

UNIVERSITY OF MUMBAI

CIRCULAR

No.UG/146 of 2009.
Mumbai-400 032,
8th May, 2009.

The Principal,
College of Home Science,
Nirmala Niketan,
49, New Marine Lines,
Mumbai-400 020.

Madam,

I am to invite your attention to the Ordinances, Regulations and syllabi relating to the B.Sc. (Home Science) degree course vide Pamphlet No.145 and to this office Circular No.UG/104 of 2002,dated 25th February, 2002 and to inform you that the recommendation made by the Ad-hoc Board of Studies in Home Science at its meeting held on 18th November, 2008 has been accepted by the Academic Council at its meeting held on 18th November, 2008 has been accepted by the Academic Council at its meeting held on 13th February, 2009 vide item No.4.20 and that, in accordance therewith, the syllabus for the F.Y.B.Sc., S.Y.B.Sc. and T.Y.B.Sc.(Home Science) degree course is revised as per Appendix and that the same has been brought into force with effect from the academic year 2009-2010 and progressively thereafter.

Yours faithfully,


(D. H. Kate)

Deputy Registrar,
(UG/PG Section)

MUMBAI – 400 032
8th May, 2009

A.C./4.20/13.02.2009

No.UG/146 -A of 2009,

MUMBAI-400 032

8th May, 2009

Copy forwarded with compliments for information to :-

- 1) The Dean, Faculty of Science.
- 2) The Chairperson, Ad-hoc Board of Studies in Home Science,
- 3) The Controller of Examinations,



University of Mumbai



Revised Syllabus for the F. Y. B.Sc., S. Y. B.Sc. & T. Y. B.Sc.

In
Home Science

No. 268

(with effect from the academic year 2009 – 2010)

F.Y.B.Sc (HOME SCIENCE)
(Revised Syllabus w.e.f. Academic Year 2009-2010)

Subject	Theory/ Practical	Internal marks	University exam marks	Total marks	Periods Per week	Uni- versity Exam hours	Internal/ External	Dept
Basic Nutrition	Theory	10	40	50	2	2	Both	FND
Food Science	Theory	15	60	75	3	2 ½	Both	FND
Food Science	Practical	50	--	50	3		Internal	FND
Child Development	Theory	25	75	100	3	3	Both	HD
Adolescent Development	Theory	15	60	75	3	2 ½	Both	HD
Textile & Fashion Technology : Fibre to Fabric	Theory	15	60	75	3	2 ½	Both	TFT
Psychology of Clothing	Theory	10	40	50	2	2	Both	TFT
Children's Clothing	Practical	10	40	50	3		Internal	TFT
Principles of Design	Theory	25	75	100	3	3	Both	CRM
Principles of Design	Practical	25	--	25	2		Internal	CRM
Consumer Education	Theory	10	40	50	2	2	Both	CRM
Foundation course	Theory	15	60	75	3	--	Internal	CRM
Computer application (Value added)	Practical	--	--	25	--	--	Internal	--
TOTAL				800				

F.Y. B.Sc. (HOME SCIENCE)
BASIC NUTRITION
(THEORY)

Marks: 50

Objectives:-

1. To enable students to understand the relation of nutrition to health.
2. To enable students to understand functions, sources, requirements and effects of deficiency of macro and micronutrients.
3. To enable students to understand digestion, absorption and metabolism of macronutrients.

Course Content:-

NOL

Unit I

A Introduction: Concept of nutrition, Relation of Nutrition to Health. Food as a source of nutrient. **Definition of terms:** Nutrition, Health, Nutrients-Macronutrient, Micronutrient, nutritional status, malnutrition, overnutrition, undernutrition, imbalance, specific deficiency and recommended dietary allowances.(RDA) (2)

B. Energy:- Definition and units of energy, physiological energy value, heat of combustion, energy requirements, factors affecting energy requirements –Basal Metabolic Rate, Physical activity and Thermic effect of food. (6)

Unit II

Carbohydrates: Definition, classification, food sources and functions in body.

Dietary fiber:- Importance and sources. Digestion and absorption.. **Metabolism in brief:-** Direct utilization, conversion into glycogen, conversion into fat. (5)

Unit III

Lipids:- Definition and classification. Food sources, requirements and functions of lipids.

Classification of fatty acids. Meaning and significance of PUFA, MUFA and SFA, cholesterol in brief. Digestion and absorption of lipids. Metabolism of Lipids in brief:-Beta oxidation and ketone body formation. (5)

Unit IV

Proteins:- Definition, Nutritional classification of proteins & amino acids :-Essential and Non essential, Glycogenic and ketogenic, . Structure and properties of protein in brief. Protein quality. Requirements..Digestion and absorption. Outline metabolism of protein in brief:-Urea cycle, Transamination and Deamination. (6)

Enzymes:- Definition, classification, factors affecting enzyme activity & mechanism of enzyme action. (2)

Unit V

Vitamins and Minerals

A. Vitamins:- Sources, functions, requirements, deficiencies and effects of overdose in brief of the following :-

a) Fat soluble vitamins:-A, D, E, K –

b) Water soluble vitamins:-Ascorbic acids, Thiamin, Riboflavin, Niacin, Pyridoxin , Folic acid & B12 (7)

B. Minerals:- Sources, functions, factors affecting absorption, requirements, deficiencies and effects of overdose of:- (7)

Macrominerals:-Calcium, Phosphorus, Magnesium, sodium and Potassium. (5)

Microminerals:-Iron, Iodine and Zinc. (5)

References:

Srilakshmi, B (2003) Nutrition Science New Age International Ltd.

Gopalan, c et al (2004) Nutritive value of Indian Foods NIN, ICMR, Hyderabad

ICMR (1998) Nutrient requirements and Recommended Dietary Allowances for Indians-A report of the expert group of the ICMR, NIN, Hyderabad.

Swaminathan, M. (1998) Essentials of Food and Nutrition. 2nd edition, volume I&II Bangalore Printing & Publishing, Bangalore

Ramarao A.V.S.S. (1998) A textbook of Medical Biochemistry, New Delhi: UBS

Guthrie, H. (1986) Introductory Nutrition, 6th edition Times Mirror/Mosby college Publication.

Bamji, M. Praihad Rao, N. and Reddy, V. (Ed) (1996) Textbook of Human Nutrition. Oxford and TBH Publishing Co, Pvt, Ltd.

Unit V

Vitamins and Minerals

A. Vitamins:- Sources, functions, requirements, deficiencies and effects of overdose in brief of the following :-

a) Fat soluble vitamins:-A, D, E, K –

b) Water soluble vitamins:-Ascorbic acids, Thiamin, Riboflavin, Niacin, Pyridoxin, Folic acid & B12

B. Minerals:- Sources, functions, factors affecting absorption, requirements, deficiencies and effects of overdose of:-

Macrominerals:-Calcium, Phosphorus, Magnesium, sodium and Potassium.

Microminerals:-Iron, Iodine and Zinc.

References:

Shrilakshmi, B (2003) Nutrition Science New Age International Ltd.

Gopalan, C et al (2004) Nutritive value of Indian Foods NIN, ICMR, Hyderabad

ICMR (1998) Nutrient requirements and Recommended Dietary Allowances for Indians-A report of the expert group of the ICMR, NIN, Hyderabad.

Swaminathan, M. (1998) Essentials of Food and Nutrition. 2nd edition, volume I & II Bangalore Printing & Publishing, Bangalore

Ramarao A. V. S. S. (1998) A textbook of Medical Biochemistry, New Delhi: UBS

Guthrie, H. (1986) Introductory Nutrition, 6th edition Times Mirror/Mosby college Publication.

Bamji, M. Praihad Rao, N. and Reddy, V. (Ed) (1996) Textbook of Human Nutrition. Oxford and TBH Publishing Co, Pvt, Ltd.

F.Y.B.Sc. (HOME SCIENCE)
FOOD SCIENCE
(THEORY)

Marks: 75

Objectives

1. To acquire Knowledge of various concepts of food science, its facts and principles
2. To develop the ability to select and apply the principles to practical situations.

Course Content :

Unit I Food science – Concept

NOL
(2)

Unit II Introduction to Cooking

(5)

- (a) Reasons for cooking
- (b) Methods of Heat Transfer
- (c) Cooking Methods –Moist, Dry, Combination, Microwave, Solar

Unit III A study of the following aspects of the food groups listed below
Classification, Nutritive Value, Structure, Selection and
Quality Assessment, Processing methods, Storage, Role in Cookery ,
Physico-Chemical Changes and factors that influence its, Products

a) Cereals –

(10)

Milling, Parboiling, Malting.
Cereal Starch – Colloids, Gelatinisation, Dextrinisation ,
Gel Formation, Retrogradation, Syneresis.
Cereal Protein – Gluten Formation
Fermented, Unfermented, Breakfast Cereals, Rice products

b) Vegetables & Fruits –

(10)

Drying and Dehydration, Cold Storage, Freezing, Canning
Enzymatic Browning, Color pigments-Effect of acid, alkali and heat,
Dried Fruits and Vegetables, Jams Jellies and Marmalades

c) Pulses –

(5)

Milling Decortication, Soaking, Germination, Fermentation. Parching.
Anti -nutritive factors – their elimination
Flours, Processed products of Soyabean

d) Milk –

(10)

Clarification, Pasteurization, Homogenization, Condensation, Freezing,
Dehydration
Denaturation, Coagulation, Scum formation, Scorching,
Non Enzymatic Browning – Maillard Reaction
Vitamin D milk, Skim milk, Concentrated milk, Cream , Butter, Ghee, Cheese ,
Indian Cheese, Yoghurt, Ice cream, Indigenous Milk Products,

- e) Flesh Food - Meat, Poultry, Fish Egg (10)
Aging, Tenderising, Curing, Pickling Salting Smoking,
Dehydration, Chilling, Freezing and Canning,
Post - Mortem Changes, Gelatin, Gel formation
Effect of Heat, Coagulation, Foaming, Leavening
Fish meal, Fish oils, fish flours, Animal fats
- f) Nuts and Oilseeds - Rendering, Pressing, Solvent Extraction, (8)
Refining, and Hydrogenation, Plasticity, Winterisation
Emulsions, Spoilage of oil- Rancidity, Formation of Acrolein, Use of anti -
oxidants, Factors affecting fat absorption, Shortening, Melting
Point and Smoking Point, Iodine, Sap, and Acid Value
Nutritional food mixes from oil seeds, Margarine Vanaspati, Vegetable oils, C
from unconventional sources
- g) Sugars - Solubility, Hygroscopic nature and Sweetness, Stages of (6)
Sugar Cookery. Other natural and artificial sweeteners
Caramelization, Crystallization, Recrystallization
Liquid sweeteners, Confectionary (include Indian sweets)

Unit IV Spice and Herbs

(4)

Unit V Beverages – Tea, Coffee, Beer, Wine, Fruit Beverages

(5)

References :

- Arora K. (1993). Theory of Cookery. New Delhi: Frank Bros. and Co.
Bennion, M. (1975). Introductory Foods. New York: Mac Millan Publishing Co. Inc.
Manay, N.S. (1995). Food Facts and Principles. New Delhi: New Age International
Macwilliam M. (1980). Food Fundamentals. New York: John Wiley & Sane.
Srilakshmi. B. (1997) Food Science. New Delhi: New Age
Swaminathan, M. (1991). Food Science & Experimental Foods. Madras: Ganesh & Co.

F.Y. B.Sc.(Home Science)
FOOD SCIENCE
(PRACTICALS)

Marks: 50

Objectives :

To familiarize the students with

1. Common ingredients, devices and equipments and their functionality available for food preparation.
2. Different cooking methods and techniques used while food preparation.
3. Principles involved during preparation of different foods and their application
4. Basic techniques of food analysis.
5. Techniques of identifying food adulteration.
6. Concept of food quality.

