

M. A.II HOME SCIENCE

SYLLABUS FORMATE

IMPLIMENTED FROM – JUNE 2011

SEMESTER – 3

Course No	Name of the Subject	Teaching hours per week			Credits
		Lectures	Others	Total	
HSC 501	Advance Nutrition - 1	3	1	4	4
HSC 502	Apparel Design & Construction	3	1	4	4
HSC 503	Practical Base on 501 &502	6	-	6	4
HSC 504 E- A	Child and Human Rights	3	1	4	4
HSC 504 E - B	Problems in Human Nutrition				
HSC 505 E - A	Communication Technology & Extension	3	1	4	4
HSC 505 E - B	Nutrition and Health of Women				
HSC 506	Seminars/Projects Related to Sub. 501, 502	4	-	4	4
	Totals	22	-	4	24

SEMESTER – 4

Course No	Name of the Subject	Teaching hours per week			Credits
		Lectures	Others	Total	
HSC 507	Advance Nutrition -2	3	1	4	4
HSC 508	Advance Apparel Construction	3	1	4	4
HSC 509	Practical base on 507 & 508	6	-	6	4
HSC 510 E - A	Early Childhood care & Education	3	1	4	4
HSC 510 E - B	Food Processing & Technology				
HSC 511	Dissertation	-	-	8	8
	Totals	15	3	26	24

M.A. Part – 2

Paper No. (H.Sci. 501)

Semester – 3

Name of the Paper :- “ADVANCE NUTRITION – I”

Objective :-

This course will be enable the students to

- 1) Augment the biochemistry knowledge acquired at the undergraduate level.
- 2) Understand the mechanisms adopted by the human body for regulation of metabolic pathway.
- 3) Get an insight in to interrelationship between various metabolic pathway.
- 4) Become proliferation for specialization in nutrition.

Unit – I

1) Energy Metabolism

(A) – Determination of energy value of Food : Bomb calorimeter and oxy calorimeter.

(B) – Basal metabolic rate : Measurement and factors affecting basal metabolic rate.

(C) – Measurement of energy requirement of an individual with reference to man and women.

Unit – II

1) Carbohydrates.

- A) - Chemistry and classification.
- B) - Digestion and absorption.
- C) - Metabolism : Glycol sis, TCA Cycle, gluconeogenesis glycogen synthesis.
- D) - Regulation of carbohydrates metabolisms, General mechanical, Hormonal regulation
Blood glucoses Homeostasis.

2) Proteins

- A) - Chemistry and classifications
- B) - Amino acids – structure and classification.
- C) - Digestion and absorption.
- D) - Metabolism citric acid cycle.
- E) - Evaluation of protein quality.

Unit – III

1) Nucleic acids and Nucleoproteins.

- A) - Classification of nucleic acid RNA & DNA.
- B) - Metabolism and Biosynthesis of Nucleic acid pyramioline and purre synthesis.
- C) - Genetic engineering : Recombinant DNA, RNA Synthesis (Transcription)

2) Enzymes and digestive Secretions.

A) - Enzymes : Nature of enzymes. Mechanism of action of enzymes, Physical factor altering enzyme activity, classification and nomenclature.

B) - Digestive juices : Saliva, Gastric Juice, Pancreatic Juice, intestinal Juice, the bile etc.

Unit – IV

1) Lipids

A) - Composition and classification.

B) - Characteristics of Fats, Hardness, Hydrogenation, Emulsification, Saponification
Rancidity, Effect of Health.

C) - Digestion and absorption.

D) - Types of fatty acids, nutritional significance.

E) - Requirements of Fat.

M.A. Part – 2

Paper No. (H.Sci. 502)

Semester – 3

Name of the Paper : - “APPAREL DESIGN AND CONSTRUCTION”

OBJECTIVES :

1. To impart an in depth knowledge of style reading pattern making and garment construction techniques.
2. To develop and understand the principles of pattern making through flat pattern and draping.

