



INSTITUTE OF HOME SCIENCE

THE UNIVERSITY OF KASHMIR

Hazratbal- 190006

CHOICE BASED CREDIT SYSTEM SYLLABUS OF M.SC HOME SCIENCE - SESSION 2018, 19, 20

M.Sc SPECIALIZATIONS:

Course Code

- | | |
|------------------------------------|--------|
| ➤ FOOD SCIENCE AND NUTRITION | F.SC.N |
| ➤ DIETETICS AND CLINICAL NUTRITION | D.CLN |
| ➤ EXTENSION AND COMMUNICATION | E.C |
| ➤ HUMAN DEVELOPMENT | H.D |

Semester I

S.No.	Title of the Course/ Course No.	Specialization	Hours/Week			Marks	Credits
			L	T	P		
1	Applied Physiology HSC18101CR	Both Food Science & Nutrition / Dietetics & Clinical Nutrition	4	0	0	100	4+0+0=4
2	Nutritional Biochemistry HSC18102CR		4	0	0	100	4+0+0=4
3	Lab Techniques in Physiology & Nutritional Biochemistry (Lab Course) HSC18103CR		0	0	8	100	0+0+4=4
4	Communication Techniques HSC18104CR	Extension & Communication	4	0	0	100	4+0+0=4
5	Methods for Community Participation HSC18105CR		4	0	0	100	4+0+0=4
6	Communication Techniques & Methods for Community Participation (Lab Course) HSC18106CR		0	0	8	100	0+0+4=4
7	Methods of Studying Human Development HSC18107CR	Human Development	4	0	0	100	4+0+0=4
8	Early Childhood Care & Education HSC18108CR		4	0	0	100	4+0+0=4
9	Methods of Studying Human Development & Early Childhood Care & Education (Lab Course) HSC18109CR		0	0	8	100	0+0+4=4

10	Food Microbiology HSC18110DCE	Food Science & Nutrition/Dietetics & Clinical Nutrition	4	0	0	100	4+0+0=4
11	Community Health Management HSC18111DCE	Extension & Communication	4	0	0	100	0+0+8=4
12	History & Theories of Human Development HSC18112DCE	Human Development	4	0	0	100	4+0+0=4
13	Indian Socio-Economic Environment HSC18113DCE	Extension & Communication	4	0	0	100	4+0+0=4
14	Study of family in Society HSC18114DCE	Human Development	4	0	0	100	4+0+0=4
15	Nutritional Disorders & Diseases HSC18001GE	Dietetics & Clinical Nutrition	2	0	0	50	2+0+0=2
16	Gender Equity and Society HSC18001OE	Extension & Communication	2	0	0	50	2+0+0=2

APPLIED PHYSIOLOGY

Code: HSC18101CR

Core

Credits: L 4

Periods/week: 4 Hours

M.M: 100

Objectives:

1. To enable students to understand the integrated function of all systems and the grounding of nutritional Science in physiology.
2. To know about the different systems of the body and their functions
3. To understand the alterations of structure and functions in various organs and systems of the body in disease conditions.

Contents:

Unit I

The Living Cell:

- Cell structure, Structure and function of Cell Organelles.
- Types of Tissues, Characteristics and functioning of tissues.

Blood and other Body fluids:

- Intracellular and extra cellular fluids, blood composition, blood volume and factors affecting it, hemoglobin, plasma protein.
- Coagulation of blood, blood groups, Hemolytic disease of the newborn, blood transfusion.

Cardio - Vascular System:

- Working of heart, structure and function of heart, heart beat, control of heart rate.
- Blood pressure - factors affecting it.
- Hypertension and its causes.

Unit - II

Digestive System:

- Structure and functions of digestive organs, alimentary canal and its associated glands. Composition and function of different digestive juices.
- Digestion and mechanism of absorption of carbohydrates, proteins and fats.

Respiratory System

- Organs - their structure and functions.
- Composition of inspired, expired air and alveolar air, factors affecting breathing.

Excretory System

- Urinary System - organs involved, their structure and function. Mechanism of urine formation and role of kidneys in water and electrolyte balance.
- Skin - its structure and function.

Unit - III

Reproduction and Development

- Structure of male and female reproductive organs
- Spermatogenesis and Oogenesis, Menstrual cycle, ovulation, pregnancy and parturition, stages of labor.
- Mammary glands and physiology of lactation, effect of hormones on reproductive system.

Muscles and Skeletal System

- Kinds of muscles-voluntary and involuntary muscles. Physiology of muscles contraction.
- General introduction to skeletal system

Unit IV

Nervous System

- Structure and function of different parts of brain.
- Reflex action and its types.
- Autonomic nervous system.

Endocrine Glands

- Thyroid, para-thyroid, adrenal cortex, adrenal medulla, pancreas, pituitary and gonads – Structure and functions. Hormones secreted, their functions and associated abnormalities.

Immunity:

- Natural immunity, acquired immunity.
- Reticulo-endothelial system.
- Phagocytosis and its phases.

References:

1. C.C. Chatterji, Human Physiology
2. Gytin, Text book of Human Physiology.
3. Human Anatomy & Physiology by William. P. Davis
4. Anatomy & Physiology by Seeley Stephens. Tate.
5. Guyton, A. C. and Hall, J. B. (1996) Text book of Medical Physiology, 9th Edition, W. B. Sanders Company, Prism Books (Pvt.) Ltd. Bangalore.
6. Wilison, K. J. W. and Waugh, A. (1996) Ross and Wilson Anatomy and Physiology in Health and illness, 8th Edition, Churchill Livingstone.
7. McArdle, W. D., Katch F. I. And Katch, V. L. (1996): Exercise Physiology. Energy, Nutrition and human performance Recent Edition William and Wilkins, Baltimore.
8. Jain A. K. Text Book of Physiology Vol. I & II Avichal Publishing Company, New Delhi..
9. Tortora G.J. & Grabowshi SR. Principles of Anatomy & Physiology, 8th edition, 1996, Harper Collis Publishers.

NUTRITIONAL BIOCHEMISTRY

Code: HSC18102CR

Core

Credits: L 4

Periods/week: 4 Hours

M.M: 100

Objectives:

1. To make the students aware of the importance and relevance of Bio-chemistry and Nutrition.
2. To enable the students to understand the basic concepts, structure and function of various nutrients.

Contents:

Unit-I

- **Carbohydrates:** Properties of monosaccharides, optical isomerism, mutarotation, biologically important derivatives of monosaccharides (glycosides, sugar alcohols, sugar acids, sugar phosphates, deoxy sugars, amino sugars), disaccharides (lactose, maltose, sucrose) structures and functions of polysaccharides, (starch, glycogen, pectin, cellulose), mucopolysaccharides (hyaluronic acid, heparin, chondroitin sulphate). Flatulence factors.
- **Metabolism:** Glycolysis and TCA cycle, gluconeogenesis, glycogenolysis, hereditary disorders of carbohydrate metabolism

Unit-II

- **Lipids:** Triglycerides, fatty acids - nomenclature and their properties, phospholipids, lecithin, cephalin, sphingomyelins, glycolipids, lipoproteins (composition and transport) steroids (cholesterol and bile acids) prostaglandins.

- **Metabolism:** Oxidation of fatty acids and ketone bodies. Genetic disorders of lipid metabolism (Gauchers disease, Niemannpick disease, Taysachs disease)

Unit-III

- **Proteins:** Peptides and proteins. Determination of amino acids, composition of proteins (N & C terminals) orders of protein structure, factors responsible for protein structure, structure of collagen, denaturation, precipitation of proteins, isolation and purification of proteins.
- **Metabolism:** Oxidative degradation of amino acids. Urea cycle. Inborn errors of metabolism.

Unit IV

- **Enzymes:** Classification and nomenclature, distribution of enzymes, enzyme specificity, enzyme activity, measurement of enzyme activity, factors influencing enzyme action, Mechaelis menton equation, Line-weaver burkplot, enzyme inhibition, co-enzyme and prosthetic groups, structure and biochemical role of co-enzyme.
- **Nucleic Acid:** Bases, nucleosides, nucleotides, structure and function of RNA, DNA, Replication, Transcription and translation of genetic information, nucleoproteins (Prostomines, histones) Uric acid metabolism and Gout. Detoxification and its mechanism.

References:

1. Murray, R. K., Grannar, D. K., Mayes, P. A. and Rodwell, V. W., (2000): 25th Ed. Harpers Bio-chemistry. Macmillan Worth Publishers.
2. Nelson, D. L. and Cox, M. M. (2000): 3rd Edition Lehningers Principles of Biochemistry, Macmillan Worth Publishers.
3. Devlin, T. M. (1997): 4th Edition Textbook of Biochemistry with Clinical Correlation, Wiley Liss Inc.
4. Stryer, L. (1998): 4th Ed. Biochemistry, W. H. Freeman and Co.
5. Raghuramula, N.: Madhavan Nair and K. Kalyanasundaram, S. A Manual of Laboratory Techniques N1N. 1CMR.

LAB TECHNIQUES IN PHYSIOLOGY AND NUTRITIONAL BIOCHEMISTRY

(Lab Course)

Code: HSC18103CR

Core

Credits: P 4

Periods/week: 8 Hours

M.M: 100

1. Qualitative detection of Monosaccharides, Disaccharides, Polysaccharides.
2. Qualitative Detection of Protein, Amino-acids.
3. Qualitative test for Fats, Cholesterol.
4. Qualitative test for Calcium, Phosphorus, Sodium Chloride.
5. Determination of Saponification value of lipids, Acid number of fats, Iodine number of fats.
6. Quantitative estimation of sugar by titrametric method.
7. Use of pH meter and determination of pH value of dilute and strong acids and bases. Fruits and vegetable extracts.
8. Estimation of glucose in blood.
9. Estimation of total proteins in blood.
10. Estimation of calcium & phosphorus in blood.
11. Estimation of bilirubin & cholesterol in serum.
12. Estimation of creatinine & Vitamin C in urine.
13. Estimation of blood urea.
14. Microscopic examination of slides of various tissues.
15. Estimation of hemoglobin (Sahlis method)
16. Total blood count, differential count, determination of various blood group
17. Examination of urine for various normal and abnormal constituents

COMMUNICATION TECHNIQUES

Code: HSC18104CR

Core

Credits: L 4

Periods/Week: 4 Hours

M.M: 100

Objectives:

1. To understand the meaning, scope & importance of communication in extension work.
2. To understand the various Audio Visual Aids & their use.
3. To know the various communication & extension approaches.

Contents:

Unit I: Communication

- Definition & Importance of communication in extension work, communication models, functions of communication, communication relationship, main problems in communication. Introduction to modern means of communication.

Unit II: Audio Visual Aids

- Definition, classification, cone of experience, advantages and disadvantages.
- Choice of visual aids planning. The use of visual aids, selecting theme for visual layout and design. Three-dimensional effects in visual aids. Evaluation of visual aids.

Unit III: Communication and Extension Approaches

- Individual approach – Personal visits, personal letters.
- Group approach - Demonstration, Group Discussion, , symposium, campaigns

Unit IV: Mass Media Approaches of Communication.

- Motion Pictures, Radio, Television
- Charts, Posters, Flash Cards.
- Puppetry, folk songs, Story telling

References:

1. K. Sampath, A. Pannirselvam, S. Santhanan, Introduction to Education Technology.
2. O. P. Dhama Education and Communication for Development.
3. Gerald A. Yoakan, Robert G. Simpson, Modern Methods and Techniques of Teaching.
4. R. E. de Kieffer Lee W. Cochran Audio Visual Techniques (Manual).
Rather, A. R. (2003) Instructional Technology. Gulshan Publi

METHODS FOR COMMUNITY PARTICIPATION

Code: HSC18105CR

Credits: L 4

Core

Periods/Week: 4 Hours

M.M: 100

Objectives:-

1. To understand meaning and principles of PRA.
2. To acquaint the students with different PRA methods.
3. To understand advantages and obstacles involved in peoples participation.

Contents:

Unit I: Conceptual Specification

- Concept and Principles
- Origin and Sources of PRA.
- Salient features of PRA.
- Peoples participation advantages
- Obstacles to people's participation
- PRA methods.
- Applications of PRA.
- Concerns about PRA.

Unit II: Space Related PRA Methods

- Social map.
- Resources map.
- Participatory modeling method.
- Mobility map

- Services and opportunities map.
- Transect
- Participatory census methods.

Unit III: Time Related PRA- Methods

- Daily activity schedule.
- Time line
- Seasonal diagram.
- Trend analysis
- Historical transect
- Participatory genealogy method.
- Dream map.

Unit IV: PRA Relation Methods

- Cause effect diagram.
- Systems diagram.
- Network diagram
- Venn Diagram
- Pie Diagram
- Spider Diagram.
- Body Mapping
- Well being Ranking Method
- Pair wise Raking Method.
- Matrix Ranking/ Scoring method.

References:

1. Somesh Kumar., Methods for Community participation. A Complete Guide for Practitioners.
2. Chandramouli., K (1991) "Pass on the Pen Approach. Identifying the poorest of the poor families; PRA notes 14: December, PP 29-32 IIED, London.
3. Cornwall, A. (1992) "Body Mapping in Health PRA/ PRA' PRA notes 16 July PP 69-76 IIED, London.
4. Kumar Somesh ed., (1996) ABC of PRA - Attitude and Behaviour changes, A report of the Proceeding of South - East Workshop on Attitudes and Behaviour in PRA. Action Aid India and PRAXIS, Patna.
5. Dr. A. Adivi Reddy, 7th Edition 2001, Extension Education.
6. G. L. Ray, 2nd revised and enlarged edition 1996, first published 1991.

COMMUNICATION TECHNIQUES & METHODS FOR COMMUNITY
PARTICIPATION (Lab Course)

Code: HSC18106CR

Credits: P 4

Core

Periods/Week: 8 Hours

M.M: 100

Contents:

1. Prepare an almanac (a year book) of facts. It should contain common concerns, issues, events and statistics.
2. Prepare leaflets and folders with Home Science messages.
3. Design and build a flannel board for your own instructional use. Select and complete the project by selecting, a number of pictures that you can use in teaching.
4. Prepare and indicate any type of information you could present by a chart related to women/
children.
5. Make a poster using appropriate size, colour and lettering .To educate the group on any one social problem.
6. Make a series of flash cards to educate rural population on any one problem related to health/ hygiene/nutrition.
7. Plan and demonstrate a role play on any relevant problem related to a group at village level.
8. Space related PRA Methods
 - Social map
 - Resources map.
 - Mobility map.
 - Services and Opportunities Map

9. Time related PRA -methods.

- Time line
- Daily activity schedule
- Dream map
- Trend analysis

10. PRA relation methods.

- Venn Diagram
- Pair wise ranking method.
- Pie diagram
- Spider diagram

METHODS OF STUDYING HUMAN DEVELOPMENT

Code: HSC18107CR

Core

Credits: L 4

Periods/week: 4 Hours

M.M: 100

Objectives:

1. To study the different methods & techniques of understanding human development.
2. To apply the various methods studied in a practical text.

Contents:

Unit I: Studying Human Development

- Importance, Trends and challenges in studying Human Development
- Ethics in life span research.
- Objective, Subjective and Projective techniques
- Inventory, Scale, Test.

Unit II: Observation & Interview Methods

- Observation- Types, Steps, Techniques, Advantages, Disadvantages, Validity & Reliability.
- Interview- Types, Steps, Advantages, Disadvantages, Validity & Reliability.

Unit III: Questionnaire & Case study methods

- Questionnaire- Types, Steps, Advantages, Disadvantages, Validity & Reliability.
- Case study- types, steps, advantages, disadvantages, validity & reliability.

Unit IV: Socio-metric & Psychometric Methods

- Socio metric questionnaire, Guess who Technique, Social Distance scale
- Psychometry- Scales of infant assessment
- Wechsler battery of tests
- Raven's progressive Matrices.

References:

1. Kerlinger. N, F, (1964) Foundations of Behavioural Research. New Delhi: Surjee Publications.
2. Freeman, F.S., (1965) Theory and Practice of Psychological testing. 3rd Ed. Oxford & I.B.H. Publishing Co.
3. Anastasi A., (1982) Psychological Testing 5th Ed. New York, Macmillian Publishing Company.
4. Sharma, B.A.V; Prasad D.R & Satyanayaran P., (1985) Research Methods in social Sciences, New Delhi, Sterling Publications.
5. Blaxter, L. Hughes, C. & Tight, M.(1990) How to research. New Delhi: Uwa Book.
6. John W. B, & James U. Kahn (1993) Research in Education. New Delhi: Prentice hall of India Pvt. Ltd.
7. Alward, G. (1994) Practitioners guide to Developmental & psychological testing. New York: Plenum Press.
8. V.V. Khanzode (1995) Research Methodology techniques & trends. New Delhi: APH Publishing Corporation.
9. Kothari, C. R. (2000) Research Methodology Methods & techniques. New Delhi: Vishwa Prakashan.
10. Rajamanickam, M., (2004). Experimental Psychology -With Advanced Experiments. New Delhi: Concept Publishing Company.
11. Rather, A. R Measurement & Evaluation. Srinagar: Gulshan Publishing.

EARLY CHILDHOOD CARE AND EDUCATION

Code: HSC18108CR

Core

Credits: L 4

Periods/week: 4 Hours

M.M: 100

Objectives:

1. To gain knowledge and insight regarding principles of early childhood care and education.
2. To develop the skills and techniques to plan activities in ECCE centres of different types.
3. To conduct activities in early childhood care and education and to work effectively with parents and community.

Contents:

Unit-I - Principles of early childhood care and education.

- Importance, need, scope and objectives of ECCE
- Contribution of thinkers to the development of ECCE-Froebel, Maria, Montessori, M.K. Gandhi, Rabindra Nath Tagore.
- Concept of formal, non-formal and play way methods.
- Types of preschool programme- play centres, day care centres, Mobile Crèche. Montessori schools, Kindergarten, Anganwadi, Balwadi.

Unit-II - Historical trends and ECCE in India:

- ECCE in pre-independence and post independence eras.
- Kothari Commission, Contribution of Five years plans, Yashpal committee.

- Contribution of agencies to ECCE in India- ICDS-UNICEF, NCERT,
- Latest trends in ECCE.

Unit-III - Organization and Programme Planning of Pre-school centres.

- Organization, Administration of Early childhood centres. Building and equipment-location and site, arrangement of rooms, play space, selection of different types of outdoor and indoor equipment.
- Planning- Setting goals and objectives, Long term, Short term daily routines.
- Records & Report - Types (Anecdotal, Cumulative and medical)
- Aims and need

Unit-IV - Activities for ECCE:

- Language- Goals, types and activities (songs, pictures talks games, riddles, jokes, stories)
- Music- Objectives, goals & aspects of music (Composing, listening and singing)
- Mathematics - Goals, developmental concepts at different stages and principles of teaching maths.
- Science & social Studies- Thinking, observing, classifying, communicating, concept formation.

References:

1. Jenkkins, E. (1977) A practical Guide to early childhood curriculum, C.V Mostey Co.
2. Kaul, V. (1977) Early childhood education programme, New Delhi NCERT
3. Kohn, V. (1977) The exploring child Mumbai Orient Longman.
4. Maximum 9 (1980) The very young California Wordsworth.
5. Read Katherine(1980) The nursery school halt Rineherst and Winston.
6. Hildbe and Verma (1981) Introduction to Early Childhood Education, Macmillian Publication.
7. Day Barbara (1983) Early childhood education New York Macmillan Publication.
8. Grewal, J.S (1984) Early childhood education, Agra National Psychological corporation.
9. Kulbaemis (1988) Parent education perspectives and approaches, Jaipur, Ravat Publications.
10. Murelidharam, R. (1991) Guide to Nursery school teachers: New Delhi NCERT
11. Bhatia and Bhatia (1995).Theory and principles of education. New Delhi Waaba House.
12. Khurshid-ul-Islam S; & Rao V (1997). Early Childhood Care & Education. New Delhi. Commonwealth Publishers.
13. Mohanty, J; & Mohanty, B. (2007) Early Childhood Care & Education. New Delhi. Deep & Deep Publication.
14. Brewee J.A (1998) Introduction to early childhood education 3rd ed. Boston Allyn and Bacon.

**Methods of Studying Human Development & Early Childhood Care &
Education (Lab Course)**

Code: HSC18109CR

Core

Credits: P 4

Periods/week: 8 Hours

M.M: 100

Intelligence Test:

1. Administration of Ravens Progressive Matrices on young adults
2. WPPSI- (Revised) to be administered on pre- school children

Projective Techniques:

Administration of

1. T.A.T
2. C.A.T
3. Rorcharch ink blot test
4. Personality inventories.
 - Maudsly Personality Inventory (MPI) (Eysenck)
 - 16 personality factor questionnaire (Cattel)
5. Socio metric test.
6. Case Study/ Questionnaire/ Interview/ Observation protocols.
7. MMPI(Minnosta MultiPhasic Personality Inventory)

Visit to Various Centres of ECCE.

