4	Elective	20	80	100
HOME E-407	DISSERTATION /INTERNSHIP (Extension Education)	4	Elective	20	80	100
HOME E-408	DISSERTATION /INTERNSHIP (Human Development)	4	Elective	20	80	100
HOME E-409	DISSERTATION /INTERNSHIP (Food and Nutrition)	4	Elective	20	80	100
HOME AC-410	CULTURAL HERITAGEOF SOUTH ODISHA (ବକ୍ଷିଣ ଓଡ଼ିଶାର ସଂସ୍କତ୍ତ ିକବଭବ	NON-	CREDIT C	OURSE		
	Total	20	-	100	400	500
	Grand Total	80		400	1600	2000

Choice of any one specialization comprises of the following papers in $3^{\rm rd}$ and $4^{\rm th}$ semester in addition to the core(compulsory) papers.

❖ A student can opt for HOME (E-303, E-304 E-404 & E-407)

- ❖ A student can opt for HOME (E-305, E-306 E-405 & E-408)
- ❖ A student can opt for HOME (E-307, E-308 E-406 & E-409)

SEMESTER-1 HOME C-101: Extension education

Course code	Title of the paper	credit	Internal	External mark
			mark	
HOME C-101	EXTENSION	04	20	80
	EDUCATION			

Course out comes

- > To learn the basic objectives of the extension education in overall development of the rural people & helps in studying and solving the rural problems
- > To bring about desirable changes in the human behavior, which includes change in knowledge, skill and attitude through communication technologies

Unit – I

- Extension Education Concept, need, scope, and objectives.
- Philosophy of extension, principles of extension work.
- Competencies (ability) needed by extension worker.
- ➤ Home Science Extension education.

Unit - II

Agriculture and Home Science Extension Programme.

- ➤ Intensive Agriculture District Program (IADP), Intensive Agricultural Area Development Program(IAADP), Intensive Cattle Development Project, High Yielding Varity Program, IRDP, NREP
- ➤ Home Science Extension Programme: -objectives & activities of the following programme Integrated Child Development Programme (ICDS), Balika Samridhi Yojana (BSY), Kishori Shakti Yojana (KSY), Rajiv Gandhi National Scheme for the Children of Working Mother, One stop center(Sakhi).
- ➤ Community Development– Meaning, aim and objectives, essential elements, philosophy, principles of community development.

Unit – III

Communication in Extension

- Communication Systems Concept, significance, types/forms, elements, functions of communication
- Models of communication: Aristotle's Model, Losswell's Model, Shammol and weaver Model, Osgood & Schramm's Model, The Riley's Model, Berlo's Model, Leagan's Model. Advantages and disadvantages of model.
- ➤ Problems in communication, obstruction in communication, role of communication for social change

Unit – IV

Principles of Teaching and Learning

- Learning -Meaning, Laws & principles of learning. Learning experiences
- ➤ Types of learning: Conditioning, verbal learning, motor learning, perceptual learning, attitude learning, problem solving
- ➤ Teaching Meaning, factors contributing to teaching, principles of teaching.
- right steps in extension teaching- attention, interest, desire, conviction, action, satisfaction
- > Principles of learning and criteria for effective learning

HOME C-102 FOOD AND NUTRITION

Course Code	Title of the paper	credit	Internal mark	External mark
HOME C-102	FOOD AND NUTRITION	04	20	80

Course out comes:

- > To gain knowledge on importance of nutrition and its nutritive value
- > To learn the nutrition related deficiencies.
- > To learn the food quality control assessment, food laws, prevention method, storagemethod etc.

Unit - I

- Definition and Importance of Nutrition and Nutrients Important physical phenomenon influencing the reaction of living matter. i) surface tension, ii) colloidal states iii) permeability iv) Osmotic pressure v) Hydrogenation concentration.
- ➤ Energy Calorie, Joule, Calorimetry, Methods of determination of energy requirements.
- > Measurement of energy content of food by Bomb calorimeter. Direct and Indirect calorimetry. Energyneeds of the Body-RMR-BMR-
- Factors influencing BMR calculation and factors influencing energy needs. Food sources of calories. Proportion of CHO, Proteins, Fats to supply nutrients in the diet.

Unit – II

- ➤ Carbohydrates Definition-classification, Functions, Sources, requirements, deficiencies, Digestion, absorption, Metabolism of CHO in the body.
- ➢ Proteins Definition- Classification, Functions, Sources, Requirements, Deficiencies, Digestion, Absorption, Metabolism-Biological value-PER-NPU-SDA. Nitrogen Balance-Protein synthesis Protein stores. Supplementary value of proteins.
- ➤ Fats and Lipids Definition Classification Functions Sources Requirements Deficiency, Digestion. Absorption, Metabolism-Essential Fatty acids and their nature-Cholesterol and saturated Fatty acids in the Human body.

Unit – III

- Nutritional Disorders Deficiency of all vitamins, minerals, prevention. Protein Calorie Malnutrition
 - Causes, symptoms, biochemical, metabolic changes, prevention and treatment. Anemia and Osteomalacia - Definition, causes, symptoms prevention. Nutritional status and methods of assessing nutritional status.

- ➤ Food Quality Assessment Causes of spoilage. Safety and Care of Food Supply Microbial hazards, Residue Pollutants, Natural toxicants in Foods, Food Poisoning.
- > Types of Microorganism Test for contaminations, microbial infestations and toxication. Proper storage and handling of foods.

Unit – IV

- > Food analysis and biochemistry of different types of foods of major food groups.
- ➤ Food Additives Flavoring agents, coloring agents, leavening agents, stabilizers, thickeners and their usages.
- ➤ Food Laws Subjective and objective methods of measuring quality for food production.
- > Measurement of food palatability, acceptance, food testing, objectives. Testing density, volume, tenderness, viscosity-weight, moisture etc.

HOME C-103 HUMAN DEVELOPMENT

Course Code	Title of the paper	credi t	Intern al mark	External mark
HOME C- 103	HUMAN DEVELOPM ENT	04	20	80

Course out comes:

- > To learn and gain the basic principle of human development
- > To learn the overall developmental process in different stages of life

Unit – I

- ➤ Human Development Meaning, period, process and theories of Human Development (JeanPiaget, Sigmund Freud, Erik Erickson).
- ➤ Basic of Human Development Genes and Chromosomes. Role of Heredity and Environment, Nature and Nurture in determining intelligence, personality and Behavior. Principles of development.
- ➤ Prenatal Growth and Development Stages of development. Factors influencing prenatal growth and development. Birth process and complications.