CONTENT :

UNIT – I

1. Detailed study of industrial machines and equipment used for –
 - Cutting
 - Sewing
 - Finishing
 - Embellishment

UNIT – II

1. Study the interrelationship of needs, Thread stitch, Length and Fabric
2. Methods of Pattern making.
 - Drafting
 - Flat Pattern
 - Draping

UNIT – III

1. Developing Paper Pattern

- Understanding the commercial paper pattern.
- Layouts on different fabrics, widths and Types.

2. Readymade garments.

UNIT – IV

1. Garments and Garment Details :

- Necklines and collars
- Sleeve details
- Skirts and Pants
- Blouses, coats and Jackets
- Frills, Fringes and gathers, cowls & cascades
- Hemlines and insertions
- Lacing, macrames and patch work
- Pleats, quelling and ties
- Shirring, Smoking and Zips
- Yokes and underskirts
- Tassels and tucks

2. Basic Rendering Techniques :

- Colors matching using different mediums.

- Stripes
- Checks gingham and plaids
- Patterns and texture
- Reducing a Print
- Shading

3. References :

- A. Armstrong Pattern making for Fashion Desing.
- B. Gioello and Berke : Figure Type and size Ramnge, Fairchild Publications, New York.
- C. Grate and storm : Concepts in clothing, Mc Graw Hill Book, New York.
- D. Bina Abling, Fashion sketch Book, Fairchild Publications, New York.
- E. Claire Shaeffers: Fabric sewing Guide, Chilton Book Company, Radnot, Pennsylvania
- F. Harold Carr and Barbara Lthan: The technology of clothing manufacture, Oxford BSP Professional Book London.
- G. Slampler, Sharp & Donnell: Evaluating Apparel Quality – Fairchild Publications, New York
- H. Nattle Bray: Dress fitting published by Black Well Science Ltd.
- I. Margohs Design your won pattern published by Double Day and Co. Inc. New York.

M.A. Part – 2

Paper No. (H.Sci. 503)

Semester – 3

Name of the Paper: “PRACTICAL BASED ON 501 & 502”

Practical based on 501

1. Designing through flat pattern- Dart Manipulation
2. Development of variation in sleeves
 - a. Sleeves and bodice combination
3. Development of variation in collars
 - a. Roll over collar
 - b. Collar with bodice (Shaw)
4. Necklines and Facings
 - a. Scooped Necklines
 - b. Built-up Necklines
 - c. Eowl Necklines
5. Plackets
 - a. Center button closing
 - b. Asymmetrical closing
 - c. Double breasted
6. Development of Paper Pattern and Construction of Garments (Using checks, stripes, unidirectional and novelty fabrics)
7. Designing through draping

- a. Basic draping Principles and Techniques
 - b. Developing a Pattern
8. Fashion Sketching
 9. Term Garments – 2

Practical based on 502 Advanced Nutrition – 1

This course will enable the students and be familiar with qualitative test and quantitative determination.

1. Reaction of monosaccharide and their identification
2. Reaction of disaccharides and their identification
3. Reaction of Polysaccharides and their identification
4. Estimation of lactose in milk
5. Estimation of reducing sugar in food
6. To find our organic constituents of milk, egg and wheat flour
7. Bleeding time and clotting time
8. Estimation of blood protein by biuret method
9. Reaction of protein in food denaturation, eragulation
10. Determination of acid value, saponification and Iodine value of natural fat and acid

M.A. Part – 2

Paper No. (H.Sci. 504 E - A)

Semester – 3

Name of the Paper: “CHILD AND HUMAN RIGHTS”

Objectives:

- To develop awareness and perspective of Human Rights as a professional in the field of Human Development
- To develop sensitivity to Human Rights with specific reference to children’s rights
- To gain knowledge about charter on Human and Children’s Rights
- To work with women and children to create awareness about their rights and to guide them to access their rights

Contents:

Unit 1 - Definition and Evolution of Rights

- Human rights
- Child rights
- Woman’s rights
- Charter
- Convection
- Policy

Unit 2 – Status of Indian Children and their Rights

- Gender disparities (infanticide , foeticide, girl child)
- Children in difficult circumstances (children of prostitutes, child prostitutes, child labour, street children, refugee children and child victims of war.)
- Children with special needs.