1. Preschools, day care centre & Anganwadi centers- preparation of observation reports.
2. Placement in any one of the above centre for a week and submission of a report.

Planning, preparing and administering teaching kits on Pre-school children:

- Mock set up.
- Story telling, puppets and mobiles:
- Song booklet and low cost musical instruments, readiness games and material.
- Art and craft portfolios.
- Picture talk and object talk related material.
- Role play.

Planning of parent teacher meet.

1. Simulation of meet/event/function.
2. Planning program.

FOOD MICROBIOLOGY

Code: HSC18110DCE

Discipline Centric Elective

Credits: L 4

Periods/week: 4 Hours

M.M: 100

Objectives:

To enable the students to:

1. Learn about the Micro-organism causing spoilage of food.
2. Study methods for controlling & spoilage of micro-organisms.

Contents:

Unit I:

- **Micro-organisms Associated with Food (Bacteria, mould, yeast):-** Types, characteristics and occurrence. Mechanism of food spoilage by these micro-organisms
- **Sources of Micro- organisms:-** Soil, Water, Air, Sources of contaminants in animal and plant food.
- **Effect of Environmental Factors on Growth of Micro-Organism: -** Growth curve. Nutrients, Moisture, PH, Oxidation reduction potential, Temperature and gaseous atmosphere, Inhibitory substance in animal and plant products, Microbial interactions.

Unit II:

- **Microbial Intoxication and Infections:-** Food borne illness - Bacterial and fungal, outline of etiological agents, symptoms, foods involved and control. Food borne illness caused by staphylococci, salmonellae, E. Coli, Clostridium Botulinum, aflatoxin and its biological effects and control.

- **Useful micro-organism** - Lactic acid bacteria and yeast. Probiotics and their beneficial effects, Prebiotics

Unit III:

- **Estimating the number of Microbes:-** Sampling, Direct Microscopic Count, Pour plate count, Surface Plate Count, Membrane Filters, MPN, Methylene Blue Reduction test, Tetrazolium Test, Physical test, Introduction to Advanced techniques- ELISA and Immunofluorescence.
- **Spoilage of food:** - Food Spoilage in fruits, vegetables, cereals, poultry, egg, seafood, dairy products fats and oils and canned foods.
- **Microbiology of Water:-** Water borne Pathogenic Microbes, Sanitary test for Coliform - Presumptive, Confirmed and Completed test, Purification of Water.

Unit IV:

- **Control of Micro-Organisms:** - By asepsis (air, water, equipments use of sanitizing agents, personnel), By removal (washing, centrifugation and filtration), By retarding growth - low temperature storage (Refrigeration, freezing. By drying (Hot air, spray, vacuum, freeze and micro-wave). Controlled atmospheric storage, Use of Chemical Preservatives.

References:

1. Pelezar, M. 1. and Reid, R. D. (1993): Microbiology McGraw Hill Book Company, New York, 5th Edition.
2. Atlas, M. Ronald (1995) Principles of Microbiology latest Edition, Mosby - Year Book, Inc, Missouri, U. S.A.
3. Frazier, W.C. (1998): Food Microbiology Me Graw Hill Inc. 4th Edition.
4. Jay, Janes, M. (2000) Modern Food Microbiology 6th Ed., Aspen Publishers Inc. Maryland.
5. Banwat J. George (1998): Basiv Food Microbiology 2nd Ed., CBS Publishers and Distributors.

COMMUNITY HEALTH MANAGEMENT

Code: HSC18111DCE

Discipline Centric Elective

Credits: L 4

Periods/Week: 4 hrs

Marks: 100

Objectives:

1. To understand the concept of health and health indices popularly used.
2. To realize the health problems of the community and their scientific intervention.
3. To know the supportive services and programmes for community health management.
4. To get sensitized to management information systems in health.

Contents:

Unit I: Concept of Health and Health Care.

Health

- Concept of health, community health, reproductive health and global health, factors affecting health, health as a human right, health for all. Primary health care – Definitions, principles and components.
- Health and related indices in community health, fertility indicators, vital statistics, mortality, morbidity indicators, demographic indicators, -- sex ratio, female foeticide indicators for social and mental health.

Unit II: Community Health Needs and Problems.

- Health needs and problems related to sanitation and environment, protected water, personal hygiene and pollution control.
- Ecology and environment, global warming - causes, effects and prevention, natural and manmade disaster management.
- Health needs and problems of special groups - women, infants, children, adolescents, elderly, urban and rural poor.

Unit III: Health Care Services.

- Health administrative set up, peripheral, state, national, urban, rural, role of NGO's.
- National Health Programme.
- Child survival and safe motherhood
- Reproductive and child health programme.
- National and International agencies.

Unit IV: Management Information System in Health.

- Basic epidemiology, surveillance, health screening.
- Health regulations and acts, International health regulations.
- Census, sample registration system, national family health surveys.
- Major health problems in India.

References:

1. Dutt, P. R. (1993)., Primary Health Care. Vol. 1-3 Gandhigram Institute of Rural Health and Family Welfare Trust, Ambathurai.
2. Menelkar, R. K. (1997): A Textbook of Community Health for Nurses, Vora Medical Publication; Mumbai.
3. Park, K. (2000): Essentials of Community Health Nursing. M/S Banarsidas Bhanot; Jabalpur.
4. Park, K. (2000): Textbook of Preventive and Social Medicine. M/S Banarsidas Bhanot; Jabalpur.

HISTORY AND THEORIES OF HUMAN DEVELOPMENT

Discipline Centric Elective

Code: HSC18112DCE

Credits: L 4

Periods/week: 4 Hours

M.M: 100

Objectives:

1. To acquaint the students with the history of Human Development
2. To enable the students to understand the theories of human development and behavior.

Contents:

Unit I:

- Concept of a theory.
- Early Philosophies: Preformationism, Locke, Rousseau.
- Darwin, Lorenze, Tinbergen and Bowlby,
- Freudian theory, Alfred Adler and Erik Erikson- Further Applications & Evaluation.

UNIT II:

- Piaget's theory. Further Applications & Evaluation.
- Vygotsky's theory - Further Applications & Evaluation.
- Bronfenbrenner's Ecological Systems theory. Further Applications & Evaluation.
- Maslow's Self Actualization Theory- Further Applications & Evaluation.

UNIT: III

- Theories of Self - Contribution of Mead & Cooley to the development of self.
- Theories of Learning- Watson, Pavlov and Skinner.
- Theories of Social Learning- Bandura- Evaluation of the Theory

UNIT: IV

- Theories of Emotional Development- James-Lange, Cannon- Bard.
- Theories of Language Development-: Behaviorism, Nativism, Interactionism.
- Theories of Moral Development-Piaget, Kohlberg.

References:

1. Robert B. Ewen (1998). An Introduction to theories of Personality. 5th Ed. Lawrence Erlbaum Associates, Publishers Mahwah, New Jersey London.
2. Herner, Richard M. Concept & Theories of Human Development.
3. Crain, W.(1992) Theories of Development, Concepts and Applications. New Jersey: Prentice Hall.
4. Roland, A. (1996). Cultural pluralism and Psychoanalysis. New York: Routledge.
5. Vasta, R. (Ed). (1992). Six Theories of Child Development: Revised Formulations And Current Issues. London : Sessica Kingsley Publishers Limited.
6. Berk, L.E. (2001) Child Development- Third Edition. New Delhi: Prentice Hall of India.
7. Papalia, D.E., Old, & Feldman, R.D. (2010). Human Development (10th) New Delhi: Tata McGraw - Hill Publishing Company Limited.

INDIAN SOCIO ECONOMIC ENVIRONMENT

Code: HSC17113DCE

Credits: L 4

Discipline Centric Elective

Periods/Week: 4 Hours

M.M: 100

Objectives:

1. To understand the socio economic structure, organization and problems of rural, urban and tribal.
2. To know about policies of development and their impact.
3. To be aware of policies of liberalization and globalization and their impact.

Contents:

Unit I: Indian Economy

- Structure and organization of rural, urban and tribal areas.
- Land ownership, occupational hierarchy ,dependence on agriculture
- Caste, class and institutions
- Roles, status and development of women
- Poverty, inequality, unemployment, stagnation
- Impact of industrialization on urban life, socio economic aspects of metropolitan life
- Historical overview of tribal welfare.

Unit II: Socio Economic Changes since Independence

- Economic planning and achievements
- Growth Vs Development, development index, PWLI, HDI,CPI, etc
- Rural development- concepts, objectives, importance and historical overview
- Special programmes for poor, women and children
- Employment policy – Cottage and small industries

- Land reforms – future programmes
- Tribal development strategies and policies
- New economic policy and its impact.

Unit III: Industry and Agriculture

- Industrial development and diversification
- New Industrial policies in India
- Agriculture price and credit policy.
- New economic policy and agriculture.

Unit IV: Co-Operatives

- Philosophy, objectives, types and progress. Co-operative movement retrospect and prospect in India.
- Causes of failure of village co-operatives
- Co-operative principles, characteristics of co-operative Enterprise (with special reference to women)
- The progress problems and remedies suggested.

References :

1. Ahuwalia, M.S. (2000) : India's Economic Reforms and Development, Oxford University Press.
2. Bhattacharya, B. Urban Development in India. Shree Publishing House Delhi.
3. Bose, Ashish: India's Urbanization. Institute of Economic Growth, Delhi University.
4. Bulsara, J.F. Patterns of social life in Metropolitan Areas.
5. Das Ram: Socio- - Economic Transformation of millions through Rural Development; 21st century publishers, Meerut.
6. Dreze, J. and Sen A.K. (1995). India Economic Development and Social opportunity, Oxford University Press.
7. Gulat A: India Agriculture and open Economy

8. Hussain, N. Tribal India Today, Harman Publishing House.
9. Krishan, K. L.: Industrial Growth and Diversification
10. M.B. Nanvati and Anjana J.J. Indian rural Policies
11. Sen. A.K. : Growth Economics
12. Singh, A.K.: Tribal development in India Amber Prakshan, Delhi.
13. Mathur, B. L. (2000) Rural Development and Co-operation. Deepak Parnami RBSA Publishing S.M.S highway Jaipur.
14. Desai Vasant (1988): Rural Development. Himalya Publishing House, Bombay.

Journals:

1. Economic and Political Weekly
2. Journals of rural development
3. Kurushita, publication of development, Govt. of India, New Delhi.
4. Social Change (Council of Social Development, New Delhi)
5. Vohra publication of development, govt. of India, New Delhi.
6. Annual Economic Survey, J&K
7. Diets and Statistics

STUDY OF FAMILY IN SOCIETY

Code: HSC18114DCE

Discipline Centric Elective

Credits: L 4

Periods/week: 4 Hours

M.M: 100

Objectives:

1. To understand family as a component of socio cultural milieu and context.
2. To realize and appreciate universality and variations in family life patterns across cultures.
3. To understand theoretical and methodological concerns related to family studies.
4. To create awareness regarding structures functions needs and strengths of families with specific references to the Indian family.

Contents:

Unit I: Family in Social Context

- Family as a component of social system-family composition and function.
- Causes and effects of different family structures on changing role of family.
- Family in historical context from traditional to modern
- Origins of family-functional explanations, conflict explanations and the family cycle.

Unit II: Approaches and theories in family studies.

- Interactional approach
- Development approach
- Structural – functional theory

- Exchange perspective
- Alternative life styles

Unit III: Family and Societal Exchanges/ Influences.

- Work and family
- Education and family
- Health and family
- Religion and family
- Ecology and family

Unit IV: Interactional problems in family life.

- Family violence, battered women, child maltreatment and sexual abuse.
- Child rearing and socialization, gender roles.
- Divorce and remarriage
- Dowry

References:

1. Mandelbaum, D.G (1972), Society in India: Continuity and change Berkley: University of California press.
2. Adam's B.N (1975). The family: A sociological interpretation. Chicago: Rand Mc Nully.
3. Coor, R. (1975) Family its structure and functions, New York, Macmillian Publishing Co. .
4. Queen, S.A (1985) The family in various cultures (5th ed) N.Y. Harper & Row.
5. Eshleman J.R., Cashion B.G & Basirico L.A (1988) Sociology- An Introduction USA. Harper Collins, Publishers.
6. Colemar, J.C(1988) Intimate relationships: Marriage and family patterns N.Y Macmillian
7. Hess B.B., Markson E.W & Stein P.J (1988) Sociology 3rd Edition, New York, Macmillian, Publishing Company.

8. Light D; Keller, S & Calhoun C (1989) Sociology 5th Edition, New York Alfred A. Knoff.
9. Thio A (1989) Sociology - An Introduction 2nd Edition New York, Harper & Row Publishers.
10. Bahr, S.J (1989) Family interaction N.Y : Macmillian Publishing Co.
11. Lock, S.L (1992) Sociology of the family, London: Prentice Hall.
12. Ahuja, R. (1997) Indian Social System (2nd Ed) Jaipur: Rawal.
13. Leslie, G.R (1998). The family in Social Context.
14. Macionis J.J (2001) Sociology 8th Ed. New Jersey, Prentice Hall

Nutritional Disorders & Diseases

Code: HSC18001GE

Generic Elective

Credits: L2

Periods/week: 2 Hours

Marks: 50

Contents:

Unit I : Nutritional Care in Weight Management

- Overweight and Obesity
 - Etiology
 - Dietary and life style modification

- Under Weight
 - Etiology
 - Dietary Management

Unit II: Nutritional Management of CHD & Diabetes Mellitus

- Coronary Heart Disease
 - Etiology
 - Dietary Management of Dyslipidemia / Hyperlipidemia

- Diabetes Mellitus
 - Etiology
 - Management of Diabetes

References:

1. Barkar, D. J.P. (1998). Mothers, Bahks and Health in Later life. Edinburgh, Churchill Livingstone.
2. Whitney, E., & Rady Rolfes, S. (2008). Understanding Nutrition (11th ed). Canda: Wadsworth, Cengage learning.
3. Mahan, L.K., & Escoh- Sump, S. (2004). Krause's Food Nutrition & Diet Therapy (11th ed). Philadephia Sunders an imprint of Elsevier
4. Anderson Dibble., Nutrition in health Disease.
5. Robinson, C. H., Normal and Therapeutic Nutrition. (17th Edition) Macmillan Publishing Company. Lea & Febiger USA Publishing.
6. Shills M.E., et.al., Modern Nutrition in Health and Disease.

GENDER EQUITY AND SOCIETY

Code: HSC18001OE

Open Elective

Credits: L2

Periods/week: 2 Hours

Marks: 50

Objectives

- To appreciate gender as a socio-cultural constraint
- To create awareness of the gender biases and barriers that prevail in society
- To develop sensitivity regarding the socio-economic and political factors that determines life experiences in relation to gender.
- To become aware of the need for proactive approach and empowerment to attain and maintain equality.

Contents:

Unit -I Major Concepts and Issues

- Differentiation between sex and gender.
- Gender role: Socialization and gender role, Stereotypes
- Gender related division of labour and its implications
- Forms of family in terms of residence and descent, i.e, nuclear, joint and extended families; patrilineal and matrilineal family systems.

Unit- II Gender Identities as Inscribed in Culture

- Cultural controls over gender roles
- Construction of gender identities in culture
- Gender and religion
- Media portrayal of gender roles,
- Equality -Inequality perspective and impact

References

1. Desai, N. and Krishna, M. (1988) *Women and Society in India*, New Delhi, Ajanta Publications.
2. Kaila, N. (1987). *Session in Indian Education*, New Delhi: Vikas Publications
3. Krishnaraj, M. (ed.) (1986). *Women's Studies in India*, Bombay: Popular Prakashan.
4. Lengan, L. (1998). *Understanding Women's health Issues, A Reader*, New Delhi; Kali for Women.
5. Patil, A.K. (1995). *Women and Development*, New Delhi, Ashish Publishing House.
6. Poonacha, V. (1999). *Understanding Women's Studies, Contribution to Women's Series:II* Mumbai: RCWS, SNDT Women's University.
7. Swarup, H. and Bisaria, S. (1991)(eds). *Women, Politics and Religion*, Etawah: AC Brothers.

Semester II

S.No.	Title of the Course/ Course No.	Hours/Week			Marks	Credits
		L	T	P		
1	Life Span Nutrition HSC18201CR	4	0	0	100	4+0+0=4
2	Clinical & Therapeutic Nutrition HSC18202CR	4	0	0	100	4+0+0=4
3	Planning & Preparation of Normal & Therapeutic Diets (Lab Course) HSC18203CR	0	0	8	100	0+0+4=4
4	Extension Programme Planning and Design HSC18204CR	4	0	0	100	4+0+0=4
5	Extension Education System HSC18205CR	4	0	0	100	4+0+0=4
6	Extension Programme Planning and Design / Field Experiences (Lab Course) HSC18206CR	0	0	8	100	0+0+4=4
7	Advanced Study in Human Development-I HSC18207CR	4	0	0	100	4+0+0=4
8	Management of Programmes for Children and the Family HSC18208CR	4	0	0	100	4+0+0=4
9	Advanced Study in Human Development & Management of Programmes for Children and the Family (Lab Course) HSC18209CR	0	0	8	100	0+0+4=4

10	Research Methods & Statistics HSC18210CR	4	0	0	100	4+0+0=4
11	Nutrition in Emergency & Disaster HSC18211DCE	4	0	0	100	4+0+0=4
12	Women's Studies: Characteristics, Issues and Problems HSC18212DCE	4	0	0	100	4+0+0=4
13	Child and Human Rights HSC18213DCE	4	0	0	100	4+0+0=4
14	Nutrition in Health and Disease HSC18002GE	2	0	0	50	2+0+0=2
15	Introduction to Human Development HSC18002OE	2	0	0	50	2+0+0=2

Note:- Course code HSC18210CR is common for all the four specializations viz. Food Science & Nutrition, Dietetics & Clinical Nutrition, Extension & Communication and Human Development.

LIFE SPAN NUTRITION

Code: HSC18201CR

CORE

Credits: L 4

Periods/week: 4 Hours

M.M: 100

Objectives:-

1. To know about the recommended dietary allowances.
2. To enable students to understand the role of nutrition in pregnancy, lactation and childhood.
3. To understand the special needs of nutritional requirement for the adolescents and adults.
4. To know about the ageing process.
5. To understand the special needs for sports nutrition.

Contents:

Unit I: Nutrition in Pregnancy and Lactation

Nutrition in pregnancy

- Nutrition before conception
- Physiology of pregnancy:-
 - Physiological and biochemical changes in pregnancy
- Critical periods.
- Maternal weight
 - Weight prior to conception.
 - Weight gain during pregnancy

- Birth weight & factors affecting it.
- Nutrition & Nutritional supplementation during pregnancy.
- Common nutrition related concerns of pregnancy, High risk pregnancies.

Nutrition in lactation

- Physiology of lactation
 - Changes during adolescence, Pregnancy & After delivery.
 - Hormonal Controls
- Nutrition for breast feeding women
- Practices incompatible with lactation
- Contra Indications to breast feeding

Unit II: Infancy and childhood Nutrition

Nutrition in Infancy

- Physiological development & Nutrient Requirements
- Feeding the Infant, Initial feeding patterns, Development of feeding skills, Alternative feeding, Introduction of semi solid foods.
- Feeding problems during infancy.
- Low birth weight infants:-
 - Physiologic development, Nutritional requirements, Parenteral & Enteral feeding .Feeding methods for LBW's .

Nutrition in Childhood:

- General physiological development
- Influences on childhood food habits and intake
- Nutritional concerns & Common diseases of childhood
- Adverse reactions to foods:-
 - Food intolerance and Allergies

Unit- III: Nutrition during Adolescence & Adulthood

Nutrition in Adolescence

- Physical growth and development & Nutritional requirements
- Food Habits:- Irregular meals and snacking, eating away from home, Fast foods and media, potential nutritional inadequacies.

Nutrition in Adulthood:-

- Nutrient needs of the mature adults
- Defensive nutritional paradigm
- Weight and body composition, Mobility, Immunity, Taste and Smell, Gastrointestinal changes.
- Nutrition related concerns and Meal management of mature adults.

Unit IV: Geriatric and Sports Nutrition

Geriatric Nutrition

- Introduction to Gerontology , Ageing process and theories of ageing
- Physiological changes associated with ageing
- Dietary manipulation and nutrient requirement
- Nutritional support for elderly
- Food choices and eating habits
- Drug and nutrient interaction

Sports Nutrition

- Nutrition and Physical Performance
- Muscles, Energy Systems and Physical performance
- Optimal nutrition for athletic performance - Energy, Carbohydrates, Dietary fat, Vitamins, Minerals, Fluid intake related to exercise.