PART -I: EXPERIMENTAL COOKERY

Course Content. :

- 1 Introduction to
 - a. Food science, different culinary terms used in preparation of cooking food, regional names of different ingredients.
 - b. Measuring techniques used for different foods weights and volumes.
 - c. Use of appropriate devices, equipments, cutlery etc. while preparation of food.
 - d. Methods and techniques used while preparation of food.
- 2
 - a. Sensory evaluation of foods.
 - b. Effect of heat alkali and acid on vegetable pigments.
- 3 Sugar cookery
 - a. Different stages of sugar syrup and its applications.
 - b. Crystalline and non-crystalline candies.
- 4 Starch Cookery – Gelatinization and dextrinization of starch.
- 5 Pectin gel formation – determination of pectin content in fruits at different stages and ripening (methylated spirit test).
- 6 Protein gelation using gelatin, Denaturation and coagulation of proteins.
- 7 Gluten formation and factors affecting gluten formation.
- 8 Egg cookery –
 - A.Role of Egg in cookery - leavening, thickening , binding & emulsifying agent.
- 9 Factors affecting fat absorption.

- 10 Browning reactions in foods.
- Enzymatic browning
 - Non-enzymatic browning
 - Caramelization
 - Maillard reaction

References:

- Jamesen, K. (1998). Food science laboratory manual New Jersey. Prentice Hall. Inc.
- McWilliams, M. (1984). Experimental foods laboratory manual. New delhi: Surjeet Publication.
- McWilliams, M. (1997). Foods experimental perspective. (3rd Ed.) New Jersey. Merrill/Prentice Hall.
- Sethi, M and rao, S.E. (2001). Food science experuiments and applications. New delhi. CBS Publishers and Distributors.
- Swaminathan, M (1995). Food science chemistry and experimental foods. The Bangalore Printing and Publishing Co. Ltd.
- Weaver, G. (1996). The food chemistry: A manual for experimental foods. Dietetics and Food scientists. Boca Raton, CRC press.

PART-II :INTRODUCTORY FOOD ANALYSIS

Course content :

Unit I Standardization of acids and alkalies.

Unit II Carbohydrates:--

- Estimation of reducing sugars (glucose & fructose) in fruit juices by Cole's method.
- Estimation of lactose in milk by Cole's method.
- Qualitative analysis of sugars:- Demonstration with explanation of various tests.
- Use of simple qualitative tests to differentiate between monosaccharides & disaccharides; reducing & non reducing sugars.(Barfoed's Test, Benedict's test & Seliwanoff's test)
- Hydrolysis of starch to dextrins and to maltose.
- Qualitative tests for fruits/vegetable fibre.

Unit III Protein:-

- Colour reactions of essential and non essential amino acids from: 1.Egg white 2.Casein.
- Precipitatory reactions of proteins.

Unit IV Lipids:-

- Qualitative tests for lipids:-Solubility, Emulsification & Acrolein Test
- Determination of Acid value of fresh and used oil

Unit V Vitamins:-

Estimation of Vitamin C in lime juice by dye method.

Unit VI Minerals:-

Qualitative tests for detecting presence of calcium, iron and phosphorus present in ash solutions. (Preparation of ash & ash solution technique to be demonstrated.)

Unit VII Food Quality:-

a) Quality criteria for milk:-i)MBRT ii)Clot on boiling.

b) Detection of presence of adulterants in the following foods:--

Chilli powder, turmeric powder, asafoedita, pepper, cuminseeds, sugar, semolina, milk, tea & coffee powder.

References :

- 1) Jayaram T. (1981) Laboratory manual in biochemistry. New Delhi: Wiley Eastern Ltd.
- 2) Oser, B.L. (1970) Hawk's physiological Chemistry. New Delhi: Tata McGraw Hill.

**F. Y. B. Sc. (HOME SCIENCE)
CHILD DEVELOPMENT
(THEORY)**

Objectives:

Marks: 100

1. To impart basic knowledge on the principles and pattern of growth and development in children from conception to late childhood (0-12 years).
2. To create an awareness of the various factors that influence and stimulate growth and development during this period.
3. To orient them on the various issues pertinent to child development so as to provide for the holistic development of the child in future.

Course Content:

NOL

Unit I: Introduction

(6)

- (a) Meaning of child development and importance of understanding child development
- (b) Principles of development
- (c) Factors influencing development (heredity and environment)

Unit II: Overview of the theories Human Development

(10)

- (a) Erikson: Psychosocial development
- (b) Freud: Psychosexual development
- (c) Piaget: Cognitive development
- (d) Kohlberg: Moral development

Unit III: Prenatal period

(8)

- (a) Conception, miscarriages, abortion, genetic counseling
- (b) Diagnosis of pregnancy--signs, symptoms, tests
- (c) Reproductive technologies
- (d) Prenatal development, factors influencing prenatal development
- (e) Preparing for the baby

Unit IV: Labour and delivery

(5)

- (a) Stages of labour
- (b) Types of delivery
- (c) Modern trends in childbirth
- (d) Multiple births
- (e) Complications in delivery

Unit V: Neonatal Period

(6)

- (a) Newborn: examination and assessment, characteristics, reflexes, sensory capacities
- (b) Adjustments in the family

Unit VI: Babyhood

(8)

- (a) Childcare: bathing, clothing, feeding (breast feeding, bottle feeding, weaning), child-proofing the environment, toilet training, immunisation
- (b) Physical development : Milestones of physical development, infant stimulation and activities to promote physical development and sensory -perceptual development
- (c) Cognitive development: sensorimotor period, Information processing and methods to foster cognitive development
- (d) Language development: Acquiring the language, key signs of language development, first words, stimulation to support language development and activities to promote language development
- (e) Psycho-social development: Milestones of development, stimulation to nurture psycho-social development, activities to promote psycho-social development

Unit VII: Preschool period

(8)

- (a) Physical and motor development: body size and proportions, motor skills, handedness
- (b) Cognitive development: preoperational period
- (d) Language development: sequence of early language development, bilingualism, speech disorders
- (e) Psychosocial development: general trends in psycho-social development, play (importance, types of play, factors influencing play), importance and selection of toys for preschoolers

Unit VIII: Middle Childhood

(8)

- (a) Physical and motor development: physical growth and change
- (b) Cognitive development: concrete operational period
- (c) Language development: language development and literacy
- (d) Psychosocial development: Emotional and social development during middle childhood period.

Unit IX: Late Childhood

(8)

- (a) Physical and motor development: physical growth and change
- (b) Cognitive development: Period of formal thought
- (c) Language development: language development and literacy
- (d) Psychosocial development: Emotions during middle childhood period, personality development in an expanding social world - influence of family, school, peer relationships and social competence

Unit X: Issues on child-rearing

(8)

- (a) Parenting styles and adapting parenting to the developmental changes in the child
- (b) Developmentally appropriate practices in varied educational settings
- (c) Changing family in the changing social world: Co-parenting
- (d) Effective methods to be adopted by parents for handling temper tantrums in children
- (e) Do's and don't's for parents to deal with common behaviour problems in children

References:

- Berk, L. (1996). Infants, children and adolescents. (2nd Ed.). Boston: Allyn and Bacon.
- Dacey, J.S.&Travers, J.F (2004). Human Development. Across the Lifespan. New York:Tata McGraw Hill.
- Gallature, D.L.& Ozmun, J.C (2006). Understanding motor development: Infants, children, adolescents and adults. New York:Tata McGraw Hill.
- Jaya,N. & Narasimhan,S. (2005). Parenting Children below two years. India: Abacus Foundation.
- Kail, R., & Cavanaugh, J. (2000). Human development--A life-span view (2nd Ed.). New York: Wadsworth.
- Santrock, J. (2007). Children (11^h Ed.). New York:Tata McGraw Hill.

**F.Y.B.Sc. (HOME SCIENCE)
ADOLESCENT DEVELOPMENT
(THEORY)**

Marks : 75

Objectives:

1. To expose students to different aspects of adolescent development
2. To sensitize students to the common adjustments problems during adolescence
3. To acquaint students with the various ways in which one can become an effective individual

Course Content :

NOL

Unit I:

(A) INTRODUCTION:

(3)

- Historical perspective: stereotypical adolescents, a positive view of adolescence
- The current status of adolescents
- The nature of development: processes and periods, developmental transitions, developmental issues
- Understanding adolescence: biological processes, cognitive processes, context matters, social and personality matters, problems and disorder matters and science matters

(B) BIOLOGICAL DEVELOPMENT

(10)

- Puberty: determinants of puberty, growth spurt, sexual maturation, secular trends in puberty, pubertal timings and health care, psychological dimensions
- Adolescent health a critical juncture: nutrition, exercise and sports, sleep, health services, leading causes of death
- Exploring heredity and environment

Unit II:

(A) COGNITIVE DEVELOPMENT

(10)

- The cognitive development view : Piaget's theory, Vygotsky's theory,
- The information processing view: characteristics, attention and memory, decision making, critical thinking, creative thinking, metacognition and self regulatory learning
- The psychometric / intelligence view: intelligence tests, theories of multiple intelligences, emotional intelligence, controversies and issues in intelligence
- Social cognition: adolescence egocentrism, perspective taking, implicit personality theory

(B) MORAL DEVELOPMENT, VALUES AND RELIGION

(5)

1. Moral thoughts: Piagets and Kohlberg's theory
2. Meaning of moral development, moral behaviour, moral feelings, moral education
3. Values , religion and cults

Unit III:

(A) THE CONTEXTS OF ADOLECENT DEVELOPMENT

(10)

1. FAMILIES:

- Nature of family processes: family interactions, the developmental construction of relationships, maturation, socio-cultural and historical changes, cognition and emotions
- Parent – adolescent relationships: parents as managers, parenting techniques, parent adolescent conflicts, autonomy and attachment
- Sibling relationships: sibling roles, developmental changes, birth order
- The changing family in changing society: step families, effects of divorce, working parents, culture and ethnicity, gender and parenting

2. PEERS

- The nature of peer relations: peer group functions, family peer linkage, peer conformity, peer statuses, social cognition, emotional regulation in peer relations, conglomerated strategies for improving social skills, bullying
- Friendship: its importance, intimacy and similarity, mixed age friendship
- Adolescents groups: group functions and formation, children groups and adolescent groups, ethnic and cultural variations, cliques and crowds, youth organizations
- Dating and romantic relationships: functions of dating, types of dating and developmental changes, culture and dating, male and female dating scripts, emotion and romantic relationships, romantic love and its construction

(B) CULTURE, MEDIA AND RECREATION

(7)

- Culture and adolescences: what is culture, the relevance of culture to the study of adolescence, cross- cultural comparisons and models of cultural changes
- Socio-economic status and poverty: the nature of socioeconomic status, socioeconomic variations in families, neighbourhood and schools
- Television and other media: functions and uses of media, television, the media and music, technology, computer and internet
- Role and functions of recreation, types of recreation and entertainment, healthy and unhealthy forms of recreation and their impact on adolescents

Unit IV:

(A) SCHOOLS / EDUCATION

(5)

- The nature of adolescents' schooling
- Transition in schooling
- Schools, classrooms, teachers and parents
- Socio-economic status and ethnicity in schools
- Adolescents who are exceptional: adolescents with disabilities, educational issues involving adolescents with disabilities, adolescents who are gifted

(B) ACHIEVEMENTS, CAREERS AND WORK

(5)

- Achievement: the importance of adolescence in achievement, achievement processes, motivating hard-to-reach, low achieving adolescents
- Career development: theories of career development, cognitive factors, social contexts
- Work: socio-historical context of adolescent work, advantages and disadvantages of part-time work in adolescence, the transition from school to work, work/ career based learning

Unit V:

(A) SOCIAL, EMOTIONAL AND PERSONALITY DEVELOPMENT

(12)

1. THE SELF AND IDENTITY

- The self : self understanding, self esteem and self- concept
- Identity: Erikson's idea of identity, the four status of identity, developmental changes, family influences on identity, cultural and ethnic aspects of identity, gender and identity development
- Identity and intimacy: intimacy, loneliness

2. GENDER

- Gender stereotypes, similarities and differences, gender controversy
- Gender role classification: traditional gender roles, androgyny, traditional masculinity and problem behaviour in adolescent males, gender role transcendences
- Developmental changes and junctures

3 SEXUALITY

- Exploring adolescent sexuality, sexual attitudes and behaviour
- Adolescent sexual problems: teenage pregnancy, sexually transmitted diseases, forcible sexual behaviour and sexual harassment
- Sexual knowledge, sex education, sexual wellbeing and developmental transition

(B) ADOLESCENT PROBLEMS

(8)

- Exploring adolescent problems: biological factors, psychological factors, socio-cultural factors, bio-psychosocial approach, the developmental psychopathology approach, characteristics of adolescent problems, resilience
- Problems and disorder: drugs and alcohol, juvenile delinquency, depression and suicide, eating disorder, stress
- Interrelation of problems and prevention / intervention

References :

- Santrock.(2002) Adolescence. USA: Allyn and Bacon.
- Chaube, S.P. (1983). Adolescent psychology. New Delhi: Vikas
- Garrison, K. C. (1975). Psychology of adolescence. New Jersey: Prentice Hall.
- Grinder, R. E. (1978). Adolescence. New York: Wiley.
- Hurlock, E. (1978). Adolescent development. New Jersey: McGraw-Hill.
- Jersild, A. T. (1978). The psychology of adolescence. London: MacMillan.
- Mehta, M. (2000). Adolescent psychology. Jaipur: Pointer.
- Newman, B., & Newman, P. (1979). Introduction to the psychology of adolescence. USA: Dorsey Press.
- Rice, P. F. (1999). The adolescent--development, relationships and culture. USA: Allyn and Bacon.
- Rogers, D. (1981). Adolescence and youth. New York: Prentice-Hall.
- Santrock, J. (1998). Adolescence. USA: McGraw Hill.
- Tripathi, A. (1990). Self and adolescent behaviour in Indian education. New Delhi: Deep and Deep.