Unit 3 – Status of Women and their Rights

- Status of women in India
- Women and Human Rights
- Causes of violation of women's rights
 - o Violence against women in home, work, places and society
 - o Sexual harassment, rape
 - o Crime against women
 - o Political discrimination
 - o Health and Nutrition based

Unit 4 – Human Rights

- Moral Rights
- Legal Rights
- Civil and Political Rights

Advocacy for Human Rights

References:-

1. Butterworth, D. and Fulmer, A (1993). Conflict, Control Power. Perth : Child and Family Consultants.
2. Bruner, T. (1986). Actual minds – possible words. London ; Harvard University Press.
3. Digumarti, B.R. Digumarti, P.L. (1998). International Encyclopedia of Women (Vol.1), New Delhi : Discovery.
4. D'Souza, C. and Menon, J. Understanding Human Rights (Series 1-4) Bombay: Research and Documentation Centre, St. Pius College.
5. Dreze, Jean and Sen, Amartya (1989). Hunger and Public Action, U.K. Oxford University Press.
6. Government of India (1992b). National Plan of Action: A commitment to the Child, Department of Women and Child Development, New Delhi.
7. Government of India (1993c). Education for All: The Indian Scene, Department of Education, New Delhi.
8. Government of India (1993d), Ministry of Finance, Economic Survey 1992-93, New Delhi.
9. Government of India (1994), Ministry of Finance, Economic Survey 1993-94, New Delhi.
Government of Tamil Nadu (1993). Dr. J. Jayalalita 15 Point Programme for Child Welfare, Department of Social Welfare and Nutritious Meal Programme, Madras.
10. Kudchedkar, S. (Ed.)(1998). Violence against Women : Women against violence. Delhi : Percraft International.
11. National Institute of Nutrition (1993). Nutrition Trends in India, National Institute of Nutrition, Indian Council of Medical Research, Hyderabad.
12. National Institute of Public Cooperation and Child Development (1993). A Statistics on Children in India Packet Book 1993, New Delhi.
13. National Institute of Urban Affairs (1993), Urban Child: Issues and Strategies In collaboration with Planning Commission, Ministry of Urban Development and UNICEF, New Delhi.
14. National Law School of India University and United National Children's Fund (1991). Report

of a Seminar on the Rights of the Child, National Law School of India University, Bangalore.

15. National Commission for Women (2001). A Decade of Endeavour (1990-2000), New Delhi; National Commission for Women.

16. Sachar, R.K. Verma, Dahawan, S., Prakash, Ved, Chopra, A. and Adlaka, R. (1990). Sex bias in health and medical care allocation, Indian Journal of Maternal and Child Health, 1(2) 63-65.

17. UNICEF (1992), Rights of the Child: World Declaration and Plan of Action from the World Summit for Children and the Convention on the Rights of the Child, New Delhi.

18. UNICEF (1993). The Progress of Nations, New York.

19. UNICEF (1994). The State of the World's Children 1994, Oxford University Press, U.K.

20. UNICEF (1990). Children and Women in India: A Situation Analysis: 1990, New Delhi.

21. UNICEF India (1993). Annual Report on Country Situation: 1993, New Delhi.

22. UNICEF India (1993). Annex to the Annual Report on Goals and Indicators, New Delhi.

23. UNICEF India (1993). Policy on Child Labour, New Delhi.

24. Weiner, Myron (1991). The Child and the State in India, U.K. : Oxford University Press.

25. Manav Adhikar and Sanyukta Rastra Sangh, Satis Chaturvedi

26. Manav Adhikar , A N Karia, C Jamanadas & Co.

27. Bal Adhikar and Kayado , Dr. K C Ravl, Guj. Uni. A'bad.

28. Mahila Jagruti And Kanun, Prakes Narayan.

29. Strio and Samaj, A G Shah, J K Dave.

M.A. Part – 2

Paper No. (H.Sci. 504 E - B)

