

DETAILED COURSE CONTENTS

1st year (I Semester)

Course No: APTX 111

2 Title: Textile Science and Fabric care

3 Credit Hours: 3(2+1)

4 General Objective: To impart knowledge about basics of textiles and their care

5 Specific Objectives:

Theory

By the end of the course, student will be able to

- To grasp basic concepts related to textile fibers, yarns, fabrics
- To enlarge vocabulary of textile fibers, yarns and fabrics
- To keep up with the basics and advances in textile fibers
- To understand the care and storage aspects of different fabrics available in market

Practical

By the end of the course, student will be able to

Distinguish common fibre types

- Understand processes used in forming yarns and fabrics from fibres
- Identify some common yarn and fabric construction techniques
- Understand how different fibres degrade, how textile construction affects degradation, how to take care of different fabrics
- Undertake fibre , yarn and fabric identification strategies

Theory lecture outlines

1. Textile: definition, forms of textile, importance of textile industry in national economy
2. Classification of textile fibres
3. Properties of textile fibres- primary properties
4. Properties of textile fibres-secondary properties
5. Molecular structure of textile fibres: Monomers, polymers and their types, polymerization and its types, degree of polymerization and orientation
6. Cotton: Fibre production, fibre varieties and their grading ,fibre morphology, physical, chemical and biological properties and end-uses
7. Bast fibres: Flax, fibre production, fibre morphology, physical, chemical and biological properties and end-uses
8. Jute: Fibre production, fibre morphology, physical, chemical and biological properties and end-uses

9. Other bast fibres : Hemp and ramie fibre production, fibre morphology and physical, chemical and biological properties and end-uses
10. Wool: Fibre production, classification of wool and their labeling, fibre morphology, physical, chemical and biological properties and end-uses
11. Silk: Fibre production and classification, fibre morphology, physical, chemical and biological properties and end-uses
12. Chemical spinning: Wet, melt and dry spinning and common properties of man-made fibres
13. Rayons: Viscose, rayons fibre manufacturing, microscopic structure, physical, chemical and biological properties and end-uses
14. Cupramonium and High Wet Modulus fibre manufacturing, microscopic structure, physical, chemical and biological properties and end-uses
15. Synthetic fibres: Nylon, fibre manufacturing, fibre microscopic structure, physical, chemical and biological properties and end-uses
16. Synthetic fibres: polyester fibre manufacturing, fibre microscopic structure, physical, chemical and biological properties and end-uses
17. Synthetic fibres: Acrylic fibre manufacturing, fibre microscopic structure, physical, chemical and biological properties and end-uses
18. Mechanical spinning: Ring spinning method
19. Classification of yarn on the basis of structure- simple and novelty yarns, twist direction, twist amount, fibre length and end-uses
20. Yarns: size of yarn and count systems
21. Methods of fabric construction: Weaving, knitting, braiding, tufting, net, lace making, crocheting, macramé,
22. Methods of fabric construction: Stitch through fabrics, quilted fabrics, laminated fabrics, bonded fabrics, felt, nonwoven and films
23. Stain removal: Classification of stains and methods of removing different stains
24. Laundry: Definition, principles, equipment and laundry methods
25. Laundry: dry cleaning
26. Laundry agents: Water,
27. Laundry agents - Soap,
28. laundry auxiliary, stiffening agents, bleaches and blues
29. Care of textiles: Labeling and Labeling Act labels and tags used in textiles
30. Storage of clothes: Requirements of short term and long term storage,
31. Folding of clothes
32. Packaging of clothes

Practical outline

1. Testing of textile fibres- Visual test
2. Testing of textile fibres - Microscopic view
3. Testing of textile fibres - Burning test
4. Testing of textile fibres - Solubility test
5. Testing of unknown fiber
6. Study and identification of different types of yarns in the market
7. Study and identification of fabric samples available in the market

8. Study of thread count of samples using pick glass, line gratings, raveling method
9. Removal of different stains from fabric surface
10. Washing and finishing of garments made of Cotton
11. Washing and finishing of garments made of Wool
12. Washing and finishing of garments made of Silk
13. Washing and finishing of garments made of Blends/ synthetic
14. Visit to textile industry
15. Removal of different stains from fabric surface
16. Final practical examination

References:

1. Corbman B P (1983) Textiles-fiber to fabric, Mc Graw-Hill Int, USA
2. Dantyagi, S 1959 Fundamentals of textiles and their Care New Delhi Orient Longman Limited
3. Deulkar, D and Tarabai 1967 Household textiles and laundry Work 3rd ed Delhi Atma Ram and Sons Ltd
4. Kadolph S J (2013) Textiles: Pearson New International Edition, Pearson Education Ltd, Asia
5. Noemia, D Souza (1998) Fabric Care New Age Publications
6. Vatsala, R 2003 Textbook of Textiles and Clothing New Delhi Indian Council of Agricultural Research
7. Wynne A (1997) Textiles The Motivate Series, Macmillan

Course No : FDNT 111

Title : Principles of Human Nutrition

Credit hours : 3 (3+0)

General Objectives:

- To develop an insight into the historical development of nutrition science and its relation to health
- Create awareness about the concepts of balanced diets and recommended dietary intakes
- Impart knowledge of nutrients, their functions, sources, requirements, digestion, absorption, deficiency diseases and toxicity
- Develop basic understanding of nutritional assessment techniques

Specific Objectives:

Theory:

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

- i. Know listing of macro nutrients and micro nutrients and their historical development

- ii. Learn about different classification of carbohydrates, protein and lipids, their functions, deficiency symptoms, requirements and food sources and the process of their digestion and absorption
- iii. Learn about importance of energy, factors affecting BMR and requirements and sources
- iv. Learn about fat soluble and water soluble vitamins, minerals and water, their functions, deficiency symptoms, requirements and food sources
- v. Know the techniques of evaluation of nutritional status of population

Theory lecture outlines:

1. Introduction to nutrition science and its relation to health, growth and human welfare
2. Historical development of Nutrition science
3. Carbohydrates- introduction, types and classification
4. Carbohydrates- functions, sources and requirements
5. Health conditions influenced by carbohydrates and significance of dietary fibre
6. Lipids- introduction, types and functions
7. Lipids- sources, requirement and health conditions associated with lipids
8. Proteins- introduction, types and classification
9. Protein- functions, sources and requirements
10. Protein quality evaluation and improvement
11. Protein energy malnutrition- causes, signs and symptoms of kwashiorkor and marasmus
12. Energy – units, sources and requirements
13. Fuel value of food, energy requirement of the body- physical activity and thermogenic effect of food
14. BMR –methods of measurement and factors affecting Basal Metabolic Rate
15. Digestion and absorption of carbohydrates
16. Digestion and absorption of proteins and fats
17. Vitamins- Introduction, classification as fat soluble and water soluble vitamins
18. Vitamin A- functions, sources, requirement, deficiencies and toxicity
19. Vitamin D- functions, sources, requirement, deficiencies and toxicity
20. Vitamin E- functions, sources, requirement, deficiencies and toxicity
21. Vitamin K- functions, sources, requirement, deficiencies and toxicity
22. Water soluble vitamins- Vitamin C or ascorbic acid- functions, sources, requirement and deficiencies
23. Thiamine (B1) - functions, sources, requirement and deficiencies
24. Riboflavin (B2) - functions, sources, requirement and deficiencies
25. Niacin (B3) - functions, sources, requirement and deficiencies
26. Pyridoxine (B6) - functions, sources, requirement and deficiencies
27. Vitamin B12 - functions, sources, requirement and deficiencies
28. Vitamin Folic acid- functions, sources, requirement and deficiencies
29. Minerals – introduction and classification
30. Calcium- functions, sources, requirement and deficiencies

31. Phosphorus- functions, sources, requirement and deficiencies
32. Iodine-functions, sources, requirement and deficiencies
33. Fluorine-functions, sources, requirement and deficiencies
34. Iron-functions, sources, requirement and deficiencies
35. Sodium-functions, sources, requirement and deficiencies
36. Potassium-functions, sources, requirement and deficiencies
37. Chloride and copper functions, sources, requirement and deficiencies
38. Zinc-functions, sources, requirement and deficiencies
39. Bio availability and factors affecting calcium and iron absorption
40. Electrolyte balance- need for maintenance
41. Water- functions, source, distribution in body and water balance
42. Concept of recommended dietary allowances
43. Recommended allowances for specific nutrients and energy
44. Concept of balanced diet and importance
45. Basic food groups – characteristics and their contribution to the diet
46. Nutraceuticals, Dietary supplements, Functional food, Phytochemicals
47. Assessment of nutritional status- anthropometric and biochemical methods
48. Assessment of nutritional status –clinical and dietary surveys

References

1. Sunetra Roday : Food Science and Nutrition, Oxford University Press.
2. Mann and Truswell: Essentials of Human Nutrition, Oxford University Press.
3. Bamji, M. S, Prahlad Rao.N and Vinodini Reddy,(2003), *Text book of Human Nutrition* (pp 21-49), New Delhi, Oxford and IBH Publishing Co. Pvt. Ltd.
4. Wardlaw, G., Gordon M. and Insel paul M,(1992), *Contemporary Nutrition*, (pp150-217), Boston, Mosby year Book.
5. Swaminathan, M. (1997), *Essentials of Food and Nutrition*, (pp 1-27) vol I Second edition, Bangalore, BAPPCO.
6. Maurice, E.S, James A.O. and Mohe S. (1994) – Modern Nutrition in Health and Disease, A Waverly Company, p-p 402-422.
7. Robert E.C. Wildman, Denis M. Medeiros – Advanced Human Nutrition, 2000, CRC Press, Boca Raton p-p 206-211.
8. Srilakshmi, B.,(2006)Nutrition Science, Revised 2nd edition. New Age International Limited Publishres, New Delhi.

1. **Course No** : HDFS 111
2. **Title** : Fundamentals of Human Development
3. **Credit Hours** : 2(2+0)
4. **General Objective** :
 - To create a basic foundation by imparting knowledge about the fundamentals of human development
5. **Specific Objectives**

By the end of the course the students will be able to

- Understand different concepts related to human development
- Study the role of heredity and environment during the life span
- Understand the trends and issues in human development
- Study the various theories related to human development
- Learn various concepts related to human research

Theory lecture outline

1. Meaning and definitions of human development, Introduction to evolution of the study of human development, Goals of the scientific study of human development, periods of lifespan development, areas of human development
2. History of studying human development- before 19th century and after 19th century
3. Scope and importance of human development, characteristics of the life span perspective- Human development is lifelong, multidimensional, multidirectional, plastic, multidisciplinary, contextual, human development involves growth, maintenance and regulation of loss, human development is a co-construction of biology, culture and the individual factors
4. Relationship of human development discipline with other disciplines of study- physical sciences- physiology, pediatrics and genetics social sciences- psychology, sociology, anthropology and education
5. Latest issues in human development- nature and nurture, stability and change, continuity and discontinuity some contemporary concerns- health and well being, parenting and education, social policy, socio cultural contexts and diversity- culture, cross-cultural studies, ethnicity, socio economic status, gender
6. Growth and development - definition, importance, growth assessment- measuring weight, height, head circumference, mid upper arm circumference, chest circumference Growth monitoring and its importance Differences between growth and development
7. Principles of growth and development- growth axis, orderly and sequential, individual variations, critical periods, continuous, correlated, individual differences
8. Determinants or factors affecting growth and development- physiological, environmental, psychodynamic and personal factors
9. Role of heredity and environment on growth and development- Definitions and role of heredity and environment - prenatal and post natal environment
10. Genetics and genetical abnormalities – genes, chromosomes, autosomes, sex chromosomes, genetic and chromosomal abnormalities- Down's syndrome, Turner's syndrome, Trisomy –X syndrome, Klinefelter's syndrome, XYY Syndrome
11. Stages of human life span- prenatal period, Infancy, toddlerhood, early childhood, adolescence, adulthood, old age
12. Developmental tasks – Havighurst, concept, definition, developmental tasks across life span
13. Domains or areas or aspects of human development and its characteristics- physical, motor, cognitive, social, emotional, language, moral, self help/ adaptive and aesthetic

14. Introduction to theories of human development- definition, function or purpose, and criteria of theories
15. Theories on naturalism, theories on environmentalism- classical conditioning, operant condition
16. Maturation theory- Arnold Gesell, Stanley Hall
17. Need theory- Maslow's Hierarchy of need theory- physiological, safety, social esteem, self actualization
18. Ecological theory- Bronfen Brenner – Micro System, Meso System, Exo System, Macro System, Chrono System
19. Ethological theory – Lorenz, evolutionary theory- Darwin
20. Cognitive theory by Piaget – stages of cognitive development- sensorimotor stage, preoperational stage, concrete operational stage, formal operational stage
21. Social Theories - John Bowlby's attachment theory , Vygotsky's socio cultural theory
22. Social Theories –Bandura's social learning theory
23. Psychoanalytical theory- Freud - ego, superego, stages of psychosexual development- oral stage, anal stage, phallic stage, latency stage, genital stage
24. Psychoanalytical theory – Erik Erikson – Stages of psycho social development
25. Special considerations in research with human subjects- Informed consent, confidentiality, debriefing, deception, minimizing bias
26. Ethical issues in human research- Right to privacy, Right to truth, Right to informed consent, Right to self esteem, Fetal research, Social concerns Language and Moral research involving humans
27. Trends and challenges in ethical issues- from global to discrete response systems, increase in complexity, increase in integration and differentiation, decrease in egocentrism, development of social autonomy
28. Origins of scientific enquiry- 4 step model of scientific inquiry- asking the question, what factors are important and how to examine, testing original question, accepting or rejecting
29. Research methods and designs in human development- descriptive research, correlational research, Experimental research Research strategies- cross sectional approach and longitudinal approach
30. Methods of data collection- observation, survey and interview, case study, questionnaire - merits and demerits
31. Methods of data collection- standardized tests, merits and demerits
32. Methodology in Human Research – definitions - variables, hypothesis, sampling, operational definitions, reliability and validity

References:

1. Hughes FP and Noppel D(1985) Human Development across the Life Span West Publishing corporation
2. Nageswara Rao G(2012) Research Methodology and Quantitative Methods, BS Publications, Hyderabad
3. Papalia, DE and Olds, SW (1978) Human development McGraw Hill Kogakusha, Ltd
4. Santrock, J (2011) Life span development 13th ed McGraw Hill Education India Pvt Ltd
5. Salkind, NJ (2004) An introduction to Theories of Human Development Sage Publications, New Delhi

Course Number HDFS 112

Title Life span Development -I – Infancy and early childhood

Credit Hours 3(2+1)

General Objective

- To impart knowledge about concepts of human development, role of heredity and environment on child's growth and development, principles of growth and development and factors affecting development in early years, care during prenatal , natal and post natal period, disciplinary practices and common behaviour problems in children etc

Specific Objectives

Theory

By the end of the course the students will be able to

- i. Understand the issues and concepts associated with conception
- ii. Learn different stages of life-span development from conception to early childhood
- iii. Know stimulating approaches for optimizing development from infancy to early childhood

Practical

By the end of the course the students will be able to

- i. Gain skills in assessing children's growth and handling test materials and tools used for assessing the growth and development of children
- ii. Learn to various psychological test materials for assessing the development
- iii. Gain practical knowledge in collecting baseline data on child care practices
- iv. Understand the developmental needs of the children
- v. Learn to prepare stimulation materials for infants

Theory lecture outline

1. Introduction to human development - importance of studying of human development, concepts used in growth and development
2. Need and scope of child development - importance of studying children, scope of child development, importance of child development, history of study of child development, relationship of child development with other disciplines, objectives of child development, areas of child development
3. Principles of growth and development - principles of growth and development
4. Factors affecting growth and development - factors for growth and development- physiological, environmental, psychodynamic, metaphysical
5. Role of heredity and environment on growth and development – heredity-role on physical, intellectual and personality development, heredity – abnormalities or

developmental disorders, environment- types- prenatal environment, postnatal environment , structural levels

6. Developmental stages - meaning and importance of stages, description of each stage, prenatal period, infancy period, toddlerhood, early childhood, middle childhood, adolescence, adulthood, salient features of each stage
7. Developmental tasks during life span - definition, purposes, developmental tasks during life span stages
8. Pregnancy - physical hazards and care - danger signals in pregnancy and common physical hazards during prenatal period, effects of unfavorable prenatal conditions, care during pregnancy
9. Signs and symptoms of pregnancy - signs and symptoms of pregnancy, minor discomforts during pregnancy, major discomforts during pregnancy
- 10 Stages of pre natal period - conception, fertilization –complications of fertilization, stages of prenatal period, period of ovum, period of embryo, period of fetus
11. Birth process - delivery-stages of labour, types of birth complications during birth
12. Characteristics of new born baby - physical assessment of new born child (Apgar test), characteristics of new born, physiological changes and adjustments in post natal life, sensory capabilities of the new born, reflexes in new born child
13. Care of the new born and infant – feeding- breast feeding, bottle feeding, supplementary feeding
14. Care of the new born and infant – physical care - bathing and clothing- diapering, lifting babies, sleeping facilities/pattern, attending to the child’s cries, immunization
15. Care of new born and infant - pre mature - definition, criteria to determine prematurity and small – for – date babies, characteristics, causes, long term effects, care of premature child and small – for- date babies, birth complications associated with prematurity
16. Post natal care of mother and child - postnatal care of nursing mother , postnatal care of new born child, postnatal care of nursing mother
17. development during infancy /babyhood - physical development – principles, components of physical development, motor development- principles, developmental milestones
18. Socio-emotional development during infancy - emergence of emotions during infancy primitive emotional states differentiated with age, development of emotions in childhood and adolescence, social development during infancy, social development during later stages
19. acquisition of language ability during infancy – meaning of language, acquisition of language, milestones of early language development, factors affecting language development
20. Hazards in babyhood- physical hazards, psychological hazards, hazards during motor development, speech hazards, emotional hazards, social hazards, play hazards, family relationship hazards, hazards in personality development
21. Methods of child study - methods of study, strategies of understanding data, designs for studying development
22. Importance of early stimulation - meaning of stimulation significance of early stimulation, components of stimulation, uses of early stimulation, objectives of early stimulation, areas of early stimulation and activities
23. Early childhood period – importance and characteristics - meaning, importance of early childhood period, characteristics

24. Physical and motor development during early childhood period - physical development during each period, motor development during each period, factors affecting physical and motor development
25. Cognitive process – meaning of cognitive process, cognitive skills in early childhood, factors affecting cognitive development
26. Cognitive development – Piaget’s stages of cognitive development, sensory motor stage (0-2 years), preoperational stage (2-7 years), role of preschool in promoting cognitive development
27. Language development during early childhood - characteristics of children’s language, language skills in early childhood, stages of language development, factors affecting language development
28. socio emotional development during early childhood period - definition, classification, emotional understanding, emotional skills, characteristics of children’s emotions
29. Socialization - goals of socialization, uses of socialization essentials of socialization, pattern of socialization, techniques of socialization, agents of socialization
30. Disciplinary practices - goals of discipline, types of disciplinary practices, factors affecting disciplinary practices, parenting styles/ disciplinary practices- characteristics of children
31. Moral development - definition, stages of moral development, factors affecting moral development
32. Behavior problems -definitions of behavior problem, common behavior problems in children- do’s and don’ts, causes for behavior problems, behavior modification techniques- steps

Practical outline

1. Visit to well baby clinic to observe a full term baby
2. Visit to well baby clinic to observe a preterm baby
3. Visit to daycare centre- Nursery school
4. Visit to daycare centre- Anganwadi / Balwadi / Crèche
5. Assessment of Physical growth of infants by using anthropometry
6. Assessment of Physical growth of preschoolers by using anthropometry
7. Assessment of Mental development of an infant by using BSID
8. Assessment of Psychomotor development of an infant by using BSID
9. Case study of a 2-3 year old child
10. Case study of a 4 year old child
11. Case study of a 5 year old child
12. Case study of a 6 year old child
13. Planning Stimulation kit for infants
14. Preparation of Stimulation kit for infants
15. Preparation of resource files on care during prenatal period, infancy and early childhood
16. Final practical examination

References:

1. Berk E Laura (2013): Exploring Life span development, 3rd ed McGraw Hill New York
2. Lawrence B Schiamberg (1985): Human Development, 2nd ed Macmillan Publishing Company, New York

3. Papalia DE and Olds S W (2008): Human development, 11th ed McGraw Hill New York
4. Richard Fabes Carol Lynn Martin (2003): Exploring Child Development, 2nd ed Allyn and Bacon Publication, New York
5. Santrock John (2011): Life span development, 13th ed McGraw Hill Education (India) Private Limited, New Delhi

Course Number RMCS 111

Title Fundamentals of Art and Design

Credit Hours 3 (2+1)

General Objective

- To impart knowledge and skills in fundamentals of art and design principles in interior design

Specific Objectives **Theory**

By the end of the course the students will be able to

- i. To understand design fundamentals
- ii. To develop an awareness of the factors that determine the appropriateness of successful design
- iii. To apply design fundamentals to develop aesthetic and functional living space

Practical

By the end of the course, the student will be able to

- i. To apply the design fundamentals effectively in an interior design setting
- ii. To discover the effects of applying the design fundamentals in various situations
- iii. To achieve aesthetic harmony through design

Theory lecture outline

1. Introduction and objectives of interior decoration
2. Design – Types, features and requirements
3. Elements of art and their importance in interior decoration
4. Elements of art and their importance in interior decoration
5. Principles of design and their application to enrich the interiors
6. Principles of design and their application to enrich the interiors
7. Colour - Sources of colour, colour theories and properties of colour
8. Colour - Colour schemes and colour plans for interiors
9. Colour - Emotional effects of colour
10. Lighting – Importance and sources
11. Lighting - Types of lighting and its application
12. Furniture - Types of furniture
13. Furniture - Materials and finishes of furniture

14. Furniture - Selection, care and maintenance of furniture
15. Furniture - Furniture arrangement
16. Walls – Classification, characteristics and materials used
17. Walls – Types of wall treatments
18. Walls - Exterior and interior wall finishes
19. Ceilings – Types, materials and functions
20. Floors - Importance and types of floors
21. Floors –Types of floor covering
22. Floors - Selection and care, maintenance of floor covering and floors
23. Windows, Doors, Ventilators – Importance and types
24. Windows – Functional and decorative treatments
25. Staircases – Types and Materials
26. Accessories – Definition, importance and classification
27. Accessories – Application of principles of design and decoration in the selection/development of accessories, and their placement
28. Flower arrangement – Definition, importance, tools and mechanics
29. Flower arrangement – Shapes and Types of flower arrangement
30. Flower arrangement - Principles of flower arrangement, utility and care
31. Table setting – Types and styles
32. Table setting – Methods and materials used for table setting and table etiquettes

Practical outline

1. Learning the application of elements of art in design
2. Learning the application of principles of design in design
3. Development of motif and design through art principles
4. Developing a colour wheel
5. Developing value and intensity scales
6. Developing colour schemes – related
7. Developing colour schemes - contrasting
8. Developing a scrap book on Lighting fixtures
9. Identifying different types of Furniture through pictures
10. Identifying different arrangement of furniture for different rooms
11. Accessories – Preparation and placements of accessories
12. Flower arrangement
13. Learning different types of table setting and napkin folding
14. Window treatment
15. Market survey – different types of wall and floor coverings
16. Final practical examination

References

1. Dorothei, *et al*, (1980) Introduction to Interior Design New York: Mc Millan
2. Faulkner and Faulkner (1975) Inside Today's Home New York: Holt, Rinehart and Winston
3. Ruth, M (1975) The Home and its Furnishings, USA: Mc Graw Hill
4. Seetharaman P and Sethi M (2002) Interior Design and Decoration CBS

Publishers and Distributors New Delhi

5. Gewther, M (1970) The Home, its Furnishings and Equipment USA Mc Graw Hill
6. Mike, L (1986) The Complete Interior Decoration United Kingdom: Mc Donald
7. Parveen Pannu, Premavathy Seetharaman 2013 Interior Design and Decoration CBS Publishers and Distributors Pvt Ltd,
8. Seetharaman P 2015 An Introduction to Family Resource Management CBS Publishers and Distributors Pvt Ltd, New Delhi
9. Judith Blacklock Flower Arranging: The Complete Guide for Beginners Amazon.com

Course Number CSBC 111

Title General English - I

Credit Hours 2 (1+1)

General Objective

- To enable the students to admire literary master pieces and inculcate creativity and artistic balance in them

Specific Objectives **Theory**

By the end of the course the students will be able to

- i. Admire literary master pieces
- ii. Inculcate creativity and aesthetic sense
- iii. Learn language through Literature

Practical

By the end of the course, the student will be able to

- i. Pronounce and articulate words with correct stress mark
- ii. Learn how to write words in phonetic form
- iii. Speak understandable English

Theory lecture outline

1. Word Formation – Steps involved in the formation of a word
2. Prepositions – Types of prepositions, Role of prepositions in the formation of a sentence
3. Idiomatic Expressions – Enrichment of vocabulary through the use of idioms, how they add beauty to a sentence
4. Conditional sentences – Use of conditional words like if, whether, until and unless
5. Modal Verb – Role of modal verbs in a sentence, Examples of modal verbs
6. Synthesis and Transformation of sentences – teaching vocabulary and grammar through the use of different types of sentences
7. Essay Writing – Essentials of good essay, Different types of essays
8. Five topics to be discussed under Essay Writing

The following lessons from the text book “Selections from modern English prose” Edited by Haldhar Panda

1. Education for new India – C Raja Gopala Chary
2. The sporting spirit – George Orwell
3. On saying please – AG Gardiner
4. The secret of work – Swami Vivekananda
5. The generation gap – Benjamin Spock
6. Learning Vocabulary, grammar and pronunciation through the above mentioned lessons
7. Appreciation of literature – Teaching students the ability to grasp and appreciate the literature
8. Revision and Feedback

Practical outline

1. Introduction to spoken English
2. Orthography, orthoepy
3. Listening comprehension exercises
4. English conversation practice
5. Spoken English – slashes, Diakretics
6. Vowels of spoken and written English
7. Monophthongs – Types with examples
8. Diphthongs - Types with examples
9. Stress – Meaning and definition
10. Syllable – Definition- words having one, two, three, four and five syllables
11. Rules of stress
12. Words having stress on first syllable
13. Words having stress on second syllable
14. Change of stress mark according to word function
15. Review or Feedback
16. Final practical examination

References

1. Wren and Martin (revised by N D V Prasad Rao) (2016), Blakie, ELT Books
2. Norman Lewis (2016) Word Power Made Easy, Penguin Random House
3. T Balasubhramaniam, A Text Book of Phonetics for Students of English, MacMillan Publishers
4. Pushpa Rana (2017) Foundation Course in English, Dr B R A OU Press, Hyderabad

Course Number CSBC 112

Title Introduction to Rural Sociology

Credit Hours 2 (2+0)

General Objective • To understand the concept of rural sociology and its structure

Specific Objectives **Theory**

By the end of the course the students will be able to

- i. Be aware of the process of social change and factors of

transformation

- ii. Comprehend rural social stratification and its significance
- iii. Get an insight of social problems and the acts that protect them

Theory lecture outline

- 1 Meaning, scope importance of rural sociology
- 2 Relation of rural sociology with agriculture, animal husbandry, economy
- 3 Indian rural infrastructure- origin of village, types of villages, resources, demography
- 4 Indian village governance- changed scenario- past to present
- 5 Structural concepts of rural sociology- groups, classification and functions of groups
- 6 Structural concepts of rural sociology- association, community, society
- 7 Functional concepts of rural society-meaning and definition of socialization, social system, stratification, social interaction, social control, culture
- 8 Social system- harmonic and disharmonic systems, implications
- 9 Functional concepts of rural society- culture, characteristics, implications
- 10 Social control- norms, values, folkways, taboos, mores
- 11 Social interaction- Types, implications
- 12 Rural and urban society characteristics and differences
- 13 Rural institutions- Family- types and functions and marriage
- 14 Family - changing pattern of the rural families
- 15 Rural social institutions- Religion, Government - types and functions
- 16 Rural institutions - Economy, Education - types and functions
- 17 Rural social stratification- Forms of stratification-class and caste systems
- 18 Rural social stratification - basic notions, changes and its role in economy and policy
- 19 Rural social stratification- constitutional provision, categorization and reservations
- 20 Land relations and changes- Land topography, ownership patterns,
- 21 Land relations and changes- Land reforms
- 22 Rural poverty- definition, manifestations and causes
- 23 Rural poverty- poverty cycle, dimensions of poverty
- 24 Poverty alleviation process- livelihoods- meaning and promotion
- 25 Rural social change - Categories and levels of social change
- 26 Rural social change - Dimensions and factors of social change
- 27 Rural social changes - Processes and factors of transformation
- 28 Planned social change - Theories, transformation and shortcomings
- 29 Rural social problems- Inequality, un-touchability, illiteracy, unemployment
- 30 Rural social problems- Child labour, gender discrimination, alcoholism, superstitions
- 31 Rural social reforms- Policies and programmes
- 32 Rural social reforms- Amendments and acts

References

1. Chitambar, JB (1973) Introductory rural sociology New York, John Wiley and Sons
2. Desai, AR (1978) Rural sociology in India Bombay, Popular Prakashan, 5th Rev ed
3. Doshi, SL (2007) Rural sociology Delhi Rawat Publishers
4. Jayapalan, N (2002) Rural sociology New Delhi, Altanic Publishers

5. Sharma, KL (1997) Rural society in India Delhi, Rawat Publishers

Course Number CSBC 113

Title Environmental Studies and Disaster Management

Credit Hours 3 (2+1)

General Objective • To enlighten about the environmental protection through education

Specific Objectives **Theory**

By the end of the course the students will be able to

- i. Learn about the importance of reuse and recycling of wastes to improve the quality of life
- ii. Understand the role of various environmental protection acts to protect resources
- iii. Be aware of the impact of population explosion on various resources and health issues
- iv. Can learn about the role of information and technology in sharing the earth news from any corner of the world
- v. Know about the national disaster management framework

Practical

By the end of the course, the student will be able to

- i. Learn about the environmental problems and role of human beings in protecting the environment
- ii. Understand the availability, accessibility and use of various resources in the nature
- iii. Awareness on the causes of different types of pollution, impact of pollution on health and nature, role of individuals in reducing the magnitude of pollution
- iv. Be alert about the harmful effects of technological advancements on certain natural resources
- v. Empower about the value education and human rights
- vi. Understand about conservation of natural resources at micro and macro level

Explore about the disaster management strategies

Theory lecture outline

1. Multidisciplinary nature of environmental studies – definition, scope and importance
2. Natural resources – renewable and non renewable resources and their associated problems
3. Forest resources – use and over – exploitation, deforestation, timber extraction, mining, dams and their effects on forest and tribal people
4. Water resources – use and over utilization of surface and ground water, floods, drought, conflicts over water, dams benefits and problems

5. Mineral resources – use and exploitation, environmental effects of extracting and using mineral resources
6. Food resources – world food problems, changes caused by agriculture and over grazing, effects of modern agriculture, fertilizer – pesticide problems, water logging and salinity
7. Energy resources – growing energy needs, renewable and non renewable energy resources, use of alternate energy sources
8. Land resources – land as a resource, land degradation, man induced landslides, soil erosion and desertification
9. Role of an individual in conservation of natural resources, equitable use of resources for sustainable lifestyles
10. Ecosystem – concept, structure and function of an ecosystem, producers, consumers and decomposers, energy flow in ecosystem, ecological succession, food chains, food webs and ecological pyramids, introduction, types, characteristic features, structure and function, forest, grassland, desert and aquatic ecosystem
11. Biodiversity and its conservation – introduction, definition, genetic, species, ecosystem diversity and biogeographical classification of India
12. Value of biodiversity – consumptive use, productive use, social, ethical and aesthetic and option values
13. Biodiversity at global, national and local levels – India as a mega diversity nation, hot spots of biodiversity
14. Threats to biodiversity – habitat loss, poaching of wildlife, man-wildlife conflicts, endangered and endemic species of India, in-situ and ex-situ conservation of biodiversity
15. Environmental pollution – definition, cause and effects, control measures of air, water, soil, marine, noise, thermal and nuclear hazards
16. Solid waste management – causes, effects, control measures of urban and industrial wastes, role of an individual in prevention of pollution
17. Social issues and the environment – unsustainable to sustainable development, urban problems related to energy, water conservation rain water harvesting, watershed management
18. Environmental ethics – issues and possible solution, climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust
19. Environmental protection acts – air (prevention and control of pollution) act, water (prevention and control of pollution) act, wildlife protection act, forest conservation act, issues involved in enforcement of environmental legislation, public awareness
20. Human population and the environment – population growth, variation among nations, population explosion
21. Role of information technology in environmental and human health
22. Natural disasters – meaning and nature, types (floods, drought, cyclone, earthquakes, landslides, avalanches, volcanic eruptions, heat and cold waves, global warming, sea level rise, ozone depletion) and its effects
23. Man – made disasters – nuclear, chemical, biological
24. Man – made disasters – building fire, coal fire, forest fire, oil fire
25. Man – made disasters – road accidents, rail accidents, air accidents and sea accidents
26. Disaster management – international strategy for disaster reduction at National levels
27. Disaster management – Global levels
28. National disaster management framework – financial arrangements

29. National disaster management framework – role of NGO's, community based organizations and media,
30. National disaster management framework – central, state, district and local administration
31. National disaster management framework – armed forces in disaster response, police and other organizations
32. National disaster management framework – feeding the people struck by the disaster