Unit – II

- ➤ Infancy Physical, Motor, Social-Emotional, cognitive and Language development, developmental tasks.
- ➤ Early Childhood Years Physical, Motor, Social Emotional, cognitive and Language development, Developmental tasks.

Unit – III

- ➤ Late Childhood Years Physical, Language-Emotional, Social, Intellectual and Moral development. Developmental tasks.
- ➤ Adolescence Physical changes and health needs-changes in social behavior Development of emotional maturity. Interests and heterosexual relationship. Developmental tasks and problems. Drug abuse, types, causes, treatment and rehabilitation.

Unit – IV

- ➤ Adulthood (Early and Late) Developmental tasks, personal and social adjustments, problems, vocational and marital adjustments.
- > Old Age The course of physical development, cognitive functioning, mental health issues and socio-emotional development.

HOME C- 104 FAMILY SOCIOLOGY AND WOMEN STUDIES

Course code	Title of the paper	credi t	Intern al mark	External mark
HOME C- 104	FAMILY SOCIOLOGY AND WOMEN STUDIES	04	20	80

- ➤ To understand society, individual, physical growth and mental health.
- ➤ To explain development for individual, family and community by differenthuman development theories.

Unit – I

- Theories of Family Developmental theory, Conflict theory, system theory, Functional – Structural Theory.
- > Conceptual framework for understanding Family Family as a social system. Family dynamics, assessment and intervention.
- > Contemporary Family types Nuclear, Joint, Extended, Alternate Families, Single parent, Childless, Female headed and unitary families.

Unit – II

- > Causes and consequences of transition in the Indian family system.
- ➤ Family Problems Marital conflicts, Dissolution of marriage. Divorce and its effect on family and society, Separation, causes of Divorce, Dowry Dowry Prohibition Act. Unemployment, Sickness, Accidents, their remedies.
- > Family Life Education meaning, need, subject matter, target group for family life Education.

Unit – III

- > Status of women in Indian society: Health, reproductive health, education, employment, social status.
- ➤ Women and Human Rights Violence against women across life span (Childhood, adolescence, marital, elderly years). Violence against women within Home (domestic violence), at Work places and in Society (political and social).
- > Changing Role of Women Working women and their problems, role conflicts in women.

Unit – IV

- ➤ Women and Law: Marriage (Hindu), Law of Divorce, Dowry prohibition Act., Adoption and Guardianship, Property, Domestic Violence Act IPC 498 (A).
- ➤ National Family Policy Social policies and the family provisions under the Ministry of Women and Child Development, Urban and Rural Development.
- > Role of Family, Government and different organizations in the care and welfare of the Elderly. Legal and Welfare Measures for the Elderl

HOME C- 105 PRACTICAL

Course code	Title of the paper	credit	Full mark
HOME C- 105	Practical	04	100
Course out co	mes:		

- > To learn the assessment of nutritional status.
- > To understand the different developmental process by interview, case study and survey.
- > To learn the importance of education in women empowerment and genderequality in the society

Foods and Nutrition:

- * Assessing nutritional status of infants, school going children, men and women of different income and working class.
- ❖ Menu making and meal planning Formulation and calculation of low-cost supplementary foods for pre-school children.

Extension Education and Communication:

- Preparation of Audio-visual aids (any three) for Extension Education on different branches of Home Science (Poster/Chart/ Graph/ Leaflet/ Puppet/ Stories etc.).
- ❖ Collection of newspaper clippings on any social issues (Women empowerment, childabuse/violence against women/child and maternal health/environmental pollution).

Human Development:

- Observation and recording of physical, motor and language development of preschoolchildren.
- Studying adolescent problems through interview/case study/survey.

Family Sociology and Women's Studies:

- * Study of attitude towards women's education and employment.
- Situational analysis of gender equality and equ

SECOND SEMESTER

HOME C-201

FAMILY RESOURCE MANAGEMENT

Course code	Title of the paper	credi t	Intern al mark	Extern al mark
HOME C-201	FAMILY RESOURCE MANAGEMENT	04	20	80

Course out comes:

- ➤ To learn the important process of home management to manage the family
- > To learn the use of both human and non-human resources to achieve the family goals.

Unit - I

- ➤ Management Meaning Definition Importance process and functions of Management.
- ➤ Planning, organizing, controlling and Evaluating Planning Objectives, Principles and Types of planning.
- > Decision Making- Meaning and types of decisions. Steps, process, techniques used indecision making.

Unit – II

- ➤ Management of Family Resources Management of energy, fatigue, energy savings methods and devices.
- ➤ Management of Time Meaning, principles, methods and devices used for time saving.
- > Management of Money Meaning, types, functions of money, types of Income and supplementary income.

Unit – III

- > Family Budget Fundamental Principles of Accounts Income and Expenditure Account Keeping.
- > Fundamental Principles of Accounts Income and Expenditure Account Keeping.
- > Saving-Importance and Need of savings. Types of savings. Different types of Banks and their functions. Types of savings accounts and different organizations for savings and insurance.

Unit - IV

- ➤ Interior Decoration Principles, Elements and objectives of Design or Beauty. Color: Elements of color, combinations of color and their applications.
- > Selection of Site Planning of a House. Different aspects of housing Building materials for different income groups, ventilation and lighting.
- ➤ Kitchen Planning Types of kitchens (one-wall, two-wall, U shape, L shape) kitchen plan, work simplification of kitchen, designing and layout of kitchens. Heights of work surface suitable for an average woman in the Kitchen. Modular Kitchen concept.
- > Storages space, types of storages, planning and layout of storage space, sanitation and safety, service area planning and decoration of service areas.

HOME C-202 TEXTILE AND CLOTHING

Course code	Title of the paper	credi t	Intern al mark	Extern al mark
HOME C-202	TEXTILE AND CLOTHING	04	20	80

Course out comes:

- > To learn the process of identification of different textile materials like fiber, yarnand fabric.
- > To know the fabric construction by different weaving methods.
- > To understand the different finishing process, printing methods of fabric

Unit-I

- > Textile Fibers Classification of fibers, structure, physical and chemical properties of cotton, silk, wool, polyester, nylon, rayon fibers.
- > Yarn Formation Staple yarns and filaments yarns and their formation process.
- > Finishing Process of fabrics Types of finishing process, preparatory process, stabilizing process, textural proces

Unit - II

- > Fabric Construction Weaving: Essentials of weaving operation
- ➤ Classification of weaves Plain, basket, ribbed, twill, satin, crepe, pile, double-cloth, Gauze, swivel, lappet, dobby, and jacquard.
- > Selvages Types, thread count, wrap and filling.