Semester – 3

Name of the Paper: “PROBLEMS IN HUMAN NUTRITION”

Objectives:

The course is aimed at providing understanding of:

- Nutritional problems/nutrition – related diseases prevalent among the affluent and the less privileged groups, reference to their incidence, etiology and public health significance
- Biochemical and clinical manifestations, preventive and therapeutic measures of the same

Contents:

1. Historical background prevalence etiology biochemical and clinical manifestations, preventive and therapeutic measures for the following:
 - PEM
 - Vitamin – A deficiency
 - Nutritional anemias
 - IDD
 - Rickets, osteomalacia and osteoporosis
 - Fluorosis

2. Historical background prevalence etiology biochemical and clinical manifestations, preventive and therapeutic measures for the following:

- Obesity and Overweight
- Diabetes Mellitus
- CHD
- Cancer

References:

1. McCollum, E.V. (1957): History of Nutrition, Houghton Mifflin Co.
2. Waterlow, J.C. (1992): Protein energy malnutrition, Edward Arnold, A Division of Hodder & Stoughton.
3. Bauernfeind, J. Christopher (Ed). (1986): Vitamin A deficiency and its control, Academic Press.
4. WHO (1970): Fluorides and Human Health
5. Rajiv Gandhi National Drinking Water Mission (1993) prevention and control of Fluorosis Ministry of Rural Development
6. Beaton, G.H. and Bengoa, J.M. (Eds) (1976): Nutrition in Preventive Medicine, WHO
7. Gopalan, C (Ed) (1993): Recent Trends in Nutrition, Oxford University Press
8. Demaeyer E.M. (1989): Preventing and Controlling iron Deficiency Anaemia through primary health care, WHO
9. Sachdeva H.P.S. Chaudhary, P. (Eds) (1994): Nutrition in Children - Developing Country Concerns, Dept. of Pediatrics, Maulana Azad Medical College, New Delhi
10. Shils, M.E., Olson JA, Shike N and Ross AC(Eds.) (1999): Modern Nutrition in Health and Disease. 9th Edition, Williams & Wilkins
11. Mohan, L.K. & Ecott – Stump, S. (2000): Krause's Food, Nutrition and Diet therapy 10th Edition, W.B. Saunders Ltd.
12. Bamji M.S., Rao P.N. and Reddy V. (Eds.) (1996). Textbook of Human Nutrition. Oxford and IBH Publishing Co. Pvt. Ltd.
13. Publication of the International Life Science Institute.
14. UNICEF's State of the World's Children.
15. World Health Organisation's Reports, Monographs and Technical Report Series.
16. McLaren, D.S. (1992) A Colour Atlas and Text of Diet-Related Disorders.

M.A. Part – 2

Paper No. (H.Sci. 505 E - A)

Semester – 3

Name of the Paper: “COMMUNICATION TECHNOLOGY AND EXTENSION”

Objectives:

- To impart knowledge and understanding of various communication systems.
- To provide a sound knowledge base for the relevance and applicability of the various media used in human communication and their complementary role towards each other.
- To enhance the versatility of the students in the selection and use of media in different socio-cultural environments
- To provide basic knowledge of concept of advertising and use of media in advertising.
- To impart skill in preparation of various Computer Aided Media messages.

Contents:

UNIT 1 Communication Systems

- Types of communication systems – concept, functions and significance. Interpersonal, organizational, public and mass communication.
- Elements, characteristics and scope of mass communication.

UNIT 2

- Mass communication – models and theories;
- Visual communication – elements of visual design – colour, line, form, texture and space;
- Principles of visual design – rhythm. Harmony, proportion, balance and emphasis.
- Visual composition and editing.