Practical outline

1. Visit to a local area to document environmental assets – river
2. Visit to a local area to document environmental assets – forest/ grassland
3. Visit to a local area to document environmental assets – hill/ mountain
4. Visit to a local polluted site – urban/ rural
5. Visit to a local polluted site – industrial
6. Visit to a local polluted site – agricultural
7. Study of common plants / insects / birds in forest, grass land and deserts
8. Study of simple ecosystems – pond / river
9. Study of simple ecosystems – hill slopes
10. Preparation and presentation of report
11. Preparation and presentation of report
12. Collecting information on a natural disaster management strategies from print media and reporting
13. Collecting information on a manmade disaster management strategies from print media and reporting
14. Collecting information on a global disaster management strategies from print media and reporting
15. Observing and identifying the disaster management strategies for a minor disaster and reporting
16. Final Practical Examination

References

1. Bharucha, E (2005) Text book of environmental studies University Grants Commission, University Press,
2. Singh, S and Singh, J (2013) Disaster Management Pravilika Publication Allahabad
3. Purohit, Agrawal 2006 Environmental Pollution Bharat Printing House, Jodhpur
4. PD Sharma 1975 Ecology and Environment Rastogi publications Meerut India
5. Kapur, A (2005) Disasters in India: Studies of grim reality Rawat publication, Jaipur New Delhi
6. Chauhan, BC (2008) Environmental studies University Science Press, New Delhi
7. De, AK (2010) Environmental chemistry Willey Eastern ltd New Delhi
8. Brig Khanna, Nina Khanna 2011 Disasters New India Publishing Agency, New Delhi

Course Number CSBC 114

Title National Services Scheme (Non Gradial)

Credit Hours 2 (0+2)

General Objective • Course aims at evoking social consciousness among students through various activities

Specific Objectives **Theory**

By the end of the course the students will be able to learn

- i. Working together,
- ii. Constructive and creative social work, to be skilful in executing democratic leadership,
- iii. Developing skill in programme development to be able for self-employment,
- iv. Reducing gap between educated and uneducated,
- v. Increasing awareness and desire to help sections of society

Following activities are to be taken up under the NSS course:

1. Introduction and basic components of NSS: Orientation
2. NSS programmes and activities
3. Understanding youth
4. Community mobilisation
5. Social harmony and national integration
6. Volunteerism and shramdan
7. Citizenship, constitution and human rights
8. Family and society
9. Importance and role of youth leadership
10. Life competencies
11. Youth development programmes
12. Health, hygiene and sanitation
13. Youth health, lifestyle, HIV AIDS and first aid
14. Youth and yoga
15. Vocational skill development
16. Issues related environment
17. Disaster management
18. Entrepreneurship development
19. Formulation of production oriented project
20. Documentation and data reporting
21. Resource mobilization
22. Additional life skills
23. Activities directed by the Central and State Government

Introduction and basic components of NSS:

Orientation: history, objectives, principles, symbol, badge; regular programmes under NSS, organizational structure of NSS, code of conduct for NSS volunteers, points to be considered by NSS volunteers awareness about health

NSS programmes and activities

Concept of regular activities, special camping, day camps, basis of adoption of village/slums, conducting survey, analysing guiding financial patterns of scheme, youth programme/ schemes of GOI, coordination with different agencies and maintenance of diary

Understanding youth

Definition, profile, categories, issues and challenges of youth; and opportunities for youth who is agent of the social change

Community mobilisation

Mapping of community stakeholders, designing the message as per problems and their culture; identifying methods of mobilisation involving youth-adult partnership

Social harmony and national integration

Indian history and culture, role of youth in nation building, conflict resolution and peace-building

Volunteerism and shramdan

Indian tradition of volunteerism, its need, importance, motivation and constraints; shramdan as part of volunteerism

Citizenship, constitution and human rights

Basic features of constitution of India, fundamental rights and duties, human rights, consumer awareness and rights and rights to information

Family and society

Concept of family, community (PRIs and other community based organizations) and society

Course Number CSBC 115

Title Physical education and yoga

Credit Hours 1 (0+1)

General Objective

- To provide a framework to educate about the physical fitness through different activities such as exercises, yoga asanas, games and sports

Specific Objectives **Practical**

By the end of the course the students will be able to learn

- i. Know what is good posture,
- ii. Learn about yoga and asanas for fitness
- iii. How to keep up with agility, coordination, endurance and

- speed
- iv. Rules and regulations in important games and sports
 - v. Develop skills in games and sports
 - vi. First Aid Training, safety education

Practical outline:

1. Introduction to Physical education
2. Posture exercises for good posture
3. Physical fitness exercises for agility
4. Strength coordination, endurance and speed
5. Rules and regulations of important games
6. Skill development in anyone of the games - Football, Hockey, Cricket, Tennicoit
7. Skill development in anyone of the games - Volleyball, Basketball, Ball badminton, Throw ball
8. Participation in one of the indoor games - Shuttle badminton, Chess and Table tennis
9. Rules and Regulations of Athletic events
10. Participation in any of the Athletic events - Broad jump, High jump, Triple jump, short and long distance running
11. Participation in any of the Athletic events - Javelin throw, Discuss, Shot put
12. Safety education - Movement education
13. Effective ways of doing day to day activities
14. First Aid Training - Coaching for major games
15. First Aid Training - Coaching for indoor games
16. Asanas and indigenous ways for games for leisure time, use and experience

Note: Warming up and conditioning exercises are compulsory before the commencement of each class

1st year (II Semester)

Course Number APTX 121

Title Fundamentals of Clothing Construction

Credit Hours 3(1+2)

General Objective • To understand different methods of garment construction, know about the criteria used to select fabric and garments for different age groups

Specific Objectives **Theory**
By the end of the course, student will be able to

- To understand the techniques employed for garment construction
- To learn different seams and seam finishes, methods to control and release the fullness, to learn different temporary and permanent basic stitches
- To analyse various methods of preparing the fabric for cutting

- To design and make basic clothing articles like apron, bib, panty/ bloomers, slip for different age groups

Practical

By the end of the course, student will be able to

- Gain comprehensive knowledge regarding tools and equipment, the basic parts, use, care, repair and maintenance of the sewing machine
- Develop skill in different garment construction techniques
- Understand various seams, seam finishes, unit construction methods, etc
- Enhance knowledge in different fastening materials and trimming methods
- Attain knowledge and skill in apparel suggestion for different age groups

Theory lecture outline

1. Terminology related to clothing construction
2. Sewing tools and equipment's required for measuring, drafting, cutting and stitching
3. Selection and preparation of fabric for garment construction
4. Layout of paper pattern, marking, cutting and stay stitching
5. Unit construction method
6. Importance and function of clothes
7. Socio- economic and psychological factors affecting clothing choices
8. Consumer behaviour and motivation
9. Clothing requirements of different age groups: infant
10. Clothing requirements of different age groups: toddler
11. Clothing requirements of different age groups: pre-schooler
12. Clothing requirements of different age groups: school age children
13. Clothing requirements of different age groups: teenager, adolescent
14. Clothing requirements of different age groups: adult
15. Clothing requirements of different age groups: senior citizen
16. Application of elements and principles of art in apparel designing

Practical Outlines

1. Demonstration on: Sewing equipments and tools
2. Demonstration on: sewing machine and its care
3. Preparation of samples: Hand stitches- basting and slip-stitching
4. Preparation of samples: smocking
5. Preparation of samples: Hand stitches-hemming
6. Preparation of samples: Hand stitches-over casting
7. Attaching fastener and button holing
8. Mending and patching Machine stitches
9. Stitching Seam
10. Types of Seam finishes
11. Stitching different types of pleats

12. Stitching different types of gathers
13. Stitching different types of tucks
14. Stay stitch, under stitching
15. Stitching placket opening- single and double
16. Demonstration on taking body measurements
17. Preparation of fabric for cutting, and layout of paper pattern on different fabrics patterns including plain, print, lines, plaid and check
18. Designing and drafting of frock
19. Cutting and stitching of Baby frock
20. Cutting and stitching of Baby frock
21. Finishing of frock
22. Drafting, cutting of Panty
23. Stitching of Panty
24. Drafting, cutting of Bloomer
25. Stitching of Bloomer
26. Finishing of Bloomer
27. Taking measurements for blouse
28. Drafting of blouse
29. Cutting of blouse and tacking
30. Stitching of Blouse
31. Finishing of blouse
32. Final practical examination

References:

1. Carson, B (1969), How You Look and Dress 4th ed New York Webster Division, McGraw-Hill Book Company
2. Jewel R (2010) “Encyclopedia of Dress Making” APH Publishing Corporation, New Delhi
3. Kefgen, M and Phyllis, TS (1971) Individuality in Clothing Selection and Personal Appearance New York The Macmillan Company
4. Mazumdar L and Vatsala R “Textbook of fundamentals of clothing construction”, ICAR
5. Rosencranz, MI (1972) Clothing Concepts- A Social and Psychological Approach New York The Macmillan Company Ltd

Course Number EECM121

Title Extension and Rural Development

Credit Hours 3 (2+1)

General Objective •

Specific Objectives

Theory

To enable the students to

- i. Understand the concept of extension and rural development
- ii. Be aware of the community programmes from pre independence era to current programmes

- iii. Comprehend the role of ICAR and SAUs in rural development

Practical

To enable the students to

- i. Have practical exposure to the functions of village institutions
- ii. Observe the rural development programme of government and non-government

Theory lecture out lines

1. Extension Education –History, concept, scope and importance
2. Extension Education- philosophy, principles and objectives
3. Evolution of extension education - glimpses of pre independence era
4. Evolution of extension education - glimpses of post independence era
5. Community: Meaning and types of communities, community and science
6. Community mobilization - Leadership, Qualities of a leader, types of leaders
7. Community participation – PRA- Characteristics and techniques of PRA
8. Community development programmes- History and concept, objectives, types
9. Community development - organization, activities, achievements and shortcomings
10. Community development National Extension Service
11. Rural development - concept, need, meaning
12. Rural development- Aim and objectives, functions of extension education for rural development
13. Panchayati Raj Institutions - Concept, structure and functions
14. Five year plans – History, year wise objectives - NITI Ayog
15. Current rural development programmes – Orientation on target oriented, area oriented, income generating and minimum needs programmes
16. Area development programmes –IADP and other intensive agriculture programmes of ICAR
17. Area development programmes - IRDP, DWMA
18. Income generating programmes – MGNREGA, SGSY
19. Income generating programmes - SGSY
20. Minimum needs programmes – Anthyodaya, IAY
21. Total sanitation schemes/ campaigns - Nirmal Bharat Abhiyan – Community Led Sanitation (CLTS), Swachabharath campaign etc,
22. Current rural development organisations – State and national level
23. ATMA – Objectives, organizational setup
24. Tribal development programmes – Hill area development Programme, ITDA
25. Women and Child development programmes – ICDS
26. Women and Child development programmes - KGMV and other current central and state programmes
27. ICAR – Organisational setup and role in rural development
28. Role of SAUs - Colleges, RARS and Agricultural Research Stations in rural development
29. KVKs – Objectives, organisational setup and functions
30. DAATTCs - Objectives, organisational setup, functions
31. NGOs/ Voluntary agencies in rural development – characteristics and role

32. Implementation institutions for social welfare - CAPART, CSWB,RMK

Practical outline

1. Village visit to adopted village for orientation towards rural life
2. Observation of village infrastructure
3. Visit to rural institutions- Grama panchayath
4. Visit to rural institutions- Rural bank and cooperative societies
5. Observation of farm and non - farm economic activities
6. Observation of rural occupations
7. Interaction with Self Help Groups
8. Interaction with grass root level workers-AWW, ANM, Village Secretary
9. Interaction with political leaders
10. Visit to KVK/DAATTC
11. Observation of education programmes
12. Observation of health programmes
13. Observation of welfare programmes- women, children, youth and farmers
14. Visit to Non government organisations
15. Presentation of reports
16. Practical examination

References:

1. Ray, GL (2003), Extension Communication and Management Kalyani Publishers Fifth revised and enlarged edition
2. Dahama, OP and Bhatnagar, OP (2003) Education and Communication for Development Oxford and IBH Publishing Co Pvt Ltd
3. Sandhu, AS (1993) Textbook on Agricultural Communication: Process and Methods Oxford and IBH Publishing Co Pvt Ltd
4. Chitambar, JB (2008) Introductory Rural Sociology New Age International (P) Limited
5. Sachdeva, D R and Bhushan, V (2007) An Introduction to Sociology Kitab Mahal Agency

Course Number FDNT 121

Title Food Science and Processing

Credit Hours 3 (2+1)

General Objective

- To impart knowledge about basic principles of different methods of cooking, different food groups, their composition, nutritive value, methods of processing, byproducts, storage, role of different food groups in cookery, changes in nutrients in processing, cooking, storage and preservation

Specific Objectives **Theory**
By the end of the course the students will be able to learn

- i. Know about the basic principles of each individual cooking method and can identify the best method of cooking for different food groups to retain maximum nutrients
- ii. Learn about amount of nutrients present in different food groups, their byproducts and affect of cooking and processing on nutrients
- iii. Learn role of each food group in cookery
- iv. Learn different methods of storage and preservation and best method of preservation applicable for each food group

Practical :

- i. By the end of the course students will be able to
- ii. Learn about different methods of cooking and changes that take place by each method in various food groups
- iii. Learn the role of various food groups in cookery and acquire the skill of enriching food groups with various food groups to produce qualitative and nutritive recipes
- iv. Learn the skill of quantifying ingredients for different number of servings and evaluating recipes in terms of sensory and nutritive quality
- v. Acquire the skill of handling and retaining the maximum nutrients in processing and cooking

Theory lecture out lines

1. Food groups – classification, food in relation to health
2. Food guide pyramid and its importance, foods as a source of nutrients
3. Objectives of cooking, preliminary preparations, processing, preservation
4. Methods of cooking- wet methods- boiling, simmering, poaching, stewing, blanching, steaming, pressure cooking- their merits and demerits
5. Methods of cooking - dry methods- roasting, grilling, toasting, baking, sautéing, frying - their merits and demerits
6. Effect of cooking and heat on nutritive value of foods
7. Cereals, millets: rice, wheat, goldenrice, oats, rye, barley, millets- maize, jowar, ragi, bajra, quinoa, -composition and nutritive value, types, storage, processing
8. Cereal cookery: Gluten and factors affecting the gluten formation, cereal starch, gelatinization, dextrinization
9. Pulses: composition and nutritive value, types, digestability of pulses, factors that reduce digestibility of pulse proteins, storage, processing-soaking, germination, fermentation, parching, puffing, extrusion
10. Effect of cooking, factors affecting cooking quality, toxic constituents in pulses-trypsin inhibitor, lathyrogens, favism, haemagglutinins, cyanogenic glycoside, saponins, goitrogens
11. Nuts and oilseeds- composition and nutritive value, types, storage, oil extraction, processing
12. Toxic constituents and role in cookery- effect of cooking, factors affecting cooking quality, role of pulses and nuts in cookery
13. Milk and milk products: composition and nutritive value, properties, processing and packaging
14. Milk cookery -effect of heat, acid, enzymes, microbes, processed and indigenous milk

- products and their quality
15. Milk products, milk substitutes, Functional properties of milk and curd, Role of milk and milk products in cookery-
 16. Eggs- structure, composition and nutritive value, storage
 17. Evaluation of quality of egg, role of egg in cookery
 18. Flesh foods- meat - structure, composition and nutritive value, types, storage
 19. Brief description of aging , tenderization and curing of meat
 20. Fish- selection, structure, composition and nutritive value, storage
 21. Poultry- structure, composition and nutritive value, storage
 22. Vegetables -composition and nutritive value, types, storage, selection, post-harvest changes
 23. Effect of processing, preservation and cooking on different pigments of vegetables
 24. Fruits - composition and nutritive value, types, storage, selection, post-harvest changes
 25. Sugar and its products: composition and nutritive value, types, function, properties, stages in sugar cookery, role of sugar in cookery
 26. Fat and oils - composition, nutritive value
 27. Role of fat in cookery and importance in daily diet
 28. Spices and herbs- types and its use
 29. Beverages and appetizers - classification, processing of tea, coffee, cocoa and alcoholic drinks
 30. Leavening agents - classification and functions
 31. Processed and convenience foods, Ready to eat foods, frozen foods, dehydrated foods, instant food mixes
 32. Preparation of instant food mixes

Practical outline

1. Objectives of laboratory experiments and orientation to equipment used in laboratory
2. Weighing and measuring food items, identification of food grains, condiments and spices
3. Introduction to processing of cereals
4. Processing of millets
5. Processing of pulses
6. Processing of fermented cereal and pulse mixtures
7. Processing of vegetables
8. Processing of milk and milk products
9. Processing of egg
10. Processing of meat, poultry and fish
11. Preparation of soups, salads
12. Preparation of beverages
13. Preparation of accompanying side dishes
14. Preparation of sugar based products
15. Preparation of snacks and bakery items
16. Practical examination

References:

1. B Srilakshmi - Food Science , New Age International Publishers, sixth edition
2. Swaminathan , M (1988) Handbook of Food science and Experimental Foods BAPPCO,

Bangalore

3. Shakuntala Manay N, Shadaksharaswamy M (1998) Foods, Facts and principles New age international publishers, New Delhi

Course Number	HDFS 121 (For 2016-17 and 2017-18 admitted batches only)
Title	Life Span Development
Credit Hours	3(2+1)
General Objective	<ul style="list-style-type: none">• To impart knowledge about growth and development during school age and adolescence, developmental tasks, socialization techniques, vocational interests and problems experienced by adolescents, developmental changes during adulthood etc
Specific Objectives	<p>Theory</p> <p>By the end of the course the students will be able to</p> <ol style="list-style-type: none">i. Understand the different areas of development from school age to adulthood and antecedent factors influencing developmentii. Know changes associated with pubertyiii. Learn the importance of vocational guidance during adolescenceiv. Understand the developmental changes during adulthood <p>Practical</p> <p>By the end of the course the students will be able to</p> <ol style="list-style-type: none">i. Gain skills in assessing children's growth and handling test materials and tools used for assessing the growth and development of school going children and adolescentsii. Gain practical knowledge in collecting baseline data on school going child to adultiii. Understand the developmental needs of the school age children, adolescents and adults
Theory lecture outline	<ol style="list-style-type: none">1. Issues and scientific concepts associated with conception – Influence of genes on development, Genes and Chromosomes, Genetic transmission patterns, Chromosomal abnormalities2. Stages of Prenatal development – Conception, Ovulation, Fertilization, Period of ovum, Period of embryo, Period of foetus, Complications of fertilization - Ectopic Pregnancy, Multiple pregnancies3. Care during pregnancy - Diet and Nutrition, Exercise, Personal hygiene, Dress and attire, Social support, Immunization, Major and minor discomforts during pregnancy, Complications during last trimester of pregnancy

4. Factors influencing Prenatal development – Effects of unfavourable prenatal conditions - Emotional factors/ maternal stress, Drugs, Radiation, Smoking, Diseases, Accidents, Deficiency, Maternal Age, Parity, Common physical hazards during prenatal period - Period of the ovum, Period of the Embryo, Period of the Foetus
5. Labour / birth – Labour, Contractions, The stages of labour, Types of birth, Complications during delivery, Reflexes of new born
6. Care of new born and nursing mother - Care of new born baby, Bathing, Clothing, Diapering, Lifting Babies, Sleeping Facilities/ Pattern, Attending to the Child's Cries, Health Care, Immunization, Care of the nursing mother -The breast, Perineal care, Pulse and temperature, Lochia, Bladder irregularities, Bowel movement, Convalescence after child birth, Nutritional care
7. Physical and motor development during infancy – Principles of physical development, Components of Physical Growth During Infancy, Principles of motor development, Motor development during infancy, Developmental norms / milestones
8. Cognitive and language development during Infancy – Cognitive development – The sensory motor period, Space and time, Memory, Language development – Properties of language, Theories of language acquisition, Biological and maturational factors, The role of the family
9. Socio emotional development during infancy - Social Development during infancy, Emotional Development during infancy- Bridge's classification of emotions, Individual Differences in responding to emotions, Emotional regulation
10. Factors influencing growth and development during infancy, care of an infant - Feeding – Breast Feeding, Artificial feeding, supplementary feeding / weaning, Failure to thrive (FTI) infants
11. Physical and motor development during preschool period – Physical Development during preschool period - Body proportions, Bones, Muscles, Teeth, Motor development during preschool period - Gross motor development, Fine motor development, Perceptual motor development, Handedness
12. Cognitive and language development during Preschool period - Cognitive process, Piaget's stages of cognitive development, Language development – Characteristics of children's language, Language skills during preschool period, Stages of language development
13. Socio emotional development during preschool period- Socialization definition and process, Techniques of socialization, Agents for socialization, Emotions – types, Characteristics of children's emotions,
14. Factors influencing growth and development during preschool period - Antecedent influences for cognitive, language, socio-emotional, Physical and motor development during preschool period
15. Physical and motor development during school age – Physical development – Height, Weight, Body proportions, Skeletal and muscular growth, Brain Development, Motor development - Importance, Constituents of motor behavior, Types of motor skills
16. Cognitive and language development during school age – Piaget's stages of cognitive development - concrete operational stage, Changes in intellectual / mental operations, Ways of promoting cognitive development, Language development – Development of Syntax, Semantics, Pragmatics, Children's literacy
17. Socio development during school age – Learning socially appropriate roles,

Development of social interactions - Childhood gangs, Forms of social groups, Popularity and Social isolation, Socialization and its influence on the personality of the school age child

18. Emotional and Moral development during school age – Emotional Development – Common emotions, Emotional dominance, Balance and Control of emotions- Emotional catharsis, Moral development – Components of moral development, Kohlberg’s stages of moral development
19. Factors influencing growth and development during school age – Antecedent influences for physical and motor, cognitive, socio-emotional, moral development during school age, Hazards during school age
20. Puberty – Physical changes, Changes in physical growth, Changes in body dimensions, Development of sexual characteristics/sexual maturation, Physiological changes Adolescence- Concept, Phases, Physical development during adolescence
21. Cognitive development during adolescence – Transitions, stages - Piaget’s stages of cognitive development -Formal Operational Stage, Adolescent’s egocentrism, Implications of formal thought
22. Socio development during adolescence – Social behavior, Peer group, Stages of development of peer group, Structures of Peer Group
23. Emotional development during adolescence - Components of Emotional development, Developmental changes in emotional functioning
24. Identity development during adolescence – Identity meaning, Identity development, Theories of Identity Development – Erickson and Marcias, Identity problems during adolescence, Preventive strategies
25. Factors influencing growth and development during adolescence - Antecedent influences for cognitive, moral, socio-emotional development during adolescence
26. Development during early and middle adulthood – Early adulthood – Physical development, Sexuality, Cognitive development, Socio emotional development, Middle adulthood – Physical development, cognitive development, Socio emotional development
27. Factors influencing growth and development during adulthood - Antecedent influences for growth and development during adulthood
28. Physical, Cognitive development during old age – Physical development , Longevity, Health, Cognitive development – Cognitive functioning, Multidimensionality and Multi directionality, Education, work and health, Training cognitive skills
29. Socio-emotional development during old age
30. Factors influencing growth and development during old age - Antecedent influences for growth and development during old age
31. Stimulating approaches for optimizing development – Stimulation- meaning, areas of stimulation
32. Major issues in growth and development – Nature Vs Nurture, Critical period Vs Unlimited Plasticity, Continuity Vs Change, Activity Vs Passivity

Practical outline

1. Observational visits to well-baby clinic to observe full term and preterm babies
2. Study on developmental status of an infant
3. Study on developmental status of a preschool child
4. Assessing Physical development of an infant/ a preschooler using Anthropometry

5. Planning stimulation programmes for optimizing development of an infant
6. Implementing stimulation programmes for optimizing development of an infant
7. Planning stimulation programmes for optimizing development of a preschooler
8. Implementing stimulation programmes for optimizing development of a preschooler
9. Case study of a school age child
10. Case study of an early adolescent
11. Studying Vocational interests of Late Adolescent
12. Study on Marital adjustments during young adulthood
13. Study on Role satisfaction in Middle adulthood
14. Study on Happiness Index of Aged
15. Preparation of resource files on recent issues related to various stages of life span
16. Final Practical Examination

References

1. Berk E Laura (2013): Exploring Life span development, 3rd ed McGraw Hill New York
2. Lawrence B Schiamberg (1985): Human Development, 2nd ed Macmillan Publishing Company, New York
3. Papalia DE and Olds SW (2008): Human development, 11th ed McGraw Hill New York
4. Richard Fabes Carol Lynn Martin (2003): Exploring Child Development, 2nd ed Allyn and Bacon Publication, New York
5. Santrock John (2011): Life span development, 13th ed McGraw Hill Education (India) Private Limited, New Delhi

Course Number HDFS 121(For 2018-19 admitted batches onwards)

Title Life span Development -II – School age to Adulthood

Credit Hours 3(2+1)

General Objective

- To impart knowledge about growth and development during school age and adolescence, developmental tasks, socialization techniques, vocational interests and problems experienced by adolescents, developmental changes during adulthood etc

Specific Objectives

Theory

By the end of the course the students will be able to

- i. Understand the different areas of development from school age to adulthood and antecedent factors influencing development
- ii. Know changes associated with puberty
- iii. Learn the importance of vocational guidance during adolescence
- iii. Understand the developmental changes during adulthood

Practical

By the end of the course the students will be able to

- i. Gain skills in assessing children's growth and handling test materials and tools used for assessing the growth and development of school going children and adolescents
- ii. Gain practical knowledge in collecting baseline data on school going child to adult
- iii. Understand the developmental needs of the school age children, adolescents and adults

Theory lecture outline

1. Late childhood- meaning, importance and characteristics, developmental tasks
2. Physical growth and development during late childhood - changes in components of physical growth, factors affecting physical development
3. Motor skills/development in late childhood - importance of motor skills, handedness, hazards in motor development, factors affecting motor development
4. Changes in cognitive abilities during late childhood - piaget stages of cognitive development-concrete operational stage, changes in mental operations, changes in understanding
5. Factors affecting cognitive development during late childhood - ways to promote cognitive development, factors affecting cognitive development
6. Moral development during late childhood - components of moral behaviour, piaget stages, kohlberg stages, factors
7. Socio- emotional development during late childhood - socialization- meaning, process of socialization- reward and punishment, modeling and imitation, identification, social cognition, self discovery, sex role development- agents- effects
8. Development of social interactions in late childhood - childhood gangs- characteristics, functions, social acceptability, popular children- meaning, characteristics, rejected children- meaning, characteristics, neglected children-meaning- characteristics
9. Emotional development during late childhood - pattern of emotional development, emotional dominance, balance and control of catharsis
10. Emotional development during late childhood - hazards in emotional development, asthma, childhood depression, childhood neurosis, eating disorders, childhood psychosis, autism and childhood schizophrenia, antisocial behaviours
11. Role of family, school and peer on overall development of school age children - role of family in promoting child's development, role of school and development, role of peer group and development
12. Pubertal changes - puberty-meaning, onset of puberty- factors, diversity stages, criteria to determine climax of puberty
13. Pubertal changes - physical changes during puberty- body size, body proportions, development of sexual characteristics, physiological changes, and psychological implications
14. Pubertal changes and their effects on personality - early and late maturation – effects on adolescent personality, early maturation in boys- personality, late maturation in boys- personality, early maturation in girls- personality, late maturation in girls-personality, outcomes and issues for early and late maturers in later period
15. Adolescence – meaning, importance, classification/ phases, perspectives on adolescence- historical and cultural

16. Characteristics of adolescence - characteristics, developmental tasks, difficulties in transition- measures to help
17. Cognitive development during adolescence - formal operational stage- piaget
18. Emotional development during adolescence - emotions- meaning, pattern of emotions factors, promoting emotional development
19. Emotional development during adolescence - heightened emotionality – causes and their effects, emotional catharsis, coping mechanisms used, emotional maturity and adjustment during adolescence
20. Identity development during adolescence - identity-meaning, changes in identity, identity formation- Marcia's theory, personality integration during adolescence , ways to promote identity
21. Identity crisis during adolescence - identity problems- factors, delinquency, drug abuse, tobacco and smoking, alcohol and drinking, suicidal tendency, runaways, preventive strategies
22. Gender identity and gender role stereotypes - concept of gender identity, development of sex role behavior, gender roles and stereo types, changing concepts of feminine and masculinity
23. Socialization and social attitudes and behaviour during adolescence - influences of peer group- functions, stages, structure of peer group, conformity to social values and standards, self assertiveness and techniques, difficulties in social transition
24. Aspirations and interests of adolescents - aspirations- meaning, interests-meaning, factors , types of adolescent interests- recreational, social, personal, educational, vocational, religious, status symbols
25. Problems during adolescence - common problems, self related- emotional disorders, conduct disorders, anxiety disorders, conduct disorders, parent related, school related, society related
26. Transitions in family relationships - decreased parent- child interactions and parental supervision and factors, peer relationships- bullying and it's effects , teacher child relations – influences, factors, mass media- influences
27. Educational and vocational guidance for adolescents - vocational guidance- meaning, need, objectives, strategies, importance of vocational guidance , career guidance- advantages, factors affecting choice of vocation- family, school, socio cultural factors
28. Development during early and middle adulthood – early adulthood – physical development, sexuality, cognitive development, socio emotional development, middle adulthood – physical development, cognitive development, socio emotional development
29. Factors influencing development during adulthood - antecedent influences for development during adulthood
30. Physical and cognitive development during old age – physical development , longevity, health, cognitive development – cognitive functioning, multidimensionality and multi directionality, education, work and health, training cognitive skills
31. Socio-emotional development during old age – theories of emotional development
32. Factors influencing development during old age - antecedent influences for development during old age

Practical outline

1. Case study report of a school going child

2. Preparation of daily profile of school going child
3. Assessment of cognitive abilities of a school going child
4. Preparation of daily profile of an adolescent
5. Case study report of an adolescent
6. Assessment of social interactions – Sociometry
7. Assessment of personality of an adolescent – personality inventory
8. Measuring self concept of an adolescent
9. Study of vocational interests of adolescents
10. Study on common problems of adolescents
11. Report on impact of media (print and audio visual) on school age child or adolescent
12. Study on Marital adjustments during young adulthood
13. Study on Role satisfaction in Middle adulthood
14. Study on Happiness Index of Aged
15. Development of resource files on school age to adulthood
16. Final practical examination

References:

1. Berk E Laura (2013): Exploring Life span development, 3rd edi McGraw Hill New York
2. Lawrence B Schiamberg (1985): Human Development, 2nd edi Macmillan Publishing Company, New York
3. Papalia DE and Olds SW (2008): Human development, 11th edi McGraw Hill New York
4. Richard Fabes Carol Lynn Martin (2003): Exploring Child Development, 2nd edi Allyn and Bacon Publication, New York
5. Santrock John(2011): Life span development, 13thedi McGraw Hill Education (India) Private Limited, New Delhi
6. Newman, and Newman (2003) Development through life: A psycho social approach, 8th edition (pp 158-164) United States of America: Wardsworth
7. Owens, K B (2002) Child and Adolescent Development, An integrated approach (pp 227-238) United States of America: Wadsworth

Course Number RMCS 121

Title System Dynamics and Management of Resources

Credit Hours 2 (1+1)

General Objective • To provide knowledge about the principles of management and their application in managing the resources

Specific Objectives **Theory**

By the end of the course the students will be able to

- i. To create an awareness on the importance of management at individual and family levels
- ii. To understand the basics of management as a process and systems approach to management
- iii. To help in identifying and understanding the application of

principles of management for different resources

Practical

By the end of the course, the student will be able to

- i. Identify and understand individual and family values, goals and standards
- ii. Identify and solve problems through decision making process
- iii. Applying the management principles to various resources at individual and family level

Theory lecture outline

1. Introduction to Management concepts
2. Family lifecycle stages and its effect on managerial functions
3. Systems approach to management
4. Family systems and its subsystems - Family environments – interaction of environments
5. Motivating factors of management- value - Origin, classification and role in management
6. Motivating factors of management - goals - Origin, classification and role in management - Interrelation between values, goals and standards
7. Motivating factors of management - standards - Origin, classification and role in management
8. Resources – definition and classification, guidelines for optimal utilization use of resources and factors affecting use of resources
9. Decision making – Importance, types, Decision making process
10. Decision making - Steps in decision making, factors affecting decision making
11. Management process - Planning - importance, types, characteristics and techniques,
12. Management process - Organizing Definition and meaning
13. Management process - Controlling- definition, phases and factors
14. Management process – Evaluation and Feed back - definition and types of evaluating
15. Time Management – Concepts of time management, Tools of time management
16. Money Management – Process of money management

Practical outline

1. Identification and listing of individual and family values
2. Identifying and listing individual and family goals
3. Identifying and listing individual and family Standards
4. Identifying and listing human and non – human resources, community resources
5. Identifying types of decisions taken by individuals and families
6. Applying decision making process – individual decisions and presentation of reports
7. Applying decision making process - group decisions and presentation of reports
8. Application of managerial process to organize an event – planning
9. Application of managerial process to organize an event – implementing
10. Application of managerial process to organize an event – evaluation
11. Management of personal time record for a week
12. Presentation of personal time record
13. Identifying types and sources of family income
14. Preparing sample budgets

15. Evaluation and presentation of budget
16. Final practical examination

References

1. Mann, MK (2004) Home Management for Indian Families, Kalyani Publisher Ludhiana
2. Nickell, P and Dorsey, JM (1970) Management of Family Living Wiley Eastern, New Delhi
3. Vargeese, MN Ogale, NN and Srinivasan, K (1992) Home Management, Wiley Eastern, New Delhi
4. Krishna Oberoi (2006) Resource Management for Better Homes RK Offset, Delhi
5. Bhargava, Bela (2005) Family Resource Management and Interior Decoration Apple Printer and V R Printers, Jaipur
6. Duvall EM 1967 Family Development, Lippincott JB Company, Philadelphia, New York,
7. Moore TJ, Asay MS 2013 Family Resource Management, Second Edition, Sage Publications, New Delhi,
8. Gross HI, Crandall EW, Knoll MM 1980 Management for Modern Families Prentice Hall, Inc, Eaglewood Cliffs, New Jersey