F.Y.B.Sc. (HOME SCIENCE)
FIBRE TO FABRIC
(THEORY)

Marks : 75

Objectives:

1. To introduce students to the basics of textiles and clothing.
2. To give an insight into the new developments in textiles and garments.
3. To equip students with the knowledge of the care and maintenance of textiles.

Course Content:

NOL

- Unit I**
- a. Introduction to textile fibers
 - b. Introduction to polymerization and molecular arrangement of fibers
 - c. Classification of fibers. (5)
- Unit II**
- Fibers: (30)
- a. Detailed study of the Indian varieties, chemical structure, manufacturing processes, properties, uses and trade names of the following major fibers; Cotton, Jute, Wool, Silk, Nylon, Polyester, Acrylic and Regenerated fibers like Viscose Rayon, Acetate Rayon, etc.
 - b. Study of blends – blending, advantages, common blends and end uses.
 - c. Brief study of the other natural and synthetic fibers such as Hemp, Pina, Banana, Mohair, PVC, PVA, Elastomeric, Metallic, Glass, Carbon, etc.
 - d. Recent Developments
- Unit III**
- Yarns: (15)
- a. Introduction to yarns
 - b. Yarn formation: Staple and filament (spinning, conventional and non-conventional)
 - c. Classification of yarns
 - d. Properties and end uses.
 - e. Recent Developments
- Unit IV**
- Fabrics: (15)
- a. Woven: Yarn preparatory stages, parts of the loom, steps in weaving and basic weaves (plain, satin and twill).
 - b. Knitted: Introduction to knitting, warp and weft knitting, steps in knitting, properties and uses.
 - c. Non-woven: Definition, manufacture, properties and uses.
 - d. Recent Developments

Unit V

Theories of clothing:

- a. Introduction to theories of clothing
- b. Selection of fabrics for various age groups and end uses including self-help features and features for physically impaired.
- c. Care labels & care of special articles (Apparel and Non Apparel).
- d. Social and psychological aspects of clothing

References:

- Ajgaonkar, D. B. (1998). *Knitting technology*. Mumbai: Universal pub. corporation
- Corbman, B. P. (1985). *Textiles: Fibre to fabric*. (6th Ed.). New York: Gregg Division/McGraw Hill
- Collier, B. J. and Phyllis, G. T. (2001). *Understanding textiles*. New Jersey: Prentice Hall.
- D'Souza, N. (1998). *Fabric care*. India: New Age International.
- Hollen, N., Saddle, J., Langford, A.L. & Kadolf, S.J. (1988). *Textiles*. (6th Ed). New York: Macmillan.
- Joseph, M. L. (1972). *Introductory textile science*. (2nd Ed.). New York: Holt, Rinehart and Winston.
- Joseph, M.L. (1975). *Essentials of textiles*. New York: Holt, Rinehart and Winston.
- Shenai, V. A. (1991). *Technology of textile processing*. Vol. 1. (3rd Ed.). India: Sevak.
- Tortora, P.G. (1978). *Understanding textiles*. New York: Macmillan.
- Wynne, A. (1997). *Textiles – the motivate series*. London: Macmillan Education.

**F.Y.B.Sc. (HOME SCIENCE)
PSYCHOLOGY OF CLOTHING
(THEORY)**

Marks : 50

Objectives:

1. To understand the psychology of clothing.
2. To give an insight into the relationship between clothing and body physique, personality and factors affecting clothing behavior.

Course Content:

NOL

- | | | |
|-----------------|---|------|
| Unit I | Origin and Motives of Dress and Adornment <ul style="list-style-type: none">• Early Interest / Use• Purpose for Dress – Modesty, Adornment, Protection and Utility | (5) |
| Unit II | Clothing and Physical Self <ul style="list-style-type: none">• Body Image and Social Ideals• Bodily Traits and Social Influences• Physical Attractiveness• Physical Disabilities | (10) |
| Unit III | Clothing, Socialization and Concept of Self <ul style="list-style-type: none">• Stages in Self Concept formation• Social Feedback Social Comparison• Self Comparison,• Self Perception,• Self Esteem | (15) |
| Unit IV | Clothing, Personality and Roles <ul style="list-style-type: none">• Roles – Ascribed Roles, Achieved Roles• Role Acquisition• Role Conflict and Role Embrace• Clothing and Personality | (10) |
| Unit V | Clothing and Socio – Cultural Aspects <ul style="list-style-type: none">• Clothing, Society and Self• Social Constraints in Clothing• Socio – Cultural variations in Clothing• Fashion Process Theory• Clothing in Groups and Organizations | (10) |

References:

- Kaiser S. B. (1985), *The Social Psychology of Clothing*, New York, Mac Millan Publishing Company.
- Damhorst M. L., Miller K. A. & Michelman S. O. (2001), *The Meaning of Dress*, New York, Fairchild Publications.

**F.Y.B.Sc. (HOME SCIENCE)
CHILDREN'S CLOTHING
(PRACTICALS)**

Marks : 50

Objectives:

- To create interest in the subject by application of fundamentals of clothing.**
- To introduce basic pattern drafting children's clothing.**
- To introduce the principles of children's clothing construction.**

Course Content:

- 1 Introduction to sewing equipment and care of sewing machines**
- 2**
 - **Flat pattern construction: (Basic)**
 - **Child's basic block and basic sleeve**
 - **Adaptation of basic block to A-line dress**
 - **Adaptation of basic block to Bush shirt: bush shirt sleeve and collar**
 - **Baby Frock with gathers, yoke and puff sleeves**
 -
- 3**
 - **Flat pattern construction: (Miscellaneous)**
 - **Drafting for the article**
 - **Simple pinny (layette)**
 - **Baby knicker**
 - **Bush-Shirt**
 - **Shorts**
 - **Baby Frock with gathers, yoke and puff sleeves**
 -
- 4 Garment construction:**
 - (a) **Article incorporating fundamentals**
 - (b) **Simple pinny**
 - (c) **Baby Knicker**
 - (d) **Bush-shirt**
 - (e) **Shorts**
 - (f) **Baby Frock with gathers, yoke and puff sleeves**
- 5 Journal: Drafting of the flat pattern construction, diagrammatic representation with detailed description of the stitches (Running, Basting, Slipstitch and hemming), seams (French, False French, Run and fell, Lapped, Double sewn) and other finishes (pipings and facings) used for stitching.**

References :

- Claire B. (1981). *The complete book of sewing short cuts*, New York: Sterling Publishing Co. Inc.
- Cream, P. & Shillong, C. (1996). *The complete book of sewing*, London: Dorling Kindersley Ltd.
- Cunningham G. (1969). *Singers sewing book*, New York: Singer Co. Ltd.
- Dunn, L., Bailey, A. & Draper, W. (1970). *Steps in clothing skills*. Illinois: Chas A. Bennett. Co. Inc.
- Gardiner, W. (2003). *Encyclopedia of sewing techniques*, Kent: Search Presshold.
- Jewel, R. (2000). *Encyclopedia of dress making*. (1st Ed.) New Delhi: A.P.H. Publishing Corporation.
- McCall's. (1964). *Sewing in colour*. London: The Hamlyn Publishing Group Ltd.
- Reader's Digest (1993). *Step by step guide: Sewing and knitting*, Auckland: Reader's Digest.
- Zarapkar, T. (1981). *Zarapkar system of cutting*, Mumbai: Zarapkar Tailoring College.

**F. Y. B. Sc. (HOME SCIENCE)
PRINCIPLES OF DESIGN
(THEORY)**

Marks : 100

Objectives:

To enable students to:

1. understand the principles of Art and Design.
2. gain knowledge of the use of these principles in the field of Interior Design.

Course Content:

Unit I Introduction to Art & Design

NOL
(6)

- Design:
 - Definition
 - Types: Structural & Decorative
- Objectives: Function, Beauty, Expressiveness
- Good Taste
- Application of design to various fields
 - Interior Design
 - Architecture
 - Hospitality
 - Textiles

Unit II Elements of Design

(6)

Line

- Definition
- Types:
 - Straight
 - Curved
- Illusion of lines
- Emotional significance

Form

- Definition
- Classification:
 - Open & Closed form
 - Positive & Negative form

Texture

- Definition
- Types:
 - Visual
 - Tactile

- Unit III** **Colour**
- Qualities of colour (9)
 - Hue
 - Value
 - Intensity
 - Colour systems
 - Prang colour system
 - Munsell Colour System
 - Colour Schemes
 - Monochromatic
 - Complementary

- Unit IV** **Light**
- Types of light: (9)
 - Natural
 - Artificial: Lighting systems
 - Shadow:
 - Definition
 - Types of shadow

Space

- Definition
- Classification:
 - Open
 - Closed

Pattern

- Definition
- Types:
 - Naturalistic
 - Stylized
 - Abstract
 - Geometric

- Unit V** **Principles of Design**
- Balance** (10)

- Definition
- Types of Balance:
 - Formal
 - Informal
 - Radial
- Applications

Rhythm

- Definition
- Methods of achieving Rhythm
 - Repetition of Shapes
 - Progression of Sizes

- Continuous Line Movement
- Radiation

Harmony

- Definition
- Methods of achieving Harmony
 - Line & Shape
 - Colour
 - Ideas
 - Size
 - Textures

(8)

Unit VI Proportion

- Definition
- Scale & Proportion

Emphasis

- Definition
- Methods of achieving Emphasis
 - Grouping of Objects
 - Use of Contrasting Colours
 - Use of Decoration
 - Use of Background Space
 - Use of Lines, Shapes or Sizes.

Unit VII Components of Interior Design

(9)

Wall & Wall Finishes

- Definition
- Types of walls
- Wall treatments:
 - Paints
 - Plaster
 - Panelling
 - Wall papers

Floor & Floor Coverings

- Definition
- Types of Floor Finishes
- Floor Coverings

Ceilings

- Definition
- Treatments for Ceilings
- False Ceilings

Unit VIII Window & Window Treatments

- Parts of a Window
- Types of Windows
- Window Treatments: Hard & Soft

(6)

Unit IX Room Décor Accessories (7)

- Definition
- Types of Accessories
- Factors affecting the Choice of Accessories

Furniture

- Brief history of Furniture Design
- Factors influencing Selection of Furniture

Unit X Landscape Gardening (5)

- Areas that can be used
- Principles to be followed

Flower Arrangement

- Basic types of arrangements

References:

- Allen. P. S. (1985). Beginnings of Interior Environment (5th Ed), Macmillan Publishing Co. London.
- Bhatt. P. & Goenka S. (2001); Foundation of Art & Design (2nd Ed). Lakhani Book Depot. Mumbai
- Cliffon C., Mogg & Paine. M. (1988). The Curtain Book. Reed International Books. New York.
- Craig. H. T. (1987). Homes with Character. Glencoe Publishing Co. Inc. U.S.A.
- Gilliat M. (1986). The Decorating Book. Library of Congress Cataloguing Publications, Great Britain.
- Lewis E. L. (1980). Housing Decisions, The Good Heart, Willcox Co. Inc. Great Britain.
- Seetharaman. P. & Pannu. P. (2005). Interior Design & Decoration. First Edition, CBS Publishers & Distributors. New Delhi.