UNIT 3 Media Systems

- Concept, scope and relevance of media in society.
- Functions, reach and influence of media.
- Media scene in India, issues in reaching out to target groups.
- Contemporary issues in media – women and media, human rights and media, consumerism and media.
- Historical background; nature characteristics, advantages and limitations and future prospects of media.
- Traditional media; role in enhancing cultural heritage, co-existence with modern media systems and applicability in education and entertainment – puppetry, folk songs, folk theatre, fairs.
- Print media; books, newspapers, magazines leaflets and pamphlets.
- Electronic media-radio, television, video, computer based technologies.
- Outdoor Media: exhibition, fairs and kiosks.
- Media Planning and Scheduling, selection of media on the basis of suitability, reach, impact frequency and cost
- Introduction to ethics in mass media, freedom of speech, expression and social responsibility
- Political and Government controls on the media

UNIT 4 Advertising

- Definition, concept and role of advertising in modern marketing system and national economy.
- Inter-relation of advertising and mass media systems.
- Types of advertisements – commercial, non-commercial, primary demand, selective demand, classified and display advertising, comparative and co-operative advertising.
- Techniques of preparation of effective advertisements for various media.
- Ethics in advertising.

Reference:

1. Corner, J. Communication Studies – In Introductory Reader.
2. Defiuers and Dennis (1994): Understanding Mass Communication.
3. Gupta S.S.: Cases in Advertising and Communication Management in India.
4. Harper and Row (1989): main Currents in Mass Communication, Agee, Adut and Emery.
5. Joseph, D. (1993): The Dynamics of Mass Communication.
6. McQuail, D. (1994): Introduction to Mass Communication, 3rd Edition, Sage Publication.
7. Ravindran, R.K. (1999): Media and Society.
8. Ravindran, R.K. (2000) : Media in Development Area.
9. Schramm, W. (1988): The Story of Human Communication, from cave painting to the Microchip.
10. Vivian, J. (1991): Media of Mass Communication.
11. Wright, Winters and Zeiger : McGraw Hill, Advertising Management.
12. Zachariah, A. (1999): Media power, People, Politics and Public Interest

M.A. Part – 2

Paper No. (H.Sci. 505 E - B)

Semester – 3

Name of the Paper: “NUTRITION AND HEALTH OF WOMEN”

Objectives:

This course aims to enable students to:

1. Be acquainted 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 1

1. Role of women in National Development
2. Women in family and community
 - a. Demographic changes, menarche, marriage, fertility, morbidity, mortality life expectancy, sex ratio, aging and widowhood, female-headed families.

UNIT 2

1. Women and Work
 - a. Environmental stress, production activities, nutrition, health and gender, living conditions, occupational health, health facilities,
2. Women’s nutritional requirements and food needs.

UNIT 3

1. Women and Society
 - a. Women’s role, their resources and contribution to family and community and effect on nutritional status
 - b. Effect of urbanization on women
 - c. Impact of economic policies, industrialization and globalization on women

2. Women and Health

- a. Health facilities
- b. Disease patterns and reproductive health
- c. Gender and health
- d. Health seeking behavior
- e. Women- pregnancy and lactation
- f. Safe motherhood
- g. Care of at-risk mothers
- h. Family planning
- i. Women and aging – special concerns in developed and developing societies:
Menopause, osteoporosis, chronic degenerative diseases, neurological problems

UNIT 4

1. Women and Nutrition

- a. Situation of women in global, national and local context improving the nutritional and health
- b. Policies and Legislations
 - i. CEDAW (Convention on Elimination of all forms of Discrimination Against Women), women's Right to Life and Health (WRLH)
- c. Empowerment of Women
 - i. 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 poor 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 DEC, Alicbusan AP, Wilson JF, Reich MR, Bradley DJ. The impact of development policies on health, A review of the literature world health organization, Geneva
10. International Nutrition Foundation – Micronutrient 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

M.A. Part – 2

Paper No. (H.Sci. 506)

Semester – 3

SEMISTER OR PROJECT RELATED TO PAPERS 501 & 502

M.A. Part – 2

Paper No. (H.Sci. 507)

Semester – 4

Name of the Paper: “ADVANCED NUTRITION - II”