References:

1. Barkar, D. J.P. (1998). Mothers, Bahks and Health in Later life. Edinburgh, Churchill Livingstone.
2. Ward, R.H.T. Smith, S.K. Donnai D. (eds) (1994) Early Fetal Growth and Development. London, RCOG, Press.
3. Tanner, J. M. (1998) Foetus into Man: Physical Growth from Conception to Maturity. Wheaton. And Co. Ltd. Great Britain.
4. WHO* (1999) Nutrition for Health and Development: Progress and Prospectus on the Eve of the 21st Century.
5. Kennedy Carroll (1998): Human development New York, Macmillan
6. Watson, R. R. (Ed) (2000) Handbook of Nutrition in the aged. 3rd Edition. CRC Press. Boca Raton.
7. Whitney, E., & Rady Rolfes, S. (2008). Understanding Nutrition (11th ed). Canda: Wadsworth, Cengage learning.
8. Insel, PEM., Turner, R.E., & Roos D. (2007). Nutrition (3rd ed) Sudnury: Jones & Bartlett Publishers.
9. Mahan, L.K., & Escoh- Sump, S. (2004). Krause's Food Nutrition & Diet Therapy (11th ed). Philadephia Sunders an imprint of Elsevier

CLINICAL AND THERAPEUTIC NUTRITION

Code: HSC18202CR

CORE

Credits: L 4

Periods/week: 4 Hours

M.M: 100

Objectives:

1. To study the relationship between diet and disease.
2. To know about the changes of dietary requirements during pathological conditions.
3. To become proficient in planning and calculating diets for various diseases.
4. To learn the formulation of diets suited to the local conditions.
5. To understand the role of preventive, protective and curative diet in clinical practice.

Contents:

Unit I:

Dietetics

- Dietetics - History, Scope, concept, importance, objectives of diet therapy.
- Role of dietitian in hospital and community.

Patients care and rehabilitation.

- Team approach in patient care.
- Interpersonal relationship with the patients.
- Use of Food Exchange list

Modification of the normal diet

- Liquid diet, soft diet and bland diet.
- Routine hospital diets, methods of feeding- oral, parenteral and tube feeding.
- Dietary management in Injury, Burns and Surgery.

Unit II:

Types of Fever and Dietary management

- Types of fevers - typhoid, pneumonia, rheumatic fever, poliomyelitis and tuberculosis.
- Physiology of fevers, metabolic changes and dietary management.

Types of gastro-intestinal tract and Dietary management.

- Various methods in diagnosis of Gastro-intestinal diseases.
- Gastritis: Clinical features, type, causes and dietary treatment.
- Peptic ulcer: type, etiology, prevalence, dietary management and counseling.
- Disease of the small intestine and colon: Diarrhea, dysentery and constipation – (causes, types, dietary management and counseling).
- Mal-absorption syndromes: Celiac diseases, Ulcerative Colitis and diverticulosis – (causes, symptoms, dietary management and counseling).

Unit III:

Types and Dietary Management in diseases of liver and Gall bladder

- Hepatic disorders: Fatty liver, jaundice, viral hepatitis, cirrhosis of liver – principle of diet, dietary management and modification of diet.
- Gallstone formation and cholecystitis- principle of diet, dietary management and modification of diet.

Types and Dietary Management of Renal diseases.

- Nephrotic syndrome, dietary modification
- Renal failure, symptoms and clinical findings, dietary modifications.

- urinary calculi and dialysis,
- Controlled protein, potassium and sodium diets

Unit IV:

Dietary Management in Acute and chronic diseases of heart.

- Atherosclerosis, Hypertension-Clinical features, risk factors for coronary heart diseases.
- Hyperlipidemia, hyperproteinemia - dietary modification and management of sodium restricted diet.

Dietary Management in Obesity and Under-nutrition.

- Definition, diagnostic test, etiology, types and complications.
- Dietary management and other recommendations.

Dietary Management in Metabolic disorders.

- Diabetes mellitus: Types, causes, symptoms, complications, diagnosis, treatment, dietary management and counseling . Hypoglycemic agents, Glycemic Index.
- Gout, Addison's disease, low purine diets (Dietary modification).

References:

1. Anderson Dibble., Nutrition in health Disease.
2. Robinson, C. H., Normal and Therapeutic Nutrition. (17th Edition) Macmillan Publishing Company.
3. Lea & Febiger USA Publishing.
4. Shills M.E., et.al., Modern Nutrition in Health and Disease.
5. B. Shri. Lakshmi., Dietetics, 4th Edition. New age, International (p) Ltd. Publishing.
6. Davis J., and Sherer, K. (1994): Applied Nutrition and Diet Therapy for nurses 2nd Ed. W.B.Saunders. Co.
7. William, S. R. (1993): Nutritional & Diet Therapy 7th Ed. Times Mirror/Mosby College Publishers.

**PLANNING AND PREPARATION OF NORMAL AND
THERAPEUTIC DIETS (Lab Course)**

Code: HSC18203CR

CORE

Credits: P 4

Periods/week: 8 Hours

M.M: 100

Planning and preparation of diets :

1. Pregnant women.
2. Lactating women suffering from calcium and vitamin deficiencies.
3. Low and medium cost weaning food recipes(keeping in view its acceptability)
4. Pre-school children (keeping in view its acceptability)
5. School going children (Packed lunch)
6. Children suffering from PEM.(3-6 years)
7. Adolescents
8. Adults (30-50 yrs of age).
9. Athlete involved in a strenuous sport event.
10. Elderly person (60-80 yrs) having dental problems/dentures
11. In terms of consistency (Liquid, Soft, Full fluid).
12. Febrile illness.
13. Diarrhoea and Constipation.
14. Liver diseases.
15. Peptic ulcer patient.
16. Atherosclerosis and Hypertension.
17. Renal diseases.
18. Obesity and under nutrition
19. Mal absorption syndrome (Celiac Disease)
20. Obese diabetic

EXTENSION PROGRAMME PLANNING & DESIGN

Code: HSC18204CR

CORE

Credits: L 4

Periods/Week: 4 Hours

M.M: 100

Objectives:

1. To understand the process of programme planning in extension.
2. To develop ability in planning extension programmes.
3. To learn the principles and procedures involved in programme planning, implementations and evaluation.

Contents:

Unit I: Programme Planning

- Definition, Meaning and importance of programme planning in extension.
- Principles of programme planning, Criteria for good programme planning, Nature and scope of programme planning.
- Abilities needed by planners
- Objectives of Extension programme planning.

Unit II: Steps of Programme Planning

- Collection of facts
- Analysis of situation
- Identification of problems
- Deciding on programme objectives
- Developing plan of work

Unit III: Programme implementation.

- Participation of organizations in programme planning
- Involvement of people in programme planning
- Role of specialist in Extension programme planning
- Surveys - Types of surveys
- Extension programme planning model

Unit IV: Extension Evaluation

- Evaluation- Definition , Nature, Types, Purpose
- Components to be evaluated.
- Contribution of evaluation to programme planning
- Evaluation principles, Characteristics of evaluation information
- Extension evaluation process, validity of programme principles and procedures

References:

1. Albrecsht, H et.al. (1989) Rural Development Series. Agricultural Extension Vol. 1 & II. Basic concepts and methods. Wiley Eastern limited, New Delhi.
2. Chaubey, B.K (1979). A Handbook of Extension Education. Jyoti Prakshan; Allahabad.
3. Dhama, O.P. and Bhatnagar, O. P. (1987), Education and communication for Development Qxford and IBH Publishing Co. Pvt. Ltd., New Delhi.
4. Extension Education in Community Development, (1961) Ministry of food and Agriculture Govt. of India., New Delhi.
5. Pankajain, G. (2000) Extension --- Third Dimension of Education, Gyan Publishing House; New Delhi.
6. Ray, G.L. (1999) Extension Communication and Management Naya Prakash; Calcutta.
7. Reddy, A. (1999) Extension Education. Sree Lakshmi Press, Bapatla.
8. Sandhu, A,S. (1994) Extension Programme Planning, Oxford & 1D11 Publishing Company Private Limited, New Delhi.
9. Singh, R. (1987), Textbook of Extension Education, Sahitya Kala Prakshan Ludhina.
10. Supe, S.V, (1982) Introduction to Extension Education, Oxford Publishers,, New Delhi
11. A.S. Sandhu, (1994) Extension Programme Planning , Oxford & IBH Publishing Co- Pvt., Ltd, New Delhi.

EXTENSION EDUCATION SYSTEM

Code: HSC18205CR

CORE

Credits: L 4

Periods/Week: 4 Hours

M.M: 100

Objectives:

1. To understand the changing concept of extension.
2. To get acquainted with the trends in extension approaches and models.
3. To identify the support system development for extension education.

Contents:

Unit I Conceptual Analysis

- **Extension:** Meaning, changing concept of extension, philosophy, objectives, principles, functions, components of extension and dimension of extension.
- **Extension Education:** Meaning, Process and Principles of learning in extension.
- **Extension education system in other countries;** Sri Lanka, Indonesia, Philippines, China and Bangladesh.

Unit II Extension Models and Approaches

- **Models:** Innovation transfer model, social education model, social action/ conscientization models & combination models.
- **Approach:** Agricultural extension, training and visit, participatory project, farming system development, cost sharing, educational institution, integrated area, cluster and target approach.

Unit III National Extension System

- Early extension efforts, community development programme: genesis and growth, objectives, principles, critical appraisal of the community development programme. Functions of -ICAR-(Indian Council of Agricultural Research) Agriculture universities, KVK-(Krishi Vigyan Kendras) TTCS-(Trainers Training Centres) Extension systems of ministry of rural development, Department of sciences and technology, Department of industries and Department of women and child development. Development work by NGO's, Government – NGOs collaboration.

Unit IV Support Structure and their Functions

- Panchayat, Panchayat union and DRDA. Central Social Welfare Board, State Social welfare Board, National level Voluntary Agencies like CAP ART, KVIC, local level.
- Voluntary agencies: People's Organization at grass roots – SHGs,.

References:

1. Albreest; H. et. Al (1989). Rural Development Series, Agricultural Extension Vol I & II. Basic Concepts and Methods. Wiley Eastern Limited, New Delhi.
 2. Chaubey, B. K. (1979) A Handbook of Education Extension Jyoti Prakashan. Allahabad.
 3. Dhama, O. P. and Bhatnagar; O. P. (1987) Education and Communication for Development Oxford and IBH Publishing Co. Pvt. Ltd. New Delhi.
 4. Extension Education in Community Development (1961) Ministry of Food and Agriculture. Government of India. New Delhi.
 5. Pankajan; G. (2000)-Extension -- Third Dimension of Education, Gyan Publishing House, New Delhi.
 6. Ray. G. L. (1999) Extension Communication and Management. Naya Prakash, Calcutta.
 7. Reddy; A. (1999) Extension Education, Sree Lakshmi Press, Bapatta.
- Waghmare, S.K. (1989). Exploring of Extension excellence, Multi Tech. Pub Company.

EXTENSION PROGRAMME PLANNING & DESIGN / FIELD

EXPERIENCES (LAB COURSE)

Code: HSC18206CR

CORE

Credits: P 4

Periods/Week: 8 hrs

M.M: 100

1. Assessment of needs and problems of identified group in a community any one: Children /Adolescents /Women/ Aged
2. Selection of a problem for an identified group in a community requiring intervention and developing a plan of action.
3. Implementation of a prepared plan of action
4. Preparation of a suitable teaching aid for a programme planned
5. Evaluation and feedback of the programme implemented.
6. Studying the on- going programmes of Social Welfare Department.
7. Visit to Panchayats to study their role in rural development.
8. Visit to training and development organization for Women.
9. Assessing social changes taking place in
 - Rural Areas
 - Urban Areas
10. Visit to community development agencies related to Health, Nutrition and Education
11. Studying the Role of Centre for Life-Long Learning and State Resource Centre University of Kashmir towards community development
12. Study of New Youth Employment Programme for J&K
 - HIMAYAT
 - UDAAN

ADVANCED STUDY IN HUMAN DEVELOPMENT-I

Code: HSC18207CR

CORE

Credits: L 4

Periods/week: 4 Hours

M.M: 100

Objectives:

1. To study the advanced stages of Human Development from prenatal to adolescence.
2. To understand the principles and factors influencing various stages of Human Development.

Contents:

Unit-I: Principles and Concept of Development

- Principles of growth and development
- Developmental tasks
- Basic concepts of development- Continuous, Discontinuous, Organismic, Mechanistic, Balanced point of View, Nature-nature issue, Sensitive periods, Individual Differences.

Prenatal Development

- Recapitulation of stages in prenatal development
- Genetic and environmental factors- maternal conditions and teratogens. Significance of the genome project for understanding Human development.
- Importance of Indian practices during pregnancy.

Unit II : Infancy (Birth to 2 years)

- The new born: Birth process and the neonate, physical description, sensory capacities and reflexes. Becoming coordinated-feeding, crying, sleeping.
- Imitation, object permanence and other cognitive accomplishments.
- Early language development.
- Social relationships during infancy.
- The cultural experience of being an infant.

Unit III: Childhood (2 to 11 years)

- Transition from infancy to childhood
- Physical and motor development (2-6 Years)
- Play and social relationships- The emerging self
- Language, Cognition, Socialization and Emotions in early years
- Physical and Motor development (6-12 Years).
- Sense of industry and personality
- Cognitive, moral and language development
- Social relationships-peers, siblings and parents
- The experience of schooling - academic achievement.

UNIT IV: Adolescence (11-18 years)

- Transition from childhood to sexual maturity- puberty and its consequences, emotional changes.
- Development of formal operations: Adolescent thought-Integration of the self-issues of identity.
- Role of family, peers, community and ethnic group.
- Moral reasoning and Judgment
- Health, sexuality, mental health, delinquency, conformity.

References:

1. Hurlock, Elizebeth B. 1978, Child Development 6th Edition McGraw Hill.
2. Rice F.P.(1995) Human Development New Jersey Prentice Hall.
3. Berk, L.E (1995) Child Development. London Allyn and Bacon.
4. Cole, M. S. (1993) The development of children(2nd ed) New York Scientific American Books. Freeman and Co.
5. Dutt. H. (1997) Moral values in child development. New Delhi Anmol.
6. Papalia, D.E., Old, & Feldman, R.D. (2010). Human Development (10th) New Delhi: Tata McGraw - Hill Publishing Company Limited.
7. Bee H. (1997) The developing child(VII Ed) New York Longman.
8. Mussen, P.H Conger JJ. Kagan, J, and Hustan, A. C (1996) child development and personality, New York Harper and Row.
9. Berger, K.S. (2006). The Developing person through childhood & adolescence (7th Ed.) New York: Worth Publishers.
10. Santrock, W (2007). Adolescence (11th ed) New Delhi: Tata McGraw Hill Publishing Company limited.
11. Laura E. Berk (2013) Child Development (9th Ed.) Pearson Education Inc. (PEI).

MANAGEMENT OF PROGRAMMES FOR CHILDREN AND THE FAMILY

Code: HSC18208CR

Credits: L 4

Periods/week: 4 Hours

M.M: 100

CORE

Objectives:

1. To understand the purpose, scope and challenges of management for programmes of children and families.
2. To know about the various approaches to programme management.
3. To give students opportunity to work with children and families in different settings.
4. To critically evaluate and review programme models.

Contents:

Unit I: Management

- Management - Meaning, characteristics, nature, importance, functions, principles & Managerial skills.
- **Management process :**
 - Planning ,Coordination
 - Supervision, Monitoring and Evaluation
- **Staff development**
 - Man power, Planning
 - Meeting & training
 - Appraisal, SWOT Analysis.

Unit II: Programmes and services for children and families.

- Demographic profile of children in India
- Family and child welfare services working at national level (NIPCCD, ICCW, CSWB, NCERT, ICDS, Department of Women and Child Development).
- International Level: WHO, UNICEF, ILO, CARE, World Bank.
- Development programmes related to Health, Nutrition and Education.

Unit III: Welfare and its Historical Perspective

- Nature, characteristics and function of welfare and development organization.
- Concept of development programmes
- Family welfare – concept, scope, need and historical perspectives.

Unit IV: Managing Programmes for Children and Family

- Obtaining funds from Govt. and other source and formulating a budget.
- Administration, Structure and Management of various Institutions- Residential Organization, Orphanage, Home for destitute, Bal bawans Recreational Centres.
- Training of personnel in the field of family & Child welfare- Need & types.

References:

1. Chaudhary. D.P. (1985): Child welfare services New Delhi. Atmaram and sons.
2. Wanghtery, A. S. and Ricks, B.R. (1989) contemporary supermision: Managing people and technology . New York : MacGraw Hill.
3. Grewal J.S. (1984) Early childhood education foundations and practices, Agra: National Psychology corporation.
4. Hildbrand V.(1984) Management of child development centres, New York Collier Macmillian Publishing.
5. Leeper, S. H., Wither, S. R.L. & Way, B (1984) Good schools for young children (5th ed) New York: Macmillian Publishing Co.
6. Maluccio, A.N., Fein, E and Olmstead, K. A.(1986) Permanency planning for children concepts and methods: New York. Tavistock Publications.
7. W.B. ((1) Experiencing fieldwork New York: Sage.
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10. Singh D. 1995. Child development: Issues, Polices and Programmes. Kauiska Publication.

**ADVANCED STUDY IN HUMAN DEVELOPMENT AND
MANAGEMENT OF PROGRAMMES FOR CHILDREN AND FAMILY**
(Lab Course)

Code: HSC18209CR

Credits: P 4

CORE

Periods/week: 8 Hours

M.M: 100

1. Study of local practices during pregnancy
2. Studying reflexes of infants (0-1)
3. Recording physical & motor development during infancy & early childhood years
4. Studying school adjustments during late childhood years.
5. Studying the problems associated with adolescence in the local context
6. Evaluating the functioning of ICDS Centres
7. Preparing a case study of Red Cross Society in Srinagar
8. Prepare a plan - short term /long term for enhancing quality of any Program/project working for Women/Children.
9. Planning and execution of activities for children in various institutions
10. Creating awareness about family welfare methods in a nearby rural area (Target group women)
11. Planning and implementing income generating activities for Women. Evaluate its impact on the group.

RESEARCH METHODS AND STATISTICS

Code: HSC18210CR

Discipline Centric Elective

Credits: L 4

Periods/week: 4 Hours

M.M: 100

Objectives

1. To understand the significance of statistics and research methodology in home science research.
2. To understand the types, tools and methods of research and develop the ability to construct the data gathering instruments appropriate to the research design.
3. To be able to appreciate and understand importance of writing scientifically.

Contents:

Unit I: Research and Statistics in Home Science

- Meaning, importance and objectives. Types and methods of Research.
- Identification of a research problem - sources, process of identification and criteria of selection.
- Formulation of selected problem - concept and process; Hypotheses - Types, sources and process of setting up hypotheses.
- Designing the research study - concept, importance and contents of a research plan.

Unit II: Research Methods and Data Gathering Instruments

- Sampling – steps and techniques. Characteristics of good sample. Sample design and criteria for selecting sampling techniques. Sample size.
- Collection of data – sources and methods.
- Data gathering instruments – observation, questionnaire, interviewing and case methods.
- Scaling techniques. Pilot studies and pre testing.

Unit III: Processing and Analysis of Data

- Processing operations – editing, classification, transcription; Presentation – Tabular and Diagrammatic.
- Analysis of variance – concepts and techniques; coefficient of variation.
- Correlation analysis – concept and significance, Karl Pearson's coefficient of correlation, probable error, Rank difference method, concurrent deviations (ungrouped data only).
- Report writing – Types, planning report writing, research report format.
- Precautions for writing research reports. Summary and conclusions, bibliography and references.

Unit IV: Analysis and Interpretation of Data

- Regression Analysis – lines of regression and regression equation.
- Testing of hypothesis – chi-square, 't' test.
- Use of Computer Applications in data analysis (SPSS & MINITAB); preparation of worksheets etc.