Unit - III

- > Finishing with Colour Dying of Fabric: Selection of dye, natural and synthetic dyes. Dyeing methods stock dying, top dying, yarn dying, and piece dying.
- > Printing of Fabric Distinction between printing and dyeing. Dye used for printing. Methods of printing Direct, Discharge, Resist, Block, Roller, Duplex, Screen, Stencil, Transfer printing.

Unit-IV

- > Principles of Clothing selection of fabrics for family. Wardrobe planning for the family.
- > Clothing Construction Basic principles of drafting, flat pattern and draping methods.
- >Colour Systems Dimension of colour, colour combination and harmony in clothing. Test to determine colour fastness to washing, pressing, light, perspiration, crocking, gas fading.

HOME C-203 COMMUNITY HEALTH

Course code	Title of the paper	credi t	Intern al mark	Extern al mark
HOME C-203	COMMUNITY HEALTH	04	20	80

- > To learn about public health in different communities.
- > To know about the different community health problems such as respiratory infection, intestinal infection, arthropod-borne infection and sexually transmitted diseases etc.

Unit - I

- ➤ Concept of Health Meaning, definitions. Positive Health and the concept of wellbeing, Dimensions of Health such as Physical, Mental, Social, Spiritual, Emotional.
- > Determinants of Health: Biological, Behavioral, Socio cultural, environmental, socioeconomical and other factors.
- ➤ Rights to Health and responsibility for Health Individual, Community, State and International responsibility.

Unit - II

- > Indicators of Health Mortality, morbidity, disability, nutritional status, health care delivery, utilization rates, indicators of social and mental health, environmental, socio- economic health policy, quality of Life, other indicators.
- > Measurement of Morbidity, Vital Statistics Morbidity Indicators Sex Ratio.

Unit – III

- > Respiratory Infections: Measles, Influenza, Diphtheria, Whooping Cough, Tuberculosis, their symptoms, causes, prevention and treatment.
- ➤ Intestinal infections: Poliomyelitis, Viral Hepatitis, Cholera, Diarrhoea, Typhoid, Foodpoisoning, Amoebiasis, Hookworm, their symptoms, causes, prevention and treatment.
- > Arthropod-Borne Infections: Dengue, Malaria, Filariasis, their symptoms, causes, prevention and treatment.

Unit-IV

- > Surface Infection: Trachoma, Tetanus, Leprosy, their symptoms, causes, prevention and treatment.
- > Sexually Transmitted diseases: Types, symptoms, causes, prevention and treatment.
- > HIV/AIDS: Symptoms, causes, sources, prevention and treatment. Welfare programs for HIV/AIDS affecte

HOME C-204 COUNSELLING AND GUIDANCE

Course code	Title of the paper	credi t	Intern al mark	Extern al mark
HOME C203	COUNSELLING AND GUIDANCE	04	20	80

Course out comes:

- > To know about the concept of counselling and guidance
- > To learn the different types of counselling techniques and the need of counselling in different areas such as family, marriage counselling, etc.
- > To learn the guidance in educational institutions.

Unit-I

- ➤ Concept of Counselling Meaning, significances, scope, and principles of Counselling.
- > Theories of Counselling Behavioral, Psychodynamic and Family therapy.

Unit – II

- > Techniques of Counselling Directive, non-directive, eclectic, psychodrama, play therapy, behavioral therapy (relaxation training, systematic desensitization, modelling, positive reinforcement, charting, systematic generalizations of behavior).
- > Types of Counselling Individual and group Counselling, their need, settings and outcome of the Counselling.

Unit – III

- ➤ Role of different Psychometric tests in Counselling Aptitude, intelligence, personality and other socio-metric tests.
- ➤ Areas of Counselling Marriage Counselling (pre and post marital), Parental Counselling, Counselling to drug addicts.
- ➤ Family Counselling Dual earner families, child maltreatment and child abuse, adolescent depression and problems. Violence in the family. Counselling for the elderly Significance and area.

Unit – IV

➤ Guidance in Educational setting — Educational guidance, guidance needs related to education, guidance at elementary school, secondary

- school counselling level, guidance towards life goals.
- > Counselling in Educational setting Counselling the elementary school and high school children, counselling at college, and role of teachers in counselling.
- > Vocational Guidance and Counselling Theories of vocational development. Process of vocational counselling. Distinction between vocational guidance and counselling.

*HOME VAC- 206

NURSERY TEACHER TRAINING (NTT)

(NON-CREDIT)

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Course code	Title of the paper	Credit	Total mark
HOME VAC -206	NURSERY TEACHER TRAINING (NTT)	Non- credit	100

Course objectives:

- 1. To enable the students to have good health.
- 2. To motivate the students to learn how to lead stress free life.
- 3. To Practice asanas and meditation.

Course out comes:

- 1. To obtain Physical & Mental fitness.
- Inculcating creativity among the students
 Developing positive & wholesome attitude towards life.

Unit

-IBASICS OF THE PRE-SCHOOL

EDUCATION

- ➤ Meaning, Significance and Objectives of Preschool Education.
- ➤ Benefits of Child Care- Nutritional /Health Care of Preschool Children

Unit-II

TEACHING METHODOLOGY

- ➤ Meaning, Objectives, Methods of Teaching/Factors affecting Teaching for (Preschool) Children
- Contribution of Philosophers- John Dewey, Maria Montessori, Mahatma Gandhi, Sri Aurobindo.

Unit-III

NURSERY SCHOOL ORGANIZATION

- ➤ Understanding Children-Meaning, Importance and scope of Child Psychology
- Areas of Child Development-Physical, Cognitive, Social, Emotional, Language
- Role of Play for Preschool Children–Types, Values and role of Play for Preschool children.

PRACTICAL-

- Prepare a Poster on Philosophy of Mahatma Gandhi and Maria Montessori
- Prepare a Low-Cost Play Equipment for a Preschool Child
- Prepare a Poster on Celebration of any Festival in Play School
- Prepare a Four Week Health Chart for Preschool Child who is of four-week-old
- Prepare a one-day activity plan for a Preschool Child
- Plan one day activity for a preschool child.

THIRD SEMESTER

HOME C- 301 RESEARCH METHODOLOGY

Course code	Title of the paper			External
			mark	mark
HOME C-301	RESEARCH	04	20	80
	METHODOLOGY			

Course out comes:

- > Students can learn principles of research and types of research which helps them to report writing.
- > Students can develop the ability to apply the methodology on research and project works.

Unit – I

- > Research Meaning, aims, principles and types of research.
- > Methods of social science research- social survey, case study, experimental method, interdisciplinary approach and statistical methods.
- > Research design Meaning, need and features of a good design, types of research design, developing a research plan.