Objectives:

This course will enable the students to :

1. Augment the biochemistry knowledge acquired at the undergraduate level
2. Understand the mechanisms adopted by the human body for regulation of metabolic pathway
3. Get an insight into interrelationships between various metabolic pathways
4. Become proficient for specialization in nutrition

Contents:

UNIT 1 Water and Electrolyte Balance

1. Water and Electrolyte Balance
 - Chemistry, distribution and composition of body fluids
 - Osmotic pressure of body fluids
 - Water balance and electrolyte balance – active transport across cell membranes
2. Mineral Balance
 - Sodium, Potassium and chloride: absorption, intake and output regulations
 - Other macro minerals – calcium, phosphorus and magnesium. Absorption, metabolism and regulation

UNIT 2 Vitamins

1. Structure, absorption, transport and metabolism biochemical functions and interaction with other nutrients
2. Fat soluble vitamins – A,D,E and K
3. Water soluble vitamins – B complex and Ascorbic acid

UNIT 3 Blood

1. Functions of Blood
2. Composition of blood
3. Blood components (RBC, WBC and Platelets)
4. Of bloods
5. Information regarding hemoglobin, sickle Cell Anemia and Thalassemia

UNIT 4

A. Hormones

1. Definition, characteristics and biological role of Hormones
2. Pituitary gland
3. Adrenal gland
4. Thyroid gland
5. Pancreas

B. Food Toxicities

1. Naturally occurring Toxicants in foods
2. Chemical contaminants in foods

References:

1. Food and Nutrition by M.S. Swaminathan, Vol. I & II
2. Normal and Therapeutic Nutrition by Robinson
3. Berits, H.D. and Grosch (1999), Food Chemistry New York
4. Potter, N. and Hotch Kiss, Food Sciences – CBS Publisher, New Delhi.

M.A. Part – 2

Paper No. (H.Sci. 508)

Semester – 4

Name of the Paper: “ADVANCED APPAREL CONSTRUCTION”

Objectives:

- To help develop skills in pattern making and construction
- To create awareness of quality assurance norms and evaluating of quality in apparel

Contents:

UNIT 1

1. Fitting – factors affecting good fit, common problems encountered and remedies for fitting defects (upper and lower garments)
2. Clothing for people with special needs
 - a. Maternity and lactation period
 - b. Old age
 - c. Physically challenged

UNIT 2

1. Evaluating the quality of apparel
 - a. Identification of the components of apparel
 - b. Fibre content, shaping devices, underlying fabrics, pockets, necklines, hem treatments, decorative details and alteration potential
 - c. Standards for evaluating the various components

UNIT 3

1. Elements used in creating design
 - a. Concept and scope of fashion, design, classification of fashion
2. Composition
 - a. With one element
 - b. With more than one element

UNIT 4

1. Colour
Its sensitivity and composition in dress
2. Harmony
In form of space coverage to design of dress
3. Fashion Forecasting

References:

1. Slampler, Sharp & Donnell : Evaluation Apparel, Quality – Fairchild Publications, New York.
2. Natalie Bray : Dress Fitting Published by Blackwell Science Ltd.,
3. Margolis Design your own Dress pattern published by Double Day and Co. Inc., New York.

M.A. Part – 2

Paper No. (H.Sci. 509)

Semester – 4

Name of Paper : - “PRACTICAL BASE ON 507 & 508”

ADVANCE NUTRITION – II

1)

1. Estimation of ascorbic and content of foods by tritrimetic method.
2. Estimation of Vitamin – A
3. Enzymes – Effect of ph and temperature on Enzyme activity of amylase on starch.
4. Alkali and acid. – Preparation of dilute solution of common acid and alkali5 and determining their exact normality.
5. Estimation of Hb from blood.
6. Estimation of RBC and WBE from blood.
7. Estimation of urea and uric acid and creatining urine.
8. To prepare chart for normal content of blood.
9. To prepare chart for normal content of urine.
10. Thin layer chromatography identification of amino acids.