**F.Y.B.Sc. (HOME SCIENCE)
PRINCIPLES OF DESIGN
(PRACTICAL)**

Marks : 25

Objective:

To enable students to apply the basic principles of Art & Design in various fields such as Interior Design and Textile Design.

Course Content:

1 Simple Illustrations using the following Elements of Design

- Lines
 - Types of lines: Free hand & scale
 - Combination of lines
 - Illusion of lines
- Forms
 - Forms created with the use of lines
 - Forms created without the use of lines
- Other elements of design
 - Texture
 - Light
 - Pattern
 - Space

2 Use of Colour in Art & Design

- Colour Wheel
- Qualities of Colour
 - Hue
 - Value – Intensity Chart
- Colour Schemes
 - Monochromatic Colour Schemes
 - Complementary Colour Schemes

Simple Applications of Colour Schemes to Room Décor

Gift Wrapping

- 3
 - Selection of Gift wrappers: Readymade / Handmade
 - Wrapping of gifts: Rectangular/Square, Cylindrical, Round, Irregular boxes
 - Ribbon tying & Bows
 - Envelope making

Basics of Lettering

- 4
 - Consistent Alphabets & Numerals
 - Spacing: Optical & Mechanical

Simple Applications of the Principles of Design

- 5
 - Interior Design: Room Décor, Flower Arrangements, Floor Decoration, Furniture Design, Landscape Design
 - Textile / Dress design: Fabric Design, Garment Design.

References:

- Craig. H. T. (1987). Homes with Character. Glencoe Publishing Co. Inc. U.S.A.
- Damhorst. M. L., Miller. K. A. & Michelman. S. O. (2001). The meaning of Dress. Fairchild Publishing . New York.
- Diane. T. & Cassidy T. (2005). Colour Forecasting. Blackwell Publishing Co. Great Britain.
- Gill. R. W. (1994). Rendering with Pen & Ink. Thames & Hudson Ltd. London.
- Hauser. P. W. (1994). Greeting Card & Gift Wrap. North Light Books, Ohio.
- Hendy J. (1997). Balconies & Roof Gardens. New Holland Publishers (UK) Ltd. U.K.
- Hiney. I. M. (1998). Fabric Covered Boxes. Sterling Publishing Co. Inc. New York.
- Lehri. R. M. (1999) Folk Designs & Motifs from India. Dover Publications Inc. New York.
- Sheen. J. (1992). Flower Crafts. Salamander Books Ltd. New York.
- Smith. A. (1995). Big book of Paper Craft. Usborne Publishing Ltd. England.
- Wilson. J. (2005). Handbook of Textile Design – Principles, Processes & Practice. Woodhead Publishing Ltd. England.

F. Y. B. Sc. (HOME SCIENCE)
CONSUMER EDUCATION
(THEORY)

Marks : 50

Objectives:

1. To highlight the importance of Consumer Education
2. To increase awareness in the students about the malpractices prevalent in the Market.
3. To empower students with the knowledge of Consumer Rights and Responsibilities

Course Content:

NOL

Unit I

Introduction to Consumer Education

- Definition
- Concepts & Basic terms
- The Consumer Movement in India
 - Objectives
 - A brief history
- Consumer Rights & Responsibilities

(8)

Unit II

Purchasing Consumer Goods

- Consumer Decision Making:
 - Definition
 - Buying Aids
 - Process of Decision Making
- Grading & Standardization :
 - Definition
 - Importance
 - Types
- Standardization / Certification Marks
- Branding:
 - Definition
 - Advantages
 - Types of Branding
- Labelling
 - Definition
 - Advantages
 - Types of Labelling
- Promotion of Products by Manufacturers
 - Packaging: Definition, Advantages, Types
 - Advertising: Definition, Types of media & their advantages

(15)

Unit III

Problems of the Indian Consumer

- Common Problems
 - Weights and Measures
 - Food Adulteration
 - Fake Products
- Misleading Advertisements

(10)

Unit IV

Legal Issues

- Laws & Legislations
 - Consumer Protection Act
 - Drugs & Magic Remedies Act
 - Drugs & Cosmetics Act
 - Environment Protection Act
 - Right To Information Act
 - Bureau of Indian Standards Act
 - MRTP Act
 - AGMARK
 - PFA Act
 - Standard of Weights & Measures (Enforcement) Act
- (8)

Unit V

- Redressal :
 - How to Complain
 - Where to Complain
 - Consumer Courts
 - Case Studies
 - Consumer Organizations
 - Government Agencies
 - CGSI
 - CERC
 - CFBP
 - MGP
 - International Consumer Rights Protection Council (ICRPC)
- (9)

Total 50 periods

References:

1. Antony. M.J. (1990). Consumer Rights. Hind Pocket Books. New Delhi.
2. Arens. W.F. (1994). Contemporary Advertising (5th ed). Library of Congress Cataloguing Publication. U.S.A.
3. Foxal. G. R. (1983). Consumer Choice. Macmillan Co. London
4. Grisban, L. B. (1961). Economics of Consumers. America Book Co. U.S.A.
5. Sarkar. A. (1989). Problems of Consumers in Modern India, Discovery Publishing House. New Delhi.
6. Sherlekar S. A. (1990). Trade Practices and Consumerism, Himalaya Publishing House. Mumbai
7. Stock. M. & Harrison F. (1990). The Consumer's Handbook. Hennerwood Publications. Great Britain.

**F.Y.B.Sc (HOME SCIENCE)
FOUNDATION COURSE
(THEORY)**

Marks: 75

Objectives:

1. To facilitate students reading, comprehensive skills and vocabulary development.
2. To develop a sense of professional etiquette in the students.
3. To facilitate the development of values in students that will enable them to become better human beings.
4. To encourage personal, familial, community and professional value-grounding in students.

Course Contents :

**SECTION I: READING COMPREHENSIVE SKILLS, VOCABULARY
DEVELOPMENT AND PROFESSIONAL ETIQUETTE.**

NOL

- Unit I** Reading comprehensive skills and vocabulary development. (10)
- a. Abstracting and summing skills
 - b. Concepts of functional and reading, vocabularies importance of Vocabulary, enhancing one's vocabulary.
 - c. Oral and written expression of ideas.
- Unit II** Professional etiquette (5)
- a. Definitions of general etiquette and professional etiquette.
 - b. Need for professional etiquette.
 - c. Aspects of professional etiquette (e.g. punctuality, regularity, honoring appointments and meetings; dress code)
 - d. Professional etiquette versus personal life.

SECTION II: VALUES

- Unit III** Introduction to values (10)
- a. Values and value education
 - b. Process of Value clarification
 - c. Obstacles in achieving these values.
 - d. Steps towards achieving these values.
- Unit IV** Values for Human Excellence.. (35)
- a. Personal Values
 - b. Social Values
 - c. Community values
 - d. Professional values

- Unit V a) Value system of our great personalities. (10)
b) Integrating Values of life. (5)
▪ Acknowledging dilemmas between living different types of values.
▪ Resolving dilemmas in ways that human well-being.

References:

- M. Pia Nazareth rjm & Maria E. Waples. Personal values All India Association of catholic schools, 28 CBSI centre, Ashok place, New Delhi – 110001.
Mani Jacob, J. Dinakaralal, Reny Jacob, Resource book of value education. Institute of value education. National Council of education research and training.
Asha Bhatnagar. The journal of value education. National council of research and training.
Alder, R.B. & Rodman, G (2000). Understanding human communication. (7th Ed.) New York Harcourt College
Charles, E. (1999). Value education today – A manual for teachers. Mumbai St. Xavier's Institute of Education Society.
Daniel, J. & Selvamony, N. (1990). Value education today: Explorations in social ethics. Madras; Madras Christian College.
Reader's Digest (1997) Write better, speak better. New York Reader's Digest Association.

University of Mumbai



Revised Syllabus for the

S. Y. B.Sc.

**In
Home Science**

(with effect from the academic year 2009 – 2010)

S.Y.B.Sc (HOME SCIENCE)
(Revised Syllabus w.e.f. Academic Year 2010 – 11)

Subject	Theory/ Practical	Inter- nal marks	University exam marks	Total marks	Periods Per week	Univer- sity Exam hours	Internal/ External	Dept
Meal Planning	Theory	15	60	75	3	2 ½	Both	FND
Community Health	Theory	10	40	50	2	2	Both	FND
Nutrition & Meal Planning	Practical	50	--	50	2	--	Intenal	FND
Development in Adulthood	Theory	25	75	100	3	3	Both	HD
Methods of Child, Adolescent & Adult Study	Theory	10	40	50	2	2	Both	HD
Developmentally Appropriate Practice I	Practical	25	--	25	2	--	Internal	HD
Textile & Fashion Technology II – Textile Technology	Theory	10	40	50	2	2	Both	TFT
Textile & Fashion Technology III – Traditional Indian Textiles & Costumes	Theory	15	60	75	3	2 ½	Both	TFT
Textile Science & Women's Clothing	Practical	10	40	50	3	3	Both	TFT
Principles of Resource Management	Theory	25	75	100	3	3	Both	CRM
Applied Economics & Personal Finance	Theory	15	60	75	3	2 ½	Both	CRM
Foundation Course	Theory	15	60	75	3	2 ½	Internal	CRM
Computer Application II (Value Added	Practical	25	--	25	--	--	Internal	--
TOTAL				800				

S.Y.B.SC (HOME SCIENCE)
MEAL PLANNING
(THEORY)

Marks: 75

Objectives:

1. To understand the concept of balanced diet
2. To enable students to understand and learn the RDA and plan meals for individuals during different periods of life cycle and physiological conditions.
3. To introduce the concept of adaptations of normal diets.

Course content:

NOL

Unit I a) Balanced Diet :

- Basic food groups
- Concept of balanced diet
- Food Pyramid

(2)

b) Cultural Food Patterns

- An exposure to the eating habits of Indians from different regions.
- Influence of religion on eating habits (Muslims, Christians, Jain, Jewish, Parsis)
- An introduction to continental, oriental and Latin American eating patterns.

(2)

c) Meal Planning

- Factors affecting meal planning
- Planning meals for individual and families
- Concept of Recommended Dietary Allowance
- Planning meals for occasions.
- Food Exchange list and its applications
- Planning a normal diet using the food exchange for a normal adult male & female

(4)

Unit II Adaptations of Normal Diets

(4)

Based on:

a) Texture and consistency

- Clear liquid diet
- Full liquid diet
- Soft diet (low fibre/ high fibre/ low residue)

b) Caloric density

- Calorically dense diets/meals
- Low calorie diets

c) Based on proteins

- High protein diets

Unit III Nutritional care for the various stages in the life cycle and physiological states : (10)

a) Nutrition during Infancy

- Physiological development
- Nutritional requirements and Recommended Dietary Allowances.
- Complementary feeding and weaning
- Meal time practices during weaning

b) Nutrition during Childhood (10)

- Nutritional requirements and Recommended Dietary Allowances of a preschool and a school going child.
- Factors influencing food intake
- Nutritious packed lunches
- Meal planning for children.
- An introduction to the concept of childhood obesity.

c) Nutrition during Adolescence (10)

▪ Nutrition During Adolescence

- Physiological changes during adolescence
- Nutritional requirements and recommended dietary allowances.
- Food habits and nutritional concerns (snacking, fast food, skipping meals)
- Meal planning for adolescents.

d) Nutrition in Adulthood (5)

- Physiological changes in adulthood
- Physical activity requirements/recommendations.

Unit IV a) Nutrition in Pregnancy (10)

- Physiological changes during pregnancy.
- Nutritional status and pregnancy outcome.
- Maternal weight gain during pregnancies.
- Nutritional requirements and Recommended Dietary Allowances
- Nutrients of special significance in pregnancy.
- An exposure to the influence of the following in pregnancy outcome :
 - Nutritional requirements in adulthood
 - Alcohol
 - Smoking
 - Caffeine
 - Artificial sweetness
 - Drugs
 - Stressful pregnancies
 - (obesity, hypertension, adolescent pregnancies)
 - Complications in pregnancy
 - Meal plan in pregnancy.

(b) Nutrition during lactation :

- Physiology of lactation
- Advantages of breast feeding
- Composition of lactation
- Nutritional requirements and Recommended Dietary Allowances
- Galactagogues
- Meal planning in lactation.