Unit-II

- Sampling design meaning, steps and types of sampling, Characteristics of a good sampling design.
- ➤ Data collection —Meaning and types of data collection. Collection of Primary data Observation method, interview method, questionnaires, schedule, difference between questionnaires and schedules.
- ➤ Collection of Secondary data Caution using secondary data.
- > Selection of appropriate method for data collection and research ethics

Unit-III

- > Classification of data Meaning, objectives and characteristics of an ideal classification. Types of classification – formation of discrete and continuous frequency distribution.
- ➤ Tabulation of data Meaning, significance and parts of a table. General rules of tabulation, types of tables.
- > Diagrammatical and graphical presentation of data- Significance, types and limitations of different types of diagrams and presentation of data.

Unit-IV

- >Interpretation Meaning, need, techniques and precaution in Interpretation.
- ➤ Report writing Significance, types, steps, layout and types of the research reports.
- ▶ Bibliography writing Meaning, need and types of bibliography writing.

HOME C-302 MENTAL HEALTH AND LIFE STYLE

Course code	Title of the paper	credi t	Intern al mark	Extern al mark
HOME C-302	MENTAL HEALTH AND LIFESTYLE	04	20	80

Course out comes:

- > To learn mental health and factors affecting mental health.
- > To know the common mental health problems among children, adolescents and adults

Unit – I

- > Mental Health Meaning, definitions, significance in modern day scenario.
- > Cultural and religious considerations affecting mental health of the people.
- Common Mental Health problems among Children-Attention Deficit Hyperactivity Disorder (ADHD); Adolescents (Depression, suicidal tendency); Adults (Stress related insomnia, Psychosomatic arthritis) and Elderly (Parkinson's disease).

Unit – II

- > Schizophrenia— Meaning, definitions, symptoms, causes, diagnosis, prevention and treatment.
- > Bipolar Disorder–Meaning, definitions, symptoms, causes, diagnosis, prevention and management.
- > Paranoia- Meaning, definitions, symptoms, causes, diagnosis of abnormal reasoning, abnormal perceptual experiences.

Unit – III

- ➤ Neurological Disorder Meaning, definitions, causes, classification of neurological disorders.
- Different Neurological Disorders Alzheimer's diseases, Diabetic Neuropathy,
 - Fibromyalgia Symptoms, causes, treatment and Prevention.
- > Counseling to people suffering from different Neurological disorders.

Unit - IV

- ➤ Life Style Enrichment Meaning, definitions and ways of enhancing life style.
- > Food for Mental Health Importance of balanced diet, antioxidants, water, fibers, fruits, nuts and herbs.
- ➤ Life Style Modifications Meaning, definitions, its importance for maintaining good mentalhealth. Role physical exercises, yoga and Pranayam for developing positive Mental Health.

HOME E-303 EXTENSION AND COMMUNICATION TECHNOLOGY

Course	Title of the paper	credit	Internal	External
code			mark	mark
HOME E-	EXTENSION AND	04	20	80
303	COMMUNICATION			
	TECHNOLOGY			

- > To develop Extension communication in both formal and non-formal education
- > To develop teaching and learning process through different techniques

Unit – I

- > Extension Education: Concept, formal education, non-formal education, adult education, social education, Continuing education, Functional literacy.
- > Adult Learning: Characteristics of adult learners, principles of adult learning, problems, and measures for its promotion, factors affecting adult learning.

Unit – II

- > Teaching concept, principles, maxims, communication approaches.
- ➤ Methods of Adult learning Project method, problem solving method, lecture method, group discussion method.
- ➤ Motivation Techniques Effective learning situation for adults.

Unit – III

- > Communication System: Concept, models, barriers in communication and strategies to overcome the barriers.
- > Communication Media: Print media (books, newspaper, magazines), Electronic media (radio, television, computer) and outdoor media (Exhibition, fairs, kiosks).
- > Script Writing Meaning, need, techniques and rules.
- ➤ Public Speaking Meaning, need and rules.

Unit - IV

- > Curriculum Development: Concept, functions, principles of curriculum construction, curriculum planning and its evaluation.
- > Role of teacher in Curriculum planning.
- ➤ Lesson Plan Concept, characteristics, Importance, prerequisites, types, construction of lesson plan.
- Teaching and Communication approaches which facilitates communication proce

HOME E-304 COMMUNICATION IN RURAL DEVELOPMENT

Course code	Title of the paper	credit	Internal mark	External mark
HOME E- 304	COMMUNICATION IN RURAL DEVELOPMENT	04	20	80

Course out comes:

- To gain useful information related to their problems and measure taken for the improvement to all segments of rural population
- > Students learn about the Innovation and Adoption, develop leadership qualities through different training method provided by teacher, trainer etc.

Unit - I

Rural Development:

- > Rural Sociology: Meaning, scope importance, characteristics.
- > Problems of Rural India linked with Education, agriculture, Artisans, Economic and sociological factors (population explosion, child marriage, landless labourer, conservatism, migration etc).
- > Measures taken for the improvement and welfare of rural population in India.

Unit - II

Innovation and Adoption:

- > Innovation, Diffusion and Adoption Concept, process and attributes of Innovation.
- > Meaning and elements of Diffusion.
- > Meaning of adoption, stages, and categories of adopters, characteristics and factors affecting adoption process.

Unit – III

Leadership and Administration:

- ➤ Leadership Concept, types, principles, methods of identification of leadership qualities.
- > Administration Meaning, principles, increasing efficiency in administration.

Unit - IV

Trainer and Trainee Interface:

- ➤ Role of Trainer Counsellor, facilitator, teacher, advisor, model expert.
- > Competencies of Trainer attitude, behavioral traits, Trainer-Trainee perception.
- > Training Evaluation Meaning, purpose, Significance, components, criteria, factors facilitating evaluation.

HOME E-305 EARLY CHILDHOOD CARE AND EDUCATION

Course code	Title of the paper	credi t	Intern al mark	Extern al mark
HOME E-305	EARLY CHILDHOOD CARE AND EDUCATION	04	20	80

Course out comes:

- ➤ To gain knowledge related to the importance of early childhood care and their education
- > To learn the different method and practices use to develop early childhood care andtheir education which helps in socialization process

Unit-I

- > Early Childhood Years Significance, of early childhood years; Universal needs and rights of young children; Status of children in India.
- > Care of the Young Children Importance of children's environment, concept of child rearing practices; dimensions of child rearing (feeding, weaning, toilet training, disciplinary techniques) psychological care, developing creativity among children.
- > Impact of child rearing practices on children's personality development. Factors influencing child rearing practices.