Course Number CSBC 121

Title Technical Writing (English)

Credit Hours 2 (1+1)

General Objective

- To enable the students to strengthen the writing skills and improve their vocabulary

Specific Objectives **Theory**

By the end of the course the students will be able to

- i. Write a technical paper confidently
- ii. Increase the vocabulary
- iii. Write a scientific paper in a convincing manner

Practical

By the end of the course, the student will be able to

- i. Learn the basic of English Writing
- ii. Write English with a flow
- iii. Master the art of English Writing

Theory lecture outline

1. Style: - Definition of Style, Introduction to different styles of writing
2. Writing process: - steps involved in the writing of a scientific paper
3. Interview: - Definition of interview, how to prepare for an interview

4. Types of interviews – Tips to succeed in an Interview
5. Paragraph writing – Essentials of paragraph writing Definition, requirements of a good paragraph
6. Topic sentence – various orders to develop a paragraph
7. Inductive, Deductive, Question to answer, Exposition, Time, Order, Comparison, Contrast, Enumeration, Space, Order
8. Report writing – Definition and cardinal characteristics of report
9. Types of Report Writing – Examples of different types of reports
10. Analyzing the report, Report formats
11. Oral and Written Reports – Informational and Interpretative Report
12. Technical correspondence – General principles of technical correspondence, parts of a letter (Heading, Address, Salutation, Body, Complimentary closing, Signature)
13. Types of letters – Letters giving instructions, enquires and answers to enquiries, complaints and adjustments, letter urging action, applications and resumes
14. Proposal writing – Definition and kinds of proposal, Division of formal proposal – Front matter, letter of transmittal Title page, summary or abstract, table of contents, statement of request and body
15. Writing scientific and semi-technical articles – Source material, Topic selection, Literature review, Tables, Figures, Foot notes, Bibliography
16. Revision and Feedback

Practical outline

1. Phonetics – Introduction and definition
2. Study of sound patterns
3. Symbols – Spoken English
4. Differences of symbols in spoken and written English
5. Vowels – Pure vowels of spoken English
6. Organs of speech
7. Place and manner of articulation
8. Voiceless and voiced words
9. Report writing- Definition and purpose
10. Types of reports
11. Paragraph writing
12. Letter writing
13. Writing of scientific articles
14. Tips of a good writing
15. Feed back
16. Final practical exam

References

1. Bansal, RK and Harrison, JB – Spoken English, Orient Longman, New Delhi
2. Krishnamohan and Banerjee, M – Developing communication skills MacMillan
3. Alvarez, JA – The elements of technical writing, New York: Harcourt

Course Number CSBC 122

Title	Principles of Biochemistry
Credit Hours	3 (2+1)
General Objective	<ul style="list-style-type: none"> • To know the structure, chemical properties and metabolic pathways of various nutrients

Specific Objectives Theory

By the end of the course the students will be able to

- i. To know the properties of various nutrients
- ii. Learn the metabolism of carbohydrates, proteins and lipids
- iii. Learn about genetic code, transcription and translation and protein synthesis

Practical

By the end of the course, the student will be able to

- i. Learn about preparation of standard solutions
- ii. Learn the qualitative tests for different nutrients

Theory lecture outline

1. Recapitulation of basic chemistry and biology
2. Water ,pH and buffers, acid –base balance
3. Cellular constituents, structure and function
4. Amino acids – structure and chemical properties
5. Proteins- properties and classification
6. Carbohydrates-classification and properties
7. Polysaccharides-classification, structure and properties
8. Lipids –classification, properties, fatty acids, saturated and unsaturated and essential properties
9. Phospholipids and their importance
10. Nucleic acids-nucleosides, nucleotides and DNA, properties
11. Several RNA's and their properties
12. Vitamins-Fat soluble: A, D, E, K
13. Water soluble- complex and C vitamin
14. Mineral elements and their importance
15. Enzymes- classification, function and properties
16. Enzymes –kinetics, competitive inhibition
17. Basic concepts of bioenergetics
18. Carbohydrates metabolism and Glycolysis, Gluconeogenesis,
19. Carbohydrates metabolism and glycogenesis and glycogenolysis
20. HMP pathway and TCA cycle and energetic
21. Electron transport chain
22. Basic concepts of photosynthesis, light phase and dark phase
23. Lipid metabolism- fatty acid synthesis
24. α , β , ω oxidation of fatty acids
25. Amino acid metabolism

26. Amino acid metabolism
27. Several reactions of nitrogen assimilation
28. Urea cycle
29. Biosynthesis of DNA and RNA and replication
30. Protein structure –transcription
31. Protein structure –translation
32. Genetic code ,regulation of gene expression

Practical outline

- 1 Introduction and handling of chemical balance, chemicals etc
- 2 Preparation of standard solutions, buffers and colloidal solutions
- 3 Determination of pH
- 4 Qualitative tests of carbohydrates
- 5 Qualitative tests of amino acids
- 6 Demonstration on titrimetric method of analysis
- 7 Quantitative estimation of soluble sugars
- 8 Demonstration on estimation of nitrogen by kjeldhal method
- 9 Demonstration on estimation of fat by soxhlet method
- 10 Determination of acid value
- 11 Determination of saponification value
- 12 Determination of iodine number
- 13 Demonstration on paper chromatography
- 14 Demonstration on thin layer chromatography
- 15 Demonstration on peroxide activity
- 16 Practical examination

References

1. Satyanarayana ,U (2016)Essentials of Biochemistry, Books and allied(P) Ltd, Kolkata
2. West ,ES, Todd, WR, Mason, HS and Van Bruggen, JT 4th edition Book of biochemistry, Amerind publishing Co Pvt, Ltd
3. Murray, RK, Grannen, DK, Mayes, PA and Rodwell, VW Harpers biochemistry Lange medical book
4. Conn, EE, Stumpf, PK, Bruening, G and Doi, RH 1995 *Outlines of Biochemistry* John Wiley and Sons Inc, Singapore
5. Nelson DL and Cox MM 2004 Lehninger Principles of Biochemistry 4th Ed MacMillan
6. Voet, D and Voet, JG 2004 *Biochemistry* John Wiley and Sons Inc, USA
7. Jayaraman, J 1980 *Laboratory Manual in Biochemistry* Wiley Eastern Publishers, New Delhi
8. Plummer, DT 1988 *An introduction to Practical Biochemistry* 3rd ed Tata McGraw-Hill Publishing Co, New Delhi
9. Hames, BD, Hooper, NM and Houghton, J, D1997Instant notes in biochemistry BIOS scientific publishers

Course Number CSBC 123

Title Agricultural Informatics

Credit Hours 3 (1+2)

General Objective

- To impart knowledge about the basics of computers, the word processing, arithmetic operations, database preparation and presentation through various internet sources in terms of Health, Nutrition and other developmental communications

Specific Objectives Theory

By the end of the course the students will be able to

- Understand the basics of computers and operating systems
- Be aware of different software for word processing, arithmetic and statistical operations
- Learn the concept of power point presentations
- Attain knowledge about database preparation

Practical

By the end of the course, the student will be able to

- have practical exposure to the components of computer operating systems
- learn about the word processing, arithmetic operations, power point presentations and database preparations
- gain knowledge about World Wide Web, HTML and XML coding

Theory lecture outline

- 1 Introduction to computers - History of computers, uses and types of computers
- 2 Anatomy of Computers - Parts of computers and functions
- 3 Input and Output devices - Types and their uses
- 4 Memory - Memory concepts, units of memory, memory devices
- 5 Computer Programming - concepts, computer program, programming languages, role of computer programmer, flow charts of computer programs, psuedo code
- 6 Operating system - History, definition and functions of operating systems and their software
- 7 Word processing - MS- Office, application of MS-Office for creating, editing and formatting a document
- 8 MS Word - Components of the MS Word software, settings, data presentation, tabulation and graph creation, shortcut keys
- 9 MS Excel - Components of MS Excel, spreadsheets, workbooks, basics of MS Excel, mathematical expressions, statistical analysis and graph creation and shortcut keys
- 10 MS Power point - Concept, purpose and components of MS Power point, designing and presentation of power points, templates, styles, inserting images, illustrations, clipart, audio and video and animation of the presentation
- 11 Database- Concepts and Need of Database, backup and restoring database and storage
- 12 MS Access - Components, files, fields, tables and records, creating database tables, datasheets, entering records and keys, access windows, navigation, creating and queries

- and query wizards and generating reports
- 13 DBMS - Uses of DBMS in health and nutrition, developmental communication
- 14 World Wide Web (WWW)- Concepts, components and creation of web
- 15 HTML, XML - Purpose and coding
- 16 Practical examination

Practical outline

1. Anatomy of computers - Study of computer components, accessories
2. Practice of important DOS commands
3. Introduction of different operating systems such as windows, Unix and Linux
4. MS Word - Identifying components and understand their functions, creating files and folders
5. MS Word - Font styles, formatting and editing and settings
6. MS Word - Creating tables, page layout, setup and file management\
7. MS Word - Insert images, themes and designs
8. MS Word - Presentation of Prepared data
9. MS Power point for creating, editing and presenting a scientific document
10. MS Power point - Creating, editing and presenting a scientific document
11. MS Power point - Creating, editing and animation, and designs
12. MS Power point - Creating, editing and handling of video tools, Clip art tool, graphics, and template
13. MS EXCEL - Identifying components and understand their functions, Creating spread sheets, workbooks and worksheets and shortcuts
14. MS EXCEL - Working with data, Inserting images, tables, charts and graphical illustrations, Page setup and dialog box management
15. MS EXCEL - Writing expressions, creating graphs, analysis of scientific data, handling macros
16. MS EXCEL - Cell settings - rows and columns and formatting
17. MS EXCEL - Working with arithmetic and statistical operations
18. MS EXCEL - Presentation of prepared data
19. MS Power point - Creating and editing Power points
20. MS Power point - Designing and inserting animations
21. MS Power point - Adding audio and video to the Powerpoint
22. MS Power point - Presentation of Power point presentations
23. MS-ACCESS: Creating database, preparing of queries
24. MS-ACCESS: Preparing of reports
25. Introduction to Internet - Open an Email account
26. World Wide Web (WWW) - Introduction to components of World Wide Web
27. World Wide Web (WWW) - Website creation of scientific website
28. Mobile Devices: Use of smart phones and other devices for health warning signs and dietary management
29. Mobile Devices: Presentation and management of health information through web
30. Hands on practice on preparation of decision support system
31. Hands on practice on preparation of decision support system
32. Practical examination

References

1. Know your Desktop (1999) AP Tech Limited, Elite Auto House, Andheri (East) Mumbai 400093
2. Lab exercises for M S Office (1999) A P Tech Limited, Elite Auto House, Andheri (East) Mumbai 400093
3. Stevens, ABC for Windows 98, BPB Publications
4. Tom Stieldon (1997), Widows 98 Made Easy, IMG Hillco, New Delhi
5. Computer Fundamentals (2015), Salaria RS, Jain Book Agency, New Delhi
6. Computer fundamentals and Internet basics (2015), RohitKhurana, Jain Book Agency, New Delhi
7. Hand book of Computer Science and IT (2013), SurbhiMitra, Arihant publishers, Hyderabad

Course Number CSBC 124 (Non Gradial)

Title Human Values and Ethics

Credit Hours 1 (1+0)

General Objective

- Make the students develop and understanding of human aspirations and show empathy to everyone in the society

Specific Objectives **Theory**

By the end of the course the students will be able to

- i. Understand and learn the Universal Human aspirations
- ii. Understand the Human Values and Ethics in Society, Profession and Environment

Theory lecture outline

1. Universal human aspirations: Happiness and prosperity
2. Human values and ethics: Concept, definition, significance and sources
3. Fundamental values: Right conduct, peace, truth, love and non-violence
4. Ethics: professional, environmental,
5. ICT Sensitization towards others particularly senior citizens, developmentally challenged and gender
6. Spirituality, positive attitude and scientific temper
7. Team work and volunteering
8. Rights and responsibilities
9. Road safety and responsibilities
10. Human relations and family harmony
11. Modern challenges and value conflict:
12. Sensitization against drug abuse and other social evils
13. Developing personal code of conduct (SWOT Analysis)
14. Management of anger and stress
15. Civil rights and responsibilities
16. Civil rights act

References

1. Gaur RR, Sangal R and Bagaria GP 2011 A Foundation Course in Human Values and Professional Ethics Excel Books
2. Mathur SS 2010 Education for Values, Environment and Human Rights RSA International
3. Sharma RA 2011 Human Values and Education -Axiology, Inculcation and Research R Lall Book Depot
4. Sharma RP and Sharma M 2011 Value Education and Professional Ethics Kanishka Publishers
5. Srivastava S 2011 Human Values and Professional Ethics S K Kataria and Sons
6. Srivastava S 2011 Environmental Science S K Kataria and Sons
7. Tripathi AN 2009 Human Values New Age International (P) Ltd Publishers

2nd year (I Semester)

Course Number APTX 211

Title Techniques of Fabric Construction

Credit Hours 3 (1+2)

General Objective To impart comprehensive knowledge on various techniques involved in making fabrics

Specific Objectives

Theory
By the end of the course the students will be able to

- ✓ Gain in depth understanding of weaving, looms and their basic mechanics
- ✓ Understand in detail about the woven fabric structures
- ✓ Attain a thorough understanding of the basic weaves and their variations
- ✓ Study in detail about the complex weaves
- ✓ Know about knitting and the machinery used to produce knits
- ✓ Become familiar with other forms of fabric construction like macramé, crochet and felts

Practical

By the end of the course, the student will be able to

- ✓ Identify common fabric structures
- ✓ Identify weaves and be able to represent them graphically
- ✓ Study about handloom and be able to understand the parts and their functionality
- ✓ Prepare samples of basic weaves
- ✓ Know about stitches used in knitting and be able to make samples of

- plain, knit and purl stitches
- ✓ Make a sample of macramé with various knots
- ✓ Prepare a crochet sample with various stitches
- ✓ Understand the process of manual felting

Theory lecture outline

1. History of weaving and looms
2. Woven fabrics - simple woven structures and compound woven structures characteristics of woven fabric
3. Classification of looms on basis of mechanics, means of running loom, structure and means of weft insertion
4. Parts of loom loom accessories and their function
5. Mechanism of weaving: primary, secondary and tertiary motions
6. Basic weaves: Plain and its variations
7. Basic weaves: Twill and its variations
8. Basic weaves: Satin and its variations
9. Complex weaves: extra yarn fabrics, pile fabrics and leno
10. Complex weaves: damask and jacquard
11. Knitting: Terminology and principle of knitting
12. Knitting machine: parts and their function types of knitting machine
13. Knitting stitches: plain, rib and purl types of knit fabrics
14. Macramé: Tools and materials
15. Crochet: Tools and materials
16. Felt: Manufacturing process, properties and end uses

Practical outline

1. Observation of fabric structures under magnifying glass – weaving
2. Observation of fabric structures under magnifying glass – knitting, crochet and Macramé
3. Graphical representation of woven design – plain weave, rib weave and basket weave
4. Graphical representation of woven design – twill weave
5. Graphical representation of woven design – satin weave
6. Handloom and its parts
7. Weaving calculations
8. Yarn preparation for plain weave
9. Setting of loom and weaving of plain weave fabric
10. Setting of loom and weaving of plain weave fabric – warp rib weave and weft rib weave
11. Sample preparation of different fabric constructions – regular basket weave
12. Sample preparation of different fabric constructions – irregular basket weave
13. Sample preparation of different fabric constructions – left hand twill weave
14. Sample preparation of different fabric constructions – right hand twill weave
15. Sample preparation of different fabric constructions – pointed weave and herringbone weave
16. Sample preparation of different fabric constructions – satin and sateen weave
17. Knitting machine and its parts
18. Hand knitting – holding the needles and the yarn, casting on – thumb method and two needle method

19. Types of stitches - knit stitch and plain stitch; knitting of plain knit sample
20. Types of stitches – purl stitch
21. Knitting of purl stitch sample
22. Types of stitches – rib stitch
23. Knitting of rib stitch sample
24. Macramé – preparation for knotting, over hand knot, basic knots – square and half square knot, larks head knot, altering square knots, half-hitch knots types of knots, Josephine knots
25. Macramé - sample preparation of alternating knots with beads, Josephine knot, square knot and half square knot
26. Macramé - sample preparation of inside – out knot, horizontal double hail hitch and diagonal half hitch knot
27. Crochet – basic stitches chain stitch
28. Crochet – preparation of sample 1
29. Crochet – preparation of sample 2
30. Crochet – preparation of sample 3
31. Manual felting
32. Final practical examination

References

1. Kaur, N (2011) Fashion Concepts, Comdex: Fashion Design Vol I, Dreamtech Press
2. Gokarneshan N (2009) Fabric Structure and Design, 2nd Edition, New Age International (P) Ltd
3. Hollen, N and Saddler, J 1968 Textiles New York Macmillan Company
4. Joseph, M L 1986 Introductory Textile Science 5th ed New York CBS College Publishing
5. Wynne A (1997) Textiles The Motivate Series, Macmillan
6. Kadolph S J (2013) Textiles: Pearson New International Edition, Pearson Education Ltd, Asia

Course Number EECM 211

Title Women in Agriculture

Credit Hours 3(2+1)

General Objective This course motivates the students to understand the status of women specifically in agriculture and thereby instigates them to find out ways and means to tackle the problems of women in agriculture, different programmes, policies, institutions and agripreneurship

Specific Objectives **Theory**

- i. By the end of the course, the students will be able to understand the status of women in agriculture and identify the factors associated with the poverty of women and measures to reduce

- poverty.
- ii. They can comprehend the meaning of feminization of agriculture and gender issues and meaning of empowerment and the government programmes for women.
 - iii. They can recognize the occupational health hazards and drudgery of women in agriculture and the preventive measures. They can understand the technological needs of women in agriculture and strategies of transfer of technology to fill the gaps.

Practical

- i. By the end of the course the students will get exposure to the role of women in agriculture, get familiarized with the women friendly tools and devices, agripreneurship and farm women training.

Theory lecture outline

1. Evolution of agriculture in India: Introduction, evolution of agriculture
2. General agricultural production activities: Introduction, meaning , concepts
3. Agricultural and allied sectors in rural India: Introduction, meaning , concepts
4. Role of women in agricultural sector: Introduction, participation, role of women
5. Role of women in allied sectors: Introduction, participation, role of women
6. Socio economic status of farm women: Concept and meaning, measures for socio-economic development
7. Health and nutrition status of women in agriculture: Introduction, major causes for poor health and nutritional status, effects of poor health and nutritional status
8. Women and poverty: Meaning, causes and reasons
9. Feminization of agriculture – Issues: Gender segregated and segmented labor force, flexible labor force, wages and benefits, training and skills, women in small and marginal farms, women as independent farmers, feminization and empowerment, data gaps in coverage on women's labor, constraints
10. Categorization of women in agriculture: Introduction, characteristics and categorization of women in agriculture
11. Women in organized and unorganized sectors: women in the work force, women in unorganized sector, contribution and composition in economy, occupational profile of unorganized labour, need for social security for women in unorganized sector
12. Occupational Health Hazards: Occupational health hazards and women, workplace hazards to women's reproductive health, causes of health hazards, remedial measures
13. Types of Occupational Health Hazards: Activity specific, casual factors
14. Pesticides related health hazards and preventive measures
15. Women and drudgery: Introduction, indicators of drudgery, drudgery reducing tools and implements
16. Technological needs of farm women: Identification of technological needs -life cycle approach, knowledge empowerment technologies, drudgery reduction, value addition technologies, gainful and additional employment technologies,
17. Income generation technologies: Introduction and types
18. Women friendly tools and implements: Types of tools and implements

19. Gender issues in agriculture and allied sectors: Gender issues in agriculture, livestock management, forestry and fishing, gender and ICT and Media, access to resources or ownership of assets, Household headship, migration
20. Government programmes for women: District Rural Development Agency (DRDA), Schemes of the ministry of women and child development: Swa-Shakti, Swayamsiddha, Swawlamban Programme, Support to Training and Employment Program, Institutional services, Balika mandals, Girl child protection scheme, Rashtriya Mahila Kosh (RMK), Swarnajayanthi Gram Swarozgar Yojana (SGSY)
21. Institutions for women in agriculture: Agricultural Technology Management Agency (ATMA), Directorate of Research on Women in Agriculture (DRWA)
22. Empowerment of Women: Concept and indicators
23. Empowerment of women: Dimensions and Ways
24. Agripreneurship and training to farmwomen.: Meaning, concepts of Agripreneurship
25. Government organizations for promoting entrepreneurship: MANAGE, NISIET, SISI, NIRD
26. Non-Government organizations for promoting entrepreneurship: ALEAP
27. Programmes and schemes for promoting enterprises: Farm based
28. Programmes and schemes for promoting enterprises: Nonfarm based
29. Programmes and schemes for promoting enterprises: Trade related.
30. Strategies for Transfer of Technologies: Technology transfer, types of technology, Nature of technology, salient features in development of rural technologies, strategies for transfer of technologies
31. National Commission For Women: A brief history, mandate of the constitution of the commission and publications
32. National Policy for Women in Agriculture: Mission , background, objectives

Practical outline

1. Field visit to observe the role of women in agriculture
2. Field visit to observe the role of women in animal husbandry
3. Field visit to observe the role of women in horticulture
4. Field visit to observe the role of women in rural industries
5. Visit to farm machinery unit to observe women friendly tools and devices
6. Visit to observe rural women using women friendly tools and devices
7. Visit to an agripreneurship unit - ALEAP
8. Visit to an agripreneurship unit - RTP and NIRD
9. Visit to a farm women training institution - DRDA
10. Visit to a farm women training institution - KVIC
11. Collection of success story - Agripreneur
12. Presentation of success story on Agripreneur
13. Collection of success story of large scale women enterprise
14. Collection of success story of small scale women enterprise
15. Presentation of reports on women enterprises
16. Practical examination

References

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2. Nayak sarojini and Nair Jeevan. Women's Empowerment in India. Pointer publishers.
3. Gupta Debabrata Das. (2008). Extension Education- core contents and emerging Areas. Agrobios.
4. Benerji Anitha and Sen Raj Kumar. (2000). Women and Economic Development. Deep and Deep publications Pvt. Ltd
5. Prasad Kiran. (2004). Communication and Empowerment of Women: strategies and policy insights from India. The Women Press. Delhi.
6. Ray, G.L. (1991). Extension Communication and Management. Kalyani publications.

Course Number FDNT 211

Title Community Nutrition and Education

Credit Hours 3 (2+1)

General Objective To develop an insight into nutritional problems of community and improve the situation by imparting nutrition education and drive community to utilize government services

Specific Objectives **Theory**

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

- i. Acquire knowledge of nutritional assessment techniques
- ii. Visualize the types of malnutrition prevailing in the community
- iii. Assess the need for nutrition education for the community
- iv. Understand nutrition policy and nutrition programmes in operation in the country

Practical outline

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

- i. Assess nutritional status of population by anthropometry, clinical and diet survey techniques
- ii. Understand the organizational set up and functioning of different government nutrition programmes
- iii. Prepare illustrative audio-visual aids on nutritional problems and treatment
- iv. Provide nutrition education to the community and bring changes in the dietary habits of community to improve health

Theory lecture outline

- 1 Importance of community nutrition
- 2 Nutrition education- objectives and methods, principles
- 3 Malnutrition- definition and causes
- 4 PEM – Marasmus
- 5 PEM – Kwasiorkor
- 6 Vicious cycle of malnutrition

- 7 Assessment of nutritional status – Anthropometry
- 8 Biochemical tests
- 9 Clinical assessment
- 10 Diet survey – community level
- 11 Diet survey – household level
- 12 Major nutritional problems prevalent worldwide
- 13 Anaemia, vitamin A deficiency, iodine deficiency disorders, obesity, hypertension, diabetes mellitus - prevalence in India
- 14 Anaemia, vitamin A deficiency, Iodine deficiency disorders, obesity, hypertension, diabetes mellitus - prevalence in Telangana State
- 15 National programmes and role of national and international agencies in improving nutritional status of the community – Introduction
- 16 Integrated Child Development Service (ICDS)
- 17 Supplementary Nutrition Program (SNP), Applied Nutrition Program (ANP)
- 18 Mid Day Meal Program (MDMP)
- 19 Vitamin A prophylaxis programme
- 20 Anaemia prophylaxis programme
- 21 Food and Agricultural Organization (FAO)
- 22 World Health Organization (WHO)
- 23 United Nations Children’s Emergency Fund (UNICEF)
- 24 UNDP, CARE
- 25 Voluntary and government agencies
- 26 Nutrition education – Objectives, methods, principles
- 27 Nutrition education on anemia,
- 28 Nutrition education on vitamin A deficiency
- 29 Nutrition education on iodine deficiency
- 30 Nutrition education on obesity
- 31 Nutrition education on hypertension and atherosclerosis
- 32 Nutrition education on diabetes mellitus

Practical outline

- 1 Assessment of nutritional status of preschool children using nutritional anthropometry
- 2 Assessment of nutritional status of women using nutritional anthropometry
- 3 Household diet survey by weighment method
- 4 Household diet survey by 24 hour recall method
- 5 Clinical methods of assessment
- 6 Analysis of anthropometric, diet survey and clinical assessment data and report writing
- 7 Collection of vital statistics from secondary source and interpretation of data
- 8 Development of visual aids for nutrition education – posters and charts
- 9 Development of visual aids for nutrition education - flip charts, books, flash cards
- 10 Demonstration in the community on preparation of low cost supplementary foods using local resources
- 11 Planning nutrition education programme for school children
- 12 Conducting nutrition education to school children using the developed visual aids
- 13 Planning nutrition education programme for the community
- 14 Visit to an ICDS block, anganwadi center

- 15 Visit to industry producing supplementary food for ICDS
- 16 Final practical examination

References

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2. Michael C Latham, Human Nutrition in the Developing World Ithaca, New york, USA
3. SrilakshmiB (2005) Nutrition Science (pp 3-14), New Delhi New Age International (P) Limited
4. Derrick B Jelliffe (1966), The assessment of the nutritional status of the community (With special reference to field surveys in developing regions of the World) World Health Organization, Geneva
5. Sehgal, S and Raghuvanshi, RS (2007) Text Book of Community Nutrition ICAR, New Delhi

Course Number FDNT 212

Title Food and Nutrition Policy and Agriculture

Credit Hours 2 (2+0)

General Objective

- To impart knowledge on food and nutrition situation in India and associate food resources, farming systems, socio economic status, government policies with food security and malnutrition issues

Specific Objectives

Theory

By the end of the course the students will be able to

- i. Gain knowledge of food production, distribution and consumption trends of population in India
- ii. Understand the vicious cycle of poverty, low food production and malnutrition
- iii. Acquire insights of agricultural production, marketing, postharvest processing and food security at family and national level
- iv. Gain awareness of agriculture and nutrition policies / programmes of the country
- v. Identify resources and organizations working for agriculture and food security

Theory lecture outline

- 1 Food situation in India and in the world
- 2 Food production and consumption trends, food balance sheets
- 3 Role of nutrition in agricultural planning and national development
- 4 Linkages between agricultural practices
- 5 Food production, food distribution and nutritional status
- 6 Food crop failure and malnutrition

- 7 Low food production - poverty and vicious cycle of poverty
- 8 Agricultural development and its effect on food availability
- 9 Effect of food production and economic policies on food availability
- 10 Impact of physical resources, farming systems, cropping system
- 11 Inputs and manipulation, agricultural marketing system
- 12 Post harvest processing of foods on food and nutrition situation
- 13 Food distribution systems
- 14 Food security concepts and definitions agriculture and food security
- 15 Food security - nutrition and health, urbanization, food security, food systems and food security
- 16 Macroeconomic policies employment and cash income, markets and food prices
- 17 Effect of urban agriculture on the nutritional status of vulnerable groups
- 18 Innovative approaches to enhance local food production
- 19 Innovative approaches to improve food distribution systems
- 20 Innovative and effective approaches to manage health risks of urban agriculture
- 21 Implications for urban policies and programmes
- 22 Food and nutrition security at national level
- 23 Food and nutrition security at household level
- 24 Nutrition policy implementation
- 25 Nutritional impact of agricultural programmes
- 26 Nutritional impact of horticultural programmes
- 27 Food price control and consumer subsidy
- 28 Contribution of national organizations for agricultural development - ICAR
- 29 Contribution of national organizations for agricultural development – National research institutes
- 30 Contribution of international organization for agricultural development – FAO and WB
- 31 Contribution of international organization for agricultural development - IFDA, USDA
- 32 Contribution of international organization for agricultural development – UNDP, IFPRI

References

1. Textbook on Economics of Agricultural Development by George W Norton, Jeffrey Alwang, and my Friedman School colleague
2. William A Masters [Nutrition policies and programmes](#) FAO publications 2015
3. Bhatia MS (1991) [Agricultural Statistics at a Glance](#) Ministry of Agriculture, Govt of India, New Delhi
4. Census (1981, 1991, 2001)
5. India (2001) [A Reference Annual](#) Publication Division, Ministry of Information about Broad casting, Govt of India
6. UNICEF (1999) [The State of World's Children](#) Oxford University Press

Course Number HDFS 211

Title Marriage and Family Dynamics

Credit Hours 3 (2+1)

General Objective

- To impart knowledge about goals, functions, forms of marriage and family, family life cycle, changing trends in roles, areas of readiness for marriage, marital adjustments, family crisis events, coping strategies, importance of marital counseling

Specific Objectives

Theory

By the end of the course the students will be able to understand

- i. Different concepts related to marriage and family, gender roles, alternative forms of marriage and family, stages of family life cycle and developmental tasks
- ii. Gain insight on different areas of readiness to marriage, techniques of marital adjustments, causes for marital dissolution, divorce and their effects
- iii. Understand about family crisis, family stress and coping strategies
- iv. Know the need and importance of premarital, marital, family counseling and family life education
- v. Aware of different laws related to marriage

Practical

By the end of the course the students will be able to

- i. Study the roles across family life cycle
- ii. Analyze the leading factors for mate selection in different cultures
- iii. Study the alternative forms and crisis events existing in the family
- iv. Identify the adjustment techniques and coping strategies adopted by families
- v. Aware of various issues related to marital and family counseling

Theory lecture outline

1. Marriage- Definition, views, goals, functions
2. Types/forms of marriage in India- Ancient forms and prevalent forms in India
3. Rituals and ceremonies of marriage in different religions of India- Muslim, Hindu, Christian, Sikh, Parses'
4. Readiness for marriage- Definition, need and importance, areas of readiness for marriage – Psychological, Physiological, Intellectual, Social, Emotional, Spiritual- Moral, Economic readiness
5. Mate selection- meaning, field of mate selection, guidelines for mate selection, ways of mate selection in tribal India
6. Theories of mate selection- Role theory, Value theory, Exchange theory, Complementary theory, Sequential theories, Factors responsible for mate selection
7. Engagement and its importance, premarital counseling – objectives, Need and areas
8. Marital roles and behaviors - Definition and importance of marital roles, marriage as status and role transition, determinants of marital role behaviour,
9. Concepts related to gender roles- Bipolar gender roles, androgynous gender roles, Sex role transcendence, factors responsible for change in gender roles, Role conflict
10. Marital adjustment- definition, Areas of marital adjustment, factors influencing marital adjustment, types of marital relations and adjustments

11. Marital adjustments across the family life cycle, obstacles in marital adjustment, marital adjustment techniques
12. Marital success, criteria of marital success, marital education- goals
13. Marital dissolution- definition, types and factors- personal, societal, demographic, life course, family process factors, Separation distress- factors, factors responsible for refraining from divorce after marriage failure
14. Divorce- Social process of marital failure and divorce- grounds, No-fault divorce
15. Consequences of divorce on families, adjustments to divorce
16. Alternatives to marriage- singlehood, heterosexual cohabitation/ consensual union, homosexual union, reasons, merits and demerits
17. Family- Definition, characteristics, functions
18. Family structure and relationships in India- forms/types of family- based on organization, blood relationship, group affiliation, forms, authority, residence, descent
19. Pattern of changes in family structure and relationships in India -Familial (education and employment of women) and Extra Familial Factors (technology, peer group, society) responsible for the changes and consequences of these changes on the family life and society
20. Family life cycle- Definition, importance, stages and developmental tasks
21. Typical and alternative forms of families- Characteristics of Single parent families, female headed families, childless families, adoptive families, dual earner families, reasons behind alternative forms of family and its merits and demerits
22. Family Stress – Definition, types/ categories of stressors, variables affecting family's response to stress
23. Family Stress- Causes of family stress, effects/ impact of family stress, manifestations/ recognizing symptoms of family stress, stress coping strategies, correlates of family stress
24. Family crises- Definition, when does stress becomes a crisis, hill's ABCX model of family crisis and conditions for crisis
25. Family Crisis- Stages of a crisis, characteristics of crisis events, effects of crises
26. Factors affecting crisis, adjustment to crisis, general things to do in times of crisis
27. Laws and Acts regarding marriage in India
28. Laws and Acts regarding adoption and divorce in India, Laws and Acts regarding inheritance in India
29. Marital Counseling – nature, objectives and importance, types- premarital and marital, role of a marital counsellor
30. Premarital counseling- Need, premarital relationships and its consequences, sex education
31. Family life education- Concept, Types of family planning methods- Natural and Artificial methods
32. Family Counselling – Interpersonal relationships and role conflict resolutions

Practical outline

1. Study on Marriage ceremonies in different cultures
2. Study on gender roles and stereotypes
3. Study on Selection of partner
4. Study on Preparation for Marriage
5. Study on Perceptions related to Premarital Relationships
6. Visit to Marriage Bureau