(8)

Unit V Nutrition during late Adulthood (Geriatric Nutrition)

- Physiological changes in late adulthood
- Nutritional requirements
- Nutrition issues in late adulthood (an exposure)
- Dysphagia
- Constipation
- Alzheimer's & Parkinson's Disease
- Oral health
- Osteoporosis

(10)

References :

- Garrow, J.S. and James W.P.T. (1993). Human Nutrition and Dietetics. New York : Churchill Livingstone.
- Ghosh, S. (1977). Feeding and care of infants and young children. New Delhi : Voluntary Health Association of India.
- Guthrie, H.A. (1986). Introductory Nutrition. St. Luis Toronto Times Mirror/ Mosby College Publications
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- Thompson J. and Manore M. (2005). Nutrition : An Applied Approach. Benjamin Cummings.

**S.Y.B.SC (HOME SCIENCE)
COMMUNITY HEALTH
(THEORY)**

50 Marks

Objectives:

1. To enable students understand basic Physiology of vital systems of Human body..
2. To understand patho physiology and risk factors of commonly occurring Degenerative diseases .
3. To Acquire knowledge on the causes, symptoms and prevention of infectious diseases.
4. To provide information on the importance of Diet in various Degenerative and infectious diseases.

Course Content :

NOL

Unit I -Basic Physiology of following systems of the body –
Heart (CVD) Respiratory, GI, Renal and Reproductive
and Endocrine glands function. (12)

Unit II Chronic disorders:- Risk factors, Basic Physiology &
patho physiology, role of Nutrition (Dos and Don'ts).and
Preventive measures of (16)

- a) Obesity – Definition, Calculation of IBW, BMI
grades, Principles of Diet and Exercise
- b) CVD – Atherosclerosis and Hypertension
- c) Diabetes Mellitus
- d) Anaemia nervosa and Bulimia
- e) Anaemia – Nutritional and Non-nutritional
anaemia
- f) Osteoporosis

Unit III Infectious diseases:- Causes, Symptoms Prevention and (15)
Role of Diet in:

- a) Food infections and Intoxication
- b) Waterborne diseases
- c) Airborne diseases
- d) Vector born diseases
- e) Aids

Unit IV Basics of First Aid in various conditions, injuries, accidents (3)
(Burns etc.)

(4)

Unit V

National programmes for improving Health status of the Community.

- 1) Universal Immunization programme
- 2) National Aids control programme
- 3) National Malaria Control programme
- 4) National TB control programme
- 5) National Leprosy control programme

References :

- Arwindwadhwa & Sushma Sarma (2003) "Nutrition in the Community" Elite Pub. House; Pvt Ltd; New Delhi
- Frazier. W.C. and Westhoff D.C. (1998) "Food Microbiology" New Delhi. Tata McGraw Hill Co.
- Tatova, S.P. and grasowski, S-R (2000) "Principles of Anatomy and Physiology" New York, John Wiley & Sons.

**S.Y.B.SC (HOME SCIENCE)
NUTRITION & MEAL PLANNING
(PRACTICAL)**

Marks: 50

Objectives:

- 1) To help the students understand and utilize advanced techniques of cooking with emphasis on nutrient-rich recipes.
- 2) To enable the students develop well-planned menus-Indian, continental and oriental
- 3) To develop skills in presentation of dishes.

Course Content:

1. Usage of newer culinary terms
2. Advanced cookery techniques
 - (a) Preparation of
 - i. Bakery and Confectionery items
 - ii. Rice and pasta products
 - iii. Salads
 - iv. Sweets and desserts
 - v. Pickles and preserves
 - (b) Use of the following appliances in preparing recipes
 - i. Microwave
 - ii. Pressure cooker
 - iii. Tava/ kadai
 - iv. Tandoor
3. Preparation of nutrient-rich recipes e.g. rich in vitamin A, vitamin C, iron-calcium, protein and fibre.
4. Menus from some regions and communities ;
 - (a) Maharashtrian
 - (b) Bengali
 - (c) Gujarati
 - (d) Punjabi
 - (e) South Indian
 - (f) Continental
 - (g) Oriental
 - (h) Christian
 - (i) Parsi
 - (j) Moghlai

References :

- Ceserani, V, Kinton, R. and Foskett, D. (1995). Practical cookery. (8th Ed.) London, ELBS.
- Larousse. Gastronomique, (1988). The world's greatest encyclopedia. London, Paul Hamlyn
- Karla, J. and Dasgupta, P. (1986). Prashad-cooking with Indian masters. Ahmedabad, Allied Publishers.
- Philip. T.E. (1981). Modern cookery for teaching and the trade. Vols. I and II, (3rd Ed.). Bombay, Orient Longman (Ltd.)

**S. Y. B. Sc. (HOME SCIENCE)
DEVELOPMENT IN ADULTHOOD
(THEORY)**

Marks: 10

Objectives:

1. To sensitize students to both the challenges and the opportunities of adult life.
2. To help students understand the developmental changes pertinent to cognitive, social, family, career, and physical developments across adulthood.
3. To help students have appropriate knowledge and attitudes with regard to the major life events in adulthood including marriage, parenthood, work, retirement, death and bereavement.

Course Content

NOL

Unit I: Introduction to the Study of Development in Adulthood

6

- a) Demography and a Changing View of Adulthood
 - Increased Life Expectancy
 - Ageism
 - Sexism in Adulthood
- b) Why Study Adult Development?
- c) Life-Span Developmental Perspective
 - Development is a lifelong process
 - Development includes both gains and losses
 - Development is plastic
 - Development is embedded in historical, cultural and social contexts

Unit II: Theories Relevant to Understanding Development in Adulthood

9

- a) Erik Erikson's Psychosocial Stages Corresponding to Adulthood
- b) Levinson's Seasons of a Man's Life
- c) Havighurst's Developmental Tasks
- d) Stage theory: Major criticisms
- e) Social Theories of Aging/Successful Adjustment to Late Adulthood
 - S-O-C Theories
- f) Multiple Meanings of Time and Age

Unit III: The Self: Definition and Factors Influencing Self

6

- a) Defining the self
- b) Effect of age on self
 - Maintaining continuity of the self
 - The impact of Subjective Age
 - Impact of age on self-esteem
 - Causes of Low-self esteem in late adulthood

Unit IV: Cognitive Processes in Adulthood: Dimensions and Directions

8

- a) Evidence of Cognitive Decline: The Decrementalist View
 - Major Findings
- b) Evidence of Cognitive Growth: The Continued-Potential View
 - Adult life-span learning
 - Quantitative Versus Qualitative Gains in adult Cognition
 - Expertise, wisdom and creativity
 - Successful cognitive aging

Unit V: Social Development, Friendship and Mate Selection

8

- a) Overview of social relationships
 - Nature of relationships
 - Benefits of relating
 - Social support
 - Convoy model of social relationships
 - Equity theory: A theory of social interaction
 - Ethnic differences
- b) Friendship
 - Nature of friendship
 - Functions of friendship
 - Gender differences
 - Friendship development over the life span
 - The future of friendship
- c) Leaving home: Transition from the family of origin
- d) Mate selection
 - Propinquity
 - Attractiveness
 - Similarity
 - Complementarity
 - Timing
- e) Sexuality

Unit VI: Family Ties, Transitions and Challenges

9

- a) Family development
 - Family life cycle
 - Family developmental tasks
 - Cycle of generations
 - Limitations of family developmental model
 - Changing families, changing times
- b) Marriage: Establishing a family of one's own
 - Components of romantic love
 - Marital roles
 - Alternative unions
 - Marital satisfaction
 - Divorce
 - Widowhood

- c) Parenthood
 - A life-span view of parenthood
 - Changing roles
 - Delayed parenthood
 - Transition to parenthood: Changes in lifestyle and family life
 - Children and marital satisfaction
 - The middle years of parenthood
 - The later years of parenthood
 - The context of parenthood
- d) Intergenerational Ties
 - Parent-adult child relationships
 - Grandparenthood
- e) Adult-sibling relationships
 - Sibling relationships as attachments
 - Unique qualities
 - Pattern over time
 - Functions of sibling relationship

Unit VII: Work and Retirement

- a) Nature of work
 - Significance of work in adult life
 - A changing work world: Work, Workers, Workplace
- b) Career Development
 - Career Cycle
 - Increasing diversity in career paths
 - Choice of work
 - Age and job satisfaction
- c) Gender and work: Women's career paths and special career issues
 - Changing nature of women's work and working women
 - Women's career patterns and work experiences
 - Multiple roles: Combining career and family
- d) Retirement and Leisure
 - Retirement as a life stage: A brief social history
 - A life span view of retirement
 - Predictors of retirement
 - Retirement as a developmental process
 - Impact of retirement on Individual well-being
 - Work and retirement: Twenty-first century
 - Importance of leisure over the life span

8

Unit VIII: Physical Development and Aging

- a) Aging
 - Primary versus secondary aging
 - Current conceptions of aging
- b) Overview of Physical development in adulthood

7

- c) Theories of biological aging
 - Wear and tear theory
 - Cellular theories
 - Metabolic theories
 - Programmed cell death theories

Unit IX: Health, Prevention and adaptation

8

- a) Physical health, disease and disability - Incidence/ Prevalence/ Predictors
 - Defining and measuring Health, disease and Illness
 - Age and health
 - An overview of preventive behaviors
 - Context of health and illness: An ecological View
 - Medication use among older adults
 - Successful aging: A multi-dimensional effort
- b) Mental health, happiness and mental disorders - Incidence/ Prevalence/ Predictors
 - Age related trends in psychological health
 - Determinants of happiness
 - Religious involvement and spirituality
 - Major depression
 - Alzheimer's disease
- c) Prevention and adaptation

Unit X: Death, Dying and Bereavement

6

- a) The changed nature of death
- b) Attitudes toward death
 - The death-denying society
 - Psychology's approach to death
 - Death anxiety
- c) The dying person
 - Contributions of Kubler Ross
 - Dying well
 - Hospice
 - Right-to-die-movement
 - Suicide, Assisted suicide and Euthanasia
 - Improving care of the dying
- d) Grief and Bereavement
 - Cultural and historical context of grief
 - Contemporary views of bereavement and grief
 - Grief process
 - Unanticipated and anticipated death
 - Health and mortality risks of bereavement
 - The funeral and other leave-taking rituals
 - Condolence behaviour
 - Bereavement as a transition

References:

- Berker, L. E. (1998). Development through the life span. Boston: Allyn and Bacon.
- Craig, G. J. (1996). Human development. New Jersey: Prentice Hall.
- Kail, R. V., & Cavanaugh, J. C. (2000). Human development : A lifespan view. USA : Woodsworth Thomson learning.
- Karkar, S. (2002) Identity and Adulthood. India: Oxford University Press.
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S Y B. Sc. (HOME SCIENCE)
METHODS OF CHILD, ADOLESCENT AND ADULT STUDY
(THEORY)

Marks: 50

Objectives :

1. To help students develop an appreciation of each of the principal methods of study, namely observation, interview and questionnaire
2. To enable them to apply these methods in the study of individuals across the life span

Course Content :

NOL

Unit I Introduction

(8)

- Value and importance of studying individuals across the life span,
- brief overview of the methods of studying individuals,
- relevance of using multi-methods in studying individuals,
- problems/challenges in the study of individuals.

Unit II Observation method

(10)

- Definition,
- types of observational methods (natural vs contrived, participant vs non-participant, field experiments),
- steps in the observational process,
- types of recording (narrative, on the spot coding, checklist, rating scale)
- sampling techniques (time, event, situational)
- aids in recording,
- analyses and interpretation of observation data,
- unique advantages of this method,
- problems in conducting observations (influence of the observer, observer bias)

Unit III. Interview method

(12)

- Definition,
- types of interview (standardized vs free, directive vs nondirective, personal vs telephonic)
- constructing an interview schedule (selecting a topic, target group, variables, objectives, formulating of questions, vocabulary, grammar, sequence, counter-wording, piloting)
- conducting the interview (qualities of interviewers / skills required by interviewers)
- special adaptations of the interview method for different individuals namely, children, elderly, lower socio-economic level,
- analyses of interview data,
- advantages and disadvantages of the method

Unit IV Questionnaire method

- Definition,
- types of questionnaires (face to face, mailed)
- steps in preparing a questionnaire,
- guidelines for the effective wording and the format of a questionnaire,
- enhancing the response rate of the mailed questionnaire,
- analyses of the questionnaire data,
- advantages and disadvantages of the questionnaire method

Unit V Application of at least one method with each of the age groups namely, (10)
 Children, adolescents, and adults

References :

- Billman, T; & Sherman, J.(1996). **Observation and participation in early childhood settings. A practicum guide.** Boston: Allyn & Bacon
- Jam, G.L. (2003). **Research methodology. Methods, tools and techniques,** Jaipur : Mangaldeep Publications
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- Shaughnessy, J, Zechmeister, E, & Zechmeister, J (2000). **Research methods in Psychology.** New York: McGraw Hill

S Y B. Sc. (HOME SCIENCE)
DEVELOPMENTALLY APPROPRIATE PRACTICE I
(PRACTICAL)

Marks : 25

Objectives :

1. To provide beginning skills in planning developmentally-appropriate activities for varied age groups (e.g., children, adolescents, and adults).
2. To provide beginning skills in making teaching materials for developmentally-appropriate activities for varied age groups.
3. To provide beginning skills in using teaching materials for developmentally-appropriate activities for varied age groups.