Unit-II

- > Early Childhood Education Meaning, objectives and needs of preschool education.
- > Contribution of Philosophers and Educationists towards Preschool Education John Locke, Pestalozzi, Frobel, Dewey, Rousseau, Montessori.

> Preschool Organizational Setup - building, site location, plans for various types of preschools (urban, rural and tribal areas), space allotment for indoor and outdoor play areas.

Unit-III

- ➤ Preschool Program Planning- principles and planning of curriculum for preschool. Types of planning- daily, weekly, short-term and long-term planning.
- ➤ Planning Activities for Preschools Information talk, storytelling, songs and music, dramatization, science experiences, creative activities, field trips, organizing functions and celebrations and parent-teacher meeting.
- ➤ Play & Play Equipment's for children -Values of Play; Types of Play in the Pre School; Play Materials and Equipment for Children; Low-Cost Play Equipment.

Unit – IV

- ➤ Records and Registers significance, types, using and maintaining records.
- ➤ Preschool Staff and Personnel qualification, qualities and selection of personnel.
- ➤ Home School Relationship Importance and way of developing home School relations

HOME E-306

EXPECTIONAL CHILDREN

Course code	Title of the paper	credi t	Intern al mark	Extern al mark
HOME E-306	EXPECTIONAL CHILDREN	04	20	80

- ➤ To learn about the different types of health issues related to physical and mentalhealth.
- ➤ To understand the different challenges faced by the Exceptional children.
- ➤ To aware about the programme and policies for Disabled children.

Unit-I

- > Meaning, definitions and classifications of exceptional children.
- ➤ Children with Sensory Deficits- Deaf and dumb, visually impaired definition, causes, teaching methods and rehabilitation.

Unit-II

- > Mentally Challenged Children- Definition, causes, classification, education and rehabilitation.
- ➤ Gifted Children Definition, Classification, Education methods used, Parental awareness and development competency in bringing up these children.

Unit-III

- > Socially Handicapped Children- (Juvenile delinquents) definition causes, preventive measures taken, rehabilitation.
- > Emotionally Disturbed children- Common behavioral problems of children, Psychosis (Schizophrenia and Autism in children), Neurosis (Phobia, Obsession and compulsion), Causes, symptoms, treatment and rehabilitation of each type.

Unit-IV

- ➤ Orthopedically Challenged Children Definition, causes, treatment and rehabilitation.
- ➤ Children with speech defects Aphasic child, stammering, stuttering, articulatory defects, remedial measures and speech therapy. Meaning, causes, symptoms, treatment and rehabilitation of each type.
- > Welfare programmes and policies for disabled children and adolescents in India.

HOME E-307 FOOD SERVICE MANAGEMENT

Course code	Title of the paper	credi t	Intern al mark	Extern al mark
HOME E- 307	FOOD SERVICE MANAGEM ENT	04	20	80

- > To learn the resource management in food service management.
- ➤ To get the idea how to management space, storage space, service area, selection of equipment.
- > To develop the different management process such as food, financial and personnel management.

Unit I

- > Food Service Management Types of food services; principles and functions of catering management; planning, organizing, directing, coordinating, controlling and evaluating.
- > Tools of Management The organization chart and communication.
- ➤ Management of Resources –Money, space, materials, equipment, staff, time, energy, procedures.

Unit II

- > Organization of Space Kitchen space, work simplification, designing kitchen, Layout of kitchen, maintain ace of kitchen.
- ➤ Storage Space location, types of storage, planning, layout, sanitation, safety and security of stores.
- > Service Areas Location, planning service areas, dimensions for service areas, décor of service and dining areas

Unit – III

- > Equipments for Food Services –Classification of equipment: weight or size, order of use, mode of operation.
- ➤ Selection of equipment Size and type of establishment, menu, usage, utility of design, price, ease of installation, maintenance and operation, safety, economy, ease of cleaning, attractiveness, source of supply.

Unit IV

- > Food Management Characteristics of food, food purchasing, Storage of food Menuplanning, food production, food service.
- ➤ Financial Management Definition and scope, cost control, pricing, book keeping and accounting.
 Personnel Management Recruitment, selection and induction, employee facilities and benefits, training and development

HOME E-308 CLINICAL NUTRITION AND DEICTICS

Course code	Title of the paper	credit	Internal	External
			mark	mark
HOME E-308	CLINICAL NUTRITION AND DEICTICS	04	20	80

- ➤ To learn therapeutic diets for patients suffering from different diseases.
- > To learn the role of dietitians and diet planning.

Unit I

- ➤ Diet Therapy Glycemic index, dietary supplements, Adjuncts to Diet Therapy, Food, and nutrition and drug interaction.
- ➤ Therapeutic Diet Routine hospital diet, nutrition support service, malnutrition in hospital patients, pre- and post-operative diets, immune-nutrition, nutrition support in burn patients.
- ➤ The Dietitian Classification, roles and responsibilities, code of ethics, assessment and diet planning.

Unit II

- ➤ Diet in Gastrointestinal Diseases Indigestion, Peptic ulcer, Carcinoma of the stomach, Gastric surgery, Constipation, Diarrhoea, Lactose intolerance, Irritable bowel syndrome, Intestinal gas and Flatulence.
- ➤ Diet in Cardiovascular Diseases Prevalence, clinical effects, risk factors, role of fat in development of Atherosclerosis, dietary management, hypertension, hypercholesterolemia, physical activity and heart disease.
- ➤ Diet in Diseases of Liver and Pancreas Functions of liver, agents responsible for liver damage, damaged caused by liver, infective hepatitis, cirrhosis of liver, hepatic encephalopathy, cholecystitis and cholelithiasis, pancreatitis.

Unit - III

- ➤ Diet in Diabetes Mellitus Prevalence, types, etiological classification by WHO, etiology, symptoms, diagnosis, treatment, complications, gestational diabetes, alcohol and diabetes.
- ➤ Diet in Diseases of Kidneys Functions of kidney, Glomerulo Nephritis, Nephrotic syndrome, acute renal failure, chronic renal failure, dialysis, Urolithiasis or urinary calculi.
- ➤ Dietary management in case of Febrile Diseases: Tuberculosis, Typhoid and Metabolic disorders like Gout Obesity and diabetes Mellitus.

Unit IV

- ➤ Diet in deficiency diseases of all vitamins and minerals specifically.
- ➤ Different types of Diets and their therapeutic effects Bland, High Protein, High Calorie, low fat, low sodium, low fiber, solid, liquids and other types of Diets.
- ➤ Food sensitivity Types of reactions, foods involved in sensitivity, symptoms, diagnosis, and treatment.