References:

1. Bandakar, P.L. and Wilkinson T.S. (2000): Methodology and Techniques of social Research Himalaya Publishing House Mumbai.
2. Bhanthnagar, G. L. (1990): Research methods and measurement in Behavioural and social science, degree, colo publishing academy, New Delhi.
3. Dooley, D. (1995): Strategies for Interpreting Qualitative data sage publication, California.
4. Gay, L.R. (1981, 2nd Ed) Educational Research, Charles, E. Merrill Columbus Ohio.
5. Long, J. S., (Ed) (1988): Common Problems Proper Solution: Avoiding Errors in Qualitative Research, Beverly Hills, Sage Publications, California.
6. Mukherjee, R. (1989): The Quality of Life: Valuation in Social Research, Sage Publication, New Delhi.
7. Stranss, A. and Corbin, J. (1990): Basis of qualitive Research: Grounded Theory Procedures and Techniques, Sage Publications, California.

NUTRITION IN EMERGENCY AND DISASTER

Code: HSC18211DCE

Discipline Centric Elective

Credits: L 4

Periods/week: 4 Hours

M.M: 100

Objectives:

1. To familiarize students with various natural and manmade emergencies and disasters having an impact on nutrition and health status of a community.
2. To understand the special nutritional concerns arising out of emergency situations.
3. To know the strategies of nutritional rehabilitation of emergency affected populations.

Contents:

Unit I: Disaster Management.

- Disaster - Definition, management
- Disaster impact and response.
- Short-term effect of major disasters - Earthquakes, high winds, tidal waves/ flash floods, slow - onset floods, lands slides, famine, drought and war.
- Surveillance.
- Disease Prevention and Control
- Illustration using case studies of major disasters in India.
- Role of National Disaster Management Authority of India and Disaster Management Cell of J&K.

Unit II: Nutritional problems, Assessment and Surveillance in emergency affected populations.

- Causes and indicators of malnutrition in emergency situations.
- Major Nutritional deficiency diseases in emergencies:

Protein energy malnutrition, Vitamin deficiency diseases, Mineral deficiency diseases

- Methods of assessment of mal-nutrition in emergencies.

Unit III : Communicable diseases: Surveillance and treatment.

- Common communicable diseases.
- Chicken pox, Measles, Mumps, Whooping cough, Influenza., Acute respiratory infection, Cholera, typhoid fever, Acute diarrhoeal diseases, Food poisoning, Malaria and Plague
- Role of immunization and sanitation.

Unit IV: Nutritional Relief and Rehabilitation

- Assessment of food needs in emergency situations.
- Food distribution strategy - Identifying and reaching the vulnerable group.
- Targeting Food Aid
- Therapeutic feeding
- Transportation and food storage.
- Sanitation and hygiene.
- Evaluation of feeding programmes
- Public nutrition approach to tackle nutritional problems in emergencies.

References:

1. Goyet, Fish. V.; Seaman, J. and Geijer, U. (1978): The Management of Nutritional Emergencies in Large Populations, World Health Organization, Geneva.
2. Refugee Nutrition Information System (RNIS): Newsletters UN ACC/SCN Sub-committee on Nutrition.
3. Field Exchange, Newsletters by Emergency Nutrition Network, Dept. of Community Health and General Practice, Ireland.
4. SCN News, Newsletters by UN ACC/SCN Sub-committee on Nutrition.
5. Bradley, A., Woodruff and Arabella Duffield (July, 2000): Assessment of Nutritional Status in Emergency Affected Populations - Adolescents, Special Supplement, UN ACC/SCN Sub-Committee on Nutrition.
6. Steve Collins, Arabella Duffield and Mark Myatt (July, 200): Assessment of Nutritional Status in Emergency Affected Populations - Adults, Special Supplement, UN ACC/SCN sub-committee on Nutrition.
7. World Disasters Report - Focus on Public Health, International Federation of Red Cross and Red Crescent Societies.
8. The Management of Nutrition in Major Emergencies WHO - in Collaboration with UNHCR, International Federation of Red Cross and Red Crescent Societies and WFP.
9. Disasters - International Public Nutrition and Emergencies: The Potential for Improving Practice. Special Issue -Vol. 23/4, Dec. 1999.
10. Young, H.; Mears, C (1998): Acceptability and Use of Cereal-based Foods in Refugee Camps. Oxfam Working Paper. Oxfam Publishing, Oxford, U.K.
11. Lusty, T.; Diskett, p. (1977): OXFAM's Practical Guide to Selective Feeding Programmes. Oxfam Practical Guide No.1. Oxford Oxfam, Health Unit.
12. WFP/UNHCR (1998): WFP/UNHCR Guidelines for Selective Feeding Programmes in Emergency Situations. Rome and Geneva: WFP and UNHCR.
13. UNHCR (1999): UNHCR Handbook for Emergencies. 2nd edition, Geneva, UNHCR.
14. MSF (1997): Refugee Health: An Approach to Emergency Situations. London: MacMillan for MSF.
15. USCR (1999): World Refugee Survey 1999. Washington EC. USCR.

16. WFP (1999): World Food Programme. Food and Nutrition Handbook Draft. Rome, WFP.
17. WFP (1991): Food Aid in Emergencies. Rome, WFP.
18. Bortbn, J. (1998): The State of the International Humanitarian System. Briefing Paper. London: ODI.
19. Young, H.; Jaspars, S. (1996): The Relationship between Malnutrition and Mortality in Emergencies: Do We Have All the Answers? London: ODA, Health and Population Division.
20. FAO (1997) FAO's Emergency Activities. Rome, FAO.
21. Young, H., Jaspars, S. (1995): Nutrition Matters: People, Food and Famine London: Intermediate Technology Publications.
22. Jaspars, S.; Young, H. (1995): General Food Distribution in Emergencies: From Nutritional Need to Political Priorities. Good Practice Review 3. Relief and Rehabilitation Network. London: ODI.
23. WHO (1997): Applied Health Research Priorities in Complex Emergencies. Geneva. WHO.
24. Michele Grodner Sara Long Anderson, Sandra DeYoung, Foundations and Clinical Applications of Nutrition.
25. Sue Rodwell Williams 4th Edition Essentials of nutrition and Diet Therapy.
26. Bhavan Sabarwal 1st edition 1999, Public Health and Nutritional Care.

WOMEN'S STUDIES: CHARACTERISTICS, ISSUES & PROBLEMS

Code: HSC18212DCE

Discipline Centric Elective

Credits: L 4

Periods/week: 4 Hours

M.M: 100

Objectives:

1. To enable students to gain a perspective of the significance of women's studies, gender concepts and the major issues concerning women.
2. To help students develop understanding of the status of women in India and the role of women in social institutions.

Contents:

Unit I Introduction to Women's Studies:

- Women studies- concept , meaning ,definition & genesis
- Growth and Scope of women's studies in India,
- Women's Studies- An International perspective.
- National Committees and Commissions for Women -Department of Women and Child Development

Unit II Factors and Indicators on the status of women

- Demographic Indicators: Sex ratio in India, Factors responsible for adverse sex ratio in India, Consequences of adverse sex ratio
- Fertility: Definition - Crude birth rate, fertility rate in India

- Mortality & Morbidity- Definition, infant and maternal mortality rates in India, Causes for high female maternal mortality rates
- Economic Indicators: Role of women in economic development, female labour force in India
- Political Indicators-Statistical data about the women's representation in Local bodies, State assemblies, & Parliament

Unit III Women and Social Institutions:

- Family, Meaning - Definition & Ethos of Joint Nuclear - patriarchal & matriarchal families
- Marriage - Definition - Monogamy, Polygamy Polyandry.
- Multiple Roles of Women- Role conflict, Role change.
- Socialisation: Meaning, Definition, and Stages - Agencies of Socialisation.
- Gender discrimination, gender stereotyping, Gender Roles, and Gender needs

Unit IV Issues Related to Female children & Women,

- Female foeticide, Female Infanticide and Child marriage
- Dowry, Divorce , Domestic violence and Widow hood
- Female commercial sex workers
- Problems of Elderly and Single women, and Marginalized groups, (SC/ ST/ Women prisoners

References:

- 1) Yadav .C.P: Ency of Women's problems and their remedies
- 2) Sharma Kanta : Women's role in the family
- 3) M.K.Roy: Violence against Women
- 4) P.A Reddy: Problems of Widows in India
- 5) N.S.Nagar: Women and Politics
- 6) Kumar Raj: Women in Agriculture and Trade
- 7) Kumar Raj: Women and Marriage.
- 8)Sushma Srivastava: Women and Family Welfare

CHILD AND HUMAN RIGHTS

Code: HSC18213DCE

Discipline Centric Elective

Credits: L 4

Periods/week: 4 Hours

M.M: 100

Objectives:

1. Develop awareness about evolution of Human Rights
2. To become aware of human rights with specific reference to women & children rights.
3. To work with women & children to create awareness in them about their legal rights & to guide them to access their rights.

Contents:

Unit I: Concept & Evolution of Rights

- Concept of Fundamental Rights (Article 12-35 Constitution of India)
- Legal & Moral Rights
- Need and Importance of Rights in a Society
- Universal Declaration of Human Rights (1948)
- National policy for children
- International conventions on child Rights.

Unit II: Status of children And Human Rights

- Juvenile justice (care and protection of children) Amendment Act 2006. Section 2 (d, k,l) ,4 & 6. Working of various juvenile homes in j& k.
- Maintenance of children- section 125 cr.p.c1973, corresponding with section 488 of J&K code of criminal procedure, Child labour- causes & control.

- Infanticide, foeticide.
- Prostitution - Causes & Remedies, Child prostitutes, street children, refugee children.
- Child marriages & Law, Impact of child marriage on child development.

Unit III: Women and their Rights

- Laws related to domestic violence,
- Sexual harassment at work places
- Dowry prohibition
- Rape
- Medical termination of pregnancy
- Prohibition against pre natal diagnostic tests (Sex Determination)

Unit IV: Economic, Social and Environmental Rights

Economic Rights

- Outline of economic rights ,

Social Rights

- Art. (39A, 41-43,45,47) of Indian constitution.

Environmental Rights

- Importance of safe guarding environment for human development.
- Environmental protection given under Art. 21,48 A of the constitution,

References:

1. Krishmaraj. M. (ed). (1986) Women Studies in India, Popular pradashan.
2. Burner, T, (1986) Actual minds- possible words. London, Harvard University press.
3. Desai, N. & Krishna, M. (1988)- Women & Society in India, New Delhi, Ajanta publications.
4. Dreze, Jean & Sen, Amartya (1989) Hunger & Public Action, U.K. Oxford University Press.
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6. Vishaka .V. state of Rajasthan AIR (1997) SC 3011, Tuka Ram .V. State of Maharashtra 1978, cr.L.J.1864 (S.C)
7. Digumarti, B, R, Digumarti, P. L (1998) International Encyclopedias of women (Vol. I) New Delhi: Discovery.
8. D'souza, C, & Menon, J. Understanding Human Rights (Series 1-4) Bombay. Research & Documentation Centre, St, Pius College.
9. Agarwal, H.O Human Rights, Central Law Agency, Allahabad.
10. Pandey, J.N Constitutional law India, Central law Agency ,Allahabad.
11. Siddique, Ahmed Criminology, Eastern Law Book Co. Lucknow
12. Misra,S.N The Code of Criminal Procedure, Central Law Publications Allahabad.

NUTRITION IN HEALTH AND DISEASES

Code: HSC18002GE

Generic Elective

Credits: L2

Periods/week: 2 Hours

Marks: 50

Objectives:

1. To make students aware about fundamentals of Nutritional Science.
2. To enable students to understand the role of nutrition during life span.
3. To orient students to understand the role of diet in prevention of diseases

Contents:

Unit I: Fundamentals of Nutrition Science

- Food, Nutrition and Health: An Introduction
- Dietary Guidelines and their uses: (Recommended Dietary Allowances, its uses and limitations)
- Introduction to Basic Nutrients
- Menu planning and factors affecting menu planning

Unit II: Nutrition in Normal and Therapeutic Conditions

- Nutrition during Pregnancy
- Nutrition during Lactation
- Nutrition during adolescents
- Diet in relation to cardiovascular diseases
 - Atherosclerosis
 - Hypertension
- Diet to relation to obesity and under nutrition
- Diet in relation to Urinary Calculi

References:

1. Robinson, C. H., Normal and Therapeutic Nutrition. (17th Edition) Macmillan Publishing Company.
2. Lea & Febiger USA Publishing.
3. Shills M.E., et.al., Modern Nutrition in Health and Disease.
4. B. Shri. Lakshmi., Dietetics, 4th Edition. New age, International (p) Ltd. Publishing.
5. Davis J., and Sherer, K. (1994): Applied Nutrition and Diet Therapy for nurses 2nd Ed. W.B.Saunders. Co.
6. William, S. R. (1993) : Nutritional & Diet Therapy 7th Ed. Times Mirror/Mosby College Publishers.
7. Watson, R. R. (Ed) (2000) Handbook of Nutrition in the aged. 3rd Edition. CRC Press. Boca Raton.
8. Whitney, E., & Rady Rolfes, S. (2008). Understanding Nutrition (11th ed). Canda: Wadsworth, Cengage learning.
9. Insel, PEM., Turner, R.E., & Roos D. (2007). Nutrition (3rd ed) Sudnury: Jones & Bartlett Publishers.
10. Mahan, L.K., & Escob- Sump, S. (2004). Krause's Food Nutrition & Diet Therapy (11th ed). Philadelphia Sunders an imprint of Elsevier

INTRODUCTION TO HUMAN DEVELOPMENT

Code: HSC18002OE

GENERIC ELECTIVE

Credits: L2

Periods/week: 2 Hours

Marks: 50

Objectives:-

1. To understand the concept of stages and aspects of Human Development.
2. To understand the application of methods of studying Human Development.

Unit-I Overview of Human Development

- Concept, Need and Scope of Human Development.
- Principles of Growth and Development.
- Developmental tasks.
- Stages of development: Concept & Significance
- Aspects of Development (Physical ,Cognitive, Psychological, Socio-emotional)

Unit-II Methods of Studying Human Development

- Subjective, objective & projective techniques
- Observation- Definition, concept & types
- Interview- Definition, concept & Types
- Questionnaire -Definition, concept & Types
- Case Study- Definition, concept & Types

References:-

3. Berk, L.E. (2007) Development Through the Life span 3rd Edition. Darling Kindersley. India.
4. Papalia, D.E., Old & Feldman, R.D. (2010) Human Development. 10th Edition. New Delhi. Tata Mohraw- Hill Publishing company limited.
5. Hurlock. B.E. (1981) Development Psychology: A Life Span Approach. 5th Edition. New Delhi. Tata MC.Graw-Hill publishing company limited.
6. Kothari, C.R. & Garg,G. (2014) Research Methodology: Methods & Techniques. 3rd Edition. New Delhi. New Age International Publishers.
7. Mangal, S.K. (2008) Advanced Educational Psychology . 2nd Edition. New Delhi. PHI Learning Private Limited.

Semester III

S.No.	Title of the Course/ Course No.	Hours/Week			Marks	Credits
		L	T	P		
1	Assessment of Nutritional Status HSC18301CR	4	0	0	100	4+0+0=4
2	Advanced Food Science HSC18302CR	4	0	0	100	4+0+0=4
3	Assessment of Nutritional Status / Analytical Techniques in Food Science (Lab Course) HSC18303CR	0	0	8	100	0+0+8=4
4	Institutional Management HSC17304CR	4	0	0	100	4+0+0=4
5	Assessment of Nutritional Status / Institutional Management (Lab Course) HSC18305CR	0	0	8	100	0+0+8=4
6	Management of Human Service Organization HSC18306CR	4	0	0	100	4+0+0=4
7	Extension Management HSC18307CR	4	0	0	100	4+0+0=4
8	Management of Human Service Organization/ Extension Management (Lab Course) HSC18308CR	0	0	8	100	0+0+8=4
9	Advanced Study in Human Development - II HSC18309CR	4	0	0	100	4+0+0=4
10	Study of Persons with Disabilities HSC18310CR	4	0	0	100	4+0+0=4

11	Advanced Study in Human Development - II/ Study of Persons with Disabilities (Lab Course) HSC18311CR	0	0	8	100	0+0+8=4
12	Community Nutrition HSC18312DCE	4	0	0	100	4+0+0=4
13	Women Nutrition and Health HSC18313DCE	4	0	0	100	4+0+0=4
14	Mental Health and Developmental Perspectives HSC18314DCE	4	0	0	100	4+0+0=4
15	Community Organization and Developmental Theory HSC18315DCE	4	0	0	100	4+0+0=4
16	Culture and Psychology HSC18003GE	2	0	0	50	2+0+0=2
17	Behaviour Change and Advocacy in Health HSC18003OE	2	0	0	50	2+0+0=2

Note:- Course Code HSC18301CR is common for both specializations of Food Science & Nutrition/Dietetics & Clinical Nutrition

ASSESSMENT OF NUTRITIONAL STATUS

Code : HSC18301CR

Credits: L4

CORE

Periods/ Week :4 Hrs

M. Marks: 100

Objectives:

1. Orient the students with all the important state-of the art methodologies applied in nutritional assessment and surveillance of human groups.
2. Develop specific skills to apply the most widely used methods.

Contents:

Unit I:

Indicators of MCH Care

- Maternal mortality rate
 - Late Maternal death
 - Pregnancy - related death.
 - World Scenario
 - Causes
 - Preventive and social measures

Mortality in Infancy and childhood

- Perinatal, Neonatal , Post neonatal and infant mortality rate.
- Factors affecting infant mortality.
- Preventive and social measures.
- 1 - 4 year, under 5 mortality rate.
- Child survival rate.

Unit II:

Assessment of nutritional status by Anthropometry & Clinical Examination

- Nutritional Assessment Schedule
- Anthropometry – Infants, Children and Adults.
 - Weight (Techniques used)
 - Height , (Techniques used)
 - Mid arm circumference
 - Head circumference
 - Chest circumference
 - Skin fold thickness (Use of Calipers) .
 - Anthropometric Indices
 - Growth Charts, Standards, and Percentiles.
- Clinical Evaluation
 - PEM, (Protein Energy Malnutrition)
 - Vitamin A Deficiency
 - Iron Deficiency
 - Calcium Deficiency
 - Dental Caries and Fluorosis

Unit III:

Assessment of nutritional status by Biochemical and Dietary Assesment

- Laboratory and Bio-chemical Evaluation
 - Laboratory Test
 - ❖ Hemoglobin estimation
 - ❖ Test for Stools
 - ❖ Urine examination
 - Bio-Chemical Evaluation
 - ❖ Proteins
 - ❖ Vitamins – Riboflavin, Thiamin and Beta-carotene.
 - ❖ Minerals – Iron , Calcium

- Assessment of Dietary Intake (Food Frequency Method & 24 hr recall method)
- Vital Statistics
- Assessment of Ecological factors.

Unit IV : Nutritional Surveillance and Social Aspects of Nutrition.

- Nutritional Surveillance
 - Nutrition surveillance and growth monitoring
 - Nutritional status indicators
 - Problem and Ecology of Mal nutrition
 - Preventive and social measures.
- Food hygiene
 - Milk, Egg, Meat ,Fruits and Vegetables.

References

1. Jelliffe, D, B, and jelliffee, E. F.P, (1989): Community Nutritional Assessment, Oxford University Press.
2. Beghin, I., Cap, M. and Dujardan, B. (1988): A Guide to nutritional status Assessment, WHO, Geneva.
3. Gopaldas, T. and Seshadri, S., (1987) Nutrition Monitoring and Assessment, Oxford University Press.
4. Mason, J. B, Habich, J.P. Tabataba, H. and Valverde, V., (1984) Nutritional Surveillance, WHO.
5. Lee, R.D., and Nieman, D. C., (1993): Nutritional Assessment, Brown and Benchmark Publishers.
6. Sauberlich, H. E., (1999) Laboratory Tests for the Assessment of Nutrition Status, CRC, Press.
7. Cameron, N. (1984): Measures of Human Growth, Sheridan House Inc. New York.
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11. Fidanza.
12. Collins, K.J., (ed) (1990) Handbook of methods for the measurements of work performance, physical fitness and energy expenditure in Tropical Population. International Union of Biological Sciences.
13. Ulijaszek, S. J., and Masice-Taylor, C.G.N., (ed) Anthropometry: the individual and the Population, Cambridge University Press, Cambridge.
14. Shetty, P.S., and James, W.P.T., (1994): Body Mass Index. A Measure of chronic Energy Deficiency in Adults FAO food and Agriculture Organization of the United Nations, Rome.
15. Davies, P.S.W and Cole, (ed): Body Composition Techniques in Health and Disease. Cambridge University, Cambridge.
16. Himes, J.H (1991): Anthropometric Assessment of Nutritional Status. Wiley- Liss New York.
17. Lohman, T.G., Roche, A.F., and Martorell, R. (ed) Anthropometric Standardization References Manual. Human Kinetics Books, Illinois.