7. Visit to Marriage and Family Counseling Center
8. Visit to Family Court
9. Comparative Study on Nuclear and Joint Families
10. Case study of an Alternative Forms of Family
11. Study on Marital Roles and Expectations
12. Study on Marital Adjustments
13. Study on Families Stress and its Impact
14. Study on Coping Strategies adopted by Families under Stress
15. Study on Perceptions of Youth Towards Live in Relationships
16. Preparation of Resource File on latest Laws and Acts related to Marriage and Family

Course Number RMCS 211

Title Financial Management and Consumer Education

Credit Hours 2 (2+0)

General Objective Applying the consumer education practices in the daily life of the consumer

Specific Objectives **Theory**

By the end of the course the students will be able to

- i. To create awareness on the importance of consumer education and management at individual and family levels
- ii. To understand the financial levels Banking, crediting etc by the consumer
- iii. To create awareness among the consumers about their problems, rights, responsibilities and food adulteration

Practical

By the end of the course the students will be able to

- i. Identification of food adulterants
- ii. Learning about the calculations of income tax, cost of credit, installment buying etc

Theory lecture outline

1. Family finance - Concepts, importance, objectives and major aspects
2. Income concepts: productive income, hidden income, money income, real income, psychic income
3. Family – as income producing and utilizing unit, factors affecting in the use of family income
4. Analyzing income: income profiles
5. Analyzing income: methods of handling income and account keeping systems
6. Family budget: steps of budget making, factors influencing the budget making, advantages of budget making
7. Engel's law of consumption, standard of living
8. Credit- needs types, uses and sources
9. Planning for financial security of families, credit institutions

10. Savings and Investment- types of savings / investment
11. Saving institutions and its importance
12. Investment plans and criteria for judging family investments
13. Taxation- objectives, characteristics
14. Classification of taxes in India
15. Consumer – definition and role, concept of consumer and consumer economics
16. Market and merchandising – definition
17. Market and merchandising – importance of merchandising
18. Consumer problems urban areas: unfair trade practices, adulteration, faulty weights and measures
19. Consumer problems in rural areas: unfair trade practices, adulteration, faulty weights and measures
20. Consumer problems in e- marketing
21. Consumer rights and responsibilities
22. Consumerism and its growth
23. History of consumer movement in the developed and developing countries
24. Consumer Protection Act and Government legislations
25. NGO's for consumer protection and welfare
26. Standard and standardization – need, importance and types of standards for various products
27. Standard and standardization - legislative measures for regulating quality in Consumer durables
28. Standard and standardization - legislative measures for foods
29. Sources of consumer information – Advertisements - definition, importance, and types - advertisements
30. Sources of consumer information – Product Labels – definition, importance, and types
31. Sources of consumer information – Product packaging etc – definition, importance, and types
32. Consumer and the environment

References

1. Rice, Nickel and Tucker (1976) Management in Family Finance John Wiley and Sons, New York
2. Seetharaman P Sethi M (2002) Consumerism Strategies and Tactics CBS Publishers and Distributors New Delhi
3. Verghese, MN Ugale, W N and Srinivasan, K (1997) Home Management, New Delhi: New Age International

Course Number CSBC 211

Title Elementary Statistics

Credit Hours 3 (2+1)

General Objective

- To impart elementary statistical methods/ tools for analyzing data in Community Science

Specific Objectives

Theory

By the end of the course the students will be able to

- i. Know the names of different statistical tools employed for analyzing the data associated with community science
- ii. Understand different formulae of statistical tools /method and their merits and demerits and purpose of using them
- iii. Gain knowledge of using the statistical tools /methods in different situations for different hypotheses of data

Practical

By the end of the course, the student will be able to

- i. Learn the practice of computing measures of central tendency and dispersion given the relevant data
- ii. Learn the practice of computing the properties and fitting of Binomial, Poisson and Normal distributions given the relevant data
- iii. Learn the practice of computing the testing of hypotheses using different tests like t-tests, chi-square test given the relevant data
- iv. Learn the practice of computing correlation, regression ,one-way analysis of variance and drawing simple random sampling given the relevant data

Theory lecture outline

1. Introduction to statistics definitions, functions, uses and limitations, Classification and tabulation of data
2. Qualitative and quantitative classification, discrete and continuous variables,
3. Frequency tables, grouped and ungrouped data
4. Diagrammatic representation of data One, Two and Three dimensional diagrams with applications
5. Graphical representation of data Histogram, frequency polygon, frequency curve, ogives
6. Measures of central tendency Introduction to basic concepts of logarithms, AM merits and demerits and uses
7. Median Mode with merits, demerits and uses
8. GM and HM with merits and demerits, Relationship between AM, GM and HM,
9. Measures of dispersion Range, Quartile deviation, Inter Quartile range
10. Mean deviation from AM, Median and Mode
11. Variance, Standard deviation, Coefficient of variation
12. Moments Raw moments, Central moments for grouped and ungrouped data, relationship between raw moments and central moments

13. Measures of Skewness and Kurtosis
14. Definitions of symmetrical distribution, Skewness and Kurtosis,
15. Relationship between mean, median and mode and between quartiles for symmetrical and skewed distributions
16. Probability theory Definition of probability, Definition of random experiment sample space, events, mutually exclusive and equally likely events and independent events
17. Addition and multiplication theorem of probability Simple problems based on probability,
18. Conditional events and independent events, Simple problems based on probability
19. Simple problems on probability based on permutations and combinations,
20. Correlation: definition of correlation its types, scatter diagrams, Karl Pearson's formula of correlation coefficients, Testing of significance of correlation coefficient,
21. Definition of regression, regression equation of Y on X
22. Regression equation of X on Y, Relationship between correlation coefficient and regression coefficients
23. Problems based on correlation and regression
24. Tests of significance basic definitions, hypothesis, null and alternative hypothesis, tests statistic, testing of hypothesis,
25. One sample t-test and two sample fisher's t-test
26. Chi-square test of goodness of fit and Chi-square test of independence of attributes
27. Discrete and continuous probability distributions definition of random variable, discrete and continuous random variables, probability distribution of random variable,
28. Binomial distribution and Poisson distribution
29. Normal distribution and applications
30. Analysis of variance definition of analysis of variance, assignable and Non assignable factors, Analysis of one way classified data
31. Introduction to sampling methods definition of population, random sample, sampling, versus complete enumeration,
32. Use of random number table for selecting a simple random sample, simple random sampling with and without replacements

Practical outline

1. Diagrammatic representation of data
2. Graphic representation of data
3. Measures of central tendency (Ungrouped data) with calculation of quartiles,
4. Deciles and percentiles, AM(Ungrouped and Grouped data)
5. Median and Mode (Ungrouped and Grouped data)
6. Range, Quartile deviation (Ungrouped and Grouped data)
7. Mean deviation from AM, Median and Mode (Ungrouped and Grouped data)
8. Variance, Standard deviation, Coefficient of variation (Ungrouped and Grouped data)

9. Moments, measures of skewness and kurtosis (Ungrouped data)
10. Moments, measures of skewness and kurtosis (Grouped data)
11. Correlation, Regression equation of Y on X
12. Regression equation of X on Y,
13. One sample t-test, Two sample Fisher's t-test,
14. Chi-square test of goodness of fit, Chi-square test of independence of attributes
15. Analysis of variance of one way classification
16. Selection of simple random sample

References

1. Elhance, D. N. Fundamentals of Statistics (1957), Kitab Mahal :Allahabad
2. G. Nageswara Rao, Statistics for Agricultural Sciences (2007) B.S.Publications, Sultan Bazaar, Hyderabad, 500095
3. H.C. Saxena & J. N. Kapu,r Mathematical Statistics (1960) S.Chand & Co., Delhi

Course Number CSBC 212

Title Fundamentals of Food Microbiology

Credit Hours 3 (2+1)

General Objective

- To impart knowledge of microorganisms associated with food spoilage and food poisoning and understand the growth and control of microorganisms.

Specific Objectives

Theory
By the end of the course the students will be able to

- i. Know names, sources, and growth of microorganisms associated with food
- ii. Understand methods of control of microorganisms by different food processing techniques.
- iii. Gain knowledge of spoilage caused by microorganisms and the toxic and poisonous affect on human body.

Practical
By the end of the course, the student will be able to

- i. Develop skill in using microscope, preparation of media, culturing of microorganism and preparation of slides.
- ii. Isolate and identify different microorganisms and count the colonies in petridish.
- iii. Assess the extent of spoilage and compare with safety levels in different food groups.

Theory lecture outline

1. Introduction and brief history of food microbiology

2. Major groups of microorganisms associated with food-Bacteria
3. Major groups of microorganisms associated with food-Yeast
4. Major groups of microorganisms associated with food-Mold
5. Sources of microbial contamination in food.
6. Factors effecting growth and survival of microorganisms in foods.-Intrinsic factors
7. Factors effecting growth and survival of microorganisms in foods.-Extrinsic factors
8. Physical methods to control microorganisms.
9. Chemical methods to control microorganisms.
10. Biological methods and natural antimicrobial compounds to control microorganisms
11. Food Fermentations, Traditional fermented foods of India and other Asian countries.
12. Probiotics, prebiotics and symbiotics.
13. Fermented foods based on milk.
14. Fermented foods based on meat.
15. Fermented foods based on grains.
16. Fermented foods based on fruits and Vegetables.
17. Fermented beverages.
18. Role of microorganisms in food spoilage.
19. Chemical changes caused by microorganisms
20. Spoilage organisms of milk.
21. Spoilage organisms of meat.
22. Spoilage organisms of grains.
23. Spoilage organisms of fruits
24. Spoilage organisms of vegetables.
25. Principles of food preservation.
26. Food poisoning by different bacteria
27. Food poisoning by other microorganisms
28. Food borne infection
29. Microbial toxins.
30. Indicator organisms.
31. Rapid methods for detection of microorganisms-qualitative methods
32. Rapid methods for detection of microorganisms-quantitative methods

Practical outline

- 1 General laboratory practices and equipment used in food microbiology laboratory
- 2 Methods of Sterilization- Sterilization of glassware by dry heating and sterilization of nutrient broth by moist heating
- 3 Aseptic methods- Aseptic handling of glassware and aseptic transfer of a liquid culture with an inoculation loop
- 4 Microscopic examination of bacteria
- 5 Microscopic examination of yeast
- 6 Microscopic examination of molds
- 7 Preparation of media -Agar slants and agar plates
- 8 Isolation of microorganisms-Streak plate method
- 9 Isolation of microorganisms- Spread plate method
- 10 Isolation of microorganisms- Pour plate method
- 11 Purification and maintenance of microorganisms

- 12 Detection of fecal coli form
- 13 Counting of microorganisms-Total bacterial count (TBC) and Total Mold Count(TMC)
- 14 MPN of coli forms –Counting bacteria in water using the most probable number technique
- 15 Microbiological examination of different foods- milk, grains, fruits and vegetables
- 16 Practical Examination.

References

1. Frazier J & Westhoff DC. 1988. Food Microbiology. 4th Ed. McGraw Hill.
2. Pelczar, *et al.* 1996. Microbiology, 5th edn
3. Banawart GJ. 1989. Basic Food Microbiology. 2nd Ed. AVI Publ.
4. Garbutt J. 1997. Essentials of Food Microbiology. Arnold Heinemann.
5. Stanier I. and Wheeler and Painter. 1992. General Microbiology. 5th ed.
6. Kapoor, T. and Yadav. 1991. An Introduction to Microbiology

2nd year (II Semester)

Course Number APTX 221

Title Textile Finishes

Credit Hours 2 (1+1)

General Objective To impart comprehensive knowledge on various ways of finishing textiles

Specific Objectives

Theory

By the end of the course the students will be able to

- ✓ Understand in detail about the various textiles finishes
- ✓ Study in detail about basic textile finishes, surface finishes and functional finishes
- ✓ Know about basics of dyes and pigments
- ✓ Gain an understanding of dyeing techniques for fibre, yarn and fabric and garments
- ✓ Learn about styles and methods of printing

Practical

By the end of the course, the student will be able to

- ✓ Understand the process of preparing the fabric for dyeing
- ✓ Learn tie dye cotton fabrics with various types of dyes
- ✓ Prepare tie dyed and batik samples
- ✓ Learn to print on cotton with blocks, screen and heat transfer printing methods

Theory lecture outline

1. Textile finishing: Definition and its importance Classification of textile finishes: Chemical, mechanical, temporary, permanent, durable, renewable, semi permanent, reactive and additive finishes
2. Processes of removing impurities from fabrics: Scouring, desizing, degumming, carbonizing and souring
3. Basic finishes that alter hand or texture: Fulling /milling, felting, singeing, stiffening and decatizing
4. Surface finishes: Bleaching, delustering, calendering, beetling, napping, flocking
5. Surface finishes: Burnt out design, acid design, plisse design, tentering, shearing and brushing
6. Functional finishes: Water proof and water repellent finish, shrinkage control and wrinkle resistance
7. Functional finishes: Anti-static finish, anti-microbial finish, durable press and flame retardant finish
8. Dyes and pigments, classification of dyes
9. Application of dyes: direct, acid and basic
10. Application of dyes: vat, azoic, mordant, sulphur, reactive and disperse dyes
11. Dyeing techniques and equipment: Solution dyeing, fibre dyeing tow and stock dyeing
12. Dyeing techniques and equipment: Yarn dyeing skein and package dyeing and piece dyeing
13. Styles of printing: Direct, discharge and resist printing
14. Printing methods and equipment: Block, screen and stencil
15. Printing methods and equipment: Roller and heat transfer printing,
16. Tie and dye and batik

Practical outline

1. Finishing of cotton fabric: Scouring
2. Finishing of cotton fabric: Bleaching
3. Finishing of cotton fabric: Mercerization
4. Tying of cotton fabric for dyeing with direct dye
5. Dyeing and finishing of cotton fabric with direct dye
6. Developing designs for Fabric designing by batik technique with naphthol dye
7. Applying developed designs by batik technique with naphthol dyes
8. Finishing the batik applied fabric
9. Developing designs for printing of cotton fabric using stencils
10. Printing of cotton fabric using stencil printing
11. Developing designs for printing of cotton fabric using blocks
12. Printing of cotton fabric using blocks
13. Developing designs for printing of cotton fabric using screens
14. Printing of cotton fabric using screens
15. Printing of cotton fabric using heat transfer technique
16. Final practical examination

References

- 1 Hemalatha Jain (2010) Techniques of Dyeing and printing, Ane Books Pvt, Ltd
- 2 Kadolph S J (2013) Textiles: Pearson New International Edition, Pearson Education Ltd, Asia

- 3 Shailaja D Naik Jacquie Wilson, Shailaja D Naik (2006) Surface Designing of Textile Fabrics
- 4 Alex Russell (2011) The Fundamentals of Printed Textile Design, AandC Black
- 5 Charu Swami, (2011) Textile Design: Theory and Concepts, New Age International
- 6 Kaur, N (2011) Fashion Concepts, Comdex: Fashion Design Vol I, Dreamtech Press
- 7 Cheryl Rezendes (2013) Fabric Surface Design, Storey Publishing

Course Number EECM 221

Title Extension Training Management

Credit Hours 3(1+2)

General Objective This course enables the students to understand the different training concepts, training types, analyze the training needs of an organization, assess, design and implement various methods, techniques and evaluate the training

Specific Objectives **Theory**

By the end of the course, the student will be able to

- i. Understand the meaning of training and types of training
- ii. Get acquainted with designing and conducting training, training methods and training evaluation.

Practical

By the end of the course the students will be able to acquire the skills

- i. Training methods
- ii. Preparation, designing and conducting training

Theory lecture outline

1. Training: Meaning, definition, need and importance, identification of training need
2. Types of training: Extension trainings: institutional training, non- institutional training, comprehensive training, organization trainings; pre-Service training, In-service training: induction or orientation training, foundation training, on-the-job training, promotional training, refresher training
3. Training process: Phases of training process; pre-training, training, post training
4. Training phases and its management: Need assessment, training objectives, meaning and definition, types of objectives: general, specific; importance of training objectives, components, task, condition, standard, important, considerations, formulation of training objectives, accurate action verbs, method of writing
5. Qualities of a good trainer - Communication skills, questioning, handling difficult situations, training skills, motivational skills, facilitation skills and technical skills
6. Adult learning: Characteristics of adult learner, difference between pedagogy and andragogy
7. Facilitation skills in training: Facilitation role of trainer, facilitator meaning and definition,

- factors of facilitation, trainer like qualities
8. Problem and prospects of training.
 9. Steps in module designing: Introduction, role of training, steps, need assessment, framing objectives
 10. Steps in module designing: Planning overall schedule of training, planning detailed training sessions, managing, training, evaluation of training
 11. Training methods: Interactive lecture, interactive demonstration, field trip, group discussion
 12. Training methods: Case study, role play, T- group training, ICT, folk media
 13. Training evaluation: Meaning of evaluation, areas of evaluation, objectives, principle steps and indicators of training evaluation.
 14. Training evaluation: Measuring reaction, learning, behaviour and result, tools of evaluation, pre test/post test, opinion/attitude questionnaire, trainer observation, trainer/trainee group evaluation session, training practice session, follow-up evaluation
 15. Introduction to HRD: Need, concept, outcomes, functions, goal of HRD system, HRD approaches
 16. Important training institutions in India: MANAGE, NAARM, EEI'S, NIRD, MCRHRD

Practical outline

1. Visit to state level training institute - EEI
2. Visit to state level training institute - TSIPARD
3. Visit to vocational training institute - FTC/MLTC
4. Visit to vocational training institute - MANAGE
5. Hands-on-experience with need analysis on training
6. Hands on experience on writing training objectives
7. Hands-on-experience on training methods - Orientation to various training objectives
8. Hands-on-experience on training method - Interactive lecture
9. Hands-on-experience on training method - Interactive demonstration
10. Hands-on-experience on training method - Role play
11. Hands-on-experience on training method - Group discussion
12. Hands-on-experience on training methods - Case study/ T-group/ ICT
13. Familiarization with monitoring tools of training
14. Familiarization with evaluation tools of training
15. Familiarization with offline training module
16. Familiarization with online training module
17. Planning of training module - Identification of training need assessment
18. Preparation of training module - Formulation of objectives
19. Designing of training programme Identification and selection of methods
20. Designing of training programme - Lesson plan preparation
21. Conducting of training programme - Implementation
22. Conducting of training programme - Report presentation
23. Evaluation of training programme - Tools
24. Evaluation of training programme - Report presentation
25. Analysis of HRD programmes of academic institutions
26. Presentation of reports
27. Analysis of HRD programs of corporate institutions

28. Presentation of reports
29. Interaction with HRD professionals - MCR - HRD
30. Interaction with HRD professionals - Corporate institutions
31. Presentation of reports
32. Final practical examination

Course Number FDNT 221

Title Normal and Therapeutic Nutrition

Credit Hours 3(2+1)

General Objective

- To impart knowledge of nutrient requirements for different age and physiological groups, dietary modifications in different diseases and plan balanced diets applying principles of nutrition

Specific Objectives

Theory
By the end of the course the students will be able to

- i. Acquire basic knowledge of food groups, nutrient requirements, and principles of meal planning for different age groups and physiological conditions
- ii. Gain insight in to the nature and scope of therapeutic nutrition for dietary modification to suit the disease conditions
- iii. Understand the etiology, incidence, nature, clinical symptoms, diagnosis, and dietary management of fevers, diseases of gastrointestinal tract, liver, heart, and metabolic syndromes like diabetes and obesity

Practical
By the end of the course, the student will be able to

- i. Formulate food exchange system and application in planning nutritional balanced diets
- ii. Develop practical skills in planning and preparation of diets for the different age groups under normal/ physiological conditions keeping in mind the principles of dietary planning
- iii. Plan and prepare therapeutically modified foods
- iv. Develop practical skills in planning and preparation of modified diets for fevers, diseases of gastrointestinal tract, liver, heart, and metabolic syndromes like diabetes and obesity

Theory lecture outline

- 1 Determination of nutritional requirements
- 2 Recommended dietary allowance, calorie consumption unit
- 3 Food exchange list method
- 4 Physiological changes during pregnancy
- 5 Maternal nutrition - nutritional requirements during pregnancy

- 6 Process of lactation
- 7 Nutritional Requirement during lactation
- 8 Infancy - growth, development and nutritional requirement, importance of breast feeding; bottle feeding
- 9 Weaning and supplementary foods
- 10 Pre-school children -growth and development, food habits and nutritional requirements
- 11 School age child - growth and development, food habits and nutritional requirements
- 12 Adolescents- food habits and nutritional requirements and problems
- 13 Geriatric nutrition -physiological and psychological changes during old age, nutritional requirements and consideration for diet planning
- 14 Importance and modification of normal diet to therapeutic diets
- 15 Methods of feeding - Normal and Tube feeding
- 16 Acute fevers - aetiology, symptoms, dietary management
- 17 Chronic Fevers- aetiology, symptoms, dietary management
- 18 Dietary management in gastrointestinal disorders - Diarrhoea- aetiology, Symptoms, Dietary management
- 19 Dietary management in gastrointestinal disorders - Constipation- aetiology, symptoms, dietary management
- 20 Dietary management in gastrointestinal disorders - Peptic ulcer -aetiology, symptoms, dietary management
- 21 Dietary management in liver diseases -Hepatitis- aetiology, symptoms and dietary management
- 22 Dietary management in liver diseases -Jaundice- aetiology, symptoms and dietary management
- 23 Dietary management in liver diseases - Cirrhosis of liver- aetiology, symptoms and dietary management
- 24 Cardiovascular disease - Atherosclerosis -aetiology, symptoms
- 25 Dietary management in atherosclerosis
- 26 Cardiovascular disease -Hypertension- aetiology, symptoms
- 27 Dietary management in hypertension
- 28 Diabetes mellitus- Types of diabetes, aetiology, symptoms
- 29 Diabetes mellitus - diagnosis
- 30 Dietary management in Diabetes mellitus
- 31 Problems of weight control - Overweight and obesity
- 32 Dietary management in obesity

Practical outline

- 1 Introduction to food exchange list, uses and application
- 2 Planning, preparation and evaluation of balanced diet for an adult man and woman
- 3 Planning, preparation and evaluation of balanced diet for a pregnant woman
- 4 Planning, preparation and evaluation of balanced diet for a lactating woman
- 5 Planning, preparation and evaluation of supplementary foods for infants
- 6 Planning, preparation and evaluation of balanced diet for a preschool child
- 7 Planning, preparation and evaluation of balanced diet for a school age child
- 8 Planning, preparation and evaluation of balanced diet for adolescents
- 9 Planning, preparation and evaluation of balanced diet for an elderly person

- 10 Planning and preparation of modified diets – liquid, semi solid and solid diets
- 11 Planning and preparation of diets during fevers
- 12 Planning and preparation of diets during diarrhea and constipation
- 13 Planning and preparation of diets for hepatitis
- 14 Planning and preparation of diets for overweight/obesity
- 15 Planning and preparation of diets for hypertension and diabetes
- 16 Practical Examination

References

1. Corinne H Robinson, Marilyn R Lawler, Wanda L Chenoweth, Ann E Garwick (1982) *Normal and Therapeutic Nutrition* (pp- 1-16) New York, Macmillan Publishing Company
2. SrilakshmiB, (2012) *Dietetics* (pp-275-281) Fourth Edition, New Delhi, New Age International (P) Limited
3. Ravi Chada and Pulkit Mathur (2015) Text book of Nutrition - A life cycle approach Orient Blackswan Pvt Ltd, New Delhi
4. Raghuvanshi, RS and Mittal, M (2014) Food Nutrition and Diet Therapy Westvills Publication Delhi
5. Agarwal, A and Udipi, S (2014) Text Book of Human Nutrition Jaypee Medical Publication Delhi

Course Number FDNT 222

Title Food Standards and Quality Control

Credit Hours 3(2+1)

General Objective

- To Impart knowledge on food safety , quality testing by objective and subjective evaluation and food hazards
- To bring awareness about food adulteration and identification and the different standards laid by the food regulation authorities

Specific Objectives

Theory
By the end of the course the students will be able to

- i. Understand the importance of food safety and quality and its contribution to the productivity and countries development
- ii. The various quality factors that influence the food quality
- iii. Gain knowledge on the various laws that are governing food safety and quality including the latest FSSAI 2006 of India
- iv. Understand various types food toxicants and hazards
- v. Gain knowledge on chemical subjective and objective methods of evaluation of foods
- vi. Understand the food safety management systems
- vii. Acquire knowledge the role of HACCP, Sanitary and Phyto sanitary (SPS) agreements, WTO in agricultural and food trade

Practical

By the end of the course, the student will be able to

- i. Acquire hands on experience on sampling procedure for quality assessment
- ii. Gain skill in techniques of physical, chemical and microbiological examination of food
- iii. Judge food quality specifications to be maintained for trade
- iv. Identification of food adulteration at different levels of trade using different techniques

Theory lecture outline

- 1 Importance of quality control and assurance
- 2 Food laws and regulations Prevention of Food Adulteration Act
- 3 Food laws and regulations- Fruit Product Order
- 4 Food laws and regulations- AGMARK
- 5 Food laws and regulations- Essential Commodity Act
- 6 Food laws and regulations- Consumer Protection Act
- 7 Food laws and regulations- Bureau of Indian Standards
- 8 Food laws and regulations- Codex Standards
- 9 FSSAI – History and regulatory frame work
- 10 FSSAI – Salient features and compositions
- 11 FSSAI – Duties and functions
- 12 Specifications and application of food standards for raw materials
- 13 Specifications and application of food standards for food products
- 14 Food additives
- 15 Preservatives
- 16 Coloring agents
- 17 Antioxidants
- 18 Emulsifying agents
- 19 Leavening agents
- 20 Stabilizing agents
- 21 Various methods for the assessment of quality of different foods – subjective methods
- 22 Subjective evaluation – difference and rating tests, sensitivity and descriptive tests
- 23 Various methods for the assessment of quality of different foods – objective methods
- 24 Objective evaluation – Chemical and physicochemical methods
- 25 Food safety, risks and hazards – HACCP
- 26 Food safety, risks and hazards –GRAS, GMP
- 27 Food adulteration
- 28 Prevention of food adulteration
- 29 Food packaging – principles and advantages
- 30 Packaging material – metal and glass
- 31 Packaging material – plastic
- 32 Packaging material – paper and other materials

Practical outline

- 1 Sampling techniques for collection of agriculture, horticulture, animal foods and food products for examination
- 2 Collection of food samples from different sources

- 3 Physical examination and grading of grain, spices etc for quality
- 4 Exercise of identification of basic tastes – sweet, sour, salty, bitter
- 5 Sensory evaluation techniques – triangle test
- 6 Sensory evaluation techniques – duo- trio test
- 7 Development of a score card for evaluation of a food product
- 8 Sensory evaluation of a food product
- 9 Demonstration of objective tests for quality evaluation
- 10 Detection of food adulteration in grain samples
- 11 Detection of adulteration in fats, oils and milk
- 12 Detection of adulteration in spices
- 13 Collection of food products with artificial colouring and checking for quality
- 14 Evaluation of microbiological quality of foods and water
- 15 Visit to a quality control lab
- 16 Practical examination

References:

1. Potter, NN (1996) Food Science The AVI Publishing Company Inc, Westport, Connecticut
2. Jellinek, G (1985) Sensory Evaluation of Foods: Theory and Practice Ellis Honwood Ltd Chichester, England
3. Manual of Food Standards and Quality Control (2014) Dept of Foods and Nutrition, CCS HAU, Hisar

Course Number HDFS 221

Title Developmental Challenges in Children

Credit Hours 3 (2+1)

General Objective

- To impact knowledge about special education, different types of disabilities, etiology, classification, diagnosis, treatment and educational implications, rights and provisions, intervention programmes for children with different disabilities

Specific Objectives

Theory
By the end of the course, the student will be able to

- i. Understand the concept of Special Education
- ii. Learn different types of disabilities
- iii. Study the rights, provisions and intervention programmes of children with special needs

Practical

- i. Learn how to identify children with special needs
- ii. Study the vocational and rehabilitation programmes for children with special needs
- iii. Understand planning, preparation and implementation of various activities for children with special needs

Theory lecture outline

1. Special needs and special education – concept and definition, objectives of special education, principles of special education, types of special education services
2. History of special education – special education in different countries, the fall and the rise of special education, influence of other disciplines, development of special education in india
3. Current trends and issues in special education – issues – categorization, normative and non normative categories, selection and social problem classes, integration, dilemmas
4. Mainstreaming – concept, components, uniting factors, efficacy, issues in mainstreaming on children with special needs
5. Children with developmental challenges - concepts, types or classification of developmental challenges
6. Physical disabilities – orthopedic impairment - definition, types of physical disabilities, diagnosis and treatment
7. Physical disabilities – neuro-motor impairment – concept, causes, types of neuro-motor impairments, diagnosis and treatment, educational considerations
8. Health impairment – concept, causes, types, treatment, educational considerations
9. Intellectual impairment - mental retardation – definition, classification, etiology of mental retardation, prevalence, characteristics, tests used
10. Down’s syndrome- concept, causes, characteristics, associated problems, treatment - therapies
11. educational considerations and services for children with intellectual impairment
12. Learning disabilities – concept, definition, prevalence, causes and diagnosis, types, characteristics, educational considerations for learning disabled
13. Slow learners- characteristics, identification, educational considerations
14. Emotional disorders – definition, classification, prevalence, causes, characteristics, problems associated with emotional disorders, treatment methods and educational considerations
15. Autism spectrum disorders – concept, causes, characteristics, diagnosis and treatment, educational considerations
16. Attention deficit disorders, attention deficit hyperactive disorders – definition, causes, symptoms, characteristics, treatment, educational strategies
17. communication, speech and language disorders – definition, causes, characteristics, types
18. Communication, speech and language disorders – educational considerations and managing communication, speech and language disabled children in school
19. Hearing impairment – concepts, causes, classification, characteristics, diagnosis
20. Hearing impairment – educational considerations and managing hearing impaired child in school
21. Visual impairment – concept, causes, classification, characteristics of visual impairment, types of visual defects ,
22. Visual impairment –educational considerations for partially sighted and blind
23. Giftedness – definition, prevalence, classification, characteristics, identification
24. Giftedness – educational considerations for gifted children – aims, modifications in the learning environment, modifications of content, teaching cognitive strategies, role of teacher
25. Multiple and severe disabilities – concept of severe disabilities, characteristics, concept

- of multiple disabilities, characteristics, causes, diagnosis, implications
26. Rights and provisions for children with special needs in india
 27. Organizations working for children with special needs
 28. Intervention – concept, methods, process, early intervention plan
 29. instructional methods and strategies used in intervention - instructional methods - enrichment, direct instruction, incidental teaching, activity based, response contingent learning- instructional strategies – shaping, chaining, prompting, cueing, extinction, timeout, restrain
 30. Family centered intervention – concept, need and importance, individualized family service plan
 31. Early intervention services for children with developmental challenges- types, service delivery approaches used in intervention
 32. Roles and responsibilities of professionals in intervention

Practical outline

1. Observational visit to institutes for children with special needs - Institute for Mentally challenged children
2. Observational visit to institutes for children with special needs - Institute for Visually Impaired children
3. Observational visit to institutes for children with special needs - Institute for Speech and Communication Disorder children
4. Observational visit to institutes for children with special needs - Institute for Hearing Impaired children
5. Observational visit to institutes for children with special needs - Institute for Orthopedically Impaired children
6. Observational visit to institutes for children with special needs - Institute for Multiple Disabled children
7. Observational visits to Vocational and Rehabilitation center for developmentally challenged children
8. Observational visits to Vocational and Rehabilitation center for developmentally challenged children
9. Identification of children with developmental delays
10. Planning education programmes for families of children with special needs
11. Planning educational material for identification of disabilities
12. Preparation of educational material for identification of disabilities
13. Planning stimulation material for children with disabilities
14. Preparation of stimulation material for children with disabilities
15. Developing resource files on children with developmental challenges
16. Final Practical Examination

References

1. Dash M (2005) Education of Exceptional children Atlantic Publications
2. Hallahan, DP and Kauffman, JM (1991) Introduction to exceptional children 5th ed Allyn and Bacon, Boston
3. Jampala Madhubala, Digunarti Bhaskara Rao (2004) Methods of teaching exceptional children Discovery Publications House, Delhi

4. JanetW Lerner, Barbara Lowenthal, Rosemary W Egan (2003) Preschool Education with special needs Pearson Education
5. PhilipLSafford (1989) Integrated Teaching in Early Childhood Longman Inc
6. Uttam Kumar Singh and AKNayak (1997) Special Education Common Wealth Publications
7. VenkatesanS (2004) Children with developmental disabilities Sage Publications, New Delhi

Course Number RMCS 221

Title Housing and Space Management

Credit Hours 3(2+1)

General Objective Gain an understanding of the basic principles of planning a house and designing life space

Specific Objectives **Theory**

- By the end of the course the students will be able to
- i. Recognize the family's needs in relation to housing
 - ii. Gain knowledge on housing issues and building services
 - iii. gain practical knowledge in designing space for different family needs

Practical

- By the end of the course the students will be able to
- i. To learn the basics of architectural symbols and plans
 - ii. To learn about the efficient arrangement of space in interiors
 - iii. To learn to develop the house plans including furniture

Theory lecture outline

1. Housing – importance, characteristics and effects of insufficient housing
2. Housing needs at different stages of family life cycle
3. Factors to be considered in selection of family housing, selection of site,
4. Types of house plans – floor plan, site plan, cross sectional plan, perspective plan, elevation plan and landscape plan
5. Advantages and disadvantages of renting and owning a house
6. Economy in housing construction
7. Principles of house planning: orientation and aspect
8. Principles of house planning: privacy, grouping, roominess, prospect
9. Principles of house planning: flexibility, circulation, sanitation
10. Principles of house planning: furniture requirement and practical considerations
11. Space management based on functional areas – Living room / Drawing room
12. Space management based on functional areas – Bedrooms for different people
13. Space management based on functional areas – Kitchen
14. Space management based on functional areas – Dining