HSCT-300 FAMILY AND COMMUNITY HEALTH (CBCT)

Course code	Title of the paper	credi t	Intern al mark	Extern al mark
HOME E-300	FAMILY AND COMMUNITY HEALTH	04	20	80

Course out comes:

- > . To learn by the students of different depts other than home science students.
- > To learn the process and period of human development and its significance.

Unit – I

- ➤ Process and periods of Human Development–Nature and nurture interactions and its significance.
- ➤ Family Life Education Meaning, significance, subject matter and target groups for Family Life Education.
- ➤ Family Life Enrichment Meaning, need and aspects of family Life enrichment. Individual's right to have a family; Family's Rights and Responsibility with reference to its environment; scope of family life enrichment.

Unit - II

- ➤ Food Quality Assessment Causes of spoilage. Safety and Care of Food Supply Microbialhazards, Residue Pollutants, Natural toxicants in Foods, Food Poisoning.
- ➤ Food Additives Flavoring agents, coloring agents, leavening agents, stabilizers, thickeners and their usages.
- ➤ Food Laws Subjective and objective methods of measuring quality for food production.

Unit – III

- ➤ Management of Family Resources Management of energy, fatigue, energy savings methods and devices (work simplifications).
- ➤ Management of Time Meaning, principles, methods and devices used for time saving. Importance of quality time for family living.
- ➤ Management of Money Meaning, types, functions of money, types of Income and supplementary family income.

Unit - IV

- Extension Education—Concept and features of extension education: Formal education, non-formal education, adult education.
- ➤ Objectives, Characteristics and Philosophy of Extension Education.
- ➤ Principles of Extension Education and qualities of Extension worker.

HOME VAC -310 YOGA AND HEALTH

Course Code	Title of the paper	Credit	Internal	External
HOME VAC -	YOGA AND	Non		
310	HEALTH	credit		

Course Objective-

- To enable the students to have good health.

 To motivate the students to learn how to lead stress free life.
- 3. To Practice as an and meditation.

Course out comes:

- 1. To obtain Physical & Mental fitness.
- 2. Inculcating creativity among the students
- 3. Developing positive & wholesome attitude towards life.

Unit-1

- Yoga and Mediation
- Pawanmuktasana part-I and II
- Pre-meditative and Meditative postures
- Sukhasana, Padamasana, Vajrasana

Unit-2

- Standing and bending asana,
- > Forward bending asana
- > Spinal Twisting Asamas, sarbangasana, dhanurasana, Garudasana

Unit-3

> Surya namaskar with mantra and posture.

Unit-4

- ➤ Abdominal breathing and Yogic Breathing, Nadi Shodhana.
- > Praayama- Bhramari, Sheetkali, Seetari, Ujjayi pranayama, , Bhastrika, jalaneti, Kunjal.

FOURTH SEMESTER

HOME C-401

CHILD STUDY AND FAMILY RELATION

Course code	Title of the paper	credi t	Intern al mark	Extern al mark
HOME C - 401	CHILD STUDY AND FAMILY RELATION	04	20	80

- > To learn the importance of child study and their developmental process.
- > To learn the different techniques used in child study.
- To learn the changing family relationship throughout the lifecycle,

Unit – I

- ➤ Child Study Meaning, importance, scope, period and process of studying Child Development.
- ➤ Principles of Child Development and factors Influencing Child's Overall Growth and Development.
- ➤ Major Theoretical Perspectives in Understanding Child Development- Piaget's cognitive theory, Erickson's psychosocial development, Freud's psychoanalytic theory and Bronfenbrenner's Ecological theory.

Unit - II

- ➤ Techniques of Studying Children Approaches to child study (longitudinal and cross-sectional); different methods of child study (Case study, observational technique, structured tests & scales, Self-report methods, projective and other indirect methods).
- ➤ Common Psychometric Tests —Intelligent Tests (verbal and non-verbal), Aptitude test, Projective tests (TAT and CAT), Personality tests.

Unit – III

- Family Relationships—Meaning and significance of family relationship in traditional days and in contemporary societies.
- ➤ Basic Elements of Family Relations Family communication, Role performance within family, family interactions, family adaptability, family cohesion, family homeostasis, family boundaries.
- ➤ Types of Family Relationships—Couple relationship, Parent-Child Relationship (Fathering and Mothering), Sibling Relationships, Inlaw Relationships, Relationship with extended family members and Grandparents and grandchildren's Relationships.

Unit-IV

- ➤ Family Relations and Child's Development— Contribution of positive family relationship(father & mother) in healthy personality development of children and adolescents.
- ➤ Family Life Cycle Meaning, importance, stages and problems associated with it.
- Changes and Challenges of Family Relationships in Contemporary Society

 Role of Media,
 women's education and employment.

HOME C-402 NUTRITION THROUGH LIFE CYCLE

Course code	Title of the paper	credit	Internal mark	External mark
HOME C - 402	NUTRITION THROUGH LIFE CYCLE	04	20	80

Course out comes:

- > To learn the nutritional need for the different stages of life.
- > To gain knowledge about the nutritional need during different stages of life.

Unit – I

Nutrition during Infancy:

- > Changing feeding patterns, solid foods, feeding problems, nutritional issues
- ➤ Nutritional assessment, requirements.
- > Growth and development, Nutrition for low-birth-weight infant.

Unit – II

Nutrition for Children and adolescents:

- > Adolescent growth, development and changes, nutritional requirement
- > Nutritional status and diet for children and adolescent
- > Current nutrition issues, Diet for Athletes.

Unit – III

Nutrition for adult and elderly:

- > Nutritional requirement and Nutritional assessment for adult and elderly
- > Physiologic and biochemical changes during old age.
- > Dietary management and dietary counselling for adult and elderly.

Unit - IV

Nutrition during Pregnancy and Lactation:

- > Diet during pregnancy, Physiologic and biological changes in pregnancy, factors influencing outcome of pregnancy
- > Prenatal nutrition, nutrition and brain development
- > Nutritional requirement during lactation, dietary counselling

HOME C403 POPULATION STUDIES AND CONSUMER EDUCATION

Course code	• •	cred it	Internal mark	External mark
HOME C - 403	POPULATION STUDIES AND CONSUMER EDUCATION	04	20	80

- > To learn the demography, fertility, structure and need for study of population structure
- > To learn the consumer behavior, Laws protecting Consumer and Consumer Awareness programme.

Unit – I

- ➤ Demography —Meaning, demographic cycle, demographic indicators-population statistics (population size, sex ratio (sex ratio at birth and child sex ratio of 0-6 years), density, dependency ratio.), vital statistics (birth rate, death rate and growth rate).
- ➤ Fertility Meaning, factors affecting fertility among the population (age at marriage, duration of married life, spacing of children, education, economic status, caste and religion, nutrition, family planning, other factors).
- ➤ Need for study of Population Structure, characteristics of population structure (Age and Sex).
- ➤ Factors influencing sex ratio Age structure, marital status, religion, literacy and population.