ADVANCED FOOD SCIENCE

Code :HSC18302CR

Credits: L4

CORE

Periods/ Week :4 Hrs

M. Marks: 100

Objectives:-

1. To understand the factors effecting the sensory qualities various foods .
2. To understand the principles of chemistry of foods.
3. To apply the principles while preparing and cooking foods.
4. To learn the methodology of standardization of recipie evaluation.

Contents

Unit-I

- **Evaluation of food by sensory and objective methods:-** Factors effecting acceptability of food .Sampling of food , selection of taste panel. Objective methods - microscopic examination, Chemical & physical methods of food evaluation.
- **Colloidal Chemistry:-** General structure of food stuffs and relationship of cooking to colloidal chemistry. Denaturation,
- **Browning reactions** - Enzymatic and non enzymatic.
- **Sugar Cookery:-** Sources & uses of sugar in cookery, caramelization by heat and pH changes. Crystallization of sugar solution, factors that effect the size of crystals. Stages of sugar cookery. Crystalline and non crystalline candies,

Unit-II

- **Starch Cookery:-** Types of starch, gelatinization, reterogradation, Flour composition and baking qualities and bread making. Leavening agents. Gelatin composition and properties , preparation and its uses in food
- **Milk Cookery:-** Properties of milk protein. Uses of milk in food preparation. Cheese and Ice Cream preparation.
- **Egg Cookery:-** Uses, properties and coagulation of egg proteins. Egg as binding, foaming, emulsifying and thickening agent. Mayonnaise preparation.

Unit-III

- **Vegetables and Fruits:-** Structure of vegetable tissues. Starch, pectic substances & pigments (chlorophylls, anthocyanins). Enzymes. Browning, use of plant-enzymes for textural changes in food,
- **Fats and Oils:-** Processing and refining of fats, Uses in food preparation. Smoking point and melting point. Hydrogenation. Fat as shortening agent. Rancidity - types. Changes on storage & during cooking.
- **Pulse Cookery:-** Factors affecting cooking quality of legumes. Germination of pulses - and its effects.

Unit IV

- **Meat, Poultry and Fish:-** Types of meat, poultry and fish. Postmortem changes in muscle meat. Tenderness of meat. Processing and effect of processing. Methods of cooking.
- **Food Processing and Irradiation:** - Effect of processing and Irradiation on Nutritive value of foods.
- **Food Adulteration:-** Definition of adulteration, Common adulterants in foods,

References

1. Charley H. (1982): Food Science 2nd Ed., John Wiley and Sons. New York.
2. Potter, N. and Hotchkiss, J. H. (1996): Food Science, 2nd Editions C.B.S. Publishers and Distributors, New Delhi.
3. Belitz, H. D. and Grosch, W. (1999): Food Chemistry 2nd Ed. Springer, New York.
4. Bowers, J. (1992): Food Theory and Application (2nd Ed), Macmillan Publishing Co., New York.
5. Peckhan, G. and Freeland - Graves, G. H. (1979): Foundation of Food Preparation.
6. Becker, P. (1965). Emulsions: Theory and Practice, Reinhold, New York.
7. B. Sri Lakshmi 2nd Ed. (2002): Food Science. New age International Pvt. Ltd.

Assessment of Nutritional Status & Analytical Techniques in Food Science (Lab Course)

Code :HSC18303CR

Credits: P4

CORE

Periods/ Week :8 Hrs

M. Marks: 100

LAB - A

1. Diet survey methods

- Diet history – Individual, Family.
- 24 hour recall method.
- Weightment method.
- Qualitative and quantitative methods

2. Anthropometric practices of studying various groups (Infants, children & adults).

- Height
- Weight
- Mid-arm circumference
- Head circumference
- Chest circumference
- Waist hip ratio
- BMI
- Comparison of standards. (Given by ICMR).

3. Biochemical tests

- Blood components tests for iron deficiency
- Protein estimation (Lowrys method)

4. Assessment of nutritional status of:

- Pregnant women, Lactating women and Pre school children.

5. Evaluation study of a nutrition project.

LAB - B

1. Standardization of recipes

2. Sugar Cookery:

- Experiments on crystallization of sugar,
- Stages of sugar cookery,
- Preparation of crystalline and non-crystalline candies.

3. Cereal & Starch Cookery:

- Gelatinization of starch
- Preparation of Cakes & Biscuits.

4. Pulse/legume cookery:

- Cooking of legumes by different methods, effect of addition of salt, acid, alkali, oil & spices on quality and time, effect of soaking, germination and pressure cooking on time and quality

5. Egg Cookery:

- Stages of fresh egg white foam,
- Effect of addition of various ingredients on foam formation,
- Coagulation of whole egg, egg yolk and egg white.
- Preparation of custard
- Preparation of Emulsions (Mayonnaise)

6. Milk Cookery:

- Preparation of cottage cheese, with different curdling agents,
- Cream of tomato soup,
- Ice cream preparation.

7. Vegetable and fruit cookery:

- Factors affecting colour, texture, flavour of vegetables by acid and alkali .
- Observation of browning reaction in raw fruits & vegetables

8. Fats & oils:

- Observing Smoking point of different oils.
- Factors affecting absorption of deep fat and shallow fried foods.

INSTITUTIONAL MANAGEMENT

Code :HSC18304CR

Credits: L4

CORE

Periods/ Week :4 Hrs

M. Marks: 100

Objectives:

1. To know about different aspects of food service management.
2. To understand about sanitation safety and physical layout of food service organization.
3. to know about cost control, book keeping and accountancy.

Contents:

Unit I: Food – Service, Management, Selection, Storage and Production.

- Introduction to food service establishment
- Types of food services in India – hospitals, hotel , canteen, schools and cafeterias, Formal and informal food services.
- Meal Planning – Menu, types of menu, need for menu planning, principles involved in planning menus, mechanics of planning menu, Menu writing.
- Food selection and storage - The food buyer, the market, purchasing procedure. Selection of food and storage – types of storage, planning storage spaces, sanitation, safety and security of stores.
- Quantity Food production- Standardization of recipes , food Production process, large quantity cooking techniques.

Unit II: Sanitation & Safety

- Sanitation and safety
 - Environmental Hygiene and Sanitation
 - Hygiene in Food Handling
 - Personnel Hygiene (with reference to sources of food infection and health rules.
 - Methods of sanitary dish washing and Cleaning supplies
 - Safety in food catering and use of equipment.

Unit III: Physical layout and equipment

- Physical layout and equipment-
 - Developing Kitchen plans
 - Layout of Kitchens
 - Work Simplification
 - Equipments for Kitchen and Service rooms.
 - Décor of Service and Dining areas.

Unit IV: Functional Management

- Management : Concept, Processes and Principles.
- Organizing: Organization structure and design, types, formal and informal organization, delegation of authority.
- Financial Management - Concept, Financial planning, Role of Financial Manager, Working Capital Management – inventory, cash and receivables.
- Human Resource Management – concept and significance, Job analysis, Recruitment and selection, training and development.
- Cost control-Factors affecting cost control, techniques of cost control with special reference to foods

References:

1. Agarwal R. D., Organizational and Management, Tata McGraw Hill, publishing co, Ltd, New Delhi. 1982.
2. Beach Dales, S. Personnel, The management of people at work, 4th ed Macmillian Publishing Co. Inc, New York, 1986.
3. Finely, R. e., The personnel and his part, , D,B., Toreprovela, 1971
4. Hitchcock Amry, J. Food service systems administration, Macmillian publishing 1986.
5. Keiser James and Kallio Elmen controlling and analysing cost in food service operations, Jobarwiley and sen, Inc., New York, 1974.
6. Kinder Faye and Green Mancy R. Meal Management, 5th ed, Macmillian Publishing co, Inc, New York 1987.
7. Kotschevar, L. Terrell, M.E. Food service planning prevent and equipment, John wiley and sons Ltd, 1971.
8. Lawrence, a. A. Management in Action, Times of India Press.
9. West Bessie Brooke, wood Levelle, Hunger Virginia F, and Shugart Grace Severaance – Food service in institutions, 5th edition John Wiley and sons, New York 1977.

Assessment of Nutritional Status /Institutional Management (Lab Course)

Code :HSC18305CR

CORE

Credits: P4

Periods/ Week :8 Hrs

M. Marks: 100

LAB - A

1.Diet survey methods

- Diet history – Individual, Family.
- 24 hour recall method.
- Weightment method.
- Qualitative and quantitative methods

2. Anthropometric practices of studying various groups (Infants, children & adults).

- Height
- Weight
- Mid-arm circumference
- Head circumference
- Chest circumference
- Waist hip ratio
- BMI
- Comparison of standards. (Given by ICMR).

3. Biochemical tests

- Blood components tests for iron deficiency
- Protein estimation (Lowrys method)

4. Assessment of nutritional status of:

- Pregnant women, Lactating women and Pre school children.

LAB - B

1. Market survey and cost analysis of processed and finished food products (Traditional meat products, Fluid milk and milk products, Processed apple products and pickles)
2. Evaluation of food service units and equipments.
3. Layout analysis of kitchen - Hospital & Hostel based
4. Planning menus for quantity.
 - Banquet
 - Outdoor catering
 - Packed meals
 - Restaurant
5. Standardizing recipes for quantity.
6. Cost analysis of menus in
 - College canteen
 - Hostel mess
 - Hospital (private and government)
7. Analysis of food safety & hygiene.

MANAGEMENT OF HUMAN SERVICE ORGANIZATIONS

Code: HSC18306CR

CORE

Credits: L 4

Periods/Week: 4 Hours

M.M: 100

Objectives:

1. To understand the concept and Management of Human Service Organization
2. To Know about the Organizations working for the service of women and children
3. To know about the Organizations Working for the Service of Youth and Groups with Special Needs

Contents:

Unit I: Concept and Management of Human Service Organizations.

Concept of Human Service Organizations.

- Need & Nature of human service organizations in India.
- Philosophy and significance in a developing nation.

Management of Human Service Organizations.

- Concept, importance, functions and approaches to management.
- Planning, implementation, personnel management, financial management, administration and monitoring of organizational activities. Managerial skills.

Unit II : Organizations working for the service of women and children.

Government & Non Government Organization Working for the Service of Women.

- National Commission for Women, SEWA, Central Social Welfare Board, State Social Welfare Board, Bhartiya Gramin Mahila Sangh, Women's Development Corporation specific reference to J&K State, Various NGO'S:
 - Help Foundation
 - SOS VILLAGES
 - Helpline
 - Chottay Tarrey

Government & Non Government Organization Working for the Service of Children

- Indian council of child welfare, Integrated Child Development Services, National Institute for Public Co-operation and Child Development, Planned Parenthood Federation, Helpline, Chottay Tarrey.

Unit III: Organizations Working for the Service of Youth and Groups with Special Needs.

- Government & Non Government Organizations Working for the Service of Youth.
- Nehru Yuvak Kendra, YMCA, YWCA, YUVA.

Government & Non Government Organization Working for the Service of Groups with special needs.

- Physically and mentally handicapped, aged, destitute, orphans, street children, National Association for Blind, Spastic Society of India, Help Age - India.

Unit IV: Assessment of Human Services Organizations & Concept of Volunteerism.

Assessment of Human Service Organizations:

- Concept of Volunteerism
- Profile of Volunteers
- Motivation of Volunteers
- Role of Volunteerism and Society
- Assessment of Personal Accountability

References

1. Blake, John, and Lawrence Peter (1992): *The ABC of Management: A Handbook of Management terms and concept*. All India Travellers book seller, New Delhi.
2. Chaudry D. Paul (1993): *Handbook of Social Welfare*, Atma Ram & Sons, New Delhi.
3. Devi, Rameshwari and Ravi Prakesh (1998): *Social Work and Social Welfare Administration*, Vol. I & II Mangal Deep Publication, Jaipur.
4. Krishna, Raj. Maithreyi, C. (1998): *Women and Development, The India Experience*.
5. Moshal, B. S. (1998): *Organizational and Management: Text and Cases*, Galgolia Publishers, New Delhi.
6. Pareek, Udai, (1994): *Beyond Management: Essay on Institution Building and Related Topics*, Oxford University Press, Bombay.

EXTENSION MANAGEMENT

Code: HSC18307CR

CORE

Credits: L 4

Periods/Week: 4 Hours

M.M: 100

Objectives:

1. To understand the concept and process of Extension Management.
2. To enable students to realize the importance of management for achieving organizational goals.
3. To apply the principles of management for effective management of extension organization / services.

Contents:

Unit I: Extension & Personal Management.

Extension:

- Definition and meaning, objectives, need, process and principles of extension
- Teaching learning process, steps of extension teaching
- Motivating people to work.
- Requirements of extension workers.

Personal Management :

- Meaning, nature , functions and role of personal management
- Job analysis, job description and job specification

Unit II: Organizing and planning in Extension Management.

- **Planning:** Definition, requirements, elements, contingency.
- **Organization:** Culture & goals.
- **Organizing:** Definition, requirements, line and staff functions, span of management, scalar principle, delegation of authority, use of committees, coordination, involvement of organizations at local level, inputs management, common mistakes in organizing.

Unit III: Staffing and Leading in Extension Management.

- **Staffing:** Definition, Requirements of effective staffing, Human resources development in organization, orienting the new entrant, training for development, in-service training, performance appraisal,, stress in managing, organizational conflicts, Grievance handling.
- **Leading:** Definition, Requirements of effective leading, the nature of people, theory X, Y, Z. Information needs of extension agents.

Unit IV: Controlling and Efficiency of Personal in Extension Management.

- **Controlling:** Definition, Requirements of effective controlling, Monitoring and evaluation, Supervision, Budgeting and Auditing, Reporting, Self- Discipline, Change agent problems, **Efficiency of Personal:** Orientation to new workers, stimulus and incentives, Code of ethics,
- Qualities of a good extension manager.

References:

1. Banerjee, S. (1981). Principles and Practice of Management. Oxford and IBH Publishing Company, New Delhi.
2. Basu, C.R., (1989). Organization and Management, S. Chand & Co. Ltd., New Delhi.
3. Burton, Gene and Hanab Thaker (1997). Management Today. Tata McGraw Hill Publishing Company, New Delhi.
4. Chandan, J. S., (1997) Management – Concepts and Strategies, Vikas Publishing House, New Delhi.
5. G. L. Ray., (1996)., Extension Communication & Management.
6. Hersey, Paul and Kenneth, H. Blanchar. (1996). Management of Organizational Behaviour. Utilising Human Resources, Prentice Hall of India, Private Limited; New Delhi.
7. Koontz and Heinz Wehrich., (1990) Essentials of Management. McGraw-Hill; New Delhi.
8. Prasad., M. L., (1999) Principles and Practice of Management. Sultan Chand & Sons, New Delhi.
9. Rao, V. S. P. and Narayana, P. S. (1987) Principles and Practice of Management. Konark Publishers, Private Limited, New Delhi.
10. Tripathi, P. C. and Reddy, P. N. (1993). Principles of Management: Tata McGraw Hill, New Delhi.

MANAGEMENT OF HUMAN SERVICE ORGANIZATION/ EXTENSION
MANAGEMENT (Lab Course)

CORE

Code: HSC18308CR

Credits: P4

Periods/Week: 8 Hours

M.M: 100

1. Visit to Government agencies working for the services of women- health, nutrition, educational, economical and social.
2. Visit to Non- governmental agencies working for the services of women health, nutrition, educational and social.
3. Visit to Government agencies working for the services of children.
4. Visit to Non- governmental agencies working for the services of children
5. Organizing group discussion for planning extension activities for various target groups viz: farmers, farm women and youth.
6. Interaction and its reporting with following officials:
 - Financial Institutions
 - Cooperatives
7. Meeting various extension functionaries from departments of agriculture, horticulture, and animal husbandry
8. Organizing role plays and brain storming session for identified groups.

ADVANCED STUDY IN HUMAN DEVELOPMENT-II

Code: HSC18309CR

CORE

Credits: L 4

Periods/week: 4 Hours

M.M: 100

Objectives:

1. To understand the advanced stages of Human Development with specific focus on youth, adulthood and old age.
2. To understand the principles and factors influencing Human Development in these stages.

Contents:

Unit I: Youth/Young Adulthood.

- Perspectives on youth and adulthood .
- Developmental needs
- Vocational choice, career development.
- Physical changes
- Changes in the structure of thought/culmination of identity formation.
- Life cycle approach- sexuality, Criteria for mate selection, marital adjustment, parenthood, friendships.

Unit II: Middle Adulthood.

- Physical continuity and changes
- Adult Intelligence
- Personality changes
- Relationships at midlife

- Development of self
- Menopause in women, health and disease, adult sexuality.

Unit III: Late Adulthood

- Physical changes-Health, fitness and disability
- Continuity and changes in the personality
- Changes in cognitive abilities
- Grand parenthood-Inter generational relations
- Retirement from formal work-effect on Identity.

Unit IV: Old Age

- Mental Health and Intervention: Depression, Anxiety disorders
Dementia: Alzhiemers disease.
- Family life cycle.
- Death, dying and bereavement.

References:

1. Schiamberg, L.B and Smith K.U (1982) Human Development, New York, Macmillian.
2. Rice, F.P.(1992) Human Development-A life span approach, New Jersey Prentice Hall.
3. Lefrancois, G.K (1996) The life span new York, ward worth publishing.
4. Santrock, J.W (1997) Life span development Brown and Bench Mack.
5. Deaths S.M and Lenker L.J.(eds)1999 Aging and Identity , London Praeger.
6. Berk, L.E.C (1998). Development through the life span. Massachusetts: Allyn & Bacon auicom Company.
7. Kail, .V., & Cauanaugh, J.C. (2004) Human Development (3rd ed.) New York: Wadsworth, A division of Thomson learning, Inc.
8. Papalia, D.E., Old, & Feldman, R.D. (2010). Human Development (10th) New Delhi: Tata McGraw - Hill Publishing Company Limited.
9. Laura E. Berk (2013) Child Development (9th Ed.) Pearson Education Inc. (PEI).

STUDY OF PERSONS WITH DISABILITIES

Code: HSC18310CR

CORE

Credits: L 4

Periods/Week: 4 Hours

M.M: 100

Objectives:

1. To become aware of various impairments and the manner in which these effect the lives of individuals.
2. To identify the physical and social barriers which create difficulty for people with disabilities
3. Understand the variation between people with disabilities.
4. Realize that the experiences of individuals with disabilities are related to their age, gender and also shaped by the context.
5. To apply the understanding gained from the experiences of people with disabilities in planning services for them.

Contents:

Unit I : Understanding Disability.

- Normality, disability, impairment, handicap.
- Various approaches to defining and understanding disability- medical approach, administrative approach, legal approach, social approach.
- Attitudes of people towards disability.
- Techniques of identification and assessment.

Unit II: Skeletal disorders and Sensory Impairments.

- Skeletal and Muscular disorders-causes and effects on individuals-Arthritis, Amputations.
- Sensory disorders-causes and effects on individuals:-
 - Visual: Definition, causes, prevalence, educational considerations.
 - Hearing:Definition, classification, causes, characteristics, prevalence, educational considerations.
 - Speech:Definition classification, causes, prevalence.

Unit III: Intellectual and Emotional Impairments

- Intellectual-causes and effects on individuals-Mental retardation, learning disabilities.
- Emotional-causes and effects on individuals-Autism, Neurosis, Psychosis, Phobias, Obsessions and compulsion, schizophrenia, ADHD, Conduct disorders, Elimination disorders, Habit disorders.

Unit IV: Physical disorders and Overview of Persons with Disabilities.

- Physical disorders- causes and effects on individuals, CNS disorders (Cerebral palsy,Epilepsy,Spinabifida, Spinal cord injuries).
- Physical and social barriers in the development of persons with disabilities, modification of physical and social environment.
- The philosophy of inclusion
- Programs and policies for persons with disabilities.
- Issues in planning inclusive programs for persons with disabilities.

References:

1. Baquer, A. (1994) *Disabled, Disablement, Diabolism*, New Delhi: Voluntary Health Association of India.
2. Kanga F. (1990) *Heaven on wheels*, New Delhi Penguin Books
3. Narasimhan M.C & Mukherjee A.K. (1986) *Disability a continuing challenge*, New Delhi Wiley Eastern limited.
4. Oliver M.(1996) *Understanding Disability, from theory to practice*, London Macmillan press.
5. Pandey R.S & Advani L. (1996) *Perspectives in disability and rehabilitation*. New Delhi Vikas Publishing House Private Limited.
6. Kirk, S.A., Gallagher, J.J., Anastaslow, N.J., & Coleman, M.R. (2006). *Educating conceptual children* (11th ed.) New York: Houghton Mifflin Company.
7. Micheal L. Hardman, Clifford J. Drew, M. Winston Egan, Hardman (2004) *Human Exceptionality - Society, School & Family*, 8th Edition, Allyn & Bacon.