15. Space management based on functional areas – Storage
16. Space management based on functional areas – other areas like pooja, study etc
17. Space management and Interior types based on functional needs – interiors for youth,
18. Space management and Interior types based on functional needs – interiors for elderly
19. Space management and Interior types based on functional needs – other special needs
20. Housing problems – rural and urban housing problems in India
21. Housing legislation and regulation - Building Act 1984, Defective Premises Act 1972, Disability Discrimination Act 1995, Environment Protection Act etc
22. Housing policies - government and non- government housing policies and housing schemes
23. Housing finance - government and non- government finance institutes
24. Housing schemes - government and semi- government
25. Housing standards – sanitary facility, food preparation and refuse disposal
26. Housing standards – space and security
27. Housing standards – thermal environment, illumination and electricity
28. Housing standards – structure and material, interior air quality
29. Housing standards – water supply
30. Housing standards – access, site and sanitary condition
31. Technology in housing – advanced technology in housing construction
32. Low cost building technology, low cost building materials

Practical outline

1. Learning and comprehending architectural symbols
2. Lettering design and techniques
3. Planning Space arrangement-Living and Dining Rooms
4. Planning Space arrangement -Bed and Bath rooms
5. Types of Kitchen-Single wall, Double wall, L-shape
6. Types of Kitchen -U-shape, Island
7. Designing of kitchen and bathroom for special needs
8. Planning Space saving storage solutions
9. Drawing of House plan for EWS and LIG
10. Drawing of house plan for MIG
11. Drawing of house plans for Rural families
12. Drawing a house plan indicating electrical wiring and fixtures
13. Drawing a house plan indicating plumbing and water supply
14. House plan for renovation according to needs of residents
15. Market survey to study the available building materials in the local market
16. Final Practical Examination

References

1. Mathur, GC (1993) Low Cost Housing in Developing Countries New Delhi: Mohan Pramlani, Oxford and IBH
2. Tessis Agan, MS (1970) The House New Delhi: Oxford and IBH
3. S Renuka, Mahalakshmi V Reddy Housing and Space Management Indian Council Agricultural

Course Number RMCS 222

Title Ergonomics and Appropriate Technologies

Credit Hours 2 (1+1)

General Objective • To impart knowledge about ergonomics, care of household appliances and low cost energy saving devices

Specific Objectives

Theory
By the end of the course, the students will be able to understand

- i. The tools and techniques of ergonomic evaluation and drudgery reduction
- ii. Methodologies for work simplification and energy saving and management

Practical
By the end of the course the students will be able to carry out

- i. Ergonomic evaluation of electric and non-electric tools and equipment
- ii. Techniques for care and maintenance of household appliances
- iii. Demonstration of use, care and maintenance of low cost energy saving devices

Theory lecture outline

1. Introduction and definition of 'Ergonomics'
2. Principles of Ergonomics- Anthropometrics
3. Work simplification – meaning and importance, techniques
4. Mundel's classes of changes
5. Work, worker and workplace relationship
6. Ergonomic tools and techniques
7. Ergonomic evaluation equipment
8. Household drudgery- definition, Drudgery reduction
9. Household equipment- introduction, definition and classification
10. Impact of household equipment on work, worker and environment
11. Equipment design and its effect on body posture
12. Energy management: Significance, Energy costs of Home making tasks, techniques and apparatus in measuring Energy costs, management process applied to energy
13. Energy management – efforts used in home making activities
14. Renewable energy saving technologies
15. Non renewable energy saving technologies
16. Ways and methods in the reduction of energy consumption in household, farm and community

Practical Outline

1. Learning Anthropometric dimensions for various purposes
2. Ergonomic evaluation of selected task using pathway chart
3. Ergonomic evaluation of tools and equipment by using operation chart

4. Ergonomic evaluation of tools and equipment by using process chart
5. Use, care and maintenance of common household appliances – Kitchen tools – Non Electric
6. Use, care and maintenance of common household appliances – Kitchen tools – Electric
7. Use, care and maintenance of common household appliances – minor non electric equipment
8. Use, care and maintenance of common household appliances – minor electric equipment
9. Use, care and maintenance of common household appliances – refrigerator , washing machine
10. Use, care and maintenance of common household appliances – Vacuum cleaner, Oven
11. Demonstration, use, care and maintenance of low cost energy saving devices: Solar Dryer
12. Demonstration, use, care and maintenance of low cost energy saving devices: Solar cooker
13. Demonstration, use, care and maintenance of low cost energy saving devices: insulation box cooker
14. Demonstration, use, care and maintenance of low cost energy saving devices: steam cooker
15. Demonstration, use, care and maintenance of low cost energy saving devices: Low cost food preservation devices - Zero energy cool chamber
16. Final practical examination

References

1. Grandjean, E (1981) Ergonomics of the Home Taylor and Francis Ltd New York
2. Grandjean, E and Kroemer, KHE (1999) Fitting the Task to the Human a Text Book of Occupational Ergonomics Taylor and Francis, New York
3. Peet, IJ and Arnold, MG (1993) Household Equipment John Wiley, New York
4. Kroemer KHE 2008 Fitting the Human-Introduction to Ergonomics Taylor and Francis Ltd New York

Course Number CSBC 221

Title Communication Skills and Personality Development

Credit Hours 3 (2+1)

General Objective • To help the students in polishing and refining their communication skills

Specific Objectives **Theory**
By the end of the course the students will be able to

- i. Understand the theoretical aspects of Communication Skills

Practical
By the end of the course, the student will be able to

- i. By the end of the course, the student will be able to
- ii. Use their Communication Skills in practical life for attaining

success

Theory lecture outline

1. Communication – Definition, Types
2. Communication Skills – Discussion on their importance
3. Verbal and Non- Verbal Communication – Detailed explanation
4. Listening – Exercises on listening comprehension
5. Note Taking – Situations where it is used
6. Writing Skills – Letter, paragraph and precis writing
7. Oral Presentation – Branches of oral Presentation
8. Kinesics – Study of Body Language
9. Eye Contact, Posture
10. Audience preparation, Audio- Visual Aids
11. Field Diary and Lab Record – Discussion on different Aspects
12. Indexing on Foot Note – Their Importance in Research paper
13. Bibliography -How to write a Bibliography
14. Reading – Types of reading
15. Skimming, Scanning
16. Reading Aloud, Silent Reading
17. Precis Writing – Rules of writing a good precis
18. Summarizing – Factors that go into the making of a good summary
19. Uses of Writing a summary
20. Abstracting – Discussion in detail
21. How to write an Abstract of a book
22. Public Speaking – How to prepare a speech
23. How to deliver a successful Speech
24. Group Discussion – Purpose and definition
25. How to emerge successful in a group discussion
26. Importance of Technology in Communication
27. Sources of Electronic Communication
28. A brief discussion on the use of Internet, E-mail and Fax
29. How to arrange Video Conferencing
30. Personality – Meaning and Definition
31. Development of Personality – Self Concept, Self Esteem
32. Importance of Formal and Informal Dressing

Practical outline

1. Exercises in Listening Comprehension
2. Note Taking – Its Importance in Professional Life
3. Oral Presentation – Factors that make our Oral Presentation Effective
4. Mock Oral Presentation by Students
5. How to use Indexing and Foot note in a Dissertation
6. Preparation of Bibliography on different Topics
7. Exercises on Reading Comprehension
8. Preparing students in writing a technical Article
9. Introduction to Precis Writing, Summarizing and Abstracting

10. Questionnaire – How to Develop it
11. Importance of questionnaire in Research Writing
12. Ways of Collecting Data
13. How to Select a sample while writing a Research paper
14. Types of Report Writing
15. Case Study – Its Importance for an Individual suffering with Personality Disorders
16. Final Practical Exam

References

1. Business Correspondence and Report Writing by RS Sharma and Krishna Mohan, Tata McGraw-Hill, Publishing Company Pvt Ltd New Delhi
2. Developing Communication Skills by Meera Banerjee and Krishna Mohan, Orient Longman, Publishing Company, Pvt Ltd, New Delhi
3. A Text Book of Foundation Course in English, Edited by Pushpa Rama Krishna and Published by Dr BRAmbedkar Open University, Hyderabad

3rd year (I Semester)

Course Number APTX 311

Title Garment and Accessory Designing

Credit Hours 2(0+2)

General Objective To impart comprehensive knowledge on designing of garments and accessories

Specific Objectives	<p>Practical</p> <p>By the end of the course, the student will be able to</p> <ul style="list-style-type: none"> ✓ Gain in depth understanding of garment designing for men, women and children ✓ Learn to design and construct garments suitable for men, women and children ✓ Know how to design accessories for men, women and children ✓ Prepare accessories one each for men, women and children
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Practical outline

1. Selection of figure template for men,
2. Selection of figure template for women and Children
3. Designing of garments for women using different construction features: collars
4. Designing of garments for women using different construction features: sleeves and necklines
5. Designing of garments for men using different construction features: shoulder yokes and collar,
6. Designing of garments for men using different construction features: sleeves and cuff
7. Designing of garments for children using different construction features: Yoke, gathers, pleats, tucks, shirring, smocking and trimmings

8. Selection of one children garment (fancy frock) design from the design catalogue
9. Sourcing of material for designed frock
10. Drafting of fancy frock
11. Laying and cutting the fabric for fancy frock
12. Construction of fancy frock
13. Finishing of fancy frock and preparation of cost sheet
14. Selection of any one of the designed ladies garment -kameez (ladies / night dress/ gown
15. Drafting the designed garment and material estimation
16. Sourcing for the designed ladies garment
17. Cutting the fabric
18. Stitching the garment
19. Finishing the garment
20. Preparation of cost sheet and evaluation
21. Accessories: introduction and classification- footwear, hand bags, belt, jewelry, gloves, hats, scarves and umbrella
22. Survey on types of material available in the market for different accessories for women, men and children
23. Designing of accessories for women
24. Designing of accessories for men
25. Designing of accessories for children
26. Selection of any one accessory- men/women/children
27. Preparation of specs sheet for selected accessory set
28. Selection of material for the accessory
29. Construction of accessory
30. Finishing the accessory
31. Cost estimation and display of garments and accessories.
32. Final practical examination

References

1. Goldstein, H and Goldstein, V 1954 Art in Everyday Life 4th ed New York Macmillan Publishing Co, Inc pp – 515
2. Bhatnagar, P 2005 Decorative Design History in Indian Textiles and Costumes Chandigarh India Abhishek Publications 41-43 pp
3. Graves, M 1951 Art of Colour and Design 2nd ed New York McGraw- Hill Company pp – 438
4. Beitler, E J and Lockhart, B 1961 Design for you 2nd ed
5. Peacock, J 2000 Fashion accessories- The complete 20th century source book London Thames and Hudson
6. Meadows, C S 2003 Know Your Fashion Accessories New York Fairchild books

Course Number APTX 312

Title Retailing and Merchandising-Textiles and Apparel

Credit Hours 2(2+0)

General Objective ✓ To acquire indepth knowledge regarding retailing and merchandising aspects with respect to textiles and apparels

Specific Objectives **Theory**
By the end of the course the students will be able to

- ✓ Gain information regarding trends in retailing and merchandising styles and patterns
- ✓ Understand the process flow in the apparel industry
- ✓ Be aware of the career opportunities in fashion and apparel retailing fields
- ✓ Know the export import procedures and export promotion organizations

Theory lecture outline

- | | | |
|-----|--|---------------------------|
| 1. | merchandizing- Terminology, concept and principles | Retailing and |
| 2. | cycle and apparel merchandising | Retailing - retail life |
| 3. | market segmentation, key players | Retailing in India- |
| 4. | retail formats | Evolution of retail and |
| 5. | units – stores | Classification of retail |
| 6. | units – onsite retailers | Classification of retail |
| 7. | retail formats – stores | Classification of retail |
| 8. | retail formats – onsite retailers | Classification of retail |
| 9. | affecting merchandizing | Merchandising - Factors |
| 10. | of merchandiser | Role and responsibilities |
| 11. | buying houses | Merchandizing for |
| 12. | departmental stores and export houses | Merchandizing for |
| 13. | Meaning, scope and classification | Marketing research: |
| 14. | marketing research | Steps involved in |
| 15. | research in product planning | Role of marketing |
| 16. | promotion mix: advertising | Sale promotion and |

17.	techniques	Sale promotion
18.	publicity	Personal selling and
19.		Pricing methods
20.		Pricing of textiles
21.		Export and Import
22.		Channels of distribution
23.	import business and its procedure	Starting of export and
24.	in export promotion in India – Textiles	Organizations involved
25.	in export promotion in India – Apparel	Organizations involved
26.	(VM) – Functions and elements of VM	Visual Merchandising
27.	(VM) – Techniques of VM	Visual Merchandising
28.	(VM) - Types of window display settings	Visual Merchandising
29.	(VM) – Display presentations, store layouts	Visual Merchandising
30.	(VM) – Fixtures and accessories, trends in VM	Visual Merchandising
31.	retailing in textile and apparel industry	WTO and its impact on
32.	merchandizing in textile and apparel industry	WTO and its impact on

References

1. Dickerson KG,(2009) “Inside The Fashion Business” II Edition, Pearson Education
2. Kishan Kumar (2010) “Apparel Merchandising”, Abhishek Publications
3. Jeremy A Rosenau, David L Wilson (2014) “Apparel Merchandising: The Line Starts Here”, AandC Black
4. John Donnellan (2013) “Merchandise Buying and Management”, A and C Black
5. Kincade DH and Gibson (2012) “Merchandising of Fashion Products” Pearson education

Course Number EECM 311

Title Information and Communication Technology

Credit Hours 3(1+2)

General Objective This course facilitates the students to understand the importance, methods, means and tools of information technology.

Specific Objectives

Theory

By the end of the course, the student will be able to

- i. understand the need and importance of Instructional technology
- ii. Get acquainted with audio visual aids, conventional communication technologies, IT tools, IT enabled services and social networking.

Practical

By the end of the course the students will be able to acquire the skills to

- i. prepare audio visual aids
- ii. use conventional communication technologies
- iii. handle the IT tools and different software
- iv. browse social networking websites

Theory lecture outline:

1. Information Technology – Meaning, importance and scope
2. Communication – Process, models, barriers and types of communication
3. Conventional and new media technologies – Classification and types
4. Conventional communication technologies– Audio visual media, classification, advantages and disadvantages
5. Conventional communication technologies–Contact methods–individual, group and mass contact methods, classification, advantages and disadvantages
6. Conventional communication technologies–Folk media, classification, advantages and disadvantages, difference between traditional and modern media
7. IT Devices: CD ROM, DVD, desktop computers, laptops, tablets, LCD projector, printers and electronic media – satellite radio and television, internet and intranet
8. IT tools – synchronous and asynchronous–Informative, constructive, communicative, collaborative
9. Informative and communicative tools–Internet, intranet, wikis, emails, SMS etc.
10. Constructive tools - Word processing, powerpoint, photoshop, audio video recording and editing software
11. Collaborative tools – Discussions and online forums etc.
12. Networking – LAN, WAN, social networking – Face book, Twitter
13. Social networking tools – Blogs, websites, wikipedia, Face book, Twitter, You tube, Instagram, Google, flipped classrooms etc.
14. IT enabled services – Call centers, helpdesks, data warehouse/ knowledge management and archiving, Transcription centers, GIS mapping, customer support services and electronic distribution
15. IT enabled services and their impact on the society
16. Criteria for selection and evaluation of ICT tools – Conventional and new media

Practical outline

1. Exposure to the communication Process

2. Orientation to types of communication
3. Orientation to conventional communication technologies - Audio
4. Orientation to conventional communication technologies – Visual – Posters
5. Orientation to conventional communication technologies – Visual – Charts
6. Orientation to conventional communication technologies – Visual – Flash cards
7. Orientation to conventional communication technologies – Visual – Flannel graphs
8. Orientation to conventional communication technologies – Audio Visual – Talking doll, Drama and Video
9. Orientation to conventional communication technologies – Methods of contact – individual, group and mass contact methods
10. Orientation to conventional communication technologies – Methods of contact – individual contact – Personal interview
11. Orientation to conventional communication technologies – Methods of contact – Group contact – Demonstration, debate and symposium
12. Orientation to conventional communication technologies – Methods of contact – Mass contact – Puppet show and drama on social connected topics
13. Handling of conventional communication devices – Projectors
14. Handling of conventional communication devices – Computers
15. Orientation to the IT tools – Informative - Internet, intranet, Wikis etc.
16. Browsing through the internet on a selected topic through Wikipedia
17. Orientation to the IT tools – Constructive – Word processing, PowerPoint
18. Prepare a Word document on the selected topic
19. Prepare a PowerPoint presentation on a selected topic
20. Orientation to the IT tools – Collaborative tools – Discussions and online forums etc.
21. Browsing through different blogs on a selective topic
22. Browsing through different flipped classroom on a selective topic
23. Orientation to the IT tools – Communicative – Emails, SMS etc.
24. Open a new Email account and send information collected from the former exercises
25. Orientation to social networking sites - Open a Face book account to use for social awareness campaign
26. Collect information from the Internet - Selected health/ nutrition issues
27. Collect information from the Internet - Selected social issues
28. Preparation of powerpoint on the selected topics on health/ nutrition
29. Presentation of the powerpoint on selected topic - health/ nutrition issues
30. Preparation of powerpoint on the selected topics on social issues
31. Presentation of the powerpoint on selected topic - social issues
32. Practical examination

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3. Prasad Kiran. (2004). Information and communication Technology-Recasting Development. B.R. Publishing corporation.
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- education with open access. Open Society for Idea Exchange (ODRAZI), Zagreb.
5. Silberschatz Abraham., Galvin Peter Baer and Gagne Greg. Operating system concepts. Ninth edition. John Wiley and sons. Inc.
 6. Tanenbaum Andrew, S. (2009). Modern operating systems. Third edition. Pearson Education, Inc.

Course Number FDNT 311

Title Food Hygiene and Sanitation

Credit Hours 2 (1+1)

General Objective

- To impart knowledge on food and water hygiene, sources of contamination, food spoilage, food poisoning and hygienic practices for prevention of contamination

Specific Objectives

Theory

By the end of the course the students will be able to

- i. Gain knowledge of importance and principles of food and water hygiene
- ii. Develop awareness of water purifying techniques and criteria for standards
- iii. Acquire e knowledge of cause and sources of contamination of food and water
- iv. Gain knowledge of types of food spoilage, food poisoning and health complications associated

Practical

By the end of the course, the student will be able to

- i. Identify food contamination through microbial analysis
- ii. Develop skills in techniques of water purification
- iii. Learn hygienic food and water handling practices during food processing
- iv. Identify insanitary / adulterated food samples from vendors and collect and test for quality parameters

Theory lecture outline

- 1 Meaning and principle of food hygiene
- 2 Water requirement and use, sources of water supply, potable water and its quality
- 3 Purification of water – household level
- 4 Purification of water – community level
- 5 Criteria and standards, hardness of water and its treatment, defluoridation of water
- 6 Food hygiene: contamination of foods from various sources
- 7 Green plants and fruits, animals, sewage and their health hazards
- 8 Soil, air and water and their health hazards
- 9 Food spoilage due to unhygienic handling practices

- 10 Sanitary procedures for preparation, handling and storage of foods
- 11 Bacterial sources for food poisoning - *Salmonella*, *Staphylococcal poisoning*, *Botulinum*, *Clostridium perfringens* and *Bcerus*
- 12 Food poisoning - incubation period for food poisoning caused by different bacteria, mechanism of action
- 13 Food Poisoning – investigation of food poisoning, prevention and control
- 14 Food poisoning caused by agents other than microorganism
- 15 Poisonous plants, animals, chemicals
- 16 Food contamination by metals and pesticides etc

Practical outline

- 1 Orientation to importance of food hygiene and sanitation
- 2 Identification of microorganisms (slides)
- 3 Slide preparation
- 4 Preparation of different media
- 5 Preparation of different media
- 6 Inoculation of sample
- 7 Testing of water for physical quality
- 8 Testing of water for bacteriological quality
- 9 Importance of personal hygiene practices
- 10 Hand washing SOP
- 11 Practice of hygiene in cooking practices
- 12 Survey of hygiene and sanitary conditions in different food shops and food vendors and collection of food and water samples
- 13 Identification of microbial contamination in food and water samples
- 14 Visit to Food Corporation of India godown
- 15 Visit to Food testing laboratory
- 16 Practical examination

References

1. “Food Toxicants, Naturally Occurring” in *ECT* 3rd ed, Vol 11, by F H Hoskins, Louisiana State University
2. IUFoST Scientific Information Bulletin, October 2008. The microbiological safety and quality of food, Volume 2 By Barbara M Lund, Tony C Baird-Parker, Grahame Warwick Gould
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Course Number FDNT 312

Title Food Analysis

Credit Hours 3(1+2)

- General Objective**
- To impart knowledge on principles, methods, and techniques of qualitative and quantitative physical, chemical and biological analyses of foods

- Specific Objectives**
- Theory**
- By the end of the course the students will be able to
- Understand the principles behind analysis of each of the proximate nutrients, minerals and vitamins present in food
 - Learn different tests suitable for evaluation the quality of carbohydrate, protein, lipids for both fresh and shelf life studies

Practical

- By the end of the course, the student will be able to
- Handle equipment and instruments
 - Analyze each of the proximate nutrients , minerals and vitamins present in food
 - Demonstrate practical proficiency in a food analysis laboratory

Theory lecture outline

- 1 Sampling and sampling techniques
- 2 Proximate analysis- moisture, ash
- 3 Crude fat, crude fiber
- 4 Crude protein and carbohydrates by different methods, determination of starch
- 5 Principles and methods of food analysis Basic principles: Refractometry, polarimetry, densitometry
- 6 Principles and methods of food analysis Basic principles: HPLC
- 7 Basic principles of food analysis in GLC
- 8 Basic principles of food analysis in spectrophotometry
- 9 Principles and methods of food analysis Basic principles: electrophoresis, automatic amino acid analyzer
- 10 Test for unsaturation of fats, rancidity of fats
- 11 Quantitative analysis of protein by Biuret method, Ninhydrin method, Lowry's method and Dye-binding method
- 12 Bioassays for protein quality of grains chemical, microbiological, flurometric and colorimetric methods of analysis of fat soluble and water soluble vitamins
- 13 Principles and methods for estimation of minerals: Atomic absorption spectroscopy
- 14 Principles and methods for estimation of minerals: colorimetry, titrimetry
- 15 Principles and methods for estimation of minerals: gravimetric methods
- 16 Methods for determining physical and rheological properties of food

Practical outline

- 1 Handling of equipment and instruments
- 2 Preparation of dry samples
- 3 Preparation of wet samples
- 4 Preparation of solutions for buffers

5	Preparation of buffers
6	Preparation of sample for moisture analysis
7	Estimation of moisture in food stuffs
8	Estimation of bulk density of foods
9	Estimation of colour using spectrophotometer
10	Physical analysis-specific gravity
11	Quantitative estimation of proximate principles-Ash
12	Quantitative estimation of proximate principles-Minerals
13	Quantitative estimation of proximate principles-Fibre
14	Quantitative estimation of proximate principles-Fat
15	Estimation of free fatty acids
16	Quantitative estimation of proximate principles-Protein
17	Estimation of sugars-reducing
18	Estimation of sugars-non-reducing
19	Estimation of starch digestibility
20	Quantitative estimation of vitamins by use of colorimetry
21	Quantitative estimation of minerals by use of UV spectrophotometer
22	Quantitative estimation of amino acids by use of paper chromatography
23	Preparation of sample for estimation of vitamins by use of HPLC
24	Quantitative estimation of vitamins by use of HPLC
25	Quantitative estimation of fatty acids by use of GC
26	Quantitative estimation of pesticide residues by use of GC
27	Quantitative estimation of minerals by use of atomic absorption spectrophotometer
28	Quantitative estimation of minerals and vitamins by use of photofluorometry
29	Estimation of food adulteration – flours and powders
30	Estimation of food adulteration - oils
31	Estimation of food adulteration - milk
32	Practical Examination

References

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5. Pomeranz and Yeshajahu (1987) Food Analysis Theory and Practice 2nd ed AVI Publ Company, Westport
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7. NIN (2003) A Manual of Laboratory Techniques

Course Number HDFS 311

Title Family Counselling and Welfare

Credit Hours 3(2+1)

General Objective To impart knowledge about various aspects of Family Counselling and Welfare

Specific Objectives

Theory

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

- i. Know the history of counselling, concept, goal and scope of counselling, levels, classification, functions, principles and areas of counselling
- ii. Learn characteristics of counselor, counselling approaches, skills, problems and limitations in counselling
- iii. Know the role of millennium development goals on family welfare, situational analysis, current issues and challenges, constitutional provisions, legislations, policies related to children, youth, women, elderly

Practical

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

- i. plan and conduct counselling sessions to members of various age groups in family
- ii. study the organizations working for the welfare of children, youth, women and elderly

Theory lecture outline

1. History of counselling – before and after 20th century
2. Concept and nature of counselling-meaning, nature of counselling
3. Goal and scope of counselling-purpose, goals and objectives
4. Levels of counselling-informal, non specialist counselling, professional counselling
5. Classification of counselling-based on time -surface, prolonged, therapeutic based on relationship –personal, couple, workplace and family
6. Functions of counseling - adjustmental, orientational and developmental
7. Principles and need of family counselling
8. Thrust areas in family counselling- educational, vocational, social, health, moral, personal, premarital and marital
9. Role of counselor and characteristics of counselor –personal and professional
10. Counselling techniques-directive / counsellor centered, non- directive/client centered and eclectic counselling
11. Counselling approaches – insight theories-psychoanalytic counselling, gestalt counselling, adlerian counselling action theories –behavioural counselling therapy, rational emotive behaviour therapy (rebt)
12. Action theories- reality therapy, expressive therapy, family therapy and strategic counselling
13. Process of counselling-process, conditions, aspects, dimensions and fundamentals of counselling

14. Counselling skills-diagnostic, exploration, relationship, understanding, action, attending and group process: evaluation skills
15. Stages of counselling –beginning phase, middle phase and ending phase
16. Problems and limitations in family counselling ethical issues and dilemmas in counselling
17. Role of millennium development goals on family welfare UN rights of children
18. Prevalence of children, youth, women and elderly, disabled and reserved category in India and in the world- census
19. Current issues and challenges in child welfare – child abuse, child labour, trafficking, neglect, juvenile delinquency
20. Current issues and challenges in youth welfare – delinquency, drug abuse, sexual abuse
21. Current issues and challenges in women welfare- trafficking, abuse, domestic violence, gender discrimination
22. Child welfare- definition and need, schemes, policies and programmes for children
23. Classification child welfare services – residential services-children’s home, adoption, SOS village, foster care, short stay home protective services-CGC,CGB, child line, juvenile home
24. Classification child welfare services- recreational services – bal bhavan, holiday homes, youth hostel
25. Women welfare- definition, need, services and schemes, policies and programmes for women
26. Youth welfare- definition, need, services and schemes, policies and programmes for youth
27. Elderly welfare- definition, need, services and schemes, policies and programmes for elderly
28. Welfare of disabled- definition, need , services and schemes
29. Policies and programmes for disabled
30. Reserved category welfare- definition, need, services and schemes
31. National organizations and agencies working for the welfare of children, women, youth, elderly and disabled:
32. International organizations and agencies working for the welfare of children, women, youth, elderly and disabled

Practical outline

1. Visit to Family counselling center
2. Studying the areas of family counselling
3. Identifying the needy areas and planning suitable counselling sessions for parents with infant babies
4. Identifying the needy areas and planning suitable counselling sessions for parents with preschoolers
5. Identifying the needy areas and planning suitable counselling sessions for parents with school age children
6. Identifying the needy areas and planning suitable counselling sessions for parents with adolescents
7. Identifying the needy areas and planning suitable counselling sessions for adult women

8. Identifying the needy areas and planning suitable counselling sessions for elderly
9. Visit to Children's home
10. Visit to Balbhavan
11. Visit to Child Guidance Bureau
12. Visit to SOS Village
13. Visit to State home
14. Visit to Child/Women protection Cell
15. Visit to Old age home
16. Final Practical Examination

References

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Course Number RMCS 311

Title Residential and Commercial Space Design

Credit Hours 3(2+1)

General Objective • To enable the student to develop theoretical knowledge in designing space for family living and commercial spaces

Specific Objectives

Theory
By the end of the course the students will be able

- i. To enable the student to develop knowledge in designing space for family living
- ii. Exposure to design and decorate residential spaces
- iii. To gain managerial skills and handle space efficiently for multiple functions
- iv. Study building codes, fire safety and barrier – free designs as essential components of laying out interior space
- v. Learn use of presentation boards to assist clients in visualizing the design project

Practical

By the end of the course the students will be able to

- i. Get exposed to different types of residential buildings
- ii. Learn to put the detailed drawings of residential designs on paper
- iii. Develop skills to create a functional, ergonomic and beautiful design

- for clients with interior spaces
- iv. Practice and gain experience to design residential and commercial environments that promote, sustain and inspire health and healthy
- v. To explain the sequence of procedures used in completing a design project, including conducting interviews, creating and presenting design concept
- vi. To determine cost estimates, making purchases of products and services, supervising the work and completion of services
- vii. Able to develop good portfolio

Theory lecture outline

1. Residential building types and characteristics
2. Commercial buildings- types and design issues
3. Factors influencing building design
4. Residential Interior Design Standards – living spaces
5. Residential Interior Design Standards – service spaces
6. Commercial Interior Design Standards – service spaces
7. Commercial Interior Design Standards – lighting and other environmental parameters
8. Design Process - Steps
9. Approaches to planning - residential spaces
10. Approaches to planning - commercial spaces
11. Design and space organization, analysis of different spaces of independent houses of different income groups
12. Design and space organization, analysis of different spaces of commercial interiors
13. Design and space organization, analysis of apartments and flats
14. Understanding building bye laws, regulations - residential buildings
15. Understanding building bye laws, regulations - commercial buildings
16. Specifications essential for building and service management
17. Selecting materials and finishes for interiors
18. Cost estimation of fittings, fixtures, furniture, lighting and materials for residential buildings and commercial buildings
19. Technical services required for residential and commercial buildings
20. Services - mechanical, computer and communication system
21. Space needs in commercial buildings
22. Design and space organization of commercial interiors for business establishments- retail stores
23. Design and space organization of commercial interiors for hotels/restaurants,
24. Design and space organization of commercial interiors for hospitals,
25. Design and space organization of commercial interiors for educational buildings- schools/ colleges
26. Design and space organization of commercial interiors for recreational centers - theatres, museums, parks
27. Design and space organization of commercial interiors for public service buildings
28. Functional designing for physically challenged in commercial and residential buildings
29. Indoor climate and Landscaping for commercial and residential
30. Tenders and work contracts

31. Professional issues and ethics in management of projects
32. Commercial window displays

Practical outline

1. Visit to residences to study space allocation and utility and analysis of Interior Space organization
2. Visit to different commercial buildings and to study design concept
3. Evaluation of commercial buildings
4. Develop conceptual drawings and floor plans for various income groups
5. Develop layouts of furniture, lighting, electrical and plumbing for various income groups
6. Practical applications of design and space organization of apartments and flats and analysis
7. Cost estimation for designing interiors of various income groups
8. Designing and developing a layout for a small residential project
9. Evolving interior decoration details with material sample for the small residential project
10. Designing and developing a layout for a residential project in coastal areas
11. Evolving interior decoration details with material sample for coastal areas
12. Presentation of the detailed work done for small residential project and coastal areas
13. Designing and developing a layout for a small commercial project
14. Evolving interior decoration details with material sample for a small commercial project
15. Presentation of the detailed work done for a small commercial project
16. Final practical examination

References

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2. Crafts (2004) The office – Designing for Success 2004 Images Publication
3. Francis, D (1997) The New Office Conran Octopus Publication
4. Harmon S and Kennon, K The Codes guidebook for Interiors Fifth Edition John Wiley and Sons Publication

Course Number CSBC 311

Title Economics and Marketing

Credit Hours 3(2+1)

General Objective • To obtain a basic knowledge about the various basics of economics and marketing

Specific Objectives **Theory**
 By the end of the course the students will be able to
 i. Gain basic knowledge of marketing, types of markets - difference between marketing, selling and merchandising, process of

- management, marketing organizational structure, marketing concepts, marketing process
- ii. Understand the buyer behavior
- iii. Learn about market segmentation and marketing mix
- iv. Know all about the product – product features, components of a product personality, product levels, product positioning and pricing strategies
- v. Study about wholesalers, retailers, channels of distribution
- vi. Know the importance of branding, advertising, packaging

Practical

By the end of the course, the student will be able to

- i. Obtain basic knowledge of marketing, types of markets for different types of products and marketing process
- ii. Understand the buyer behavior for various types of goods and services
- iii. Learn about market surveys
- iv. Know about the product – product features, components of a product personality, product levels, product positioning and pricing strategies

Theory lecture outline

1. Terms and definitions in Economics
2. Basic Concepts of Economics Goods and services
3. Basic Concepts of Economics Human wants - Characteristics and classification
4. Consumption – Meaning and importance in Economics
5. Nature of Economic Laws, Basic equilibrium, utility, elasticity, competition
6. Demand and supply – meaning and laws
7. Theory of Consumer Behavior: Utility analysis-cardinal and ordinal approaches
8. Consumer surplus and Indifference curve analysis
9. Consumer equilibrium, income, price and substitution effects
10. Factors of production and factors affecting production
11. Gross Domestic Product (GDP) – Factors affecting GDP
12. Role of industry sector in National GDP
13. Marketing- Meaning and Definition,
14. Need for marketing,
15. Role of marketing,
16. Marketing process,
17. Marketing functions,
18. Classification of markets,
19. Channels of distribution – types, selection of distribution channel, Wholesalers, Retailing,
20. Brands and branding – brand equity, extension, brand management
21. Advertising – importance, classification, advertising campaign
22. Pricing and pricing policies - Price spread,
23. Marketing efficiency,