Unit - II

- ➤ Population distribution—Basic concepts, measures and factors affecting population distribution.
- Family Planning—Definition, scope, health aspects of family planning (women's heath, fetal heath and child health), Contraceptive methods, Barrier methods, Intra-uterine devices. National family welfare Programs.
- ➤ Population Education Concept, need, objectives, scope of population education, causes of growth in India.

Unit – III

- ➤ Introduction to Consumer Behavior Who is a consumer? Defining consumer behavior; Nature and scope of consumer behavior; Characteristics of Indian Consumers; Consumer decision making.
- ➤ Changing Patterns of Consumer Behavior Demographic trends; Technological trends; Implications of technological trends on consumer behavior; Trends in Public Policy.
- ➤ Environmental Determinants of Consumer Behavior—Influence of Culture; Group influence onconsumption; Family Buying decisions.

Unit - IV

- Consumer Awareness and Education Consumer Rights and Welfare. Problems faced by the Indian Consumer.
- Laws protecting Consumer Consumer Protection Act, 1986;
- ➤ Role of consumer society in protecting consumer; Consumer Forum and Consumer Redressal Cell, Consumer Movement in India.

HOME E-404 EXTENSION TRAINING AND ADMINISTRATION

Course code	Title of the paper	credit	Internal mark	External mark
HOME C - 404	EXTENSION TRAINING AND ADMINISTRATION	04	20	80

Course out comes:

- > To learn training and development programme in administration.
- > To learn the Training evaluation methods by use of technology.

Unit - I

- ➤ Training and Development Nature, importance and process of training and development.
- ➤ Training Programmes Advantages and Impediments to effective training.
- > Inputs in Training and Development; Methods of Training.

Unit - II

- ➤ Trainer and Trainee Interface Role of Trainer: Emerging trainer role, skill requirements, Trainee Like Qualities (TLQ), Trainee Unlike Qualities (TUQ).
- Characteristics of a good trainer Attitude, behavioral traits, Trainer-Trainee perception.

Unit – III

- > Training Evaluation—Meaning, purpose, Significance, components, criteria, factors facilitating evaluation.
- > Training of the Trainers on development issues
- > Use of technology in training

Unit - IV

Leadership and Administration:

- ➤ Leadership Concept, types, principles, methods of identification of leadership qualities.
- ➤ Administration Meaning, principles, increasing efficiency in administration.
- > Supervision: field supervisor and laboratory supervision

HOME E-405 DISSERTATION/INTERNSHIP

Course code	DISSERTATION / INTERNSHIP (Extension education)	
HOME E-405	Credit-4	Dissertation (80 marks)
	Full mark-100	Viva (20 marks)
		equally examined by both internal and external

Course outcome: -.

- > To develop the ability to analyze the health systems in the community level.
- > To design, write and develop skill to prepare their project
- i. Field visit to NGO, Anganwadi, Community Centers etc.;
- ii. Students will have to prepare a Dissertation on any area of their choice from the specialpapers. basing on fieldwork (primary)/ secondary data

HOME E- 406 THEORIES OF CHILD DEVELOPMENT

Course code	Title of the paper	credi t	Intern al mark	Extern al mark
HOME C - 406	THEORIES OF CHILD DEVELOPMENT	04	20	80

Course out comes:

- > To learn the developmental theory developed by different theorist in humandevelopment process
- > Students gain knowledge of Cognitive Development, Psychoanalytic theory, sociallearning theory etc

Unit – I

- >Students will have to prepare a Dissertation on any area of their choice from the special papers. basing on fieldwork (primary)/ secondary data
- > Meaning, types and functions of theory. Theoretical perspectives biological, environmental, interactional, cultural context of child development.
- > Psychoanalytic theory of Freud Meaning, stages and critical analysis.
- > Erickson's theory of Psycho-social development Meaning, stages and critical analysis.

Unit – II

- ➤ Cognitive Development theory of Jean Piaget Meaning, stages and critical analysis
- ➤ Cognitive theory of Vygotsky's Meaning, stages and critical analysis.
- > Ecological theory of Human Development by Bronfenbrenner Meaning, stages and critical analysis.

Unit - III

- > Field theory of Kurt Lewin Meaning, stages and critical analysis.
- > Attachment theory of Bowlby Meaning, stages and critical analysis.
- > Language theory of Chomsky Meaning, stages and critical analysis.

Unit – IV

- > Need theory of Abraham Maslow Meaning, stages and critical analysis.
- > Social learning theory of Bandura and Skinner Meaning, stages and critical analysis.
- > Kohlberg's theory of Moral development Meaning, stages and critical analysis.

HOME E-407

DISSERTATION/ INTERNSHIP

Subject code	DISSERTATION / INTERNSHIP (Human Development)	
HOME E-407	Credit-4 Dissertation (80 marks)	
	Full mark-	Viva (20 marks)
	100	equally examined by both internal and external

Course outcome: -.

> Students visit the different health care center, understand and prepare the internship report, prepare dissertation which can boost their moral value and depth knowledge

Detailed Syllabus

- > Internship Students will be attached to a Child Care Centre (Anganwadi/Preschool/Play School) / Special School / Old Age Home / Child or Juvenile Home for one week for training.
- > Students will have to prepare a Dissertation on any area of their choice from the special papers. basing on fieldwork (primary)/ secondary data

HOME E 408 FOOD SCIENCE

Course code	Title of the paper	credi t	Intern al mark	Extern al mark
HOME C -	FOOD SCIENCE	04	20	80

- > To Learn the nutritional biochemistry
- > To learn the analysis of food quality assessment through different test

Unit - I

- ➤ Food Science Important physical phenomena influencing the reaction of living matter: i) surface tension, ii) colloidal states iii) permeability iv) Osmotic pressure v) Hydrogenation concentration.
- ➤ Carbohydrates Asymmetric carbon atoms and optical isomerism-cyclic structure of sugar and Haworth Formulation-Monosaccharide of biological importance; Disaccharides, Polysaccharides structure, analogy-Phosphoric esters of sugar compound, carbohydrates. Glycosides —peptic compounds metabolism of carbohydrates.