Journals

1. *Disability and society*
2. *Action and disability News*
3. *Impairment and disability*
4. *Asia Pacific disability rehabilitation journals*.

**Advanced Study in Human Development-I & Study of Persons with
Disabilities (Lab Course)**

Code: HSC18311CR

CORE

Credits: P 4

Periods/week: 8 Hours

M.M: 100

1. Plan and organize life skill education for adolescents and youth about responsible parenthood.
2. Study the change in life style after retirement (economic & health problems) and their coping strategies.
3. Study the attitude of people towards death in age group-65 years and above and prepare a report.
4. Individual case study of a child with disability
5. Review and critique of a person with disabilities as portrayed by media (Print and electronic).
6. Case study of two institutions (CRC & Shafaqat).
7. Planning and execution of activities for special children (visual and hearing impaired, mentally retarded in any particular setting).

COMMUNITY NUTRITION

Code: HSC18312DCE

DISCIPLINE CENTRIC ELECTIVE

Credits: L 4

Period / week: 4 hours

M.M: 100

Objectives:-

1. Identify Nutritional problems in the community.
2. Evolve/ develop solutions to overcome these problems in the community.
3. Realize the role of state, national and international agencies to combat malnutrition.
4. To know how to plan different programmes of nutrition education for the community.
5. Understand the different methods of assessment of nutritional status of the community.

Contents:

Unit I: Community

- Definition and concept of community, perspectives in the history and philosophy of community health, nutrition and society.
- Role of the community/public health nutritionist in health care delivery system.
- Impact of the following on nutritional status of the community:
 - Environmental and agricultural factors.
 - Storage and distribution
 - Socio -cultural and economic factors.
 - Population size.
 - Science and technology.
- Infection and parasitic infestation and its impact on nutritional status of the community.

Unit II: Nutrition and Behaviour

- Factors affecting food habits and behaviour, Means of modifying them to promote health.
- Methods of Assessing Nutritional Status of the Community:
 - Nutritional anthropometry
 - Bio-Chemical tests.
 - Clinical evaluation
 - Diet Survey

Unit III: Nutrition Education.

- Definition, Objectives, scope
- Methods and techniques in nutrition education for combating malnutrition in India.

Nutrition & National Development:

- Prevalence of malnutrition in India.
- Role of National Nutrition Policy in protecting health of the Nation.

Programme Planning

- Diagnosis of situation, setting of objectives, suitability and relative cost of various solutions, implementation and evaluation of nutrition education programmes.

Unit IV : Common Nutritional Problems in India.

- Low Birth Weight, Protein Energy Malnutrition, Xerophthalmia, Nutritional Anemia, Iodine Deficiency Disorders, Endemic flourosis and Lathyrism.
- Combating major nutritional problems in India
- Nutritional surveillance: NNB, Agricultural production, Public health approach.
- Nutrition intervention programme for improving nutrition and health.
- Operation and evaluation of ICDS, ANP, SNP, Mid day meal programme and School lunch programme.

Role of National & International Agencies in Improving the Nutritional Status of the Community.

- WHO, FAO, UNICEF, CARE, OXFAM, WFP, Nutritional expert committee, NIN, CFTRI, ICMR, Social Welfare Board, MCH & IRDP.

References:

1. Park K., Preventive and Social Medicine. Banarasidas Bhanot Publishers 4th Ed. 1995.
2. Dwyer, T. Mayer, Food and Nutrition Policy in a changing world. New York, Oxford University Press, 1979.
3. Singhai, C. G. Environment Nutrition and Health Hazards in India, Vohra Publishers and distributors, Allahabad (India).
4. Margen Sheldon. Progress in Human Nutrition. The AVI publishing company, Inc, 1971.
5. Swaminathan. M. Handbook of Food and Nutrition.
6. Rao, Bhaskara. Community and School Nutrition Education discovery Publishing House, New Delhi. 1998.
7. McLaren S. Donald. Nutrition in the community John, Wiley & Sons Chichester 1983,
8. McLaren S. Donald Nutrition and its Disorders 3rd Ed. Churchill Livingstone Edinburgh, 1981.

WOMEN, NUTRITION & HEALTH

Code: HSC18313DCE

Credits: L 4

DISCIPLINE CENTRIC ELECTIVE

Periods/Week: 4 hrs

M.M: 100

Objectives:

1. To acquaint students with status of women in family and society.
2. Understand how various factors influence the health and nutritional status of women.
3. Plan and undertake various activities to improve the status of women.
4. Understand how health of women influence family, community and national development.

Contents:

Unit I: Women in - Family, Community & Society

- Women's role, their resources and contribution to family.
- Demographic changes, menarche, marriage, fertility, morbidity, mortality, life expectancy, sex ratio, aging and widowhood, female-headed families.

Women & Society

- Women's role their resources and contribution to society.
- Effect of Urbanization on women
- Impact of economic policies, industrialization and globalization on women.

Unit II: Women and Nutrition.

Women's Nutritional requirements and food needs.

- Pubescence and Adolescence, Food related habits of Adolescents, General nutritional problems during adolescence.
- Pregnancy and Lactation, General dietary problems of expectant mothers.
- Menopause and dietary consideration.
- Nutrition related problems of old age.
- Situation of women in global, national and local context.
- Improving the nutrition and health status - interventions throughout the life cycle

Unit III: Women and Health

- Health facilities, Disease patterns and reproductive health.
- Gender and Health, Health seeking behaviour.
- Women --- pregnancy and lactation.
- Safe motherhood, Care of - at risk mothers, Family Planning.
- Women and aging --- special concerns in developed and developing societies - menopause, osteoporosis, chronic degenerative disease, neurological problems
- Women - AIDS and Breast Cancer.

Unit IV: Policies, Legislation's & Empowerment of Women.

- Empowerment of Women
- CEDAW (Convention on Elimination of all forms of Discrimination against Women) and WRLH (Women's Right to life and Health).
- Role of Education and various national schemes.

References:

1. ACC/SCN Policy Discussion Papers.
2. Wallace, H. M. and Giri, K. (1990) Health care of Women and Children in Developing Countries, Third Party Publishing Co., Oakland, California.
3. UNICEF, (1994): The Urban and Household Food Security, UNICEF.
4. IDRC, (1993): Gender, health and Sustainable Development.
5. NGO, Committee on UNICEF (1997): Women and Children in Urban Poverty --- What Way Out?
6. Census Reports, Government of India.
7. NFHS Reports.
8. UNICEF--- State of the World's Children.
9. Weil, D.E.C.; Alicbusan, A. P.; Wilson, J.F; Reich, M.R., and Bradley, D. J. (1990). The Impact of Development Policies on Health. A review of the Literature World Health Organization. Geneva.
10. International Nutrition Foundation—Micro-nutrient Initiative (1999): Preventing Iron Deficiency in Women and Children; Technical Consensus on Key Issues.
11. Gopalan, C. and Kaur, S. (Eds.) (1989): Women and Nutrition in India, Nutrition Foundation of India.

MENTAL HEALTH IN DEVELOPMENTAL PERSPECTIVE

Code: HSC18314DCE

Credits: L 4

Periods/week: 4 Hours

M.M: 100

**DISCIPLINE CENTERIC
ELECTIVE**

Objectives

1. To understand the importance of mental health at different stages of life.
2. Develop skills for promoting mental health across the life span.
3. Identify mental health issues in the community & sensitizing its members.
4. Develop skills of organizing school mental health programs.

Contents:

Unit I: Mental Health

- Definition, Concept, Characteristics & importance of holistic health.
- Biological, Ecological, Psychological concepts of Mental health
- Mental hygiene - definition, scope, mental hygiene in family and school.
- Concept of normality & abnormality.
- Mental health - needs & programmes.

Unit II: Infancy & Early Childhood years

- Implication of attachment & bonding for mental health, deprivation syndrome.
- Mental health needs (safety, security, autonomy, self concept, importance of nutrition in health)
- Behavior difficulties manifested at this stage - feeding problems, aggression & withdrawal problems related to early schooling & formal learning.

Unit III: Middle Childhood

- Mental health needs - Recognition, appreciation, friendship & industry.
- School related problems - discipline, truancy, phobias, learning difficulties & disabilities.
- Maladjustment at home & school.

Unit IV: Adolescence & Adulthood

- Mental health needs (sense of identifying autonomy, individualism, familism)
- Problems related to physical appearance (developments & relationships)
- Problems related to sexuality.
- Authority adolescent conflict- (parents, grandparents & school authority)

References:

1. Govt. of India Ministry of health & family welfare (1982) National mental health program for India.
2. Gahan, P. J, Jegeda, R. O, Kapur, M., Minde, G., Nikapota, A.P. & Sell II. L. (1983). A manual on child mental health & psycho social development part III for teachers New Delhi. WHO.
3. Carter, F & Cheesman, P. (1988) Anxiety in childhood & adolescence encouraging self-help through relaxation training. London: Croom Helm
4. Barry, P.D. (1990):Mental health & mental illness (4th ed) Philadelphia J.B, Lippincott.Co.
5. Bone, E, D. (1991) Handbook for the positive revolution, London: Pengium Publication.
6. Gopal, K. N. (1994) Mental health & you
7. Kapur M. (1995) Mental Health of Indian children. New Delhi: Sage publications.
8. Goleman, D (1996). Emotional intelligence. N.Y: Bantam Books.
9. Sharma, R. (2006) Abnormal Psychology. New Delhi: Atlantic Publishers.

COMMUNITY ORGANIZATIONAL AND DEVELOPMENT THEORIES

Code: HSC18315DCE

DISCIPLINE CENTRIC ELECTIVE

Credits: L4

Periods/Week: 4 Hours

M.M: 100

Objectives:

1. To understand the concept, structure and organization of different types of communities.
2. To understand the factors contributing to changes in community, community organization and their mobilization for development goals.

Contents:

Unit I: The Community.

- Concept and characteristics of a community.
- Structures and organization of different types of communities - tribal, rural and urban. Nature and inter relationship of socio-economic and political influences. Different communities - norms, mores and prevalent customs.

Unit II: Social Groups and Organization.

- Concepts, types, characteristics of different social group, interests, attitudes and motivations for affiliation.
- Dynamics of social group, interaction in different types of communities family and kinship group, class based groups, interest groups and associations.

Unit III: Dynamics of Change in Community.

- **Social organizations** - Family, school, co-operatives and other organization and their role in community.
- Factors contributing to change and transition in the structure and organization of societal institutions, historical and contemporary situation.
- **Religion, socio** - Political Ideologies, Imperialism, Mass media and Communication, Globalization and their impact on community.
- **Planned changes** - Concept, solution and changes of planned social changes.
- People's participation, concept, types and barriers to participation in bringing about social change, based on analysis of participation for development.

Unit IV: Organization in Development

- Theories of development, people centered development, factors contributing to paradigm shift.
- Organizations involved in development of government, corporate and voluntary sector organizations.
- Analysis of their present role, future potential in facilitating development; inter sectoral synergy, importance and operation allegation. Role of leadership in community development.

References:

1. Burkey, Stan (1993) People First: A Guide to Self-Reliant, Participatory Development.
2. Dale, R (2000): Organizational and development strategies, structures and process, Sage publication; New Delhi.
3. Edwards, M and Hulma, D. (1992). Making a difference; NGO's and development in a changing world.
4. Handy, C. B. (1983); Understanding Organizations.
5. Harka Lombos ---- Sociology: Themes and Perspectives.
Korten, D.C. (1990): People Centered Development---Getting to the 21st century.

CULTURE AND PSYCHOLOGY

GENERIC ELECTIVE

Code: HSC18003GE

Credits: L2

Periods/week: 2 Hours

Marks: 50

Objectives:

1. To understand basic concepts related to culture & psychology with specific reference to cross cultural psychology.
2. To understand concerns & issues related to the study of culture & psychology.
3. To perceive the need for indigenization & development of humanistic approach in the study of culture & psychology.

Contents:

Unit I: Culture & Personality development

- Basic concept of culture , psychology and functions of psychology.
- Characteristics, dimensions and development of culture.
- Developmental psychology.
- Characteristics , elements, determinants & traits of personality.

Unit II: Methodological issues & theoretical concerns in the study of culture & psychology.

- Social theories of human development (Mead, Cooley, Benedict, Freud, Erickson)
- Exchange theory.
- Cultural approaches.
- Theoretical approaches.
- Methodological issues.

References:

1. Dawson, L. & Lonner, W. (1974) Readings in cross cultural psychology. Hong Kong: University of Hong Kong Press.
2. Berry, J. W, Poortinga, Y. H & Pandey, J. (1981) Handbook of cross cultural psychology: Theory & methods Boston Allyn & Bacon.
3. Eshleman J.R., Cashion B.G & Basirico L.A (1988) Sociology- An Introduction USA. Harper Collins, Publishers.
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5. Light D; Keller, S & Calhoun C (1989) Sociology 5th Edition, New York Alfred A. Knoff.
6. Thio, A (1989) Sociology - An Introduction 2nd Edition New York, Harper & Row Publishers.
7. Berry, J. W. Dason, P. R. & Saraswathi, T. S. (Eds) (1997) Handbook of cross cultural psychology: Basic process & human development (2nd ed.) Boston Allyn & Bacon.
8. Danziger, K. (1997) Naming the mind. London Sage.
9. Dattan, N. & Resse, H. W. (1997) Life span developmental psychology, New York: Academic Press.
10. Saraswathi, T. S. (1999) culture, Human Development & Socialization. New Delhi; Sage.
11. Baker, C.(2000) Cultural Studies. London; Sage.
12. Coulding, N. (2000) Inside Culture. London: Sage.
13. Valand, J. (2000). Culture & Human development.
14. Macionis J.J (2001) Sociology 8th Ed. New Jersey, Prentice Hall

BEHAVIOUR CHANGE AND ADVOCACY IN HEALTH

Code: HSC18003OE

Generic Elective

Credits: L2

Periods/week: 2 Hours

Marks: 50

Objectives:

1. To understand the multi-faceted nature of community health.
2. To develop a holistic understanding of sociology of health and people's perception towards health
3. To be able to critique policies, intervention programmes, and strategies adopted for addressing community health issues.

Contents:

Unit I: Health -Development Perspectives

- Health situation, concept of community health, epidemiology, demography, preventive and promotive health
- Socio cultural perceptions and motivations towards health.
- Health care systems-types-contemporary and traditional systems, socio-cultural context of health care and delivery systems.

Unit II: Health Communication and Advocacy

- Health communication and advocacy- Meaning, concept, various strategies, types.
- Strategizing health advocacy and BCC campaigns- elements, tools and techniques.
- Role of media in promoting health
- Synergizing inter-sectoral partnerships for health advocacy and action.

References:

1. Barur, V(1999) private Health Care in India.New Delhi: Sage Publications.
2. Easterling, D., Gallagher, K.; Lodwick, D. (2003) Promoting Health at the Community Level.Thousand Oaks, California: Sage Publications.
3. Park,K. (2000) Essential of Community Health.Jaipur: M/S Banarsidas Bhanot.
4. Gupta, J.A.(2000) New Reproductive Technologies- Women's Health and Autonomy.New Delhi: Sage Publications.

Semester IV

S.No.	Title of the Course/ Course No.	Hours/Week			Marks	Credits
		L	T	P		
1	Advanced Nutrition HSC18401CR	4	0	0	100	4+0+0=4
2	Food Processing & Technology HSC18402CR	4	0	0	100	4+0+0=4
3	Food Processing & Technology (Lab Course) / Dissertation HSC18403CR	0	4	4	100	0+2+2=4
4	Nutrition in Critical Care HSC18404CR	4	0	0	100	4+0+0=4
5	Internship /Dissertation HSC18405CR	0	8	0	100	0+4+0=4
6	Gender and Development HSC18406CR	4	0	0	100	4+0+0=4
7	Training and Development HSC18407CR	4	0	0	100	4+0+0=4
8	Gender and Development (Lab Course) / Dissertation HSC18408CR	0	4	4	100	0+2+2=4
9	Development of Creativity HSC18409CR	4	0	0	100	4+0+0=4
10	Principles of Guidance & Counselling HSC18410CR	4	0	0	100	4+0+0=4
11	Principles of Guidance & Counselling (Lab Course) / Dissertation HSC18411CR	0	4	4	100	0+2+2=4

12	Project Management and Women Entrepreneurship HSC18412CR	4	0	0	100	4+0+0=4
13	Current & Emerging Concepts in Human Nutrition HSC18413DCE	4	0	0	100	4+0+0=4
14	Food Safety & Quality Control HSC18414DCE	4	0	0	100	4+0+0=4
15	Parenting In Early Childhood HSC18415DCE	4	0	0	100	4+0+0=4
16	Participatory Tools and Methods HSC18004GE	2	0	0	50	2+0+0=2
17	Introduction to Disabilities HSC18004OE	2	0	0	50	2+0+0=2

Note:-

1. Course Code HSC18401CR is common for both specializations of Food Science & Nutrition/Dietetics & Clinical Nutrition.
2. Course code HSC18412CR is common for all the four specializations viz. Food Science & Nutrition, Dietetics & Clinical Nutrition, Extension & Communication and Human Development.

ADVANCED NUTRITION

Code: HSC18401CR

CORE

Credits: L 4

Periods/week: 4 Hours

M.M: 100

Objectives:

To enable the students to:

1. Gain knowledge regarding recent advances in Micro and Macro elements, Fat soluble and Water soluble Vitamins.
2. Study various methods of measuring body composition
3. Develop the desire to undertake research.

Contents:

Unit I:

- **Body composition:** Importance, components, Methods of measuring body composition. Wang's five level model of body composition.
- **Energy:** Introduction, Components of Energy Expenditure. Energy Expended in physical activity. Measurement of energy expenditure. Units of measurements, Estimating Energy Requirements.
- **Carbohydrates:** Metabolic Utilization of Carbohydrates, Regulation of Blood Glucose Concentration.

Unit II:

- **Proteins:** Metabolism, Nitrogen Balance. Quality of Proteins . Methods used for evaluating protein quality (amino acid score, PER, BV, NPU).
- **Lipids:** Fatty Acids and Essential Fatty Acid deficiency.
- **Water and electrolytes:**
 - Body water, (Preformed and metabolic water) Functions, Distribution, Requirement, Water Balance. Water Retention and Depletion.
 - Sodium, Potassium, Chloride: Their Absorption, Excretion and Functions.
 - Acid- Base Balance

Unit III:

Macro Elements:

- **Calcium:** Metabolism, Absorption and factors affecting it
Calcium Balance and factors contributing to balance.
- **Phosphorous, Magnesium, Sulphur:** Functions, deficiency and toxicity.

Micro Elements:

- **Iron:** Absorption, Transport, Storage, Excretion, Functions, Deficiency and Toxicity.
- **Copper, Iodine, Manganese, Molybdenum, Zinc, Selenium, Flourine:**
Functions and Deficiency.

Unit IV: Vitamins.

Fat Soluble vitamins :

- **Vitamin A:** Metabolism, functions sources and deficiency.
- **Vitamin D:** Metabolism, functions sources and deficiency.
- **Vitamin E & K:** Metabolism, functions sources and deficiency.

Water Soluble Vitamins:

- **Thiamine: Metabolism, functions, sources and deficiency.**
- **Riboflavin:** Metabolism, functions, sources, and deficiency.
- **Ascorbic Acid:** Metabolism, functions, sources and deficiency.
- **Other water soluble vitamins.**

References:

1. Annual Reviews of Nutrition. Annual Review Inc., California USA.
2. Shils, M.E. Olson, J., Shike, M. and Roos, C. (1998): Modern Nutrition in Health and Disease. 9th Ed. Williams and Williams A. Beverly Co. London.
3. Bodwell, C. E., and Erdman, J. W. (1988): Nutrient interaction Marcel Dekker Inc., New York
4. WHO Technical Report Series.
5. Indian Council of Medical Research. Recommended Dietary Intakes for Indian Latest Recommendation.
6. Whitney, E., & Rady Rolfes, S. (2008). Understanding Nutrition (11th ed). Canda: Wadsworth, Cengage learning.
7. Insel, PEM., Turner, R.E., & Roos D. (2007). Nutrition (3rd ed) Sudnury: Jones & Bartlett Publishers.
8. Mahan, L.K., & Escogh- Sump, S. (2004). Krause's Food Nutrition & Diet Therapy (11th ed). Philadephia Sunders an imprint of Elsevier.

Journals

1. Nutrition Review
2. Journal of Nutrition.
3. American Journal of Clinical Nutrition

FOOD PROCESSING AND TECHNOLOGY

Code: HSC18402CR

CORE

Credits: L 4

Periods/week: 4 Hours

M.M: 100

Objectives:

1. Impart systematic knowledge of basic and applied aspects of food processing and technology.
2. Provide the necessary knowledge of production & procedures of some commercially and procedures in the important food products.