24. Integration,
25. Constraints in marketing of agricultural and other small scale industrial produce,
26. Market intelligence and marketing research
27. Bank and banking norms
28. Insurance – meaning, need and types,
29. SWOT analysis – meaning and importance ,
30. Crisis management – need and methods
31. Techno-economic parameters for preparation of projects
32. Basic guidelines for preparation of project report

Practical outline

1. Visit to different markets for project identification
2. Techno-economic parameters for preparation of project – Project identification through market survey
3. Techno-economic parameters for preparation of project –Identification of technical parameters
4. Techno-economic parameters for preparation of project – Analysis of technical parameters
5. Techno-economic parameters for preparation of project –Identification of economic parameters
6. Techno-economic parameters for preparation of project – Analysis of Economic parameters
7. Preparation of bankable projects for various agricultural products
8. Preparation of bankable projects for various value added agricultural products
9. Preparation of bankable projects for various small scale industrial products
10. Identification of marketing channel – Agricultural products
11. Identification of marketing channel – Value added agricultural products
12. Identification of marketing channel – Small scale industrial products
13. Calculation of price spread - Agricultural products and Value added Agricultural products
14. Calculation of price spread - Small scale industrial products
15. Identification of market structure
16. Final practical examination

References

1. Economic Theory, by Tamilnadu Textbook And Educational Services Corporation
2. Elementary Economic Theory, 2003, by KK Dewett, JD Verma, SChand (G/L) and Company Ltd
3. Elementary Indian Economics 2008, KK Dewett, JD Verma, SChand (G/L) and Company Ltd
4. Marketing, Economics and Banking by Dezy Kumari, Lucent Publications Fifth edition (2015)
5. Matoria CB, 1977, Principles and Practice of Marketing in India, Kitab Mahal, Allahabad
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7. Ramaswamy VS and Namakumari S, 2010, Marketing Management, Macmillan Publishers India, New Delhi

ELECTIVE COURSES

Course Number APTX 313

Title Computer Aided Designing in Textiles and Apparel

Credit Hours **3(0+3)**

General Objective • To impart skill on textile and garment designing using CAD software

Specific Objectives **Practical**

By the end of the course, the student will be able to

- ✓ Learn the basics tools to design textile motifs and patterns using Corel Draw software
- ✓ Know the basic tools to design garments using Adobe Photoshop software
- ✓ Be able to create different garment silhouettes using fabric rendering, texture creations, colour and background changes in Photoshop
- ✓ Learn to create garment styles as per client requirements in Photoshop
- ✓ Prepare computerized portfolios in Photoshop

Practical outline

1. Introduction to use of coral draw software in textile designing
2. Hands on coral draw tools and commands for textile motif preparation
3. Exercise on the above tools and commands
4. Practicing the tools and commands
5. Understanding the concept of page/file setup
6. Creating free hand drawings in computer using coral draw software
7. Drawing basic types of motifs using coral draw software
8. Practice the commands for creating different motifs
9. Learning colour and colour schemes
10. Application of colour in designed motifs
11. Creating the textile designs using different motifs
12. Understudying different types of design repeat
13. Placement of motifs as per the design principles
14. Developing the patterns from the motifs and design repeats
15. Creating an end use product using the developed patterns
16. Rendering the patterns as per the background colour
17. Rendering the patterns as per the end use of textile product
18. Methods of file saving and converting the files in printable format
19. Introduction to portfolio development using adobe photoshop software
20. Scalar and vector images, setting up image resolutions and selection of pictures
21. Familiarisation of tools – drawing, rendering
22. Scanning of pictures, textures and fabrics

23. Importing file from different file saving formats
24. Scanning the pictures for adding into clipboards
25. Creating design library for further use
26. Creating new images using scanned figures
27. Working with layers- creating new layers and locking options
28. Defining and creating patterns using scanned and downloaded pictures
29. Understanding colour systems used in computer,
30. Learning colour gradient, enhancing colour
31. Use of colour harmonies and colour balance
32. Changing colours in the scanned pictures
33. Creation of library using all colour modes
34. Use of clone stamp pad and pattern stamp tool for filling designs
35. Working with filters
36. Practicing filters
37. Making suitable backgrounds for different portfolio presentation
38. Creation of background by collage work
39. Rendering fashion figures- change of colours, textures and patterns
40. creation of different kids wear designs
41. creation of different kameez designs
42. Creation of different skirts and tops designs
43. Creation of different designs for men or women party wear
44. Developing portfolio of designed garment styles for selected client- mood board
45. Making colour and swatch board for the developed lines
46. Making illustration boards for the developed lines
47. Making specs and flats for the developed lines
48. Final practical examination

Course Number APTX 314

Title Fashion Illustration

Credit Hours 3(0+3)

General Objective To impart skill on illustrating fashion garments on croquet

Specific Objectives **Practical**

By the end of the course, the student will be able to

- ✓ Learn the basics of human body proportion
- ✓ Know the body moving poster
- ✓ Learn to create the different facial views and hair styles
- ✓ Be able to create differently render fabrics
- ✓ Create different garment components
- ✓ Prepare a stitch catalogue hands on experience on designing, draping and embellishment of garment
- ✓ Illustrate a garment on croque

Practical outline

1. Introduction to sketching and fashion illustrations
2. Body proportions – woman - relation to age, sex and style and body form in totality
3. Body proportions – man - relation to age, sex and style and body form in totality
4. Body proportions – Children - relation to age, sex and style and body form in totality
5. Study the body posture and body movement - woman
6. Study the body posture and body movement – man
7. Study the body posture and body movement - children
8. Figure types and achieving perfect proportions
9. Material used for sketching - getting acquainted with types of material used and their role in fashion illustration
10. Combining art materials
11. Learning mixed media techniques
12. Drawing types of lines
13. Different types of rendering techniques
14. Fashion figure road map
15. Stick figures
16. Drawing body using simplified geometric shapes, fleshing out the figure
17. Moving fashion figure
18. Shaping and fleshing out the posed figure
19. Drawing front facial view and facial features
20. Drawing profile view and facial features
21. Drawing three quarter facial view and facial features
22. Drawing different hair styles
23. Drawing hands and arms
24. Drawing legs, feet and types of footwear
25. Preparation of fashion figure- planning page and proportions
26. Pencil techniques and shading - three dimensional figure
27. Sketching different types of silhouettes
28. Sketching of garment features - necklines
29. Sketching types of collars
30. Sketching types of sleeves
31. Sketching types of skirts
32. Sketching types of drapes
33. Sketching types of cowls
34. Sketching of garment features: fasteners
35. Sketching of garment features: cuffs and hemline
36. Sketching of added fullness: ruffles and flares
37. Sketching of added fullness: frills and ruching
38. Adding garment details - sketching folds, creases as per posture
39. Obtaining various textures and patterns of fabrics using pencil
40. Sketching garments- according to age, season, special needs
41. Illustration of fabric design and texture using different media – pencils and crayons
42. Illustration of fabric design and texture using different media - poster colour and water colours

43. Illustration of fabric design and texture using different media - collage
44. Designing of garments for adult male and woman
45. Designing of garments for boys and girls
46. Analysis of designs created
47. Visit to fashion designing institutes
48. Final practical examination

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1. Bina A (1998) Fashion Sketch Book, Fairchild, USA
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3. Stone and Jean ASampler (1985) Fashion Merchandising, 4th edition, McGraw-Hili, New York
4. Patrick John(2000), Encyclopedia of Fashion, Bastford Publication Ireland,
5. Robert Gruber(2000), Fashion images, Prentice Hall, 2000

Course Number EECM 312

Title Print and Electronic Journalism

Credit Hours 3(0+3)

General Objective

- To acquire the skills in both Print and Electronic media in terms of News gathering, writing/ Recording and editing and presentation

Specific Objectives

Practical

- i. To develop the ability to write and record clear, concise, accurate and interesting news stories
- ii. To demonstrate basic skills and techniques in newsgathering and newswriting/ recording
- iii. To judge the newsworthiness of events and ideas and analyze stories for content, form and style
- iv. To develop style through writing/recording, revision and editing

Practical outline

1. Visit to PJTSAU press to understand the production process and equipment
2. Visit to All India Radio for understanding the audio studio equipment in production of radio programmes
3. Visit to Doordarshan for understanding of video studio equipment in the production of TV programmes
4. Identification and discussion on various types of print materials - handout, leaflet, folder, booklet, newsletter, bulletin and booklet
5. News gathering by using direct and indirect methods
6. News gathering by using interview Techniques
7. Practical exercise on writing different forms of reports-curtain raiser

8. Practical exercise on spot news/live report
9. Practical exercise on investigative report/interpretative
10. Practical exercise on in-depth report/advocacy report
11. Practical exercise on cultural events, civil and social events reporting
12. Practical exercise on crime and sports reporting
13. Practical exercise on specialized reporting: environment and ecology
14. Practical exercise on reporting agriculture, health /nutrition issues
15. Practical exercise on reporting women and children issues
16. Practical exercise on editorial and feature writing
17. Practical exercise on human interest stories writing
18. Practical exercise on review and travelogues writing
19. Practical exercise on humor writings and different types of column writing -different types
20. Practical exercise on editing process -symbols
21. Practical exercise on editing process - format, para , headlines
22. Practical exercise on editing process –rewriting, integrating and updating
23. Practical exercise on editing process - referencing
24. Practical exercise on editing process -proof reading
25. Practical exercise on photo editing
26. Computer application in photo editing
27. Familiarization with editing soft wares
28. Practical exercise on editing process by using computer for print materia
29. Screening of TV cultural news programmes
30. Screening of TV political and sports news programmes
31. Screening of developmental TV programmes
32. Practical exercise on different types of video scripts - basic production script
33. Practical exercise on different types of video scripts - story board script
34. Planning script for video programme - one minute programme
35. Script writing for documentary and drama
36. Script writing for educational programme
37. Planning script for interview
38. Planning script for group discussion
39. Planning script for advertisement
40. Planning script for song production
41. Practicing news reading
42. Presenting radio news
43. Presenting televisions news
44. Practicing anchoring
45. Script writing – radio/interview/talk/skit
46. Rehearsal and recording radio interview / talk / skit
47. Editing with computer based editing software of radio / television programmes
48. Presentation of documented programme – radio / television

References

1. D'Souza Y K (2000) Encyclopedia of Advanced Journalism Vol 12 and3 Anmol publications, New Delhi

2. Ravindran R K (1999) Hand book of reporting and editing Anmol publications, New
2. 3 PCI (2006) Future of print media, Press council of India
3. Katyal VP (2007) Fundamentals of media ethics Rules and Regulations Cyber Tech Publishers New Delhi
4. Bhatnagar R (2001) Print Media and Broadcast Journalism Indian Publishers Distributers New Delhi
5. Arvind Kumar (1999) The Electronic Media Anmol Publications, New Delhi
6. Bhatt SC (1993) Broadcast Journalism Basic Principles Har Anand Publications Delhi
7. Bhatnagar R (2001) Print Media and Broadcast Journalism Indian Publisher Distributors, Delhi
8. Katyal VP (2007) Fundamentals of media ethics, Cyber Tech Publishers New Delhi
9. P C 1 (2006) Future Of Print Media, Press Council of India

Course Number EECM 313

Title Instructional Video Production

Credit Hours 3(0+3)

General Objective

- Practical exposure to handle the video package for instructional video production

Specific Objectives

- Practical:** By the end of the course the students will be able to
- i. Get familiarized of the video camera and camera support systems
 - ii. Learn through Technical exposure to shooting
 - iii. Plan, write and shoot basic video production script, story board and camera script
 - iv. Understand the recording techniques for online and offline editing

Practical outline

1. Familiarization of video camera
2. Familiarization with parts of video camera
3. Familiarization with other accessories of video camera
4. Handling of camera support systems
5. Handling of video camera –home video camera, professional video camera etc
6. Practicing video camera with white and black balance
7. Handling compositions of video camera
8. Handling of VHS camera
9. Handling of advanced professional cameras
10. Changing and loading battery pack, inserting videocassette etc

11. Practical exercise on focusing, zooming and shooting
12. Practical exercise on different types of video scripts - basic production script
13. Practical exercise on different types of video scripts - story board script
14. Practical exercise on different types of video scripts - camera script
15. Planning script for video programme - one minute programme
16. Script writing for documentary and drama
17. Script writing for educational programme
18. Planning script for interview
19. Planning script for group discussion
20. Planning script for short play
21. Planning script for speech
22. Planning script for documentary production
23. Planning script for song production
24. Planning script for advertisement
25. Planning of different camera positions - long shot
26. Planning of different camera positions - medium shot
27. Planning of different camera positions - close up
28. Planning of different camera positions - zoom
29. Planning of different camera positions - tilting
30. Planning of different camera positions - panning
31. Shooting of different camera positions in outdoor- long shot and medium shot
32. Shooting of different camera positions in outdoor - close up and zoom
33. Shooting of different camera positions in outdoor - tilting and panning
34. Recording techniques - video and audio online
35. Recording techniques - video and audio offline editing
36. Recording techniques - video and audio linear editing
37. Recording techniques - video and audio nonlinear editing
38. Editing of the recorded outdoor programme by non-linear editing
39. Advanced techniques of editing - cut - mix with advanced software etc
40. Using graphics and animation in video production
41. TV graphic - text - animation
42. Sound - sound mixing
43. Sound - audio mixing and dubbing
44. Sound - audio mixing and dubbing
45. Presentation of produced programme
46. Visit to NAARM studio
47. Visit to CIEFL studio / EMMRC / dept of communication, central university, Hyderabad
48. Final practical examination

References

1. Alan Wetzel (1985) Television production McGraw-Hill Book Company
New York S - New Delhi
2. Arkin Glyn (1975) Television Sound Operation , Hunting house New York
McGraw-Hill Book Company New York S -- New Delhi
3. Eargle John (1980) Sound Recording Van Nostrand Reinhold Now

Course Number FDNT 313

Title Food Preservation and Storage

Credit Hours 3(0+3)

General Objective

- To train the students in the field of fruit and vegetable Processing
- To enable the students learn different preservation techniques to curb post-harvest losses in the field of agriculture

Specific Objectives

Practical

By the end of the course, the student will be able to

- i. Able to learn processing of fruits and vegetables - different preservation techniques to improve the shelf life of seasonal fruits
- ii. Knowing the processing of fruit and vegetable products like Jams, Jellies and squashes
- iii. Selection of suitable packaging material for marketing the developed products

Practical outline

1. Market survey on availability of preserved food products
2. Dehydrated products prepared from grains– cereals, pulses
3. Domestic preservation of foods by freezing
4. Drying of fruits and vegetables (blanched and un-blanched) – solar drying, sun drying, oven drying
5. Demonstration of fruit beverages – squash
6. Preparation of fruit beverages – squash
7. Demonstration of fruit beverages – cordial, crush
8. Preparation of fruit beverages – cordial, crush
9. Demonstration of jam preparation
10. Preparation of jams
11. Demonstration on preparation of marmalade
12. Preparation of marmalades
13. Demonstration on preparation of fruit jelly
14. Preparation of fruit jelly
15. Demonstration of preserves and murabbas
16. Preparation of preserves and murabbas
17. Demonstration of tomato ketchup
18. Preparation of tomato ketchup
19. Demonstration of sauce
20. Preparation of sauce
21. Demonstration of chutneys
22. Preparation of chutneys

23. Demonstration of pickle with oil
24. Preparation of pickle with oil
25. Demonstration of pickle without oil
26. Preparation of pickle without oil
27. Preparation of sugar candies
28. Demonstration of sugar candies
29. Preparation of minimal processed foods
30. Demonstration of minimal processed foods
31. Preparation of fruit lathers
32. Demonstration of fruit lathers
33. Preparation of fruit cheese
34. Demonstration of fruit cheese
35. Preparation of fruit wine
36. Demonstration of fruit wine
37. Demonstration of bottled fruit
38. Preparation of bottled fruit
39. Demonstration of crystallized fruit
40. Preparation of crystallized fruit
41. Demonstration of sweet and sour vegetable/fruit chutney
42. Preparation of sweet and sour vegetable/fruit chutney
43. Visit to canning unit
44. Visit to bottling unit
45. Visit to grain storage institute
46. Visit to a dairy plant
47. Visit to fruit preservation centre
48. Final practical examination

References

1. Desrosier, N.W. and Desrosier, J.N. 1987. *The Technology of Food Preservation*. 4th ed. CBS Publishers and Distributors, Delhi.
2. Jood, S. and Khetarpaul, N. 2001. *Food preservation*. Agrotech Publishing Academy, Udaipur.
3. Kalia, M. and Sood, S. 2006. *Food Preservation and Processing*. Kalyani Publishers, Ludhiana.
4. Barret DM, Somogyi LP and Ramaswamy H. 2005. *Processing of Fruits*. CRC Press
5. FAO. 2007. *Handling and Preservation of Fruits and Vegetables by Combined Methods for Rural Areas- Technical Manual*. FAO Agr. Ser. Bull., 149.
6. Fellows P. 2007. *Guidelines for Small-Scale Fruit and Vegetables Processors*. FAO Agr. Ser. Bull., 127.
7. Lal G, Siddappa GS and Tandon GL. 1998. *Preservation of Fruits and Vegetables*. ICAR.
8. Salunkhe DK and Kadam SS. 1995. *Handbook of Fruit Science and Technology: Production, Composition and Processing*. Marce
9. Srivastava, R. P. and Kumar, S. (2006). *Fruit and Vegetable Preservation: Principle and Practices*, International Book Distributing Co

Course Number FDNT 314

Title Food Service and Hospitality Management

Credit Hours 3(0+3)

General Objective

- Students will learn the basics of food service management and operations with an emphasis on the fundamental values of *hospitality* and responsible management

Specific Objectives

Practical

By the end of the course, the student will be able to

- To impart practical knowledge on the types of food service facilities and to identify different settings of food service operations
- To compare and contrast commercial vs institutional food service operations
- To identify management positions, production and service personnel, organizational charts, career paths and understand the fundamentals of management as they pertain to food service
- To understand the basics of the science of nutrition and contemporary dietary concerns, and multicultural/diversity issues of food service
- To outline the steps to menu pricing, schedules, planning, and design and develop standardized recipes
- To identify the economic aspects of food service operations including the uniform system of accounts, financial statements, and ratio analysis
- To impart knowledge on the importance of sanitation including food borne illness, personal cleanliness and health procedure for safe food handling, cleanup, and accident prevention

Practical outline

1. Introduction to quantity food production
2. Familiarization to equipment for quantity food production
3. Case study on health and wellness service in india
4. Indian cuisine to the global market-case study
5. Survey of local, wholesale and retail markets for availability of perishable foods
6. Survey of local, wholesale and retail markets for availability of additives
7. Survey of local, wholesale and retail markets for availability of packaging material
8. Survey of local, wholesale and retail markets for availability of non perishable foods
9. Survey of local, wholesale and retail markets for availability of convenience foods
10. Survey of local, wholesale and retail markets for availability of health foods
11. Preparation of business plan for food service unit
12. Visit to a residential hostel to observe the organization, management and administration
13. Visit to an industrial canteen to observe the organization, management and administration
14. Visit to a hospital to observe the organization, management and administration

15. Visit to a star hotel to observe the organization, management and administration
16. Visit to a fast food centre to observe the organization, management and administration
17. Selection of theme and demonstration of interiors for food service area
18. Demonstration of different styles of table setting
19. Construction of menu for different institutions
20. Preparation of menu cards
21. Standardization of recipes – procedure
22. Practical exercise on standardization of recipe
23. Multiplication of standard recipe and cost calculation
24. Standardization of recipes suitable for hospital diets
25. Standardization of recipes suitable for snack bars
26. Standardization of recipes suitable for industrial canteens
27. Standardization of recipes suitable for residential hostels
28. Menu planning for cafeterias /canteens, snack bars
29. Menu planning for industrial canteens, residential hostels
30. Planning hospital diets
31. Costing of recipes planned and fixing the price for subsidized catering units
32. Costing of recipes planned and fixing the price for private catering units
33. Exercise on quantity food production for a cafeteria and portioning
34. Exercise on quantity food production for a industrial canteen and portioning
35. Exercise on quantity food production for a residential hostel and portioning
36. Planning for organizing a college canteen as a catering enterprise
37. Preparation of job chart for running the college canteen
38. Working out suitable combination of recipes for College canteen
39. Planning of menus for running a college canteen
40. Management of college canteen - procurement of materials
41. Practical exercise on food preparation, pricing and sale of snacks
42. Practical exercise on food preparation, pricing and sale of packed lunch
43. Practical exercise on food preparation, pricing and sale of working lunch
44. Assessment of the performance of college canteen – feedback, profits etc
45. Preparation of report on management of canteen
46. Presentation of report
47. Exercise on quantity food production for a hospital canteen and portioning
48. Practical Examination

References

1. Sethi, M and Malhan, S. 1987. Catering Management, An Integrated Approach. Wiley Eastern Limited
2. Sethi M and Malhan S. (2011). Catering Management – an Integrated approach *Second edition*. (pp- 1-5). New Delhi, New Age International (P) Limited.
3. Jones, P .1987. Food service Operations-Comprehensive survey of Catering Industry. Cassell Publications
4. West BB, Wood L, Harger VF and Shugart GS. 1977. *Food Service in Institutions*, John Wiley and Sons
5. Kinder (Faye) Meal Management Ed4.1973, Mac Millan publishing Co. New York

6. Mudambi, S R and Rajgopal, M. V .2009. Fundamentals of Foods, Nutrition and Diet Therapy, 5th edition, New Age International (P) limited Publishers

Course Number	HDFS 312
Title	Education and Counseling for Parents and Community
Credit Hours	3(0+3)
General Objective	<ul style="list-style-type: none">• To impart knowledge and skill about conducting parent education and counseling programmes
Specific Objectives	<p>Practical</p> <p>By the end of the course, the student will be able to</p> <ol style="list-style-type: none">i. Identify the need based areas for conducting parent education and counselling programmesii. Prepare the tool for collecting the case studies on parents of normal and exceptional childreniii. Learn various approaches and techniques of counsellingiv. Organize counseling sessions for individuals using appropriate therapiesv. Organize counseling sessions for families of exceptional children using appropriate therapiesvi. Conduct various counselling therapiesvii. Evaluate the effectiveness of counselling therapies

Practical outline

1. Orientation on need and importance of parent and community education
2. Understanding recent issues and challenges on parent and community education
3. Preparation of a suitable schedule to study - Parent-Child Relationships and its impact on children
4. Administering the prepared schedule
5. A study on various methods of parent and community education
6. Visit to local community for identifying parents of normal and exceptional children, rapport building - identifying families with problems
7. Conducting case studies on parents of normal children
8. Conducting case studies on parents of exceptional children
9. Acquiring familiarization with the tests and techniques used for the assessment of troubled families
10. Identification of areas and issues for parent education
11. Developing parent education programmes
12. Planning, conducting and evaluating parent education programmes
13. Implementing Wisconsin model of community education
14. A study on communication barriers-differences between men and women
15. Organizing sessions in the community on communication skills

16. A study on various approaches and techniques of counselling
17. Conducting awareness among the community regarding counseling centre
18. Conducting a mock session on administering therapies
19. Establishing rapport building with clients
20. Pre evaluation of session before counselling
21. Preparation of individual case files for counselling sessions
22. Beginning phase of counselling session
23. Operational session of counselling
24. Organizing counseling sessions for individuals using cognitive therapy
25. Organizing counseling sessions for individuals using affective therapy
26. Organizing counseling sessions for individuals using behavioural modification therapy
27. Organizing counseling sessions for individuals using psychomotor therapy
28. Organizing counseling sessions for individuals using client centered therapy
29. Organizing counseling sessions for couples using conjugal therapy
30. Organizing counseling sessions for couples using transactional analysis
31. Organizing counseling sessions for couples using reality therapy
32. Organizing counseling sessions for couples using gestalt therapy
33. Organizing counseling sessions for couples using Rational Emotive Behavioural Therapy (REBT)
34. Organizing counseling sessions for parents using family therapy
35. Organizing counseling sessions for parents using solution focused therapy
36. Organizing counseling sessions for parents using family systems therapy
37. Organizing counseling sessions for parents using psychoanalysis
38. Organizing counseling sessions for families of mild mentally challenged children
39. Organizing counseling sessions for families of autistic children
40. Organizing counseling sessions for families of learning disabled children
41. Organizing counseling sessions for families of children with behavioural problems
42. Organizing counseling sessions for families using Cognitive Behavioural Therapy (CBT)
43. Organizing counseling sessions for families using existential therapy
44. Assessing effectiveness of counselling sessions
45. Termination of counselling session
46. Post evaluation and feedback of counseling sessions
47. Preparation of resource file related to various counselling issues
48. Final practical examination

References:

1. Campbell, D (2003) Group parent education: Promoting parents learning and support Sage publication
2. Epstein, LJ (2010) School, family and community Partnership: Preparing educators and Improving School, West view press
3. Tett, L (2006) Community education: Lifelong learning and social inclusion (Policy and practice in education) Dunedin Academic Press

Course Number

HDFS 313

Title	Early Childhood Care, Education and Management
Credit Hours	3(0+3)
General Objective	<ul style="list-style-type: none"> To impart knowledge and skill about Early Childhood Care, Education and Management

Specific Objectives	<p>Practical</p> <ol style="list-style-type: none"> By the end of the course, the student will be able to Observe various ECCE centers and plan the activities for overall development of children Implement planned activities in various ECCE centers Plan and implement stimulation programmes for optimal development of young children Organize parent education programmes on various aspects of ECCE Plan budget for establishing ECCE centers Evaluate daily, weekly and monthly schedule of activities of ECCE centers
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Practical outline

- Orientation on Early Childhood Care, Education and Management
- Visits to ECCE center for observation of material, space, personnel, finance, documentation – Lab Creche
- Visits to ECCE center for observation of material, space, personnel, finance, documentation – Lab Nursery
- Visits to ECCE center for observation of material, space, personnel, finance, documentation – Lab LKG
- Visits to ECCE center for observation of material, space, personnel, finance, documentation – Lab UKG
- Orientation on areas of development during early childhood period
- Planning activities for physical, motor, language, cognitive, socio-emotional and creative development – Nursery
- Implementation of planned activities for physical, motor, language, cognitive, socio-emotional and creative development – Nursery
- Planning theme based developmentally appropriate day programme for Crèche, Nursery, LKG and UKG
- Implementation of theme based developmentally appropriate day programme for Crèche, Nursery, LKG and UKG
- Planning theme based developmentally appropriate weekly programme for Crèche and Nursery
- Planning theme based developmentally appropriate weekly programme for LKG and UKG
- Planning theme based developmentally appropriate yearly (broad outline) programme for Crèche
- Planning theme based developmentally appropriate yearly (broad outline) programme for

Nursery

15. Planning theme based developmentally appropriate yearly programme (broad outline) for LKG
16. Planning theme based developmentally appropriate yearly programme (broad outline) for UKG
17. Visit to different types of ECE centers (based on funds and resources) – observation of records and reports maintained in ECE center
18. Visit to different types of ECE centers (based on funds and resources) – observation of records and reports maintained in ECE center
19. Visit to different types of ECE centers (based on philosophy and function style) – observation of records and reports maintained in ECE center
20. Visit to different types of ECE centers (based on philosophy and function style) – observation of records and reports maintained in ECE center
21. Organizing parent teacher meeting – Creche
22. Organizing parent teacher meeting – Nursery
23. Organizing parent teacher meeting – LKG
24. Organizing parent teacher meeting – UKG
25. Planning parental participation in ECE programme – Creche
26. Planning parental participation in ECE programme – Nursery
27. Planning parental participation in ECE programme – LKG
28. Planning parental participation in ECE programme – UKG
29. Planning annual day programme for lab schools
30. Conducting annual day programme for lab schools
31. Orientation on management of ECCE programmes - planning, organizing, staffing, leading, monitoring and controlling for quality
32. Orientation on management of ECCE programmes - Designing the activity corners in ECE center - Block corner
33. Designing the activity corners in ECE center – Language corner
34. Designing the activity corners in ECE center – Creative art corner
35. Designing the activity corners in ECE center – Science corner
36. Designing the activity corners in ECE center – Math and manipulative corner
37. Designing the activity corners in ECE center – Pretend and play corner
38. Designing the activity corners in ECE center – Sand play corner
39. Designing the activity corners in ECE center – Water play corner
40. Preparing ECCE project proposal
41. Budget preparation for ECE center
42. Preparation of brochures, leaflets, communication documents for parents and public
43. Evaluation of daily, weekly and monthly schedule of activities prepared
44. Reporting on monitoring and evaluation of classroom arrangements, cleanliness, record keeping etc
45. Planning and organizing a field trip
46. Identification of preprimary children with mild behavioural problems – planning of strategies for children with mild behavioural problems
47. Implementation of planned strategies for children with mild behavioural problems
48. Final Practical Examination

References:

1. Gupta, M Sen (2009) Early Childhood Care and Education PHI learning private limited, New Delhi
2. Mazur, JE (1986) Learning and behaviour Prentice Hall, New Delhi
3. Wortham, SC (2012) Assessment in Early Childhood Education Pearson

Course RMCS 312

Number

Title Computer Aided Interior Designing

Credit 3(0+3)

Hours

General Objective • To provide knowledge on the basics of commands and their applications in developing interior design plans

Specific Practical

Objectives By the end of the course, the student will be able to

- i. Understand basic commands and application of scale in CAD
- ii. Understand and develop drawings and elevations of various interiors using CAD
- iii. Develop an insight in creation of 3D interiors, rendering and application of colours, materials and finishing using CAD

Practical outline

1. Basic commands to get started and setting up a drawing environment
2. Use of scale, line command, Coordinates and application in CAD
3. Drawing aids and methods using different modes
4. Getting acquainted with draw commands and practicing them to draw basic interior plan
5. Getting acquainted with modify commands and Practicing them
6. Getting exposure to layers, Transferring drawings into layers and defining properties
7. Exposure to array command and practicing the options
8. Exposure to hatch command and its options and Practicing hatch
9. Exposure to text command, its options and customizations and Practicing
10. Exposure to Dimensioning and customization options and Practicing
11. Understanding the uses of block and W block commands in drafting
12. Exposure to X-ref and OLE
13. Creation of pre-concept drawings for a residential building
14. Creation of basic and detailed floor plan
15. Creation of reflected ceiling and lighting plan
16. Working out furniture plan
17. Working out plumbing plan
18. Working out garden layout
19. Evolving detailed drawing of living room
20. Evolving detailed drawing of dining room
21. Evolving detailed drawing of bedrooms
22. Evolving detailed drawing of bath and dressing
23. Evolving detailed drawing of kitchen

24. Creation of elevations and sectional elevations of kitchen
25. Generation detailed drawing of kitchen storage units and wardrobes
26. Generation of detailed drawing for showcase and TV units
27. Generation of detailed drawing of window and door designs
28. Creating mass objects from 2D plans using Isometrics option
29. Understanding the concept of modelling and UCS
30. Getting acquainted with Boolean command
31. Creation of walls and wall openings, plinth and roof
32. Creation of Doors and window elements
33. Creation of 3D interiors elements – furniture, equipment
34. Creation of 3D interiors elements – kitchen units
35. Creation of 3D interiors elements - staircase
36. Creation of 3D outdoor garden elements
37. Insertion of interior and exterior elements
38. Exposure to Auto Cad Design Center and Importing elements from library
39. Getting acquainted with rendering functions
40. Getting acquitted with lighting effects and material resources
41. Practicing rendering techniques – interior backgrounds
42. Making of colour schemes and applying materials and finishes
43. Generate interior perspectives using camera and target
44. Getting exposure to creation of walk through
45. Exposure to Cost estimation
46. Generation of portfolio
47. Printing CAD drawings
48. Final practical examination

References:

1. Frey D, (2000) AutoCAD 2000 New Delhi: BPB Publications
2. George Omura, Just Enough Auto CAD 2007, Wiley Publishing Inc

Course Number RMCS 313

Title Flower Arrangement

Credit Hours 3(0+3)

General Objective

- To provide knowledge on various types of flowers and plant materials and the using in creating designs and arrangements for interior decoration

Specific Objectives

Practical

By the end of the course, the student will be able to

- i. Understand the care, maintenance and preservation of flowers and plant materials
- ii. Understand basic types and styles of flower arrangements

- iii. Develop and understanding on the choice of containers, accessories, backgrounds and designs for different occasions / needs
- iv. Have basic knowledge about Ikebana, Bonsai and garland making