Unit - II

- ➤ Proteins Classifications of amino acid. Individual structure-Peptide bond evidence for peptide linkage-Architecture of Protein-Electrolytes. PH Buffers-amino acids and protein chemistry of nucleo-proteins-nucleic acid, nucleotides, vitamins, chemistry, food sources, requirements. Effect of deficiency and over vitaminosis.
- > Lipids-Forms of Lipids in nature, Phospholipids-lecithin, cephalin, sphingomyline, glycolipids, cerebrosides, glycolipids of High molecular weight, stero and bile acids-Lipo Proteins-Metabolism of Lipids.

Unit – III

- ➤ Food quality assessment causes of food spoilage, psychrophile, mesophile, Thermophiles organisms and their role in food spoilage
- Food processing-:
 - > Introduction of food processing
 - > Methods of food processing
 - Processing of some of the important food items & effect of processing on fruits and vegetables

Unit - IV

- > Food analysis and biochemistry of different types of foods of major food groups.
- > Measurement of food palatability, acceptance, food testing, objectives. Testing density, volume, tenderness, viscosity-weight, moisture etc.

HOME E-409 DISSERTATION / INTERNSHIP

Course code	DISSERTATION / INTERNSHIP (Food and Nutrition)		
HOME E-409	Credit-4 Dissertation (80 marks)		
	Full mark-	Viva (20 marks)	
	100	equally examined by both internal and external	

Course outcome: -.

- > Students visit the different health care center, understand and prepare the internship report, prepare dissertation which can boost their moral value and depth knowledge
- ➤ Internship Students will be attached to a clinic/hospital/catering center/food processing unit/hotel etc.; for two weeks for training and submit the report within 10 pages.
- ➤ Students will have to prepare a Dissertation on any area of their choice from the specialpapers. basing on fieldwork (primary)/ secondary data

HOME AC -410 CULTURAL HERITAGE OF SOUTH ODISHA

Text and Reference Book List

- Normal and Therapeutic Nutrition <u>Corinne Hogden Robinson</u>, <u>Marilyn R.</u>
 <u>Lawler</u>
- 2. Essentials of Food and Nutrition, M Swaminathan, Ganesh Publications Pvt Ltd.
- 3. Food Facts and Principles N. Shakuntala O. Manay, New Age International,
- 4. Nutrition Science B. Srilaxmi., Google Books,
- 5. Food Science B. Srilaxmi. Google Books,
- 6. Dietetics B. Srilaxmi. Google Books,

- 7. Text Book of Preventive and Social Medicine- .K.Park and J.E. Park.
- 8. Nutritive Value of Indian Foods C. Gopalan.
- 9. Home Management Educational Planning Group.
 - 10. Text Book of Household Arts Stella Soundaraj, Orient Longman
- 11. Principles of Management P.C. Tripathi and P.N.Readdy, Tata McGraw Hill.
- 12. Management in Family Living Nickell Dorsey. Abe Books.
- 13. <u>Principles and Practice Of Management, V.S.P. Rao</u> and <u>P.S. Narayana</u>, Published by <u>Konark Publishers Pvt Ltd</u>
- 14. Human Development Diane E. Papalia. Mc Graw Hill Publication.
- 15. Developmental Psychology E.B Hurlock, Google Books
- 16. Text Book on Child Development and Family Studies A.Chowdhury, Academic Excellence, New Delhi.
- 17. Child Development Thomas J. Berndt ,Brown & Benchmark Publishers, 1997
- 18. Life-Span Development John W. Santrock McGraw Hill Publication.
- 19. Human Development Across the Span –, J.S.Dacey and J.F. Travers. Brown & Benchmark.
- 20. Child and Adolescent Development Anita Woolfolk and Nancy E. Perry.
- 21. The Development of Children Michael Cole and Sheila R.
 - Cole- Scientific American Books.
- 22. Child Rearing Practices in India: H. Samantaraya ,Sara Publications, New Delhi
- 23. Pre-School Children Development, Care and Education A. Chowdhury, New AgeInternational Ltd.
- 24. Exceptional Children: Their psychology and Education Chintamani Kar. Sterling Publishers PVT Ltd.

- 25. Developmental Psychology Howard Gardner, Harvard University Press
- 26. Children with Exceptional Needs-Lilly Stephen. HottaRinchar.
- 27. Abnormal psychology Sharnmugam, Tata, McGraw Hill.
- 28. Exceptional Children Udya Shankar. Sterling Publishers.
- 29. Exceptional Children William L. Heward and Michael D. Orlansky, MacMillan,
- 30. Education of Exceptional Children M. Dash, Atlantic Publishers & Distributors.
- 31. Counseling and Guidance S. Narayan Rao. McGraw Hill.
- 32. Guidance and Career Counseling A.K. Nayak and V.R. Rao. Watermark Theme, poweredby Blogger
- 33. Introduction to Counseling and Guidance Robert L. Gibson and MarinneH.Mitchell.Prentice- Hall of India.
- 34. Education, Communications for Development O.P. Dhama and O.P. Bhatnagar, Oxford & IBH Publications.
- 35. Extension Education in Community Development Directorate of Extension, Government of India.
- 36. Extension, Communication and Management G.L. Ray.Kalyani Publisher New Delhi.
- 37. Extension Education A.A.Reddy, Srilaxmi Press, Delhi
- 38. An Introduction to Extension Education S.V.Supe. Oxford & IBH Pub.
- 39. Process of Communication- B.K. Berlo.
- 40. Community Organist ion: Theory and Principles- M.G.Ross.
- 41. State and society in India A.R Desai, Popular Prakasahan Bombay
- 42. Fundamentals of Teaching Home Science- Candra and Shaha.
- 43. Text Book of Mass Communication and Media Uma Joshi.
- 44. Extension Programme Planning A.S. Sandhu. Oxford & IBH.

- 45. Human Development Across the Span –, J.S.Dacey and J.F. Travers. Brown & Benchmark.
- 46. Child and Adolescent Development <u>Anita Woolfolk</u> and <u>Nancy E. Perry</u>.
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- 73. Evaluation, Management in Training and Development Virmani and Seth
- 74. Communication for Social Change: Context, Social Movements, <u>Pradip Ninan Thomas</u>, Sage Publications Pvt Ltd.
- 75. Social Problems and Social Disorganization C.B.Memoria,https://www.sociologylearners.com/social-disorganization
- 76. Practical counseling and helping skills Nelson-jones, R., Sage Publications.
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 Seetharaman,https://www.amazon.com/IntroductionFamily-Resource-Management-2015/dp...
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- 82. Home Management: Plain and Simple, Paperback Kim Brenneman, Amazon
- 83. 100 Days of Blessing Volume 1: Devotions for Wives and Mothers 2nd Edition, by NancyCampbell, Amazon
- 84. MLA Handbook for writers of Research papers -Gibaldi Joseph, Affiliated East-West Press, New Delhi
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