2)

1. Development of slopers for skirt variations.
 - Low and high waist
 - A line, flared, circular, pleated, yoked with godet / pepulum

2. Pockets.

- Slashed pockets – welf, bound flaps
- Inseam pockets – closed and open

3. Placket

- Fly front opening
- Zipper in seam without seam

4. Designing, drafting and construction of skirt

5. Fashion sketching

6. Term garment.

M.A. Part – 2

Paper No. (510 E – A)

Semester – 4

Name of Paper : - “EARLY CHILDHOOD CARE & EDUCATION”

Objective :

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

Contents

UNIT : I

- (1) Principles of Early childhood care and education.
 - A) - Importance need and scope of ECCE
 - B) - Objectives of ECCE
- (2) Types of Preschools/Programmes : Play centers, day care, Montessori, kindergarten, balwadi, anganwadi etc.
- (3) Concepts of non – formal, formal and play way methods.

UNIT : II

(1) Historical Trend (Overview)

- Contribution of the following thinkers to the development of ECCE (their principles, application and limitation) in the content of ECCE.
- Pestalozzi, Rousseolu, Proebel, Maria Montesoori, John dewey, Gijabhai Badheka, Tarabhi modak, M.K. Gandhi, Ravindranath Tagore.
- ECCE in India : Pre independence period, Post independence Kothari commission, contribution of five year plans to ECCE – Yashpal committee, Maharashtra preschool center Act.

UNIT : III

1) Organization of Pre School Centers.

- A) - Concept of organization and administration of early childhood centers.
 - B) - Administrative set up and functions of personal working at different levels.
- 2) Building and equipment location and arrangement of rooms : play ground selection of different types of outdoors and indoor equipment.
- 3) Staff / personal service coordination and roles : role and responsibilities, essential qualities of a care giver/teacher their personal records and report.

UNIT : IV

(1) Activities For ACCE

- A) Language Arts : Goal and Language, types of listening and activities to promot listening various activities – (Songs, Object talk, picture talk, Free conversation, books, games, riddles jocks stories and teacher’s role.)
- B) Art and Craft activities (creative activities of expression) Types of activities – Chalk, crayon, paints, paper work and best out of waste. Role of teacher in planning the activity, Motivating children, Fostering, appreciation of art and craft activities.

- C) Music : Songs, Objective of Music education establishing, goals, setting the stage and role of the teacher. Three aspects of music, making listening and singing.
- D) Mathematics : Goals of mathematics, learning developmental concepts at different stage : Principles of teaching mathematics.
- E) Science : Role of teacher in some important science experiences.

References :

- 1) Bhatia & Bhatia (1995). Theory & Principles of education, Daalsa House, Delhi.
- 2) Brewer. J.A. (1998). Introduction to early childhood education. (3rd Ed) Boston : Allyn & Bacon.
- 3) Canol. E.C. and Jan Allen (1993). Early childhood curriculum, University of Tennessee, New York : Macmillan.
- 4) Day Barbana (1993) Early childhood education, New York, Macmillan.
- 5) Gordon & Browne (1997). Beginning and Beyond, Second edition, Delman Pub.
- 6) Grewal. J.S. (1984) Early childhood education, Agra National Psychological corporation pub.
- 7) Hildebrand Verna (1981). Introduction to early childhood education. N.Y. : Macmillan.
- 8) Hildebrand Verna (1985). Guiding the young Child, N.Y. : Macmillan.
- 9) Jenkins. E. (1997). A practical guide to early childhood curriculum, C.V. Moshey Co.
- 10) Judith. E and Meyers, R.G. (2000). Early childhood counts : A programming guide on early childhood care for development, Washington: The World Bank. (Learning Resource Service.)
- 11) Kaul. V.(1997). Early childhood education programme, New Delhi.: NCERT.
- 12) Kohn Ruth (1972). The exploring child. Mumbai : Orient Longman.
- 13) Kulkarni. S. (1988). Parent Education perspective and approach. Jaipur : Ravat Publications.
- 14) Maxim G. (1980). The very young, California : Wordsworth.