Practical outline

1. Exposure to gardens, flowerbeds, potted flowers and plants
2. Learning experience through flower arrangement display /horticulture show
3. Visit to florist showrooms
4. Demonstration on basic procedures for collection and care of flower and foliage
5. Demonstration on special treatments for improving shelf life of flowers
6. Demonstrations on simple flower arrangement
7. Practicing flower arrangements - free forms
8. Developing / designing backgrounds for placements
9. Practice on line arrangements against appropriate locations
10. Practice on mass arrangements against appropriate locations
11. Flower arrangement practice in assorted vases, using driftwood, accessories etc
12. Flower arrangement practice in assorted vases, using driftwood, accessories etc
13. Flower arrangement practice in containers / receptacles of varying shapes, sizes and types
14. Simple and informal arrangements - tray, dining table, diminutive, miniature
15. Simple and informal arrangements - floating, and wall arrangements
16. Formal arrangements, modern and period styles and other arrangements
17. Formal arrangements, modern and period shapes and other arrangements
18. Demonstration on basic shapes and identifying appropriate locations
19. Practicing basic shapes and identifying appropriate locations – central locations
20. Practicing basic shapes and identifying appropriate locations – peripheral locations
21. Practicing ensembles in unique containers, use of accessories
22. Practicing ensembles with titles and themes
23. Foliage, weeds, and berry arrangements
24. Demonstrations on shapes of flower arrangement for specific placements
25. Demonstrations on styles of flower arrangement for specific placements
26. Practicing basic shapes and identifying appropriate locations
27. Practicing basic styles of flower arrangement – Line
28. Practicing basic styles of flower arrangement - Mass
29. Practicing basic styles of flower arrangement – Line and Mass
30. Simple and informal arrangements - tray, dining table, diminutive, miniature, floating, and wall arrangements
31. Formal arrangements, modern and period styles / shapes / other arrangements
32. Demonstration on Oriental styles of flower arrangement - Japanese
33. Practice on Oriental styles of flower arrangement - Japanese
34. Demonstration on Oriental styles of flower arrangement – Chinese
35. Practice on Oriental styles of flower arrangement - Chinese
36. Applying preservation techniques to fresh flowers and plant material
37. Foliage, weeds, dry and berry arrangements
38. Practice in making garland, bouquets and button holes
39. Developing potted house plants and bonsai
40. Demonstration on dry arrangements

41. Collection of dry arrangement material
42. Demonstration on flower drying techniques
43. Preparation of dry material for arrangements
44. Practice arrangements with dry material
45. Practice arrangement of wreaths and bouquet with dry material
46. Preparation for flower arrangement display /shows
47. Organizing flower arrangement display /shows
48. Final practical examination

References

1. Dorothei, S et al (1980) Introduction to Interior Design New York: Mc Millan
2. Faulkner and Faulkner (1975) Inside Today's Home New York: Holt, Rinehart and Winston
3. Gewther, M (1970) The Home, its Furnishings and Equipment USA Mc Graw Hill
4. Mike, L (1986) The Complete Interior Decoration United Kingdom: Mc Donald
5. Ruth, M (1975) The Home and its Furnishings, USA: Mc Graw Hill
6. Seetharaman P Sethi M (2002) Interior Design and Decoration CBS Publishers and Distributors New Delhi

3rd year (II Semester)

Course Number APTX 321

Title Traditional Textiles and Costumes of India

Credit Hours 3(2+1)

General Objective To impart comprehensive knowledge on traditional textiles and costumes of various Indian states

Specific Objectives **Theory**

By the end of the course the students will be able to

- ✓ Know about the traditional woven, printed, painted and embroidered textiles popular in all the states in India
- ✓ Learn in detail about the traditional costumes and textiles of all the states of India

Practical

By the end of the course, the student will be able to

- ✓ Collect, document and develop scrap book of traditional motifs used in various traditional embroideries
- ✓ Learn to make samples of traditional embroideries of Punjab, West Bengal, UP, Gujarat and Karnataka
- ✓ Collect, document and develop scrap book of woven textiles of India
- ✓ Collect, document and develop scrap book of traditional of various states of India
- ✓ Design contemporary costumes for men, women and children by

taking inspiration from traditional costumes

Theory lecture outline

1. History of Traditional woven textiles of India
2. Woven Textiles: Dacca muslin and Calico Printing
3. Woven Textiles: Brocades
4. Traditional sarees of India: Jamdani, Baluchari
5. Traditional sarees of India: Pochampalli, Patola and Ikat
6. Traditional sarees of India: Kanjivaram, Chanderi, Maheshwari
7. Traditional sarees of India: Bomkai, Sambhalpuri, Vichitrapuri
8. Traditional sarees of India: Paithani, Kota Doria
9. Traditional sarees of India: Gadwal, Venkatagiri, Narayanpet
10. Traditional sarees of India: Irkal, Kasavu, Tanchoi
11. Traditional woven and embroidered shawls of India: Shawls of Kashmir, Himachal Pradesh, Gujarat
12. Traditional woven and embroidered shawls of India: North Eastern States
13. Printed textiles: Dabu printing, Bagru printing, Sanganeri printing, Bagh printing
14. Tie and dyed textiles of Rajasthan and Gujarat
15. Painted textiles: Kalamkari, Madhubani, Warli, Patchitra
16. Painted textiles: Phad and Pichhavai
17. Embroideries of different states of India: Kashida of Kashmir, Phulkari and Bagh of Punjab
18. Embroideries of different states of India: Chamba Rumal, Chikankari and Zari work of Uttar Pradesh
19. Embroideries of different states of India: Embroideries of Gujarat, Embroidery and Rabari work of Bihar
20. Embroideries of different states of India: Kantha of Bengal, Kasuti of Karnataka
21. Embroideries of different states of India: Pipli work of Orissa, Manipuri Embroidery
22. Geographical Indications obtained for traditional Indian textiles
23. Traditional costumes of Jammu and Kashmir, Himachal Pradesh, Punjab
24. Traditional costumes of Haryana, Rajasthan and Gujarat
25. Traditional costumes of Uttar Pradesh, Madhya Pradesh and Bihar
26. Traditional costumes of Maharashtra and
27. Traditional costumes of Orissa, West Bengal
28. Traditional costumes of seven north east states
29. Traditional costumes of seven north east states
30. Traditional costumes of Tamilnadu, Andhra Pradesh, Telangana,
31. Traditional costumes of Karnataka and Kerala
32. Importance and market scenario of traditional Indian textiles and their impact on modern textiles industry

Practical outline

1. Documentation of motifs of traditional Indian embroideries
2. Sample preparation of traditional Indian embroideries - Phulkari of Punjab
3. Preparation of sample with Kantha work of Bengal
4. Preparation of sample with Chikankari of Uttar Pradesh

5. Preparation of sample with Kasuti of Karnataka
6. Preparation of sample with Kutch work of Gujarat
7. Documentation of woven textiles of India
8. Adaptation of traditional motifs and designs in contemporary textiles
9. Sketches and development of scrap book
10. Development of scrap book of traditional costumes of different states
11. Creating contemporary costumes for men by taking inspiration from traditional costumes
12. Creating contemporary costumes for women by taking inspiration from traditional costumes
13. Creating contemporary costumes for children by taking inspiration from traditional costumes
14. Visit to museum
15. Visit to art gallery
16. Report submission

References

1. Bhatnagar, P 2005 Decorative Design History in Indian Textiles and Costumes Chandigarh, Abhishek Publication
2. Chattopadhyay, K 1977 Indian Embroidery New Delhi, Wiley Eastern Limited
3. Harney, J 1997 Traditional Textiles of Central Asia London Thames and Hudson Ltd
4. Krishna, R A 1966 Banaras Brocades New Delhi Crafts museum
5. Lubell, C 1976 Textile Collection of the World Vol 2 London United States publication
6. Mehta, R J 1970 Master Piece of Indian Textiles D B Taraporevala Sons and Co Private Ltd
7. Treasure of Indian Textiles 1980 Calico Museum Ahmedabad Marg Publication Bombay

Course Number CSBC 321

Title Elementary Human Physiology

Credit Hours 3(2+1)

General Objective

- To impart knowledge on the different parts of human body from cellular to organ systems, their structure and physiology, functioning and regulation in the human body and integration and maintenance of homeostasis

Specific Objectives

Theory

By the end of the course the students will be able to

- i. Study of the normal and regulatory mechanism of musculoskeletal, circulatory, respiratory, digestive, urinary, immune, reproductive, and endocrine organ systems
- ii. Integration of the organ systems to maintain proper internal environment
- iii. Role of the Autonomic Nervous System in regulating organ function

- iv. Understand the neural and hormonal homeostatic control mechanisms of the human body

Practical

By the end of the course, the student will be able to

- i. Identify the structure of different systems in the human body
- ii. Analyze the blood samples for biochemical investigations related to body functioning as complete blood picture
- iii. Assess the variations in vital functions like blood pressure, pulse rate during exercise and diseases in different conditions

Theory lecture outline

- 1 Physiological process - Introduction
- 2 Structural basis of human body – cells and their functions
- 3 Structural basis of human body – tissues and their functions
- 4 Skeletal system
- 5 Joints
- 6 Muscular system
- 7 Functions of brain
- 8 Functions of spinal cord
- 9 Nerve impulse reflex action
- 10 Sense organs - eyes, nose
- 11 Sense organs – tongue, skin, ears
- 12 Composition and functions of blood
- 13 Composition and functions of lymph
- 14 Structure of heart and course of blood circulation
- 15 Blood pressure and factors affecting blood pressure
- 16 Pulse rate and heart sounds
- 17 Respiratory apparatus
- 18 Mechanism of respiration
- 19 Respiratory rates
- 20 Volume and transport of gases
- 21 Physiology of kidney
- 22 Physiology of digestion
- 23 Digestive enzymes and their functions
- 24 Functions of liver
- 25 Absorption from the intestine
- 26 The location, secretions and function of various endocrine glands – pituitary, thyroid, parathyroid
- 27 The location, secretions and function of various endocrine glands – adrenal, testes, ovaries
- 28 The location, secretions and function of various endocrine glands – Panceas, Placenta, pineal gland
- 29 Male reproductive organs and their functions
- 30 Female reproductive organs and their functions
- 31 Pregnancy, persecution and milk secretion
- 32 Pre-Final Examinations

Practical outline

- 1 Demonstration of animal viscera, identification of systems and organs
- 2 Transverse section of stomach, intestine – small and large
- 3 Models of excretory and reproductive organs and their histology
- 4 Estimation of hemoglobin using hemoglobinometer and colorimeter
- 5 Estimation of RBC count by hemocytometer
- 6 Estimation of WBC count by hemocytometer
- 7 Differential counting of WBC using peripheral smear
- 8 Estimation of PCV, ESR, micro and macro hematocrit
- 9 Estimation of bleeding and clotting time
- 10 Measurement of pulse rate and blood pressure, its variation with exercise
- 11 Testing for sensation
- 12 Special sensors
- 13 Measurement of respiratory quotient, inspiration, expiration
- 14 Measurement of O₂ and CO₂ at various partial pressure in lungs
- 15 Learning of Reproductive cycle-menstruation and estrous cycles
- 16 Practical examination

References

1. Chatterjee CC 1980 Human Physiology Medical Allied, Calcutta
2. Ganong WL 1995 Review of Medical Physiology Norwalk Simon and Schuster
3. Rahul P Phate (2013) Anatomy and Physiology and Health Education Career Publications, Nasik
4. Arthur J Vanders Human Physiology- The mechanisms of body function, Tata McGraw Hill Publishing Company, New Delhi
5. Samson Wright Applied Physiology 10th edn Revised by Keele, CA and Neil, B Oxford University Press, New York

Course Number EECM 321

Title Project Management

Credit Hours 2 (1+1)

General Objective This course facilitates the students to understand the different phases involved in project management: from the procedure of writing project proposal to review of the project.

Specific Objectives

Theory

By the end of the course, the student will be able to

- i. understand the meaning of project management , project proposal, concept note, project designing and project planning.
- ii. get acquaint with market survey, market and demand analysis, technical analysis, financial analysis and environmental impact analysis.

Practical

By the end of the course the students will be able to

- i. acquire the skills to write project proposal, prepare budget and cash flow statement, compute break –even point etc.,
- ii. computing networking techniques.

Theory lecture outline

1. Overview of project management: Background, meaning of the project, characteristics of project, meaning of project management and types of projects
2. Project management: Elements of management
3. Project proposal: Meaning, project designing: meaning and principles
4. Concept note: Meaning and steps in preparation
5. Project initiation: Generation of ideas, monitoring of environment, appraisal, screening of ideas and project rating index
6. Resource allocation framework: Introduction, key criteria, investment strategies, portfolio planning tools , strategic position and action evaluation (SPACE), interface between strategic planning and capital budgeting
7. Market and demand analysis: Market and demand analysis, situational analysis and specification of objectives, collection of secondary information and evaluation of secondary information
8. Steps in market and demand analysis: Market survey, steps in a sample survey of the market, demand forecasting, market planning
9. Environmental appraisal of projects: Concept, types and dimensions of a project, stress on environment, environmental resources / values
10. Environmental impact analysis: Meaning and scope , objectives, methodology for conducting a study, major issues, impact assessment methodologies
11. Technical analysis: Meaning, material inputs and utilities, manufacturing process / technology, product mix etc.,
12. Financial analysis: Cost of project, meaning of financing, estimates of sales and production working capital requirement and its financing
13. Financial analysis : Profitability projections, break – even point, projected cash flow statements, projected balance sheets
14. Budgeting: Meaning, process, types, budget control, cost-benefit analysis
15. Terminology of networks: net work preparation, uses of networks, terms used in networks
16. Project management techniques: PERT, CPM, ASBC and Gantt chart

Practical outline:

1. Visit to technology generation project
2. Presentation of report
3. Visit to international funded projects
4. Visit to department of women and child development funded projects
5. Collection and screening of case studies on project management
6. Report writing and presentation of collected case studies on project management
7. Market survey
8. Market and demand analysis of a project

9. Writing project proposal
10. Presentation of project proposals
11. Visit to funding agency
12. Financial analysis - Report writing and presentation
13. Working on Project management techniques: PERT and CPM
14. Working on Project management techniques: WBS, ASBC and Gantt chart
15. Presentation of reports on project management techniques
16. Final practical examination

References:

1. Jr. Samuel J. Mantel., Meredith jack r., Shafer Scott M., Sutton Margaret M. and Gopalan M.R. (2006). Project Management- core Text book. Wiley India (p) Ltd.
2. Adhikary M.M., Sarkar A., Acharya S.K. and Basu D. (2006). Participatory planning and Project management in Extension Sciences. Agrotech publishing academy.
3. Baars Wouter . (2006). Project Management Handbook.
4. D. Dipak and Basavaprabha. (2010). A Handbook of Extension Education. Agrobios (India).
5. Sethi Nishi., Kaushik Sushma., Rani Seema and Goyal Ramesh K. (2009). Extension and Communication Management. Agrotech publishing academy.
6. Newton paul. (2015). principles of project management-project skills.
7. Khanka, S.S. (1999). Entrepreneurial Development. S. Chand and company Ltd.

Course Number	EECM 322
Title	Diffusion and Adoption of Homestead Technologies
Credit Hours	2 (1+1)
General Objective	This course facilitates the students to understand the homestead innovations spread among the women in the society by getting the insights of diffusion and adoption process, innovation decision process, adopter categories their characteristics and factors influencing adoption.
Specific Objectives	<p>Theory</p> <p>By the end of the course, the students will be able to</p> <ol style="list-style-type: none"> i. understand the meaning and process of diffusion and adoption, different concepts related to diffusion and adoption process ii. The students will also gain knowledge on different homestead technologies

Practical

By the end of the course the students will be able to

- i. Gain insight on adoption of innovations in an area
- ii. Understand the home/farmstead technologies in the locality
- iii. Get orientation to avenues of categories of adopters among the SHG members

Theory lecture outline

1. Diffusion: Concepts of diffusion, innovation, innovativeness, reinvention,
2. communication channels and social system, elements of diffusion process
3. Diffusion: Process, social system: Optional, collective, authority, contingent
4. Innovation Diffusion Process: Concept, model of ID process, types of innovation - decision process
5. Adoption: Meaning, adoption process, five stage process, factors influencing adoption : Personal, situational, social
6. Consequences of adoption: Concepts and constraints in adoption of technologies
7. Innovation - diffusion process: Adoption, confirmation, rejection, dissonance
8. Innovation Decision Process: Rate of adoption, over adoption, innovativeness, discontinuance: replacement, disenchantment, forced discontinuance, over adoption
9. Attributes of an innovation and their influence in transfer of technology: Meaning of attributes, relative advantage, complexity, trialability, predictability, compatibility, observability
10. Adopter categories: Concept and types
11. Homestead technologies: Meaning, women and technologies, home technologies, farm technologies, characteristics of innovation with special reference to homestead technologies: Affirmative, comprehensive, drudgery free, strategies for transfer of Home Science technology and constraints in adoption
12. Process of homestead technology development: Technology research, generation, testing, adaptation, integration, channels of communication for homestead technology
13. Diffusion network: Homophily, heterophily, localite versus cosmopolite channels
14. Social change: Concept, theories, dimensions, change process, factors associated with the acceptance and resistance of change
15. Change agent: Sequence of change – agent roles, factors in change agent success, agencies of change: Concept, role in diffusing technologies
16. Opinion Leadership: Meaning, hypodermic needle model, the two step flow model, monomorphic leaders, polymorphic leaders, selection of opinion leaders, sociometric, informants ratings, self-designating technique, observations

Practical Outlines

1. Collection of homestead technologies
2. Collection of farmstead technologies
3. Adoption in locality- Observation of homestead/ farmstead technologies
4. Adoption in locality- Observation of non farmstead technologies
5. Diffusion of technologies for adoption in locality

6. Visit to different entrepreneurs adopted homestead technologies for business enterprise
7. Visit to different entrepreneurs adopted farmstead technologies for business enterprise
8. Visit to different successful SHGs utilizing homestead technologies
9. Visit to different successful SHGs utilizing farmstead technologies
10. Categories of adopters among SHG members with homestead technologies
11. Categories of adopters among SHG members utilizing homestead technologies
12. Analysis and presentation of report regarding categories of adopters among SHGs
13. Identification of change agents in a locality regarding homestead technologies
14. Identification of change agents in a locality regarding farmstead technologies
15. Analysis and presentation of report on the strategies to promote homestead/ farmstead technologies
16. Final Practical examination

References :

1. Rogers, M. (2010) Diffusion of innovations. Third Edition. Library of Congress Cataloging in Publication Data.
2. Gupta Debabrata das. (2008). Extension Education- Core contents and emerging Areas. Agrobios (India).
3. De Dipak and Basavaprabha. (2010). A Handbook of Extension Education. Agrobios (India).
4. Dubey, V.K. and Bishnoi Indira. Extension Education and communication. New Age Publications.
5. Supe, S.V. (2011). Integrated Extension Education. Agrotech publishing Academy.
6. Khan, P.M. and Somani, L.L. (2009). Fundamentals of Extension Education (Incorporating ICAR Recommended Syllabus). Agrotech publishing Academy.

Course Number FDNT 321

Title Clinical Nutrition and Dietetics

Credit Hours 3(2+1)

General Objective

- To impart knowledge on pathological changes associated with nutritional deficiencies, metabolic and motility disorders and apply nutritional management principles for prevention and treatment of diseases

Specific Objectives

Theory

By the end of the course the students will be able to

- i. Understand clinical changes in different nutritional deficiencies, metabolic and motility disorders
- ii. Understand the etiology, incidence, nature, clinical symptoms, diagnosis, and dietary management of kidney disorders
- iii. Acquire the knowledge of clinical changes in cancer and burns, and nutritional management
- iv. Interpret interaction between nutrients, infection and drugs

Practical

By the end of the course, the student will be able to

- i. Estimate blood, serum, urine samples for glucose, hemoglobin, lipid profile, kidney and liver functioning tests
- ii. Observe biochemical changes from the reports and compare with normal /safe/cut-off levels and evaluate the complexity of the disease or improvement

Theory lecture outline

- 1 Clinical Nutrition- Introduction, nutritional status and disease, common deficiency diseases
- 2 Pathogenesis of nutritional deficiency diseases - macronutrient and micronutrient
- 3 Protein calorie malnutrition
- 4 Vitamin A deficiency
- 5 Anemia, iodine deficiency disorders
- 6 Gastro intestinal tract diseases- Introduction, different organs and diseases, diagnostic procedure
- 7 Diseases of mouth and oesophagus
- 8 Diseases of stomach and duodenum
- 9 Diseases of small and large intestine - diverticulitis, malabsorptive syndrome and tropical sprue
- 10 Diarrhoea- Symptoms of diarrhea, causes, types
- 11 Constipation- symptoms, causes, types of constipation, dietary treatment
- 12 Diseases of liver-Jaundice
- 13 Hepatitis
- 14 Cirrhosis of liver
- 15 Pancreatitis
- 16 Chronic obstructive pulmonary disease
- 17 Diabetes mellitus
- 18 Cardio vascular disease: risk factors, lipo and apo proteins
- 19 Role of nutrients in preventing atherosclerosis
- 20 Major enzymes used for diagnosis of congestive heart failure
- 21 Hypertension
- 22 Renal disease - Functions of the kidney, nephritis
- 23 Urinary calculi
- 24 Types of renal failure
- 25 Dialysis
- 26 Cancer- Causes of cancer cell development
- 27 Impact of tumor on host metabolism, systematic effects of cancer
- 28 Dietary management in cancer
- 29 Burns Physical destruction of skin, metabolic aberrations
- 30 Alteration in nutritional requirement in burns
- 31 Interaction between nutrients, infection and drugs
- 32 Pre final examination

Practical outline

- 1 Estimation of albumin in urine
- 2 Estimation of glucose in urine
- 3 Estimation of ketone bodies in urine
- 4 Estimation of creatinine and creatine in urine
- 5 Determination of bile pigments in urine
- 6 Analysis of bile salts in urine
- 7 Analysis of blood glucose level
- 8 Estimation of total protein in blood
- 9 Estimation of albumin and globulin in blood
- 10 Estimation of serum hemoglobin
- 11 Estimation of blood urea
- 12 Estimation of total cholesterol
- 13 Analysis of HDL cholesterol
- 14 Analysis of LDL cholesterol
- 15 Estimation of serum triglycerides
- 16 Practical examination

References

1. Davidson SS and R Passmore R (1996) *Human Nutrition and Dietetics* Third edition (pp- 430-435) Baltimore The Williams and Wilkins Company
2. Weinsier and Butterworth (1981) *Hand book of clinical Nutrition* London Published by C V Mosby Company
3. Benjamin Torun and Francisco Chew (1994) *Modern Nutrition in Health and Disease* Edited by Shills M E, Olson J A and Moshe Shike (pp- 950-974) USA: Publishers Wilhams and Wilkins
4. ICCIDD/UNICEF/WHO (2001) Assessment of IDD and monitoring their elimination A guide for programme managers
5. Bamji, SM, Rao, PN, and Reddy, V (2003) *Textbook of Human Nutrition* Oxford and IBH Publishing Co Pvt Ltd
6. Bhavana, S (1999) *Nutrition and clinical care* New Delhi Commonwealth Publishers
7. Gibney MJ, Margetts BM, Kearney JM and Arab L (2004) *Public Health Nutrition* Publishers Blackwell Science
8. Jean-FZ (2005) *Clinical Nutrition* UK Blackwell Publishing Company
9. Jim M and Stewart TA (2007) *Essentials of Human Nutrition* 3rd edn New York, Oxford University Press
10. Miguel, AG and Eduard, C (2005) *Clinical Nutrition* UK, Blackwell Publishing Company
11. Weinsier and Butterworth (1981) *Hand Book of Clinical Nutrition* London, C V Mosby Company

Course Number **HDFS 321**

Title Educational Psychology and Early Childhood Education

Credit Hours 3(2+1)

General Objective

- To impart knowledge about Educational Psychology, learning theories, learning traits, relationship of motivation with learning and performance, techniques of discipline and punishment in learning, different tests used in classroom evaluation, importance of Early Childhood Education, philosophies of ECE, steps and types of ECE programme planning, curriculum planning and activities to promote all round development of children during ECH period and roles and responsibilities of an early childhood personnel

Specific Objectives**Theory**

By the end of the course the students will be able to get the knowledge about

- i. History of Educational Psychology and its importance, process of learning, different learning theories and learning traits, importance of motivation with learning and performance, techniques of discipline and punishment in learning and different tests used in classroom evaluation
- ii. Importance of Early Childhood Education, steps and types of ECE programme planning, curriculum planning and activities to promote all round development of children during ECH period, roles and responsibilities of an early childhood personnel

Practical

By end of the practical course the students

- i. Gain skills on analyzing effect of reinforcement, motivation, discipline on learning
- ii. Get knowledge on application of different theories of classroom teaching
- iii. Gain knowledge on administrating procedures of classroom evaluation tests
- iv. Get an opportunity to observe the programme in ECE center
- v. Gain knowledge as well as skills required for planning and implementing
- vi. programmes in early childhood education by using thematic approach
- vii. Get practical knowledge on planning and preparation of suitable teaching learning materials used for preschool children

Theory lecture outline

1. Educational psychology-Meaning, History, nature, aims of Educational Psychology, recent trends
2. Learning- definition, concept, process, types and factors
3. Learning traits- sensation, perception, imagination, attention: Definition, nature and importance
4. Learning traits - Memory - meaning, types, disorders, signs of good memory Remembering and forgetting - meaning and benefits of forgetting

5. Learning traits - Meaning of intelligence, definition, nature of intelligence, measurement of intelligence, factors affecting intelligence Reasoning-definition, kinds of reasoning
6. Learning traits - Thinking-definition, types and forms of thinking Temperament-meaning and attributes of temperament
7. Learning traits- problem solving, information processing learning environment-Problem solving- stages in problem solving, process in problem solving, human factors of problem solving Information processing learning environment-Information- processing model of memory
8. Theories of Learning: Association theories – Trial and Error theory of learning or connectionism- Thorndike, Stimulus – response theory by Watson
9. Theories of Learning: Association theories – Classical conditioning theory- Pavlov, Operant conditioning theory by B.F. Skinner
10. Theories of Learning - Cognitive theories – Gestalt theory of learning – characteristics and principles, Rober Gangne theory - Hierarchical learning
11. Motivation-definition, classification or types of motivation, modes of motivation-contingency contract, token economy Relationship of motivation with learning and performance-techniques of motivation in classroom learning
12. Discipline- Meaning, need, functions, types or techniques of discipline, factors influencing choice of disciplinary techniques
13. Learning theories of Jerome Bruner, Jean Piaget and Erik Erikson
14. Learning theories of Lev Vygotsky and Lawrence Kohlberg
15. Meaning and ways of evaluation of student's performance-Introduction, steps of evaluation, types of evaluation
16. Methods of evaluation – Class room / teacher made tests and standardized tests – Differences and tools of evaluation
17. Early childhood education- Concept, Need and importance, objectives, history of early childhood education in India
18. Early Childhood Care Centers - Need for ECE centers and basic requirements for an ECE center, types of ECE centers
19. Curriculum planning in ECE -Definition, types and steps of curriculum planning
20. Curriculum planning in ECE-Characteristics and factors related to curriculum planning
21. Bloom's taxonomy of Educational Objectives for curriculum planning-The cognitive domain, the affective domain, the psycho-motor domain
22. Curriculum goals in ECE-Aims and objectives of curriculum goals and activities to promote all round development of children during ECH period
23. Educational philosophies in ECE-Indian educators - MKGandhi, Tagore, Sri Aurobindo, Zakor Hussain, Jiddu Krishnamurthi, Tarabai Modak, Gijubhai Badeka
24. Educational philosophies in ECE-Western educators - Johann Amos comenius, Jean Jacques Rousseau, Henry Pestalozzi, Froebel, Maria Montessori, Susan Issacs
25. The play-way method for ECE- Origin, selection, types, principles and advantages and its application to progressive teaching methods
26. Play activities in ECE centers-Introduction, nature of play, purpose and functions, need and importance of development of skills during Early Childhood
27. Play activities in ECE centers – different types of play activities and their values
28. Records and Reports maintained in ECE center-Values, types of records, techniques of collection of information and cumulative record,

29. Parental participation in the ECE programme – need and importance and methods
30. Principles of teaching in ECE-General, Sociological and Psychological principles
31. Classroom management in ECE- Principles, techniques and tips for effective classroom management
32. Roles and responsibilities of an early childhood personnel - Characteristics and qualities of a preschool teacher

Practical outline

1. Study on the effect of reinforcement on learning
2. Study on effect of motivation on learning
3. Study on effect of discipline on learning
4. Planning the different methods of classroom teaching
5. Implementing different methods of classroom teaching
6. Administering the classroom evaluation tests – teacher made test
7. Administering the classroom evaluation tests – standardized test
8. Observation of Programme in ECE center
9. Preparation of curriculum plans in ECE
10. Developing activities to promote all round development-Gross and fine motor skill, cognitive skills
11. Developing activities to promote all round development- language skills, creativity and socio emotional skills
12. Conducting developed activities to promote all round development- Gross and fine motor skill, cognitive skills
13. Conducting developed activities to promote all round development- language skills, creativity and socio emotional skills
14. Planning and preparation of suitable teaching learning materials used for preschool children
15. Organizing programme for Parent participation
16. Final Practical Examination

References

1. Chauhan,SS (1983)Advanced Educational Psychology Vikas publishing house, PVT ltd
2. Dash BN(2008)A text book of Educational Psychology Dominant publishers and distributors, New Delhi
3. Gupta, MSen (2009) Early Childhood Care and EducationPHI learning private limited, NewDelhi
4. Mazur, JE (1986) Learning and behaviour Prentice Hall, New Delhi
5. Wortham,SC(2012)Assessment in Early Childhood EducationPearson

Course Number RMCS 321

Title Entrepreneurship Development and Business management

Credit Hours 2(1+1)

General Objective

- To help students to develop skills and attitudes for Entrepreneurship and Business management

Specific Objectives**Theory**

By the end of the course the students will be able to

- i. To create awareness on the aspects of goal setting, career formation, portfolios, financial management etc
- ii. To help in understanding the client and designer relationships, and setting up a design studio
- iii. To understand the ethics and professional conduct in business environment

Practical

By the end of the course the students will be able to

- i. To get information about the different firms, different designers and designing software
- ii. Application of skills of arranging portfolio effectively
- iii. Apply the various elements of art and principles of design and design process in developing plans
- iv. Making and displaying of different specifications of material and finishes mount boards

Theory lecture outline

1. Concept, need and importance of entrepreneurial development, Objectives of entrepreneurial activities, factors influencing entrepreneurship
2. Process of entrepreneurship development - Types of Enterprises and their characteristics
3. Types of entrepreneurs, functions and characteristics of entrepreneurs, entrepreneurial attributes
4. Environment scanning and opportunity identification - need for scanning – spotting of opportunity-scanning of environment
5. Infrastructure and support systems- Good policies, schemes for entrepreneurship development, role of financial institutions, and other agencies in entrepreneurship development
6. Steps involved in functioning of an enterprise - Selection of the product / services, Selection of form of ownership registration, Acquisition of manufacturing know how, Packaging and distribution, Advertising and marketing
7. Planning of an enterprise - Project identification, Selection and formulation of project proposal
8. Planning of an enterprise - Project report preparation
9. Planning of an enterprise - Enterprise Management
10. Production management – Product, levels of products, Product mix, Quality control, Cost of production, Production controls
11. Material management – Raw material costing, inventory control
12. Personnel management – manpower planning, labour turn over, wages / salaries
13. Financial management /accounting – funds, fixed capital and working capital, Types of accounting
14. Financial management /accounting – Costing and pricing, long term planning and short

- term planning, Taxation
15. Marketing management- market, types, marketing assistance, market strategies
 16. Crisis management- raw material, production, leadership, market, finance, natural etc

Practical outline

1. Practical exercises on entrepreneurship motivation training – micro lab
2. Practical exercises on Thematic Apperception Test (TAT), Entrepreneurship motivation training – Tower Building
3. Interface with successful entrepreneurs
4. Visits to Government agencies for appraisal on policies
5. Visit to Non-government institutions promoting entrepreneurship
6. Market survey for identification of products
7. Product Selection
8. Product cost estimation
9. Project formulation and Project report writing
10. Critical analysis of financial institutions – government and non-government
11. Preparation of Financial Statements and financial analysis of projects prepared
12. Learning product promotion techniques through market survey and literature
13. Developing brand name and label
14. Appraisal on packaging materials and techniques
15. Analysis of advertisements
16. Personal management – Team building

References

1. Khanka,SS(1996):Marketing of small industries products, Prabandh July-September
2. Gupta,CB and NP Srinivasan(1992):Entrepreneurship Development in India, Sultan andChand sons, New Delhi
3. Newmann, summer and warren (1976): The process of Management, print ice-Hall of India private Limited, New Delhi

ELECTIVE COURSES

Course Number	APTX 322
Title	Apparel Designing Techniques-Flat Pattern and Draping
Credit Hours	3(0+3)
General Objective	<ul style="list-style-type: none"> • To impart skill on flat pattern and draping
Specific Objectives	<p>Practical</p> <p>By the end of the course, the student will be able to</p> <ul style="list-style-type: none"> ✓ Learn the basics of garment styling standards ✓ Understanding the patterns for different garment styles ✓ Make patterns for different sizes and grading ✓ Learn the drape basic garment styles

- ✓ Learn to drape and stitch advanced styles as per client requirements
- ✓ Customize the patterns as per client requirements

Practical outline

1. Introduction to pattern making
2. Drafting of bodice block
3. Drafting of sleeve block
4. Variations in bodice block
5. Drafting of skirt block
6. Flat pattern techniques - creating designs through dart manipulation - slash and spread method
7. Moving waist line dart through slash and spread method
8. Moving centre front dart through slash and spread method
9. Flat pattern techniques - creating designs through dart manipulation - pivot method
10. Moving waist line dart through pivot method
11. Moving centre front dart through pivot method
12. Yokes - Development of patterns with fullness under the yoke and midriff yoke
13. Yokes - Development of patterns for back yokes and classic yoke styles
14. Sleeves – Types of sleeves
15. Sleeves - Development of patterns for set-in-sleeves
16. Sleeves – Types of sleeves with bodice
17. Sleeves - Development of patterns for sleeve with bodice
18. Collars - Development of patterns for flat and roll collar
19. Collars - Development of patterns for stand collar
20. Collars - Development of patterns for shawl collar
21. Skirts - Development of patterns for gored and flared skirt
22. Skirts - Development of patterns for pleated and circular skirts
23. Pockets - Development of patterns for applied pockets
24. Pockets - Development of patterns for inseam pockets
25. Pattern grading - Types, general rules
26. Introduction to draping and the equipment used
27. Dress form - features, and marking
28. Modeling basic bodice front and back - Preparation of muslin and draping steps
29. Marking and Trueing of front and back bodice
30. Finishing front and back bodice
31. Basic skirt pattern - front and back - Preparation of muslin and draping steps
32. Marking and Trueing the skirt
33. Draping Flared skirt
34. Basic sleeve-draping, shaping the cap, setting the sleeve and adjustments
35. Dart manipulation - Waistline dart
36. Dart manipulation - dart at centre front and armhole dart
37. Practicing and Finishing dart manipulation
38. Yokes - Preparation of muslin and draping – midriff/bodice yoke
39. Marking and trueing the yokes and finishing
40. Necklines - draping steps for different necklines