Course Content:

1. Orientation to the following:
 - (a) Developmentally-appropriate practice
 - (b) Structure of an activity plan (e.g., target group composition, objectives, materials/teaching aids, methods/procedure, roles of facilitator and target group, & recapitulation/feedback)
 - (c) Process of developing an activity plan (e.g., assessing needs of target group, building expertise, creative problem-solving, rehearsals)
2. Activities for children
 - a) Planning developmentally-appropriate recreational and educational activities for children (songs, stories, & games)
 - b) Making teaching materials for activities with children (e.g., flash cards, puppets, charts/posters, masks, board games)
 - c) Using teaching materials appropriately (e.g., large group vs. small group, voice modulation, facial expressions and body gestures)
3. Activities for adolescent
 - (a) Planning developmentally-appropriate recreational and educational activities for adolescents (theatre, discussion groups, & games)
 - (b) Making teaching materials for activities with children (e.g., flash cards, puppets, charts/posters, masks, board games)
 - (c) Using teaching materials appropriately (e.g., large group vs. small group, voice modulation, facial expressions and body gestures)

4. Activities for adult

- (a) Planning developmentally-appropriate recreational and educational activities for adults (theatre, discussion groups, & games)
- (b) Making teaching materials for activities with children (e.g., flash cards, puppets, charts/posters, masks)
- (c) Using teaching materials appropriately (e.g., large group vs. small group, voice modulation, facial expressions and body gestures)

Methods

Each group of 20+ students will be divided into four groups; some activities will be individual and others will be in subgroups.

A subgroup will make two types of teaching materials for each of the 3 age-groups; these will vary across the year such that each individual has the experience of working with each of the types of teaching materials.

**S.Y.B.Sc. (HOME SCIENCE)
TEXTILE TECHNOLOGY
(THEORY)**

Marks : 50

Objectives:

1. To introduce textile processing from gray fabric to finished products towards value addition.
2. To provide the knowledge of care and maintenance of textiles.

Course Content:

NOL

Unit I	Preparatory processes for gray fabric: open width, rope form, continuous and batch finishing, de-sizing, scouring and bleaching.	(10)
Unit II	Dyeing: Introduction to dyeing, principles of dyeing, methods of dyeing (dope, fiber, yarn, fabric and garment) including the study of auxiliaries used for dyeing and recent developments	(10)
Unit III	Printing: Introduction to printing, styles of printing, methods of printing and study of auxiliaries used for printing and recent developments	(10)
Unit IV	Finishing: Aims of finishing, classification of finishes (physical and chemical processes) and recent developments	(10)
Unit V	Laundry science: Water, cleansing agents, bleaches, optical brighteners, bluing agents, fluorescent whiteners, starches and stiffeners, dry cleaning agents and process, stain removal techniques, household and commercial laundry equipments and recent developments	(100)

References:

- Rouette, H. K. (2001). *Encyclopedia of textile finishing*, Vol I, II & III. (4th Ed.). Berlin: Springer.
- Collier, B. J & Tortora P. G. (2001). *Understanding textiles*. (6th Ed.) Upper Saddle River, N. J.: Prentice Hall Inc.
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- Deulkar, D. (1976). *Household textiles and laundry work*. Delhi. Atmaram Sons.
- D'Souza, N. (1998). *Fabric care*. India: New Age International.
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S.Y.B.Sc. (HOME SCIENCE)
TRADITIONAL INDIAN TEXTILES AND COSTUMES
(THEORY)

Marks:

Objectives:

1. To acquaint the student with the rich Indian heritage of woven, dyed, printed painted & embroidered textiles.
2. To introduce the student to various end-uses of traditional textiles.
3. To acquaint the student to the traditional costumes of India.

Course Content:

- | | | |
|-----------------|---|------|
| Unit I | North India: (Jammu & Kashmir, Punjab) | (15) |
| | a. Floor coverings | |
| | b. Shawls | |
| | c. Embroidery | |
| | d. Costumes and Jewellery | |
| Unit II | West India: (Rajasthan, Gujarat and Maharashtra) | (15) |
| | a. Printed and painted textiles | |
| | b. Tie – dye and Ikat textiles | |
| | c. Woven textiles | |
| | d. Embroidery | |
| | e. Costumes and Jewellery | |
| | f. Floor coverings | |
| Unit III | Central India: (Uttar Pradesh, Madhya Pradesh, Bihar) | (15) |
| | a. Painted textiles | |
| | b. Woven textiles | |
| | c. Embroidery | |
| | d. Costumes and jewellery | |
| | e. Floor coverings | |
| Unit IV | East India: (West Bengal, Himachal Pradesh, Orissa, Assam, Manipur) | (15) |
| | a. Ikat textiles | |
| | b. Woven textiles | |
| | c. Embroidery | |
| | d. Costumes and Jewellery | |
| Unit V | South India: (Andhra Pradesh, Karnataka, Kerala, Tamil Nadu) | (15) |
| | a. Painted textiles | |
| | b. Woven textiles | |
| | c. Embroidery | |
| | d. Floor coverings | |
| | e. Costumes and Jewellery | |

References:

- Ahuja S., Ahuja M. & Maluste M., (1999). *Dhurrie – Flat woven rugs of India*. India: India Book House.
- Chattopadhyaya K., (1976). *Carpets and floor coverings of India*. Bombay: Taraporevala.
- Moubray D. A., Black D., (1999). *Carpets for the home*. London: Laurence King Publishing.
- Mathur A. R., (2004). *Indian shawls: Mantles of splendor*. New Delhi: Rupa & Co.
- Prakash K., (2002). *Warli paintings: Traditional folk art from India*. Mumbai: English Edition Publishers & Distributors (India) Pvt. Ltd.
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- Vequard Y., (1977). *The art of Mithila*. London: Thames & Hudson.
- Kapur C. R., Sanyal A., (1983), *Saris of India – Madhya Pradesh*. New Delhi: Wiley Eastern Ltd.
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- Naik S., (1996). *Traditional embroidery of India*. New Delhi: A P H Publishing Corporation.
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S.Y.B.Sc. (HOME SCIENCE)
TEXTILE SCIENCE & WOMEN'S CLOTHING
(PRACTICAL)

Marks : 50

Objectives:

1. To train students for pattern and garment construction for women using fundamentals of clothing.
2. To train students to analyze fibers and their blends.
3. To introduce students to laundering procedure including stain removal techniques.

Course Content:

1. Fundamentals:
 - a) Plackets-Faced, Kurta Placket
 - b) Collars- Chinese collar with shaped V, square, round neckline and Polo collar.
 - c) Pockets-Front pant pocket and Pouch pocket.
 - d) Corner Finishes- Mitre corner (Outer), Square neck (Inner), Reinforcement.
2. Pattern Construction:
 - a) Adult's Basic Sleeve Block
 - b) Adult's Basic Block and Torso, Basic Sleeve.
 - c) Adaptation of Bodice Block and Torso to Kurta / Top.
 - d) Night wear
 - e) Pyjama / Salwar/ Churidar
 - f) Displacement of darts.(shoulder to side seam, shoulder to center front, French, centralizing shoulder dart) & Concealment of darts (armhole and shoulder)
 - g) Sleeves - Puff sleeve, Leg-O-Mutton Sleeve, Bell Sleeve.(any two depending upon the trend)
3. Garments: Garment Construction
Salwar / Churidar
Top / Kurta
Night Wear
Simple Choli (Without Basque)
4. Textile Science:
Qualitative analysis of fibers: Identification and analysis of fibers by microscopic, burning and chemical solubility tests.
Stain Removal.
5. Journal: with pattern drafting and fundamentals as above.
Journal with experiments and samples.

References:

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- Winifred Aldrich – Women's

S. Y. B. Sc. (HOME SCIENCE)
PRINCIPLES OF RESOURCE MANAGEMENT
(THEORY)

Marks : 100

Objectives:

- 1) To understand and study the effective use of Resources
- 2) To develop an understanding of Human Values, Goals and Standards
- 3) To facilitate understanding of concepts such as Motivation, Leadership & Team Work.

Course Content :

NOL

- Unit I** Introduction to Management (10)
- Definition & Objectives
 - Elements of Management
 - Factors motivating Management
 - Values: Definition, Sources, Classification, Characteristics, Value System, Value Hierarchy, Value Conflict.
 - Goals: Definition, Types
 - Standards: Definition, Classification
 - Management & Change
 - Fayol's Principles of Management
 - Resources
 - Definition
 - Characteristics
 - Classification
 - Use of Resources: Similarities, Guidelines, Factors affecting use

- Unit II** Management Process (9)
- Planning
 - Definition
 - Importance
 - Steps of Planning
 - Types of plans
 - Decision Making
 - Definition
 - Process
 - Types of Decisions
 - Decision Linkages
 - Organizing
 - Meaning
 - Importance
 - Steps in organizing
 - Departmentation

Unit III	Leading (9) Definition Leadership Theories Leadership Styles - Basic Leadership Styles: Autocratic, Democratic, Laissez – Faire - The Managerial Grid Delegating Nature of Delegation Importance Decentralization Authority & Span of Control
Unit IV	Motivating (5) Definition Theories of Motivation based on human needs - The Achievement – Expectation Theory - Maslow's Needs Hierarchy Concept - The Hawthorne Experiments - Herzberg's Theory of Motivation Recognition & Incentives Benefits of Motivation
Unit V	Controlling (7) Definition Phases Budgetary & Non-budgetary Controls Evaluation Definition Types Importance
Unit VI	An Overview of Various Resources (8) Time Types, Time Sense, Philosophy & Attitudes towards Time Time Plans: Types, Advantages, Factors to be considered, Steps involved. Tools of Time Management
Unit VII	Energy (8) Energy demands for different activities Fatigue: Types, Causes & Remedies Energy Expenditure Work Simplification - Definition

- Importance
- Techniques of Work Simplification: Formal & Informal

Unit VIII	Other Resources	(8)
	Money	
	- Use of income: Budgeting, Controlling & Evaluation	
	Human Resources	
	- Concepts	
	- Features	
	- Objectives	
	- Importance	
	Materials	
	- Concept	
	- Features	
	- Importance	
	Information Technology & its use in Management	
Unit IX ^a	Communication	(7)
	- Meaning & Nature of Communication	
	- Communication Structures: Upward Channels, Downward Channels, Lateral Channels, Network, Grapevine	
	- Barriers to Communication	
	- Achieving Effective Communication	
	- Concept of Group Dynamics	
	- Managerial Model of Work Groups	
Unit X	Concepts of Quality Management	(4)
	Meaning & importance of Quality Management	
	Fundamentals	
	TQM, JIT, Quality Assurance, Quality Circles	
	Current Trends in Quality Management	

References:

- Bother, D. (1994). Communicate with Confidence. McGraw Hill Inc. New York.
- Deacon R.E. & Firebaugh F.M. (1981). Family Resource Management – Principles and Application. Allyn & Beacon, Boston.
- Drucker P. (1975). The Practice of Management. Allied Publishers Pvt. Ltd. Bombay.
- Gross, I. & Crandall (1967). Management for Modern Families (2nd Ed). Sterling Publication (P) Ltd., Delhi.
- Mundel, M. E. (1960). Motion & Time Study – Principles & Practice. Prentice Hall Inc. New Delhi.
- Swanson B. (1981). Introduction to Home Management. Macmillan & Co. London.
- Stedl R. & Braton E.C. (1968) Work in the Home. John Wiley & Sons, London.