Contents:

Unit I: Principles in Food Processing Operations – thermal, refrigeration, freezing and dehydration.

- **Thermal processing:** Degree of processing or preservation, selecting heat treatments, heat resistance of micro organisms, protective effects of food constituents & types of thermal treatments.
- **Refrigeration:** Refrigeration, cold storage and shelf life extension; cold storages with air circulation humidity, control and gas modification.
- **Freezing:** Basic Principles, changes during freezing, freezing methods.
- **Dehydration:** Food dehydration, water activity and food safety/quality & methods of dehydration.

Unit II: Principles in Food Processing Operations, Ionizing Radiation, Chemical Preservation and Fermentation.

- **Chemical Preservation:** Preservation by salt and sugars ,
- common preservatives (Benzoate, propionate, sorbate) Antioxidants, potassium metabisulphate
- **Food Additives:-** Definition and classifications.
- **Fermentation:** Basic principles, types of fermentation, benefits of fermentation

Unit III: Processing Technology of Foods and Nutritional Implications for Cereal and Pulses, Fruits and Vegetables.

Cereals and Pulses

- **Wheat grain:** Structure, milling & wheat milling products:importance of wheat based baked products.
- **Maize:** Types of maize and milling.
- **Barley :** Nutritional and Nutraceutical importance of barley .
- **Rice:** Composition, parboiling, milling, cooking & nutritive value & rice products.
- **Pulses:** Anti-nutritional factors in pulses.

Fruits and Vegetables

- Nutritional and Nutraceutical importance of fruits and vegetables.
- **Fruit processing:** procedures for preparation of Apple jam, Lemon, Squash, ketchups, sauces, citrus marmalade.

Unit IV: Foods of Animal Origin :

Milk and Milk Products.

- Milk composition & factors influencing composition
- Nutritional importance of milk and milk products

- **Milk processing:** Clarification, separation, pasteurization, standardization & homogenization.
- **Milk products:** Fortified, skimmed & concentrate milks, cream, butter, cheese, cultured milk products, dehydrated milk products & ice creams.
- **Indigenous milk products:** khoa, paneer, curd, yoghurt, ghee, mallai & rabbi.

Meat, Fish and Egg, Fats and Oils, Spices and Food Additives.

- **Meat:** Nutritional importance, spoilage, freezing, and storage of meat.
- **Fish:** Nutritional importance, preservation (freezing, canning and pickling).
- **Egg:** Nutritional importance, quality parameters.
- **Major spices of India:** Processing, composition and uses.

References:

1. Gould, G.W. (1995), *New Methods of Food Preservation*, Blackie Academic & Professional, London.
2. Connor, J.M. and Schick W.A. (1997), *Food Processing An Industrial Powerhouse in Transition*, John Wiley and Sons, New York.
3. Stadelman, W.J. and Cotterill, D.J. (1986), *Egg Science and Technology*, AVI Publishing Co., INC., Westport.
4. Arthey, D. and Ashurst, P.R. (1996), *Fruit Processing*, Blackie Academic & Professional, London.
5. Phillips, R.D. and Finley J.W. (1989), *Protein Quality & Effects of Processing*, Marcel Dekker, INC. New York.
6. Inglett, G.C. and Munet, L. (1980), *Cereals for Food and Beverages*, Academic Press, New York.
7. Jelen, P. (1985), *Reston Publishing Co., INC, A Prentice-hall Co., Virginia.*
8. Hirasa, K and Takemasa, M. (1998), *Spice Science and Technology*, Lion Corporation, Tokyo, Japan.

9. Kalp, K. Lorenz, K. and Brummer, J. (1995), *Frozen and Refrigerated Doughs and Batters*, American Association of Cereal Chemists INC. St. Paul, Minnesota.
10. Von Loesecke, H.W. (1998), *Food Technology Series: Drying and Dehydration of Foods*, Allied Scientific Publishers.
11. Matz, S.A. (1996), *Bakery Technology and Engineering*, Third Edition, CBS Publishers, New Delhi.
12. Fellows, P.J. (2000), *Food Processing Technology: Principles and Practice*, Second Edition, CRC Woodhead Publishing Ltd, Cambridge.
13. Hosney, R.C. (1996), *Principles of Cereal Science and Technology*, Second Edition, American Association of Cereal Chemists, St. Paul, Minnesota.
14. Salunkhe, D.K. and S.S. Kadam (1995), *Handbook of Fruit Science and Technology: Production, Composition, Storage and Processing*, Marcel Dekker INC. New York.
15. Askar, A., Freptor, H. (1993) *Quality Assurance in Tropical Fruit Processing*, Springer-Verlag, Berlin.
16. Oliveira, A.R., Oliveira, J.C. (1999), *Processing Foods Quality Optimization and Process Assessment*, CRC Press, Boca Raton.
17. Peter Fellows (ed) (1997), *Traditional Foods: Processing for Profit*, Intermediate Technology Publications, London.
18. Harris, R.S. and Karmas, E. (1975), *Nutritional Evaluation of Food Processing*, AVI Publishing Co., Westport, Connecticut.
19. Fabriani, G. and Lintas, C. (1988), *Durum Wheat-Chemistry and Technology*, American Association of Cereal Chemists, Inc.
20. Fennema, O.R., Powrie, W.D., Marth, E.H., *Low-Temperature Preservation of Food and Living Matter*, Marcel Dekker INC. New York.
21. Tannerbaum, S.R., *Nutritional and Safety Aspects of Food Processing*, Marcel Dekker INC. New York.
22. Van Beynum, G.M.A. and Roels, J.A., *Starch Conversion Technology*, Marcel Dekker INC. New York
23. Ting, S.V. and Rouseff, R.L., *Citrus Fruits and Their Products: Analysis and Technology*.

24. Mathews, R.H., Legumes: Chemistry, Technology and Human Nutrition, Marcel Dekker INC. New York.
25. Kokini, J.L., Ho, C.T. and Karwe, M.V., Food Extension Science and Technology, Marcel Dekker INC. New York.
26. Potter. Norman N., Hotchkiss Joseph H, (5th Edition) Food Science, CBS publishers and distributors Darya Ganj, New Delhi
27. Kallia Manoranjan, Sood Sangeeta , food preservation and processing, Kaliyani Publishers.
28. Desrosier, Norman W. Dessoser N. James 4th edition, The technology food preservation. CBS, Publishers and distributors.
29. Shakuntala Manay, Shadaksharaswami, M. Food Facts and Principles, New Age International Private Limited

FOOD PROCESSING AND TECHNOLOGY(LAB COURSE)
/DISSERTATION

PRACTICAL (P2)

Code: HSC18403CR

CORE

Credits: P2

Periods/week: 4 Hours

M.M(Pract) 50

1. Thermal processing - canning and bottling of fruits and vegetables.
2. Freezing of meat to study the effect on acceptability and nutritive value. (Restricted to Protein)
3. Dehydration and sun drying of one seasonal fruit and comparison of acceptability and nutritive value of fresh and dehydrated products. (Restricted to Vitamin-C & Sugar)
4. Dehydration and sun drying of one seasonal vegetable and comparison of acceptability and nutritive value of fresh and dehydrated products. (Restricted to Vitamin-C & Sugar)
5. Re-hydration of dried vegetables and observing effects of preservation on acceptability .
6. Preparation and preservation of fruit squash.
7. Preparation and preservation of jam and jelly of one seasonal fruit.
8. Preparation and preservation of pickle.
9. Preparation and preservation of tomato ketchup and tomato sauce.

10. Compare the cost of products made in the lab with those of commercial products of similar quality.
11. Preservation of different food by using different preservatives (Salt, sugar, vinegar, sulphur and dioxide).
12. Procuring a list of food processing units in government and private sector. (Urban/Rural)
13. Visit to a food processing unit and submitting a report.

DISSERTATION (T2)

Code: HSC18403CR

Credits: T2

CORE

Periods/week: 4 Hours

M.M(Tutot) 50

- To undertake an independent piece of research work on an issue of contemporary concern that contributes to the advancement of knowledge in the field of Food Science and Nutrition/any other topic related to this field.
- The student will be guided and supervised by a member of the teaching faculty of the Institute. However, the dissertation in which the research culminates should reflect the student's own work.

NUTRITION IN CRITICAL CARE

Code: HSC18404CR

CORE

Credits: L 4

Periods/week: 4 Hours

M.M: 100

Objectives:

1. To understand the method of nutritional screening and nutritional assessment procedures.
2. To know about different methods of feeding for critically ill patients.
3. To know about the nutritional and special diet requirements in critical care.

Contents:

Unit I: Procedures of Nutritional Screening and Nutritional Status Assessment of the critically ill

Nutritional Screening

- Planning nutritional care
- Concept of screening, aims and objectives, explanation of the term screening, case finding and diagnostic tests.
- Uses, Types, Criteria of screening.

Nutritional Assessment

- Assessment procedure - Body weight in relation to height, Estimation of energy stores, estimation of somatic protein-circumference of mid-arm muscle. Clinical observation and dietary assessment.

Unit II: Conventional feeding method of Nutritional Support for Critically ill Patients.

- Conventional feeding
- Purpose of modified diets.
- Types of diets - Routine diets, modified diets, test diet, quantitative and qualitative diets.
- Increasing nutrient intake.
- Adaptation for individual characteristics- vegetarianism, cultural factors.
- Summary of routine hospital diets.

Unit III: Tube, Parenteral and Transitional methods of nutritional support for critically ill patients

Tube feeding:

- Types, Characteristics of an ideal tube feeding.
- Nutritional related problem in the tube-fed patients.

Parenteral Feeding:

- Composition of solutions, estimating nutritional needs.
- Complications, cyclic parenteral nutrition
- Transitional feeding.

Unit IV: Nutritional Requirements and Special Diets in Critical Care.

- Stress, sepsis and burns.
- CV complications and surgery
- GIT tract surgery
- AIDS, Cancer
- Hepatic failure.
- Neuro surgery.

References:

1. Clinical Nutrition and Dietetics 2/c Frances J. Zeina
2. Modern Nutrition in health and disease 7th edition Maurice E. Skills; Vernon R. Young.
3. Zaloga, G. P.,(1994) Nutrition in Critical Care, Times Mirror/Mosby.
4. Shills, M.E., Olson, J.A shike, M. Rose, A. C. (Ed) Modern Nutritional in health and disease. 9th Edition Williams and Wilkins.
5. Shikora, S.A and Blackburn G. L. (ed) (1999) Nutritional Support – Theory and Therapeutics, Chapman and Hall, ITP (International Thomson Publishing).
6. Mahan, L. K. and Escott – Stump, S. (2000) Krause’s Food Nutrition and Diet Therapy, 10th Ed. W.B. Saunders Ltd.
7. Phillips G.d., and Lodgers c. L., (1986) Parental and Enternal Nutrition. A practical Guide, Chuchhill Livingstone.
8. Kinney, J. M., and borum, P. R. (Editors) (1989) Perspective in clinical Nutrition, Urban and Schwarzengerg.
9. Torosian, M. H., (Editor) (1995) Nutirtion for the Hospitalised patient. Basic sciences and principles of practice.
10. Keynes W. H., and fowler P.B.S (1984) Clinical Endocrinology. William Heinemann medical Books, London. Shields, R. (editor) (1992) Bailliere’s clinical Gastroentrology Bailliere London.
11. Galanbos, J.P. (1979) cirrohiss in the series Major problems in Internal medicine, W.B., Sunders Company Philadelphia..
12. Frances, J. Zeman 2nd edition Clinical nutrition and dietetics

INTERSHIP/DISSERTATION

INTERNSHIP (P2)

Code: HSC18405CR

Credits: P2

Time period: 6 weeks

M.M: (Intern) 50

CORE

Objective:

The internship programme shall be of 6 weeks duration. The interns are expected to have considerable theoretical knowledge and competencies related to the following aspects:-

- Nutrition Screening and Assessment
- Dietary guidelines and practices
- Planning, nutrition care and intervention
- Implementing care plans
- Evaluating nutrition care
- Food Service Management
- Counseling

The internship is split up as follows:

➤ **A. Food Service:** Administration

(Kitchen functioning, Stores, Accounting Practices, Purchasing, Food Preparation, Distribution, Service, Safety and Sanitation, Facility layout and Management).

➤ **B. Clinical Posting** Renal Unit

Endocrinology

Cardiovascular

Surgical and Post Operative Unit

Pediatrics

Gastrointestinal Unit

Private ward

Outpatients ward (OPD) etc.

➤ **Nutrition and Diet Counseling:**

Exposure to OPD Diet Clinic.

Prescribing therapeutic diets to OPD patients.

Prescribing therapeutic diets to discharged warded patients under the supervision of dietitian.

➤ **Research and Training:**

Case study work

Presentation of case study(s)

Assignment

DISSERTATION (T2)

Code: HSC18405CR

Credits: T2

CORE

Periods/Week: 4 Hours

M.M: (Disser) 50

- To undertake an independent piece of research work on an issue of contemporary concern that contributes to the advancement of knowledge in the field of Dietetics of Clinical Nutrition/any other topic related to this field.
- The student will be guided and supervised by a member of the teaching faculty of the Institute. However, the dissertation in which the research culminates should reflect the student's own work.

GENDER AND DEVELOPMENT

Code: HSC18406CR

Credits: L 4

CORE

Periods/Week: 4 Hours

M.M: 100

Objectives:

1. To understand the concept, need, relevance and dimensions of gender empowerment.
2. To get sensitized to gender disparities/imbbalances and problems of women.
3. To know the efforts made at different levels for empowering women.
4. To know the support system in the country for women's development.

Contents:

Unit I: Gender and Development:

- Concept of gender, gender roles, changing trends, matrix shifts from welfare to development and empowerment, gender and development. National and International efforts for gender empowerment.
- Status of Women - Status, meaning, situational analysis, demographic education, employment, political and health- changing scenario.

Unit II: Violence against Women

- Dowry, divorce,
- Female foeticide and infanticide,
- Domestic violence, sexual harassment and exploitation

- Portrayal of women in mass media.
- Efforts for elimination of all forms of discrimination.

Unit III: Policies and programmes for women's development and support system

- National policy for empowerment of women, policy perspectives, mainstreaming, a gender perspective in the development process.
- Economic development - Poverty eradication, micro credit, self help groups, women and agriculture, women and industry and support services.
- Social empowerment - Education, health, nutrition, drinking water and sanitation, housing and shelter environment.

Unit IV: Legal Empowerment

- Legal literacy on personal and family laws, role of family court and legal aid centres.
- Political empowerment - Role of Panchayati Raj in the political empowerment of women.
- Support system- Role and functions of the department of Women and Child Development, Central Social Welfare Board, State Social Welfare Boards, National Commission for Women, Women's Development Corporation.

References:

1. Black M. (1993): Girls and women. A UNICEF Development Priority, UNICEF, New York.
2. Country Report (1995), Department of Women and Child Development Government of India: New Delhi.
3. Desia,N. (1986) Indian Women -- Change and Challenge to International Women's Decade.
4. Laxmi Devi, (1998). Women and Development. Institute for Sustainable Development and Anmol Publications Pvt. Ltd.; New Delhi.
5. National Perspective Plan for women (1998): Department of Women and child Development, New Delhi.
6. Sahays (1998) Women and Empowerment: Approaches and Strategies. Discovery Publishing House; New Delhi.
7. Shamim Aleen (ed) Women's Development Problems and prospects. APH Publishing Corporation.
8. Sharma, O.C. (1994) Crime Against Women Sterling Publishers Private Limited; New Delhi.
9. Subbama, M. (1985). Women, Tradition, Culture. Ashish Publishing House; New Delhi.
10. Yadav, C.P. (2000) Empowerment of Women Vol. 1 & 11. Laxmi Shikshan Sansthan and Anmol Publications Pvt. Ltd; New Delhi.

TRAINING AND DEVELOPMENT

Code: HSC18407CR

CORE

Credits: L 4

Periods/Week: 4 hrs

M.M: 100

Objectives:

1. To be aware of designing training programme for development.
2. To conceptualize the training process.
3. To provide experimental learning in training methodologies.
4. To evaluate sustainability of training programme.

Contents:

Unit I: Training and Learning

- Concept of learning, factors affecting learning among adults.
- Types and methods of learning, learning paradigms – learning knowledge, attitudes, skills practices, values, learning, reflective learning, literature learning.
- Concept of training: Goals of training, self-development, action learning, transformation and organizational development, enhancing organizational effectiveness, team spirit.

Unit II: Learning Methodologies.

- Current trends in training methodologies, organizational development approach, and competency based training, participatory training methodologies aspects, advantages,

limitations, and implication for training process.

- Training administration: policies, guidelines, authority --- the formation of training plans --- whom to be given training, when and how.
- Budget records, resourcing, use and choice of consultants.

Unit III: Trainers and Trainee Interface.

- Roles of a trainer, counsellor, partner, facilitators, teacher, advisor, model expert.
- Competencies of trainer attitudes, behavioural traits ---combining competencies of trainers , trainer -- trainee perceptions.
- Factors affecting, implications on training, building and developing assertive skills.
- Different phases of training, conceptual models of training
- System approach to training - inputs, process, outputs.
- Evaluation process— components, process, methods and techniques.

Unit IV: Training Process, Organizational Factors and Training

- Training Strategy and Designs - Training need assessment, Planning training and other resources programme, organizational environmental, training facilities and other resources.
- Arranging for strategies from training design. Training methods and interaction styles : classification of training methods, their importance, use and limitations— selecting appropriate methods to suit situations and circumstances. Case study, role play, psychodrama, sensitivity, buzz group discussion, transactional analysis, process work, micro— lab, business games etc.
- Cost, organizational support and other factors facilitating training, post training factors.
- Organizational factors and training. Working climate, leadership, values, mechanics of change - organizational structures for facilitating micro and macro level interventions for facilitating development.

References:

1. Berger, M. L. and Berger, P. J. (1973) Group Training Technologies. Lowe and Bryalone Pvt. Ltd; Haver Hill; Britian.
2. Bhatnagar, D.P. (1989) Evaluation Methodologies for Training theory and Practical. Oxford and IBH Publishing Company; New Delhi.
3. Easterby Smith, Mark (1986) Evaluation Management, training and Development. Growers Publishing England.
4. Flippo Edwin, B. (1972) Principles, of Personnel Management. McGraw Hill Co.; New York.
5. Hacked, P. (1997). Introduction to Training. Universities Press Hyderabad.
6. Kolb, D. (1984). Experimental learning. Experiences as the source of learning and development. Prentice Hall Inc; New Jersey.
7. Lyton, R. and Parek, O. (1990). Training for Development. Vistar Publications:
New Delhi.
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11. Palmer, A.B. (1981), Learning cycle: Models of Behavioural Change - A Handbook of Group facilitator. University Associates: California.
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13. Prior, F. (1994) Handbook of Training and Development. Jaico Publishing House;Bombay.
14. Singh, P. N. (1989). Training for Management Development. Forum of Asian Managers Bombay.
15. Spaihawk, S. (1998). Identifying Targeted Training needs. Wheeler Publishing; New Delhi.
16. Stephen, P. R. (1989). Organizational Behaviour.
17. Truelove, S. (1997). Handbook of Training and Development. Beacon, A Blackwell Asia, Imprint, New Delhi.
18. Vanments Mony (1983). The effective Role Play – A Handbook for teachers and Trainers Kogan Page Ltd. London.
19. Virmane and seth, P. (1989) Evaluation Management in training and Development. Vision; New Delhi.
20. York, A. (1989) The System Approach to Training Royal Institute of Publishing, Administration Studies, London.

GENDER AND DEVELOPMENT/ DISSERTATION (LAB COURSE)

Practical (P2)

Code: HSC18408CR

CORE

Credits: P2

Periods/week: 4 Hours

M.M: (Pract) 50

1. Studying status of women in rural and urban community.
2. Identification of problems faced by women in rural and urban community.
3. Preparation of an album on women's issues and its presentation.
4. Assessment of self-concept with reference to identity and power of women.
5. Designing and conducting training programmes for women related to Health Education Social and Economic aspects.
6. Study & Reporting on institutions supporting women Entrepreneurship in Kashmir. (Govt & Non-Govt).
7. Visit to 3 urban women entrepreneurial units and submitting a report in relation to its technical, marketing, economical, educational and financial analysis.
8. Visit to 3 rural women entrepreneur units and submitting a report.
9. Preparing and submitting a report for an entrepreneur unit and its presentation.