41. Halter neck - Preparation of muslin and draping steps
42. Stitching and finishing of various necklines
43. Cowls - basic cowls - preparation of muslin and draping steps
44. Cowls - trueing, stitching and finishing
45. Collars - Draping Peter pan and Mandarin collar
46. Trueing, stitching and finishing
47. Draping princess line garment
48. Display

References

1. Helen Joseph-Armstrong (2013) Draping for Apparel Design, Bloomsbury Academic
2. Connie Amaden Crawford (2012), The Art of Fashion Draping, Fairchild Publications
3. Jaffe, Hilde (2009), Draping for Fashion Design, Pearson Education
4. Helen, JA 2009 Pattern making for Fashion Design New Delhi Dorling Kindersley India Pvt Ltd
5. Ritu Jindal (1998) Handbook for Fashion Designing, Mittal, New Delhi
6. Nora M MacDonald (2002) Principles of Flat Pattern Design, Fairchild Publications

Course Number APTX 323

Title Principles of Textile Designing

Credit Hours 3(0+3)

General Objective To impart skill and knowledge on textile designing

Specific Objectives **Practical**

By the end of the course, the student will be able to

- ✓ Learn about types of motifs and their development
- ✓ Study the ethnic and traditional motifs
- ✓ Learn to create repeats and patterns
- ✓ Be able to render the above patterns in different colours
- ✓ Understand the geometry involved in basic textile designing
- ✓ Hands on experience on designing for various end uses
- ✓ Making a swatch book of various structural and decorative designs

Practical outline

1. Introduction to textile designing
2. Motif and its geometry
3. Motif as basic unit of design: components of motif and motif development
4. Practice on components of motifs
5. Types of Motifs
6. Developing natural motifs
7. Use of monochromatic, analogous and complementary colour scheme in developed

motifs

8. Arrangement of patterns with developed natural motifs
9. Developing geometrical motifs
10. Use of monochromatic, analogous and complementary colour scheme in developed motif
11. Arrangement of patterns with developed geometrical motifs
12. Developing stylized motifs
13. Use of monochromatic, analogous and complementary colour scheme in developed motif
14. Arrangement of patterns with developed stylized motif
15. Developing abstract motifs
16. Use of monochromatic, analogous and complementary colour scheme in developed motif
17. Arrangement of patterns with developed abstract motifs
18. Ethnic and Traditional motifs – identification and collection
19. Using ethnic and traditional motifs for creating designs
20. Application of suitable colour schemes in the developed designs
21. Symmetrical motifs and their arrangements – D1, D2, D3
22. Symmetrical motifs and their arrangements – D4, D5, D6
23. Practice on the above motifs
24. Asymmetrical motifs and their arrangements – C1, C2, C3
25. Asymmetrical motifs and their arrangements – C4, C5, C6
26. Practice on the above motifs
27. Pattern arrangement with motifs in different repeats
28. Geometry involved in basic textile designing- translation
29. Types of translations – horizontal, vertical
30. Types of translations –diagonal and uneven
31. Geometry involved in basic textile designing- rotation
32. Geometry involved in basic textile designing- reflection
33. Geometry involved in basic textile designing- glide reflection
34. Creating pattern with the above motifs – half drop, block
35. Creating pattern with the above motifs –brick, checkerboard
36. Creating pattern with the above motifs –ogee, turnover
37. Creating pattern with the above motifs –diamond, stripe
38. Creating pattern with the above motifs –diaper etc
39. Creating designs with the above motifs
40. Creating border designs - geometric
41. Creating border designs - stylised
42. Sketching and rendering of different types of border patterns
43. Creating design for end users – apparel
44. Creating design for end users – home textiles
45. Preparation of swatch book of fabric samples of different types of structural designs
46. Preparation of swatch book of fabric samples of different types of decorative designs
47. Field visit to printing unit
48. Field visit to textile design centre

References

1. Elsevier (2001) Handbook of Textile Design J Wilson
2. Parul Bhatnagar (2004)Traditional Indian Costumes and Textiles, Abhishek Publications

3. Amanda Briggs(2013) Printed Textile Design, Laurence King Publishing
4. Kim Knight (2011) A Field Guide to Fabric Design: Design, Print and Sell Your Own Fabric Traditional and Digital Techniques For Quilting, Home Dec and Apparel, CandT Publishing Inc

Course Number EECM 323

Title Web designing

Credit Hours 3(0+3)

General Objective • To acquire skills in designing web page through the application of softwares

Specific Objectives **Practical** By the end of the course the students will be able to

- i. get insight of using tools in Adobe Photoshop, dream weaver
- ii. learn the basics to advanced HTML, markup language, structural tags and attributes for web construction
- iii. Hands on experience with working on website for page wise, popup windows, cascading styles, navigational elements etc
- iv. Understand the designing for social media, web analytics, user interfaces' elements
- v. Design websites, mobile application screens, advertisements with animations

Practical outline

1. Familiarization with stock photography, image graphics, vector graphics and tools
2. Hands on experience with Adobe Photoshop: Palettes, colour modes, resolution options and file types
3. Hands on experience with Adobe Photoshop: Using tools with real time examples
4. Hands on experience with Adobe Photoshop: layers, blending, filters
5. Hands-on-experience with Adobe Photoshop for designing of website
6. Hands-on-experience with Adobe Photoshop for designing of website
7. Designing banners for web site
8. Designing web advertisements
9. Introduction of HTML 50
10. Working on basic structure of markup language
11. Hands on experience on markup language
12. Hands on experience on semantic markup language
13. Working on Head section
14. Working on structural tags and attributes for construction of web site
15. Construction of web site: Working on forms
16. Working on content/media tags for construction of web site
17. Construction of web site: Home page
18. Construction of web site: Other page
19. Construction of web site: Adding navigational elements and links

20. Construction of web site: Adding asides and side bars
21. Construction of web site: Applying styles
22. Creating popup windows
23. Hands on experience with cascading style sheets: Border images, shadows, gradients etc,
24. Hands on experience with cascading style sheets: Text-shadow, stroke etc,
25. Hands on experience with Adobe Dream weaver: Basics, Meta tags, Script tags, Links etc,
26. Hands on experience with Adobe Dream weaver: Inserting tables, images, videos etc,
27. Hands on experience with Adobe Dream weaver: Template design, Importing
28. Live website design project: Designing template
29. Live website design project: Adding menu system to project
30. Live website design project: Content development
31. Live website design project: Slide show and videos integration and gallery insertion
32. Live website design project: Insertion of web banners and advertisements e
33. Live website design project: Final project evaluation
34. Designing for Social media- Blog, Twitter, Face book
35. Familiarization and working on SEO
36. Familiarization with web analytics
37. Making use of web analytics
38. Making use of web analytics
39. Introduction of User Interface design
40. Hands on experience - User Interface elements and principles
41. Creating mockups
42. Creating buttons, menus and forms
43. Designing of icons and vector objects
44. Creating pages in HTML by using user interface design
45. Applying style sheets and navigational elements and link
46. Designing of mobile application screen
47. Designing of mobile application screen
48. Practical examination

Suggested readings

1. Abdullah (2011) Web technology Himalaya publishing house
2. Thakur Mukesh (2010) Multimedia and Applications First edition
3. Chisholm and May (2008) Universal Design for Web Applications: Web Applications That Reach Everyone, O'Reilly Media, 2008
4. Gray Shelly, Denise Woods, William Dorin (2008) HTML: Comprehensive Concepts and Techniques Published by Cengage Learning, 2008

Course Number EECM 324

Title Multimedia Production

Credit Hours 3(0+3)

General Objective

- To acquire the skills on application of Multimedia software for Media Production

Specific Objectives

Practical

- i. To prepare students to work as a journalist in today's newsrooms where the online and digital platforms are as important as traditional print or broadcast platforms
- ii. To train the students learn the latest trends in multimedia storytelling and production
- iii. Build storytelling skills in each medium used for multimedia production
- iv. Learn how to use digital tools to collect and combine audio, still photographs, video, text and graphics to accurately tell a story for online distribution
- v. Apply online publishing skills to disseminate work

Practical outline:

1. Adobe Indesign: Introducing the different tool bars, document layout options
2. Hands on experience with Adobe Indesign: Tools Panel, Default Panels, Dragging and customizing Panels
3. Basic document design with Adobe Indesign: Text positioning in a frame
4. Hands on experience with Adobe Indesign: Object positioning and modifying and transforming objects
5. Creation of multipage document with Adobe Indesign: Master pages, insert, delete and move pages
6. Working with text : Text flow, text formatting and text styles
7. Working with images and graphics in Adobe Indesign
8. Working with images and graphics in Adobe Indesign
9. Working with custom colours and transparency in Adobe Indesign
10. Working on wrapping text around graphics in Adobe Indesign
11. Designing of posters in print and electronic form with Adobe Indesign
12. Designing of brochure in print and electronic form with Adobe Indesign
13. Designing of flyer in print and electronic form with Adobe Indesign
14. Designing of hoarding in print form with Adobe Indesign
15. Designing of banner in print and electronic form with Adobe Indesign
16. Designing of visiting card and wedding card with Adobe Indesign
17. Familiarization with still camera and photographic equipment - Parts and functions
18. Hands on experience with different types of shots
19. Shooting of pictures with different shutter speed and adjustments
20. Shooting under different lighting conditions
21. Shooting with different lenses - normal, wide angle and tele lenses
22. Photo editing with Adobe Photoshop
23. Photo editing with Adobe Photoshop
24. Photo editing with Adobe Photoshop
25. Familiarization with different types of video cameras and parts of camera
26. Practical exercise on focusing, zooming and shooting
27. Practical exercise on focusing, zooming and shooting
28. Practical exercise on using different kinds of filters

29. Practical exercise on different types of video scripts - Story board writing
30. Practical exercise on different types of video scripts - Camera script
31. Script writing for video advertisements/e learning programmes on Social / Health / Nutrition initiatives
32. Script writing for video advertisements/e learning programmes on Social / Health / Nutrition initiatives
33. Production of advertisements on Social/ Health / Nutrition initiatives
34. Hands on experience -Video editing with video pad
35. Hands on experience -Video editing with video pad
36. Hands on experience -Video editing with video pad
37. Hands on experience -Video editing with movie maker
38. Hands on experience -Video editing with movie maker
39. Familiarization with audio recording and editing equipment
40. Script writing for audio recording
41. Hands on experience - audio editing with audacity
42. Hands on experience - audio editing with audacity
43. Hands on experience - audio editing with audacity
44. Planning for multimedia based ICT module on health/nutrition/social issues
45. Designing multimedia based ICT module on health/nutrition/social issues
46. Developing multimedia based ICT module on health/nutrition/social issues
47. Promotion of multimedia based ICT module or advertisement on health/nutrition/social issues in social media like Twitter/Face book/Blog
48. Practical examination

References:

1. Guha Biswajeet (2012) Multimedia, communication and journalism Kanishka Publishers
2. Thakur Mukesh (2010) Multimedia and Applications First edition PHL Learning Pvt Ltd
3. Mollison Martha (2007) Producing videos- A complete Guide Second edition

Course Number FDNT 322

Title Nutraceuticals and Health foods

Credit Hours 3(0+3)

General Objective

- Students will learn the fundamental aspects of the nutraceutical compounds present in foods and their identification and development of health foods for various health and nutritional requirements

Specific Objectives

Practical

By the end of the course, the student will be able to

- i. To impart knowledge on the available health foods in the market
- ii. To make them learn the extraction methods of phyto- chemicals
- iii. To make them learn the methods of identification and estimation of

selected phytochemicals

- iv. To impart skills on the development standardization and evaluation of health foods using functional ingredients for various therapeutic purposes
- v. To make them understand and give practical experience on the importance of nutritional labelling consumer evaluation

Practical outline

1. Market survey of existing health foods in small shops
2. Market survey of existing health foods in super markets
3. Preparation of plant Extracts using Soxhlet apparatus for nutraceutical estimation
4. Identification of steroids
5. Identification of glycosides
6. Identification of terpenoids
7. Identification of saponins
8. Estimation of alkaloids
9. Identification of tannins
10. Identification and estimation of total phenolics
11. Identification and Estimation of anthocyanins
12. Identification and estimation of total flavonoids
13. Identification and estimation of lycopene
14. Identification and estimation of prebiotics in market foods
15. Identification and estimation of probiotics in fortified yogurts
16. Extraction of phytosterols from plant foods
17. Formulation of functional foods containing high dietary fibre
18. Standardization of functional foods containing high dietary fibre
19. Formulation of functional foods high protein
20. Standardization functional foods high protein
21. Evaluation of functional foods high protein
22. Formulation of functional foods with anthocyanins
23. Standardization of functional foods with anthocyanins
24. Evaluation of functional foods with anthocyanins
25. Formulation of health foods with low sodium content
26. Standardization of health foods with low sodium content
27. Evaluation of health foods with low sodium content
28. Formulation of health foods with low fat
29. Standardization of health foods with low fat
30. Evaluation of health foods with low fat
31. Formulation of foods for celiac persons
32. Standardization of foods for celiac persons
33. Evaluation of foods for celiac persons
34. Standardization of Lactose free foods
35. Formulation Lactose free foods
36. Evaluation of Lactose free foods
37. Formulation of foods for high endurance
38. Standardization of foods for high endurance

39. Evaluation of foods for high endurance
40. Development of ready to eat foods for preschool children
41. Standardization of ready to eat foods for preschool children
42. Evaluation of ready to eat foods for preschool children
43. Development of ready to use therapeutic foods for adolescent girls
44. Standardization of ready to use therapeutic foods for adolescent girls
45. Evaluation of ready to use therapeutic foods for adolescent girls
46. Nutritional Labelling of health foods
47. Pricing of health foods for different packaging
48. Consumer evaluation of health foods

References

1. Brigelius-Flohé, J and Joost HG. 2006. *Nutritional Genomics: Impact on Health and Disease*. Wiley VCH.
2. Cupp J and Tracy TS. 2003. *Dietary Supplements: Toxicology and Clinical Pharmacology*. Humana Press.
3. Gibson GR and William CM. 2000. *Functional Foods - Concept to Product*.
4. Goldberg I. 1994. *Functional Foods: Designer Foods, Pharma Foods*.
5. Losso JN. 2007. *Anti-angiogenic Functional and Medicinal Foods*. CRC Press.
6. Manson P. 2001. *Dietary Supplements*. 2nd Ed. Pharmaceutical Press.
7. Campbell JE and Summers JL. 2004. *Dietary Supplement Labeling Compliance*.
8. Neeser JR and German BJ. 2004. *Bioprocesses and Biotechnology for Nutraceuticals*. Chapman and Hall.
9. Robert EC. 2006. *Handbook of Nutraceuticals and Functional Foods*. 2nd Ed. Wildman.
10. Shi J. (Ed.). 2006. *Functional Food Ingredients and Nutraceuticals: Processing Technologies*. CRC Press.
11. Webb GP. 2006. *Dietary Supplements and Functional Foods*. Blackwell Publ.

Course Number FDNT 323

Title Diet and Nutrition Counseling

Credit Hours 3(0+3)

General Objective • To develop skills in understanding health conditions of an individuals and provide appropriate dietary counseling

Specific Objectives **Practical**
 By the end of the course, the student will be able to

- i. To impart skills in assessment of nutritional status of normal and diseased people
- ii. To provide practical skills in dietary counseling of various health conditions
- iii. To inculcate entrepreneurial orientation for establishment of diet counseling centre

Practical outline

1. Introduction to diet counseling process
2. Assessment of nutritional needs of hospitalized patients before or after surgeries – role play
3. Establishing rapport with patients suffering from chronic metabolic disorders – role play
4. Establishing rapport with women patients in different physiological status – role play
5. Planning of material for counseling
6. Development of material for diet counseling for malnutrition
7. Development of material for diet counseling for cardiovascular diseases– booklets
8. Development of material for counseling for hypertension disease – charts
9. Development of material for counseling for liver disease - posters
10. Development of material for counseling for kidney disease – handouts
11. Development of material for counseling for diabetes – booklets
12. Development of material for diet counseling – models
13. Practical exercise on patient counseling in diet counseling center/ diet clinic
14. Practical exercise on patient counseling in diet counseling center/ diet clinic
15. Practical exercise on patient counseling in community - urban
16. Practical exercise on patient counseling in community – rural
17. Planning case studies
18. Selection of patients and collection of data - clinical, nutritional and biochemical profile
19. Counseling the patients and recommendations therapeutic modification of diets for diabetes
20. Counseling the patients and recommendations for therapeutic modification of diets for cardiovascular disease
21. Counseling the patients and recommendations for therapeutic modification of diets for liver disease
22. Counseling the patients and recommendations for therapeutic modification of diets for gastro intestinal disorders
23. Counseling the patients and recommendations for therapeutic modification of diets for kidney diseases
24. Counseling the patients and recommendations for therapeutic modification of diets for obesity
25. Planning pre requisites for setting up a diet counseling center
26. Planning a floor plan for an ideal diet counseling center
27. Presentation of floor plans and evaluation
28. Planning for organization of counseling camps for obesity
29. Organization of counseling camp for obesity
30. Report presentation on feed back and review of camp
31. Planning for organization of counseling camps for diabetes
32. Organization of counseling camp for diabetes
33. Report presentation on feed back and review of camp
34. Planning for organization of counseling camps for cardiac problems
35. Organization of counseling camp for cardiac patients
36. Report presentation on feed back and review of camp
37. Planning for organization of counseling camps for pre and post natal care

38. Organization of counseling camp for pre and post natal care
39. Report presentation on feed back and review of camp
40. Planning for organization of counseling camps for elderly
41. Organization of counseling camp for elderly
42. Follow up of case study of cardiovascular disease subjects
43. Follow up of case study of liver disease subjects
44. Follow up of case study of diabetes subjects
45. Presentation of results of case studies
46. Display of audio visual exhibits for educating general public
47. Assessment of nutritional needs of patients – role play
48. Practical Examination

References

1. Virginia Aronson, 1986, The dietetic technician-effective nutrition counselling.
2. Maurice, E.S, James A.O. and Mohe S. (1994) – Modern Nutrition in Health and Disease, A Waverly Company, p-p 402-422
3. Robert E.C. Wildman, Denis M. Medeiros – Advanced Human Nutrition, 2000, CRC Press, Boca Raton p-p 206-211.
4. Davidson S.S and R. Passmore R. (1996). *Human Nutrition and Dietetics*. Third edition. (pp- 430-435). Baltimore. The Williams and Wilkins Company.
5. Weinsier and Butterworth. (1981). *Hand book of clinical Nutrition*. London Published by C V Mosby Company.
6. Benjamin Torun and Francisco Chew. (1994). *Modern Nutrition in Health and Disease*. Edited by Shills M E, Olson J A and Moshe Shike. (pp- 950-974). USA: Publishers Wilhams and Wilkins

Course Number	HDFS 322
Title	Developmental Assessment of young children
Credit Hours	3(0+3)
General Objective	<ul style="list-style-type: none"> • To impart knowledge and skill about various techniques used for developmental assessment for young children
Specific Objectives	<p>Practical</p> <ol style="list-style-type: none"> 1. By the end of the course, the student will be able to 2. Gain practical knowledge and skill on developmental screening of young children 3. Develop the skill in developmental assessment of various age group children 4. Assess the status of school readiness of pre-primary children 5. Gain insight on appropriate tools for assessment of different areas of development 6. Identify developmental delays in children and plan suitable intervention programmes 7. Plan and implement stimulation programmes for optimal development of young children

Practical outline

1. Orientation on screening and developmental assessment of young children – purpose and steps
2. Exploring on different areas, approaches and tools in developmental screening of young children
3. Orientation on formal measures in assessing young children
4. Orientation on informal measures in assessing young children
5. Orientation on special considerations in assessing young children – trends and challenges in early childhood assessment
6. Creating awareness on ethical issues in assessing young children – guidelines for assessment
7. Conducting tests for Neonatal assessment – APGAR
8. Conducting tests for Neonatal assessment – Gestation method
9. Assessment of Neonatal behavior – NABS/ BSID
10. Screening of Infant and Toddler - DST
11. Assessing physical development of Infant and Toddler - Anthropometry
12. Assessment of mental development of Infant and Toddler - BSID
13. Assessment of motor development of Infant and Toddler - BSID
14. Assessment of social development of Infant and Toddler - VSMS
15. Developmental Screening of preschool child - DST
16. Assessment of preschool child – Seguin form board
17. Assessment of cognitive development of pre-primary school child- WIPPSC
18. Assessment of cognitive development of pre-primary school child – Draw – A – Man test
19. Assessment of personality development of pre- primary school child- MAP series
20. Assessment of language development of a pre- primary school child- PPVT
21. Assessment of visual perceptual skills of a pre-primary school child- RCPM
22. Assessment of visual motor skills of a pre primary school child- Bender Gestalt
23. Assessment of perceptual skills of a preschool child - CAT
24. Ecological Assessment of Infant / Toddler – MHEI Home Inventory
25. Ecological Assessment of Preschool child – Preschool environment assessment scale
26. Informal measures in assessing young children- Time sampling
27. Informal measures in assessing young children - Event sampling
28. Informal measures in assessing young children - Sociogram
29. Informal measures in assessing young children – Case study
30. Informal measures in assessing young children- Anecdotal record
31. Assessment of readiness skills of pre-primary school children- Auditory perception and visual perception skills
32. Assessment of readiness skills of pre-primary school children- Reading skills
33. Assessment of readiness skills of pre-primary school children- Writing skills
34. Assessment of readiness skills of pre-primary school children- Arithmetic and discriminatory skills
35. Planning education programmes for parents on the developmental status of their children
36. Conducting education programmes for parents on the developmental status of their

children

37. Planning stimulation activities to promote overall development of children in the age group of 6-12 months
38. Planning stimulation activities to promote overall development of children in the age group of 12-18 months
39. Planning stimulation activities to promote overall development of children in the age group of 18-24 months
40. Preparation of material for stimulation activities
41. Implementation of stimulation activities planned for any one age group
42. Identifying the intervention needs of developmentally delayed children
43. Planning of intervention programmes for developmentally delayed children- Motor, physical and language, cognitive, socio-emotional, self help skills
44. Preparation of material for Intervention programmes
45. Implementation of intervention programmes for developmentally delayed children- Motor, physical and language development
46. Implementation of intervention programmes for developmentally delayed children- cognitive, socio-emotional, self help skills
47. Presentation of Individual reports
48. Final Practical Examination

References

1. Anastasia(1997): Psychological testing 7thedi Pearson publishers
2. Losardo A (2011): Alternative approaches to assessing young children 2ndediBrooker publishing
3. MindsL (2014): Assessing young children 5thedi Pearson publication

Course Number HDFS 323

Title Methods and Materials for teaching young Children

Credit Hours 3(0+3)

General Objective

- To impart knowledge and skill about various methods and materials for teaching young children

Specific Objectives **Practical**

By the end of the course, the student will be able to

- i. Develop practical knowledge and skill on preparation and usage of different teaching learning material for young children
- ii. Develop awareness regarding literature available for young children
- iii. Analyze and practice different techniques for effective teaching
- iv. Gain insight on different ways to foster the creativity among young children
- v. Learn to plan and implement programmes for optimal

- development of young children
- vi. Develop the skill of organizing exhibitions related to teaching learning material

Practical outline

1. Orientation on different methods and materials used for teaching Young children
2. Orientation on importance of children's literature for Young children
3. Survey on different kinds of literature appropriate for Young children
4. Visit to children's libraries for development of literature
5. Study on different kinds of literature appropriate for Young children
6. Study on different techniques of story telling
7. Identifying the different techniques of story telling
8. Practicing techniques of effective story telling
9. Analyzing effectiveness of different techniques of story telling
10. Developing stories appropriate for Young children - A Folk tale / Fables/ Fairy tales
11. Implementation of developed stories for Young children
12. Study on different methods to foster creativity
13. Preparation of Art file appropriate for Young children - Painting, Drawing
14. Preparation of Art file appropriate for Young children - Paper craft
15. Preparation of Art file appropriate for Young children - Paper pasting
16. Preparation of Art file appropriate for Young children - Collage: Fill up the outline, Make figure, Wall pictures, Pattern
17. Preparation of Art file appropriate for Young children - Collage: Design- Rangoli
18. Preparation of Models for Young children
19. Preparation of Flash cards for teaching Young children
20. Preparation of Rolograms for teaching Young children
21. Preparation of Flannel graphs for teaching Young children
22. Preparation of Posters for teaching Young children
23. Preparation of Charts for teaching Young children
24. Identification of different types of creative expressions in young children-developing rhymes with music and rhythm movements appropriate for Young children
25. Administration of developed rhymes with music and rhythm movements appropriate for Young children
26. Preparation of simple musical instruments with indigenous material
27. Preparation of Finger puppets
28. Preparation of Stick puppets
29. Preparation of String puppets
30. Preparation of Glove puppets, Shadow puppets etc
31. Planning activities for young children to promote physical and motor development
32. Planning activities for young children to promote cognitive and language development
33. Planning activities for young children to promote socio- emotional development
34. Implementation of activities planned for physical and motor development
35. Implementation of activities planned for cognitive and language development
36. Implementation of activities planned for socio- emotional development
37. Planning different activities for creative expressions

38. Implementing activities developed for creative expressions
39. Identifying different types of creative dramas – Role play/ Dramatic play/ Short puppet show
40. Developing a script for creative dramas
41. Rehearsal for creative dramas
42. Conducting the creative dramas
43. Evaluating creative dramas
44. Preparation of resource file
45. Preparation for Exhibition
46. Organizing an Exhibition
47. Evaluation of materials developed
48. Final Practical Examination

References

1. Contractor, M (1984) Creative drama and puppetry in education National Book Trust of India, Delhi
2. Hendrick, J (1980) Total Learning for the Whole Child The C V Mosby, St Louis
3. Murlidharan, R and Asthana, S (1991) Stimulation activities for young children NCERT, New Delhi
4. Swaminathan, M (1984) Play activities for young children, UNICEF, New Delhi
5. Robinson, H (1983) Exploring teaching Allyn and Bacon, London

Course Number RMCS 322

Title Event Management

Credit Hours 3(0+3)

General Objective • To provide exposure and knowledge on planning , organizing and evaluating and SWOT analysis of various types of events

Specific Objectives **Practical**
By the end of the course, the student will be able to

- i. Understand the basics and requirements of planning of different types of events
- ii. Understand logistics of planning and organizing events
- iii. Have practical experience in planning and organizing events

Practical outline

1. Exposure to different events like College events Television Related Events Award Ceremonies Fashion Shows, Celebrity Events, Concerts and Launches National Festivals Special Themed Events Internet Event Launches
2. Project report on visit to different types of organizational settings like hotel, guesthouse, hostel, small offices, clubs, fast food centres for management and organization of events
3. Presentations on exposed events
4. Planning and execution of a **College Event**

5. Preparation of Time plan , Gantt chart and break down analysis
6. Surveying and marketing skill for the particular event -Media coverage
7. Preparation of publicity material
8. Identification of sponsors
9. Planning of infra structure, Venue, finance, General amenities and transport facilities
10. Planning of food, refreshment, properties and decoration
11. Planning of Fire fighting requirement, First aid, electrical safety
12. Legal formalities and Permission from competent authority
13. Cost estimation for the event
14. Distribution of work and responsibilities - Maintenance of Duty Rosters
15. Using Microteaching, video recording and Role play on dealing with customers
16. Exposure to Record Keeping Mechanisms
17. Conducting an event – Collection of money from event sponsors and or Hosts
18. Conducting an event – Assembling required staff and assigning duties
19. Conducting an event – Assembling / procuring raw materials required
20. Conducting an event – initializing and completing the background decorations and other arrangements
21. Conducting an event
22. SWOT analysis of event
23. Feedback and evaluation of an event
24. Planning and execution of a **National Festival / Social Event**
25. Preparation of Time plan , Gantt chart and break down analysis
26. Surveying and marketing skill for the particular event -Media coverage
27. Preparation of publicity material
28. Identification of sponsors
29. Planning of infra structure, Venue, finance, General amenities and transport facilities
30. Planning of food, refreshment, properties and decoration
31. Planning of Fire fighting requirement, First aid, electrical safety
32. Legal formalities and Permission from competent authority
33. Cost estimation for the event
34. Distribution of work and responsibilities - Maintenance of Duty Rosters
35. Using Microteaching, video recording and Role play on dealing with customers
36. Exposure to Record Keeping Mechanisms
37. Conducting an event – Collection of money from event sponsors and or Hosts
38. Conducting an event – Assembling required staff and assigning duties
39. Conducting an event – Assembling / procuring raw materials required
40. Conducting an event – initializing and completing the background decorations and other arrangements
41. Conducting an event
42. SWOT analysis of event
43. Feedback and evaluation of an event
44. Portfolio preparation College Event
45. Portfolio preparation Social Event
46. Portfolio preparation National Event
47. Portfolio preparation New Event
48. Portfolio preparation presentation and projection for work

References

1. Aditya, Suvarna (2003) Event Management Development Institute IES Management College 4th Floor, 791, SKMarg, Opp Lilavati Hospital, Bandra (W), Mumbai - 400 050
2. Kit, Potions, HP Bhuson (1998) Festival and Special Event Management IBM Cooperation, 60 Renfrew Drive, Suite 105, Markham, Ontario, Canada L3R0E1
3. National Institute of Event Management Ground Floor, Nandavan Building, Corner of Vallabhbai Road and Ansari Road, Vile Parle (W), Mumbai
4. Sulekha, Narayna (2001) International Institute of Event Management SNTD Women's University, Juhu Campus, Juhu Tara Road, Santacruz (W), Mumbai - 400 049

Course Number RMCS 323
Title Interior Designing and Decorations

Credit Hours 3(0+3)

General Objective

- To provide knowledge on the basics of interior design and decoration and their application in interior decoration and design

Practical outline

1. Understanding illustrations line strokes in drawing
2. Understanding illustrations line tones in drawing
3. Understanding illustrations through free hand drawing – Interior objects
4. Understanding illustrations through free hand drawing - Exterior objects
5. Understanding illustrations through sketching
6. Understanding illustrations through rendering
7. Practicing on different lettering construction and styles
8. Application of elements of interior design and Decoration in interior decorations through illustrations / pictures
9. Application of principles of interior design and Decoration in interior decorations through illustrations / pictures
10. Application of elements of design through illustrations / pictures - in exteriors
11. Application of elements of design through illustrations / pictures - in interiors
12. Application of elements of design in in exteriors through illustrations / pictures - decoration / products
13. Application of principles of design through illustrations / pictures - in exteriors
14. Application of principles of design through illustrations / pictures - in interiors
15. Application of principles of design through illustrations / pictures - in decoration / products
16. Application of principles of lighting through illustrations / pictures - in exteriors
17. Application of principles of lighting through illustrations / pictures - in interior
18. Application of principles of lighting through illustrations / pictures - in exteriors
19. Preparation of utility articles by using various painting techniques
20. Preparation of decorative articles by using various printing techniques

21. Use of different types of floor decorations in interiors – South Indian
22. Use of different types of floor decorations in interiors – North Indian
23. Developing designs for personalized stationery – Personal
24. Developing designs for personalized stationery – Official
25. Developing designs for book covers – Children
26. Developing designs for book covers - General
27. Developing designs for magazine covers
28. Developing designs for Journal covers
29. Design and Development of Decorative Accessories with various materials and techniques
30. Design and Development of Decorative Accessories using Pottery
31. Design and Development of Decorative Accessories using Collages
32. Design and Development of Decorative Accessories using Handicrafts
33. Design and Development of Decorative Accessories using paper mache
34. Design and Development of Decorative Accessories using paper sculpture
35. Design and Development of Decorative Accessories using glass painting
36. Design and Development of functional Accessories using Pottery
37. Design and Development of functional Accessories using Handicrafts
38. Design and Development of functional Accessories using paper mache
39. Design and Development of functional Accessories using glass painting
40. Design and Development of functional Accessories using Collage
41. Designing posters for various celebrations
42. Designing posters for various occasions
43. Designing greeting cards for different festivals
44. Designing greeting cards for different occasions
45. Developing furnishing designs using fabric painting – Dining, Living rooms
46. Developing furnishing designs using fabric painting - Bedrooms
47. Practice on gift wrapping for various occasions
48. Practice on gift wrapping for various celebrations

References

1. Dorothei, S et al (1980) Introduction to Interior Design New York: Mc Millan
2. Faulkner and Faulkner (1975) Inside Today's Home New York: Holt, Rinehart and Winston
3. Gewther, M (1970) The Home, its Furnishings and Equipment USA Mc Graw Hill
4. Mike, L (1986) The Complete Interior Decoration United Kingdom: Mc Donald
5. Ruth, M (1975) The Home and its Furnishings, USA: Mc Graw Hill
6. Seetharaman P Sethi M (2002) Interior Design and Decoration CBS Publishers and Distributors N D