S. Y. B. Sc. (HOME SCIENCE)
APPLIED ECONOMICS & PERSONAL FINANCE
(THEORY)

Marks : 75

Objectives:

To enable students to

1. understand the basic concepts of Micro-economics
2. acquire knowledge on Savings & Investments in order to achieve financial security.

Course Content:

Unit I

- Introduction to Micro & Macro-economics (14)
- Consumer Behaviour & Demand Analysis
 - Concept of Utility, Total & Marginal Utility, Law of Diminishing Marginal Utility
 - Concept of Demand, Types of Demand, Determinants of Market Demand, Law of Demand
 - Price Elasticity of Demand – Concept & Importance

Unit II

- Producer Behaviour & Supply Analysis (20)
 - Meaning of Supply
 - Market Supply
 - Determinants of Market Supply & Law of Supply
- Forms of Market & Price Determination
 - Perfect Competition
 - Monopoly & Monopolistic Competition: Meaning & Features
 - Price Determination under Perfect Competition

Unit III

- Income Management (17)
 - Types of Income: Money, Real income & Psychic income, personal disposable income
 - Personal Budget, Preparing and Controlling, Evaluating a budget
- Savings
 - Need for savings
 - Types of savings:
 - a. Compulsory savings: Provident Fund
 - b. Voluntary savings: Banks, Government schemes, Basic considerations for selecting a savings plan
- Insurance: Life & General insurance, Its role in a financial plan.

Unit IV

- Investment
 - Meaning
 - Importance of investment decision making
 - Investment avenues
 - Basic considerations for selecting investments

(13)

Unit V

- Credit
 - Meaning
 - Types of Credit
 - Credit Instruments
- Taxes
 - Definition & Meaning
 - Types of taxes: Direct & Indirect Tax
 - Implications on Personal finance
- Wills
 - Definition
 - Terms commonly used in making a Will
 - Guidelines for making a Will

(6)

References :

- Dutt, A. (2001). The Penguin Guide to Personal Finance. Penguin Books India(P) Ltd. New Delhi.
- Kale, N.G. and Bandgar, P.K. (1996). Investment Analysis and Portfolio Management. Vipul Prakashan. Mumbai.
- Seetharaman, P., Batra S. and Mehra P. (2005). Family Resource Management. CBS Publishers & Distributors. New Delhi.
- Shanbhag, A.N. (2007). In the Wonderland of Investment. 26th ed. Popular Prakashan. Mumbai
- Shukul M. & Gandotra, V. (2006). Home Management and Family Finance. Dominant Publishers and Distributors. New Delhi.

Objectives:

1. To help students develop awareness and skills with regard to the production and use of selected media.
2. To facilitate students' oral and written expression in English.
3. To provide students with skills in scientific writing and report writing.
4. To help students reflect on their career goals and put together their curriculum vitae.
5. To encourage personal, familial, community and professional value-grounding in students, enabling them to be better human beings.

Course contents :

SECTION I (45 marks)
COMMUNICATION SKILLS, ORAL AND WRITTEN EXPRESSION IN ENGLISH

NOL

Unit I Visual Communication or Basic audio-visual aids (15)

- a. Posters, flash cards, flip charts and flannel boards
- b. Communicating through puppets and puppetry (importance, uses and basic production related skills)
- c. Communicating through theatre, drama and street plays (importance, uses and basic production related skills)
- d. Technologically-aided: Transparencies and PowerPoint slides

Unit II Techniques in Presentation (7)

- a. Lecture/Speech
- b. Symposium
- c. Panel Discussion

Unit III Scientific Writing and Report writing (18)

- a. Use of resources in scientific writing
- b. Precis writing
- c. What is a report and importance of report writing
 - i) Types of reports
 - ii) Writing a report (contents: format/style of report writing)
- d. What is Curriculum Vitae/Resume?
- e. Purpose of a resume
- f. How to write a resume? (Parts of a resume; covering letter for the resume; presentation of the resume – layout and typing)
- g. Writing a job application.

Unit IV Personal and Contemporary Values

(25)

- a. Education and Values
- b. Culture and Values
- c. Need for Integration of Educational and Cultural Values
- d. Constitution and Positive Values
- e. Values of Human Rights and Animal Rights
- f. Interreligious and Communal Harmony
- g. Science and faith
- h. Media Influence on values
- i. Gender Equality

Unit V Integrating values

(10)

- a. Acknowledging dilemmas between meeting different types of values
- b. Resolving dilemmas in ways that honour well-being

References:

- Alder, R.B., & Rodman, G. (2000). Understanding human communication. (7th Ed.) New York: Harcourt College
- Block, D.P. (1994). Writing a resume. Chicago: NTC Learning Works.
- Charles, E. (1999). Value education today – A manual for teachers. Mumbai: St. Xavier's Institute of Education Society.
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- Kumar, K.J. (1997). Mass communication. (3rd Ed.) Mumbai: Vipul Prakashan.
- Mani Jacob (Ed.) (2002) Resource book for Value Education. Institute of Value Education, New Delhi
- Nata, V.G., & Kaur, C. (1997). Business communication. (5th Ed.) Mumbai: Vipul Prakashan.
- Reader's Digest. (1997). Write better, speak better. New York: Reader's Digest Association.
- Sharma, S.R. (1999) Morality in Indian Education. Cosmo Publications, New Delhi.

S.Y.B.Sc. PROPOSED SYLLABUS

Subject	Theory / Practical	Total Marks	No. Of Periods	Teacher Workload
<i>FOODS, NUTRITION & DIETETICS</i>				
Meal Planning	Theory	75	3 X 2	6
Community Health	Theory	50	2 X 2	4
Nutrition & Meal Planning	Practical	50	3 X 7	21
<i>HUMAN DEVELOPMENT</i>				
Devlp. In Adulthood	Theory	100	3 X 2	6
Methods of Child, Adolescent & Adult Study	Theory	50	2 X 2	4
Developmentally Appropriate Practice I	Practical	25	2 X 7	14
<i>TEXTILE & FASHION TECHNOLOGY</i>				
TFT II - Textile Technology	Theory	50	2 X 2	4
TFT III - Traditional Indian Textiles & Costumes	Theory	75	3 X 2	6
Textile Science & Women's Clothing	Practical	50	3 X 7	21
<i>COMMUNITY RESOURCE MANAGEMENT</i>				
Principles of Management	Theory	100	3 X 2	6
Applied Economics & Personal Finance	Theory	75	3 X 2	6
Foundation Course	Theory	75	3 X 2	6
Computer Application II (Value Added)	Practical	25	--	--
TOTAL		800		104

University of Mumbai



Revised Syllabus for the

T. Y. B.Sc.

In
Home Science

(with effect from the academic year 2009 – 2010)

T.Y.B.Sc. (HOME SCIENCE)
(Revised Syllabus w.e.f. Academic Year 2011 – 12)

BRANCH I : FOODS, NUTRITION AND DIETETICS

PROPOSED SYLLABUS AND MARKING SCHEME

SUBJECT	Theory/Practical	Internal Marks	Final Exam Marks	Total Marks	Periods per week per batch	Univ. Exam	Internal/ External
Nutritional Biochemistry	Theory	25	75	100	3	3	Both
Clinical Nutrition & Diet Therapy	Theory	25	75	100	3	3	Both
Food Microbiology & Preservation	Theory	25	75	100	3	3	Both
Community Nutrition	Theory	10	40	50	2	2	Both
Human Nutrition	Theory	25	75	100	3	3	Both
Food Service Management	Theory	15	60	75	3	2 ½	Both
Diet Therapy	Practical	25	75	100	4	4	Both
Community Nutrition (FW & Seminar)	Practical	50	--	50	3 (Total)	--	Internal
Food Analysis & Clinical Biochemistry	Practical	15	60	75	4	4	Both
Food Service Management	Practical	50	--	50	3	--	Internal
Placement/Internship/ Hospital/Industry/NGO	2 to 3 weeks						
TOTAL				800			

T.Y.B.Sc (HOME SCIENCE)
BRANCH I: FOODS, NUTRITION AND DIETETICS
NUTRITIONAL BIOCHEMISTRY
(THEORY)

Marks: 100

Objectives :

1. To enable the students to apply the knowledge of nutrition and role of nutrients in the body.
2. To understand the chemistry, metabolism of the nutrients in the living system during health and disease.

Course Content :

NOL

Unit I A brief review of bioorganic chemistry of hydrocarbons, chemical bonds, asymmetry, optical activity and stereoisomerisms. (2)

Unit II Carbohydrate Chemistry
 Definition, classification, sources, functions of sugars. (7)
 Reactions of monosaccharides w.r.t. Glucose and their significance
 a. Oxidation $\longrightarrow$ Sugar Acids
 b. Reduction $\longrightarrow$ Sugar Alcohols
 c. Reducing property in alkaline medium (enediol/formation)
 d. Amino sugars, deoxy sugars
 e. Hemiacetal, hemiketal
 f. Ring structure of glucose. Disaccharides – Structure, function and sources of lactose, Maltose, Sucrose.
 Oligosaccharides Structure, functions sources of Raffinose, Trehalose, Stachyose
 Polysaccharides – Homo and Hetero: Composition, Functions, structure of starch, cellulose only.

Carbohydrate Metabolism (2)

Cellular location, sequence of reactions, (8)
 Embden meyerhof pathway Glycolysis (aerobic and anaerobic) & Energetics
 Kreb's cycle, Uronic acid pathway
 Hexose monophosphate pathway – Cellular location, sequence of reactions
 Glycogen metabolism – Role of c-AMP.
 Homeostasis of blood glucose.
 Metabolism of fructose, Galactose, Sorbitol

Unit III Proteins
 Chemistry
 Classification and structures of amino acids. (7)

Chemical reactions of amino acids with following reagents – Ninhydrin, Sanger's, Edman's, Dansyl chloride, sequence of a short peptide.
Classification of proteins on basis of shape and function, formation of peptide bond
Forces stabilizing protein structure
Structural organization of protein molecule – alpha-helix, . β -pleated sheet ,
Myoglobin , Hemoglobin
Protein denaturation.

Protein Metabolism (7)
Reactions of amino acids – Transamination. Decarboxylation (His, Tyr, Trp, Glu).
Deamination Oxidative (Glu, Tyr) Non-oxidative (Asp, Cys, Ser).
Urea cycle – Cellular location, sequence of reactions
Detoxification of NH_3 .

Unit IV Lipids (8)
Chemistry
Definition and Bloor's Classification
Fatty acids – Definition, classification (only even C fatty acids)
Unsaturated fatty acids , MUFA, PUFA, W – 3,6,9
TAG, Simple & mixed.
Definition of Saponification number, Acid number, Iodine number and R-M number.
Compound lipids – Structure and functions of Glycerophospholipids, Sphingolipids,
Glycolipids, Lipoproteins.
Steroids – Structure and functions of Cholesterol.

Lipid Metabolism (8)
Knoop's - oxidation of even C fatty acid and its energetics.
Ketone body formation, utilization, & physiological significance in diabetes mellitus,
starvation, alcoholism and pregnancy.
Fatty acid biosynthesis only Palmitic acid.
Role of Fatty acid synthase

Unit V Inborn errors of metabolism (7)
Carbohydrate – Fructosemia, Galactosemia, Galactosuria.
Amino acid – Phe, Tyr, Met, Trp
Lipid storage disorders
Metabolic/Respiratory acidosis and alkalosis.

Unit VI Enzyme Chemistry (6)
Definition, Apoenzymes, Holoenzymes, Coenzyme, Cofactors, Active site, prosthetic
group, Allosteric site, Isoenzyme
Enzyme specificity, Turnover number, Units – Katal, IU.
IUB Classification (upto 1 digit)
Factors affecting enzyme activity.
Definition of K_m and significance.
Enzyme inhibition – Reversal and Irreversible.

Unit VII Nucleic Acid Chemistry

(4)

Structure of purines & pyrimidine bases.
Nucleosides, Nucleotides c-AMP, polynucleotide strand.
DNA – Chargaff rules, Watson and Crick model, physical properties of DNA – denaturation, T_m
RNA - m- RNA, t-RNA, r-RNA in prokaryotes.