- 15) Mohanti & Mohanti (1996). Early childhood care & education. New Delhi : Deep & Deep Publication.
- 16) Moyley. J.R. (1996). Just Playing, The role and status of play in early childhood Education. Milton Keynes : Open University Place.
- 17) Murlidharan. R. (1991). Guide to nursery school teacher. New Delhi : NCERT
- 18) Pankajam. G. (1994). Preschool Education. Ambala Indian Pub.
- 19) Rao. V.K. and S. Khurshid – ul – Islam (eds.) (1997). Early childhood: care and Education. New Delhi : commonwealth Pub.
- 20) Read Katherine (1980). The Nursery school. Holt Rinehart & Winston.
- 21) Saraswathi. T.S. (1988). Issues in child Development, curriculum & other Training & Employment, Mumbai : Somaiya.

M.A. Part – 2

Paper No. (510 E – B)

Semester – 4

Name of Paper : - “FOOD PROCESSING AND TECHNOLOGY”

OBJECTIVES :

This course is designed for students to :

- Impact systematic knowledge of basic and applied aspects of food processing & technology.
- Provide the necessary knowledge of basic principles and procedures in the production of important food products.

UNIT – I

- 1) Introduction: main crops grown in the country – importance and storage.
- 2) Physical principles in food processing –
 - a) - Refrigeration – Refrigeration, cold storage, cool storage with air circulation, humidity control and gas modification.
 - b) Freezing – Changes during freezing, choice for final temperature for frozen foods, freezing methods.
 - c) Dehydration – methods of dehydration.

UNIT – II

- 1). Cereals and Pulses : -
 - Corn wet milling, corn starch products.
 - Storage and quality of cereal grains.
 - Rice processing, paraboiled rice, Rice based instant foods.
 - Pulses – processing elimination of toxic factors, quick – cooking dals, fermentation and germination.

UNIT – III

- 1). Fruits –
 - Structures, composition, physiological and biochemical changes during ripening, handling and storage.
- 2). Vegetables –
 - Harvesting, Post Harvest processing, Canning Freezing, Pickles and chutneys.
- 3). Spices –
 - Processing and extraction of essential oils and colors, storage and preservation.

UNIT – IV

- 1) Fermentation Technology : -
 - Fermentation technology, Yeast, Milk products, fermented vegetables, Beer, Vinegar
 - Enrichment and fortification technology, High protein food technology.

2) Additives and Preservatives : -

- Definition of food additives, acids, bases, sweetness, stabilizer and thickeners.

Reference : -

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- 10) Von Loeseoke, H.W. (1998). Food Technology Series : Drying and dehydration of Foods, Applied Scientific Publishers.
- 11) Matz, S.A. (1996). Bakery technology and Engineering, Third Edition CBS Publishing, New Delhi.
- 12) Follows, P.J. (2000), Food processing Technology, Principles and Practice, second edition, CRC Woodhead Publishing Ltd, Cambridge.
- 13) Hosney, R.C.(1996). Principls of cereal science and technology, second edition, American Association of cereal chemists, St. Paul, Minnosola.
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- 20) Fennema, O.R. Powrie, W.D. marth, E.H. Low Temperature preservation of food and living Mather, Mancel Dekker INC. New York.
- 21) Tannarbaum, S.R. Numitional and safety Aspects of food processing, Mancel Dekket INC, New York.
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- 25) Kokinin, J.L. Ho., C.T. and Karwe, M.Y., Food Extention Science and Technology, Marcel Dekket INC, New York
- 26) Akoh, C.C. and Swanson, B.G. carbohydrate Polysters and fat salsitutes, Marcel Dekket INC, New York.
- 27) Srephen, A.M. Food Polysaecharides and their application, Marcel Dekket INC, New York.

M.A. Part – 2

Paper No. (511)

Semester – 4

Dissertation or Project or Seminar :

- Subject for Paper – 511 should be selected from any related topic of syllabus.