DISSERTATION (T2)

Code: HSC18408CR

Credits: T2

CORE

Periods/Week: 4 Hours

M.M: (Disser) 50

- To undertake an independent piece of research work on an issue of contemporary concern that contributes to the advancement of knowledge in the field of Extension and Communication and Women and Child Studies/any other topic related to this field.
- The student will be guided and supervised by a member of the teaching faculty of the Institute. However, the dissertation in which the research culminates should reflect the student's own work.

DEVELOPMENT OF CREATIVITY

Code: HSC18409CR

Credits: L 4

CORE

Periods/Week: 4 Hours

M.M: 100

Objectives

1. To understand the relevance & scope of studying creativity.
2. Become aware of the concept of creativity & various approaches to its study.
3. Understand the role of the individual, the content & socialization in developing creativity.
4. Become familiar with psychometric measurement & alternate ways of assessing.

Contents:

Unit I - Concepts of Creativity

- Historical development of creativity.
- Conceptual frame work----levels & traits of creativity.
- Types, process & stages of creativity.

Unit II - Approaches and perspectives to the study of creativity

- Neuropsychological perspective
 - Neuropsychological base of hemispherity
 - Learning motivational model
- Traditional perspective
- Modern psychological perspective
 - Psycho analytical, Humanstic perspective

- Cognitive and Non cognitive perspective
- Models on creative and training teaching

Unit III - Creativity and developmental Factors

- Creativity through the life span
- Creativity in relation to intelligence, achievement, personality
- Factors affecting creativity.

Unit IV - Identification & Development of Creativity

- Measurement---Testing & non-testing techniques of assessing creativity & techniques of development of creativity.
- Training methods---Problem solving, brain storming, inquiry training, synectics, morphological analysis, attribute listing, forced relationship, lateral thinking technique, creative problems Solving.

References

1. Rather, A. R. Creativity.
2. Passi, B. K. (1979) Passi test of creativity Agra: National psychological corporation
3. Chaddha, N. K. (1984) Perspectives in creativity. New Delhi: Ess Ess publication.
4. Dagar, B. S. (1989) Cultural Education & creativity, New Delhi: Uppal publication House.
5. Sternberg, R. J. (1999) Handbook of creativity. U. K. Cambridge University Press.
6. Sharma, V.P. (2000) Creativity potentials and prospectus, Agra: Print Palace.
7. Rajamanikam, M. (2004) Experimental Psychology with Advanced experiments, New Delhi: Concept Publishing Company.

PRINCIPLES OF GUIDANCE AND COUNSELLING

CORE

Code: HSC18410CR

Credits: L 4

Periods/Week: 4 Hours

M.M: 100

Objectives:

1. To understand the need for guidance and counseling in human development
2. To introduce basic concept in guidance and counseling.
3. To discuss the processes involved in counseling a different stages in life.

Contents:

Unit-I - Guidance and counseling

- Guidance: Concept, Objectives, Characteristics, Need and Principles.
- Counselling: Concept, Levels, Purpose, Need, Principles , Elements, types & Steps.
- Ethical and Legal Guidelines.

Unit-II - Basic Approaches and theories

- Psychoanalytic(Freud)
- Person Centered Theory
- Cognitive Behaviour Theory
- Eclectic Counselling
- Counseling and Psychotherapy(Major differences)
- Differences in emphasis between directive and client centered techniques

Unit-III - Need for counseling for parents & children at Different stages of development

- Infancy
- Childhood
- Adolescence
- Adult and old age
- Types of Guidance and Counselling Services
 - Educational
 - Vocational
 - Social Relationships
 - Family and Marital Areas

Unit-IV - Guidance and counseling of special groups:

- Gifted
- Mentally Challenged
- Physical, Social, Emotional Disabilities
- Socially Educationally backward

References:

1. Nicolson, D & Ayrns 11 (1995) Individual Counseling: Therapy and practice. London: David Fulton.
2. Manth, R. (1997) Counseling: The skills of finding solution to problems. London : Routledge.
3. Burnard, P. (1999) Counseling Skills training. New Delhi: Viva Books.
4. Gibson, R.L. & Mitchell, M.H., (2003) Introduction to Counselling and Guidance, New Delhi: Prentice Hall.
5. Welfel, E. R & Patterson L. E (2004) The counseling Process - A multi Theoretical Integrative Approach. Thomson/ Brooks/ Cole.
6. Rao, S. N; Hari M & Rao D. B. (2006) Guidance & Counselling, New Delhi Discovery publishing House.

7. Sharma, R.L & Sharma R. (2007) Guidance & Counselling in India, New Delhi, Atlantic Publishers.
8. Shrivastava K.K., (2008) Principles of Guidance & Counselling New Delhi: Kanishka Publishers.
9. Capuzzi D & Gross D.R. Counselling & Psycho therapy-Theories and Interventions (4th Ed) Pearsons Education India.

**PRINCIPLES OF GUIDANCE AND COUNSELLING (Lab
Course) / DISSERTATION**

Practical (P2)

Code: HSC18411CR

CORE

Credits: P2

Periods/Week: 4 Hours

M.M: (Prac) 50

1. Interaction with practising counselors and therapists through visits to:

- Hospitals
- Orphanages

2. Learn about the counseling process:

- Role play- (Psycho-Social problems of Adolescents)
- Puppetry-(Traumatic disorders/ Social evils among Women)

3. Analysis of one case study about psycho social problems. Preparing and submitting a case report.

4. Plan and organize life style educational programme for adolescents on:

- Nutrition and diet.(Nutrition awareness and recommended diets)
- Healthy family life.(Reproductive health, Sexually transmitted diseases, Family planning measure

Dissertation (T2)

Code: HSC18411CR

Credits: T2

CORE

Periods/Week: 4 Hours

M.M: (Tutori) :50

- To undertake an independent piece of research work on an issue of contemporary concern that contributes to the advancement of knowledge in the field of Human Development and Childhood Studies/any other topic related to this field.
- The student will be guided and supervised by a member of the teaching faculty of the Institute. However, the dissertation in which the research culminates should reflect the student's own work.

PROJECT MANAGEMENT AND WOMEN ENTREPRENEURSHIP

Code: HSC18412CR

Discipline Centric Elective

Credits: L 4

Periods/Week: 4 Hours

M.M: 100

Objectives:

1. To provide conceptual inputs regarding structure and development of women entrepreneurship.
2. To sensitize and motivate students towards entrepreneur management.
3. To understand the framework for identifying and evaluating projects.
4. To impart skills for planning and management of the projects undertaken.

Contents:

Unit I: Women Entrepreneurship:

- Concept and development of women entrepreneurship. Functions and role of women entrepreneurs.
- Characteristics and personal attributes of successful entrepreneurs. Developing entrepreneurial competencies.
- Institutional support in women entrepreneurship. Problems faced by SSI in J&K
- Problems faced by women entrepreneurs and their remedies.

Unit II: Project Identification:

- Identification of project, generation and screening of project ideas. Classification of projects.
- Forms of ownership - sole proprietorship, partnership, company and cooperative society. Factors influencing the choice.
- Steps for starting a small business, procedure and formalities for registration.
- Incentives and subsidies- need and problems.

Unit III: Project Analysis:

- Market and demand analysis- Demand forecasting. Marketing problems and their remedies.
- Technical, management and economic analysis of projects.
- Estimation of cost of projects- objectives, components and basis of estimates.
- Working capita requirement and its estimates.
- Sources of finance - short term and long term sources.

Unit IV: Financial Analysis and Project Implementation:

- Proforma profit & loss statement and balance sheet.
- Techniques of financial analysis - Break-even analysis, pay back period, average rate of return. Net present value and internal rate of return.
- Project format – common format of a project proposal. Information base and rules governing the preparation of project proposal.
- Project implementation – pre-requisites for successful implementation. Monitoring, controlling and follow-up.

References:

1. Akhauri, M.M.P. (1990) Entrepreneurship for women in India, NIESBUD, NewDelhi.
2. Hisrich, R.D. and Brush, C.G. (1986) The women Entrepreneurs, D.C Health & Co Toranto.
3. Hisrich, R.D. and Peters, M. P. (1995) Entrepreneurship –Starting Developing and Managing a New Enterprise, Richard D., Irwin, INC, USA.
4. Meredith, G.G. et, al, (1982): Practice of Entrepreneurship, ILO Geneva.
5. Patel, V.C. (1987): Women Entrepreneurship –Developing New entrepreneurs, Ahmadabad EDII.
6. Grover, Indu, & Grover, (2002). Women and empowerment, Agrotech. Publishers, Udaipur.

Current & Emerging Concepts In Human Nutrition

Code: HSC18413DCE

Discipline Centric Elective

Credits: L 4

Periods/week: 4 Hours

M.M: 100

Objectives:

1. To orient students with current concepts in Human Nutrition
2. To Know about the Emerging trends in Nutrition
3. To make students understand the importance of fiber in relation to Health

Contents:

UNIT I: Defensive Nutrition Paradigm

- Phytochemicals: Concept and its role in prevention of diseases, Antioxidants & their health benefits.
- Concept of Nutrogenomics & Nutraceuticals.
- Probiotics and their beneficial effects, prebiotics.
- Genetically Modified Foods and their benefits. Safety of GM Foods.
- Nutritional Supplements & Ergogenic Aids- Types.
- Government Regulations of Food Safety- FSSAI.

UNIT II: Emerging trends in Nutrition

- Organic Foods & Organic Farming
- Functional Foods & their Benefits
- Commonly used Milk Substitutes
- Artificial sweetener and its types.
- Various Fat replacers in the diet
- Advanced concept of food preservation
- Placebo effect

Unit III: Food Technology

- Food Engineering.
- Food fortification & Enrichment- objectives, commonly fortified foods & methods of fortification.
- Irradiation- Safety & Quality of irradiated foods.
- Microwave Cooking- Its advantages & disadvantages.

UNIT IV: Fiber & its benefits

- Dietary fiber & its types (Soluble And Insoluble Fiber)
- Sources of Fiber & its components
- Importance of Fiber in Human Nutrition
- Role of Fiber in Prevention of Diseases
- Resistant starch & its Potential health benefits.

References:

1. Robinson, C. H., Normal and Therapeutic Nutrition. (17th Edition) Macmillan Publishing Company.
2. Lea & Febiger USA Publishing.
3. Shills M.E., et.al., Modern Nutrition in Health and Disease.
4. B. Shri. Lakshmi., Dietetics, 4th Edition. New age, International (p) Ltd. Publishing.
5. Davis J., and Sherer, K. (1994): Applied Nutrition and Diet Therapy for nurses 2nd Ed. W.B.Saunders. Co.
6. William, S. R. (1993): Nutritional & Diet Therapy 7th Ed. Times Mirror/Mosby College Publishers.

FOOD SAFETY AND QUALITY CONTROL

Code: HSC18414DCE

DISCIPLINE CENTRIC ELECTIVE

Credits: L 4

Periods/week: 4 Hours

M.M: 100

Objectives:

1. Understand the importance of quality assurance in food industry.
2. Understand various tests and standards for quality assessment and food safety.
3. Understand various tests used to detect food adulterants
4. Be familiar with the fundamentals that should be considered for successful quality control programme.

Contents:

Unit I: Quality Control

- Definition of quality, quality control and quality assurance, Total Quality Management and Different Quality Standards.
- Factors affecting Food Quality – Extrinsic and Intrinsic
- Functions of quality control in food Industry
- Introduction to statistical quality control and control charts

Unit II: Sensory Evaluation of Food Quality.

- Sensory tests - Trained panel members, testing laboratory, preparation of samples, techniques of smelling and tasting, testing time, design of experiment, reasoning for testing good quality evaluation card.
- Types of tests -
 - Difference tests - paired comparison test, duo-trio test, triangle test.
 - Rating tests - ranking test, single sample (Monadic test), two sample difference test, multiple sample difference test, Hedonic rating scale, numerical scoring test, composite scoring test.
 - Sensitivity test - sensitivity threshold test, dilution test, descriptive flavour profile method.
- Limitation of sensory evaluation

Unit III: Objective Evaluation of Food Quality

- Advantage, disadvantages and basic guide lines,
- Physical methods of food evaluation.
- Chemical methods of food evaluation.
- Physico-chemical methods & Microscopic examination.

Unit IV: Hazard analysis critical control point (HACCP)

- Introduction and Principles of HACCP
- Physical, chemical and biological Hazards in foods
- Consumers role and safe food practices - buying, storing, preparing cooking and serving .
- Food Safety and Standards Act.

References:

1. Early, R. (1995): Guide to Quality Management Systems for the food Industry, Blackie, Academic and professional, London.
2. Gould, W. A., and Gould, R. W (1988): Total quality Assurance for the Food Industries, CTI Publication Inc, Baltimore.
3. Pomeranz, Y. and Meloan, C.E., (1996): Food Analysis: theory and practice, CBS publishers and distributor New Delhi.
4. Ranganna, S. (1986): Handbook of analysis and quality control for Fruit and vegetables products 2nd, edition Tata, McGraw Hill Publishing co, Ltd, New Delhi.
5. Hagstad, H.V and Hubbert, W.T. (1986) Food Control, Foods of animal Origin, Iowa State University Press, AMES.
6. James C.S., (1995) Analytical Chemistry of Foods, Blackie Academic and Professional (Chapman and Hall) Madras.
7. Bryan, F. L. (1992): Hazard Analysis Critical Control Evaluations. A Guide to Identifying Hazards and Assessing Risks Associated with Food Preparation and Storage. World Health Organization, Geneva.
8. Kirk, R. S. and Sawyer, R. (1991) Pearsons Composition and Analysis of Foods, Longman Scientific and Technical. 9th Edition, England.

9. Food and Agricultural Organization (1980): Manuals of Food Quality Control. 2 Additives Contaminants Techniques, Rome.
10. Bureau of Indian Standards: Specifications and Standards Methods.
11. Herschderfer (1987): Quality Control in Food Industry, Food Science and Technology -- A series of Monographs, Academic Press, London.
12. Marion Bennion 10th Edition, Introductory Foods.
13. Norman W. Desrosier, James N. Desrosier, 4th Edition, 1987, The Technology of Food Preservation.
14. B. Srilakshmi, 3rd Edition 2003, Food Science.
15. Paul Insel, R. Elaine Turner, Don Rose, 2002 edition, Nutrition
16. N. Shakuntala Nanay, M. Shadaksharaswamy, 2nd Edition 1996 Foods Facts and Principles.
17. Singh, S.P. Funk, J., Tripathi, S.C., & Joshi, N. (2009). Food Safety Quality Assurance and global trade. VP (India): International Book Distributing Co.
18. Jaub, I.A., & Singh, R.P. (1998) Food Storage Stability, New York CRC Press.
19. Pearson, A.M., & Dutson, T.R. (1995) HCCP in meat, Poultry and Fish processing. New York: Aspen Publishers, Inc.
20. Jarber, J.M., & Todd, E.C.D. (2000) Safe handling of foods. New York Marcel Dekker, Inc.
21. Vrema, L.R., & Joshi, V.K. (2000) Post harvest technology of fruits & vegetables handling, processing formation and waste management, New Delhi, Indus Publishing Company.

PARENTING IN EARLY CHILDHOOD

Code: HSC18415DCE

Discipline Centric Elective

Credits: L4

Periods/week: 4 Hours

M.M: 100

Objectives

- To understand the significance of parents role in early childhood.
- To develop skills to involve parents in early childhood education programmes.
- To learn to conduct parent education programmes.

Contents:

Unit I: Individual Parenting Roles.

- The task of parenting and the concept of parenting skills.
- Changing concept of parenthood and childhood.
- Being a competent parent.
- Determinants of parenting behaviour.
- Characteristics of the parenting roles.
 - The mothering role.
 - The fathering role.

Unit II: Developmental Interaction in Early Childhood Years

- Parents role in developing self awareness in children.

- Family relations and communication.
- Expressing and controlling emotions.
- Discovering personal capabilities.
- Establishing routines and showing responsible behaviour.
- Learning social role and interactions with others.
- Meeting the family & children's needs during early childhood years.

Unit III: Techniques of parent Education in Preschool Setting

- Informal Meeting: Occasional/accidental meeting, written/printed-newsletters, circulars, notices etc.
- Parent library, toy library.
- Workshops/demonstration centre.
- Parents corner.
- Open house.
- Large/small group meetings.
- Individual meetings: Home visits, individual sessions.
- Working with vulnerable families.

Unit IV: Parent Education and Support

- Role of professionals.
- Parents as family workers.
- Flexibility to different needs.
- Personal development of parents.

References:

1. Bigner, J.(1979): Parent child relations: An introduction to parenting. N.Y. : McMillian Pub.
2. Brim, Harman (1980); Learning to be parents, principles, programmes and methods. Saga Pub.
3. Fine Marwin (1980): Handbook on parent education, New York: Academic Press Inc.
4. Goldelein, J.C. (Ed.)(1994). toys, Child Development, Cambridge University Press.
5. Gordon, Thomas (1975): Parent effectiveness training, New York: New American Library.
6. Gillian, Pugh (1984): The needs of parents, practice and policy in parent education, Macmillan,
7. Gupta (1991). Speaking of Child Care, Everything You Wanted to Know: (2nd Ed.). New delhi : Sterling.
8. Lidhop, M. (1987). Child rearing and Psycho-social Development. New Delhi: Ashish Publications.
9. Kulkarni, Sudha (1988): Parent Education, Jaipur: Rawat Pub.
10. Naidu, U.S. and Nakhate, V.S. (1985). Child Development Studies in India. Bombay: Tata Institute of Social Sciences.
11. Wagh, Anutai (1984): Parent and Community Participation in the PreSchool Programme, New Delhi: NCERT.

Participatory Tools and Methods

Code: HSC18004GE

GENERIC ELECTIVE

Credits: L2

Periods/week: 2 Hours

Marks: 50

Objectives:-

1. To understand meaning and principles of PRA.
2. To acquaint the students with different PRA methods.

UNIT I: Participatory Rural Appraisal & Space related PRA Methods

- Meaning, principles and advantages.
- PRA; process, team, structuring and choosing PRA team.
- Social , Resource and Mobility Map
- Services and opportunities
- Participatory Census Method.

UNIT II: Time related and Relation PRA Methods.

- Time line and Trend Analysis
- Daily Activity Schedule
- Dream Map
- Well Being Ranking
- Venn Diagram
- Spider Diagram

References:

1. Somesh Kumar., Methods for Community participation. A Complete Guide for Practitioners.
2. Chandramouli., K (1991) "Pass on the Pen Approach. Identifying the poorest of the poor families; PRA notes 14: December, PP 29-32 IIED, London.
3. Cornwall, A. (1992) "Body Mapping in Health PRA/ PRA' PRA notes 16 July PP 69-76 IIED, London.
4. Kumar Somesh ed., (1996) ABC of PRA - Attitude and Behaviour changes, A report of the Proceeding of South - East Workshop on Attitudes and Behaviour in PRA. Action Aid India and PRAXIS, Patna.
5. Dr. A. Adivi Reddy, 7th Edition 2001, Extension Education.
6. G. L. Ray, 2nd revised and enlarged edition 1996, first published 1991.

Introduction to Disabilities

OPEN ELECTIVE

Code: HSC18004OE

Credits: L2

Periods/week: 2 Hours

Marks: 50

Objectives:

1. To make the student aware about the concept of disabilities
2. To acquaint the student with different types of disabilities

Contents:

Unit I - Disability (Physical & Skeletal Disorders)

- Concept of normality, disability, impairment and handicap
- Physical disorders (causes of CNS disorders, Cerebral Palsy, Epilepsy, Spinal bifida, Spinal cord injuries)
- Arthritis, Amputation (causes)
- Mental retardation (causes and types)

Unit II - Sensory and Emotional Impairments (concept, causes and characteristics)

- Visual impairment
- Speech impairment
- Emotional impairments:
 - Autism
 - Schizophrenia
 - obsession and compulsion

References:

1. Kanga F. (1990) *Heaven on wheels*, New Delhi Penguin Books
2. Narasimhan M.C & Mukherjee A.K. (1986) *Disability a continuing challenge*, New Delhi Wiley Eastern limited.
3. Oliver M.(1996) *Understanding Disability, from theory to practice*, London Macmillan press.
4. Pandey R.S & Advani L. (1996) *Perspectives in disability and rehabilitation*. New Delhi Vikas Publishing House Private Limited.
5. Kirk, S.A., Gallagher, J.J., Anastaslow, N.J., & Coleman, M.R. (2006). *Educating conceptual children* (11th ed.) New York: Houghton Mifflin Company.
6. Micheal L. Hardman, Clifford J. Drew, M. Winston Egan, Hardman (2004) *Human Exceptionality - Society, School & Family*, 8th Edition, Allyn & Bacon.