Metabolism of Nucleic Acids: DNA replication, Transcription,
Protein Translation biosynthesis in prokaryotes and post translational modification.

Unit VIII Hormones

(5)

Definition, Hormone receptor, classification
Chemistry and functions of Thyroxine, Insulin, Catecholamines, Glucocorticoids.
Endocrine disorders, Diabetes Mellitus, Diabetes insipidus, Hypo & Hyperthyroidism.

Unit IX Bioenergetics. Biological oxidation (Brief), Electron Transport Chain

(2)

Phosphorylation – Oxidative, Substrate level, Redox Potential, ATP (structure and functions).

Unit X Nutrient Drug interaction.

(2)

References :

Berg, Jeremy Mark, Tymoczko, John L & Stryer. (2002). Biochemistry 5th ed. New York. W.H. Freeman & Co.

Brody Tom. (2004). Nutritional Biochemistry 2nd ed. New Delhi. El sevier/Reed.Elsevier.India Pvt. Ltd.

Chatterjee, M.N. Shinde and Rana. (2005). Textbook of Medical Biochemistry, 6th ed. New Delhi, Jaypee Brothers. Medical Publisher.

Dandekar Sucheta P. (2002). Medical Biochemistry (Prep Manual for U.G.) 2nd ed. New Delhi B-1 Churchill Livingstone Pvt. Ltd.

Rastogi S.C. (1993). Biochemistry New Delhi, Tata McGraw Hill Publishing Co. Ltd.

T.Y.B.SC (HOME SCIENCE)
BRANCH I: FOODS, NUTRITION AND DIETETICS
CLINICAL NUTRITION & DIET THERAPY
(THEORY)

Marks : 100

Objectives

1. To impart the concept of modifying normal diets to therapeutic diets.
2. To enable the students to understand the underlying disease conditions, possible complications and pathological states.
3. To train students to plan appropriate nutrition intervention approaches and diets.
4. To enable the students to focus on the preventive role of nutrition in the current life style situations.

Course Content :

NOL

Medical Nutrition therapy

Each of the diseases to be discussed under the following heads

- Etiology
- Pathophysiology
- Diagnosis
- Management with special emphasis on nutritional care.
- Prevention

Unit I Principles of Diet Therapy:-

(7)

- Team work in nutritional care
- Rationale of nutritional modification necessary in disease condition.
- Principles of Diet Therapy
- Review of Normal diet & Standard hospital diet & adaptation
- Nutritional counseling
- Nutritional Support:-
 - Enteral Nutrition
 - Parenteral Nutrition

Unit II Weight Management

(10)

- (a) Regulation of food intake
 - Short term and Long term regulation
 - Set point theory
- (b) Obesity and Overweight:-
 - Body weight components
 - Classification of obesity (gynoid/andrnoid and hypehophe/hypespla....)
 - Etiology
 - Assessment of obesity and prevalence in Indian situation.
 - Complication of obesity

- Management
 - Medical (pharmacological)
 - Diet and Exercise (Discussion on popular diets & practices)
 - Surgical
 - Behavioural & lifestyle modification
 - Juvenile Obesity

(c) Eating disorders (Anorexia Nervosa & Bulimia)

- Management
- Medical
- Nutritional care
- Psychological support
- Prevention

Unit III Diabetes Mellitus

(10)

Definition

Oetiology

Classification

Complication – Long and Short term

Diagnosis

Management

--- Insulin Therapy

--- Dietary Management

--- Exercise

--- Pharmacological

(overview) Special conditions

- Children
- Pregnancy
- Role of Nutrition Education
- Role of Nutrition in Prevention

Unit -IV Cardiovascular diseases

(7)

(a) Prevalence, incidence, mortality with special reference to Indian situation.

Patho physiology (Review)

Atherosclerosis

Endothelial dysfunction

Thrombosis

Myocardial Infarct

Angina Pectoris

Congestive cardiac failure

(b) Hyperlipidemias – classification, diagnosis and nutritional management

- (c) Hypertension
Oetiology
Risk factors
Pathophysiology
Management

- (d) Metabolic syndrome and role of nutrition in its prevention.

Unit V Diseases of the G.I.System: (7)

- GERD, oesophagitis, hiatal hernia
- Acute and chronic gastritis & peptic ulcer disease (gastric & duodenal)
- Gluten induced enteropathy
- Lactose intolerance
- Diarrhea, constipation, flatulence
- Inflammatory bowel diseases

Unit VI Diseases of the Liver, Biliary system and Pancreas : (10)

(i) LIVER:-

- Functions of the liver
- Assessment of liver function
- Viral Hepatitis (brief)
- Chronic & Fulminant hepatitis
- Effects of Alcohol on liver
 - Alcohol liver disease
 - Cirrhosis
 - Hepatic encephalopahsy
 - Liver Transplantation

- (ii) GALL BLADER Functions of Gall bladder
- Chole lithiasis
 - Chole cystitis

- (iii) PANCREAS
- Function of pancreas
 - Pancreatitis (acute & chronic)

Unit VII Renal diseases: (10)

- Function of the kidney
- Nephritis – acute and chronic
- Nephrotic syndrome
- Renal failure
- ARF
- CRF
- Renal Transplant
- Nepholithiasis (Calcium oxalate & uric acid stores)

Unit VIII Dietary management involved in the following inborn errors of metabolism. (2)

Phenylketomemia
Wilson's disease

Unit IX Nutrition & Immunity (6)

- Immuno nutrients
- Nutrition in infections
- Nutrition in allergies

Unit X Basic concepts of nutritional management in the following conditions: (6)

Osteoarthritis, Rheumatoid arthritis & osteoporosis

COPD

Cancer

Surgery & Burns

Neurological diseases Alzheimer's, Parkinson's disease and Epilepsy.

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- Antia F.P. (1997). Clinical dietetics and nutrition. (4th Ed.) New Delhi: Oxford University Press.
- Bennion, Marion; (1997). Clinical nutrition. (7th Ed.) New York: Harper and Row Publishers.
- Burton B.T. (1980). Human nutrition. (3rd Ed.) New Delhi: Tata McGraw Hill.
- Davidson and Passmore. Human nutrition and dietetics. (18th Ed.) New Delhi: Tata McGraw Hill Publications.
- Garrow J.S. (1993). Human nutrition and dietetics. (9th Ed.) New York: Churchill Livingstone.
- Krause and Mahan. (1996). Foods, nutrition and diet therapy. (10th Ed.) Philadelphia: W.B. Saunders.
- Robinson: (1989). Normal and therapeutic nutrition. (7th Ed.) New York: Macmillan Pub. Company.
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- Zeeman, Frances J. (1998). Applications of clinical nutrition. Englewood cliffs: Prentice Hall International inc.

T.Y.B.Sc. (HOME SCIENCE)
BRANCH I: FOODS, NUTRITION AND DIETETICS
FOOD MICROBIOLOGY & PRESERVATION
(THEORY)

Marks:-100

Objectives:

1. To introduce students to the field of microbiology and its relevance to food deterioration & preservation.
2. To impart knowledge regarding principles and techniques of preserving foods.
3. To enable students to understand principles of hygiene & sanitation in a food industry.

Course Content:-

NOL

Unit I

A Major groups of microorganisms:-

(7)

Introduction to Bacteria, Yeast, Mold, Algae, Protozoa and Virus.

Classification, morphology, reproduction and growth requirements of:- Bacteria, Yeast & Mold.

B Intrinsic and extrinsic parameters of foods that affect their microbiology:-

(4)

a) Intrinsic factors:- pH, moisture content, oxidation-reduction potential (Eh), nutrient content, antimicrobial constituents and biological structures.

b) Extrinsic factors:- Temperature of storage, relative humidity of environment, presence & concentration of gases in the environment.

Unit II

(12)

Microbial flora, spoilage, sources, characteristics and contamination in the following foods:-

- a) Cereals & cereal products.
- b) Pulses & Pulse products.
- c) Vegetables & fruits.
- d) Fish & other seafoods
- e) Meat, meat products & poultry.
- f) Eggs
- g) Milk & milk products.
- h) Processed & convenience foods

Unit III

(5)

A) Non microbial deteriorative factors in foods other than microorganisms.-

- a) Activities of food enzymes & other chemical reactions within food itself.
- b) Infestation by insects, parasites & rodents.
- c) Inappropriate temperature for a given food.
- d) Gain or loss of moisture.
- e) Reactions with oxygen
- g) Light
- h) Physical stress & abuse.
- i) Time

B) General Principles of Food Preservation:- Meaning, mode of action, and changes in foods:- (3)

UNIT IV TO IX :--Techniques of food preservation

Unit IV

a) Use of high temperature (Heat Preservation):- Degrees of heat preservation :- (Blanching, pasteurization, canning, commercial sterilization); heat resistance of microorganisms (Thermal Death Time); selection of appropriate temperature. Protective effects of food constituents; methods used for heating food before & after packaging. (6)

Unit V

Use of low temperature (Cold Preservation):- Refrigeration & cool storage, Requirements of refrigerated storage. Freezing & frozen storage. Freezing methods:- Air Freezing, indirect contact freezing, immersion freezing. Changes in foods during refrigeration & frozen storage (6)

Unit VI

Use of dehydration & concentration:- Benefits, factors affecting heat & mass transfer, physical & chemical changes during dehydration & concentration. Methods and techniques used:- Air convection driers, Drum driers & Vacuum driers. Use of various evaporators for concentration of foods. (7)

Unit VII

a) Use of food additives:- Broad classes of intentional food additives:- Preservatives, Antioxidants, sequestrants, surface active agents, stabilizers, thickeners, bleaching and maturing agents. (5)

Unit VIII

a) Use of ionizing radiations & Microwave heating:- Ionising radiations & sources, units of radiation, radiation effects, mechanism of microwave heating, Application of radiation technology. (5)

Unit IX

Use of fermentation technology:- Benefits & mechanism of fermentation. Factors controlling fermentations in various foods. Fermented products:- Beer, Wine & soyabean products (7)

Unit X

a) Packaging of foods:- Functions & requirements of food packaging. Types of containers, Food packaging materials & forms, Package testing. (4)

b) Food laws, Food standards (National & International) and Systems. (HACCP & TQM) used in controlling quality of foods. (4)

References:-

- Frazier, W.C. and Westoff, D.C. (1998) Food Microbiology New Delhi; Tata McGraw Hill
- James, M.J. (1996) Modern Food Microbiology (4th ed) New Delhi: Published by S.K. Jain for C.B.S. Publishers & distributors.
- Pelczar, M.J., Reid, R.D. and Chan (2000) Microbiology New Delhi: Tata McGraw Hill
- Potter, N.H. and Hotchkiss, J.H. (1996) Food Science, (5th ed) New Delhi: C.B.S. publishers and distributors.
- Subbulakshmi, G and Udipi, S.A. (2001) Food Processing and Preservation New Delhi: New Age International Ltd publishers.)
- Manay, N.S. and Shadaksharswamy, M (2004) Food Facts and Principles New Delhi: New age international Ltd publishers.

T.Y.B.SC (HOME SCIENCE)
BRANCH I: FOODS, NUTRITION AND DIETETICS
COMMUNITY NUTRITION
(THEORY)

Marks: 50

Objectives

1. To create an awareness among students about the nutritional problems of the community with special emphasis on vulnerable sections.
2. To understand the different methods of assessing nutritional status of the community.
3. To recognize the deleterious effects of malnutrition in the development of our nation and means of combating the same.

Course Content :

Unit I	Concept of community nutrition and malnutrition	(3)
	Indicators of malnutrition:	
	Infant mortality rate, Child Mortality	
	Maternal mortality rate	
	Birth rate	
	Death rate	
	Identification of vulnerable groups	(6)
	Pregnant women	
	Nursing mother	
	Infants, Children	
	Special emphasis to girl child (including adolescents)	
Unit II	Trends in population growth & food production in India	(3)
	Strategies for augmenting food production	
	Green, White, brown and blue revolution	
	Per capita food availability and factors influencing it.	
	Problem of malnutrition in India and background factors	(7)
	responsible for it and its impact on National development	
	Socio-economic	
	Cultural and educational	
	Food production and food availability	
	Food consumption patterns	
	Food storage and distribution.	
	National guidelines on infant and young child feeding	
	Food based strategies for control of deficiencies.	
Unit III	Nutritional problems in India and Relevant national health programmes.	(9)
	Vitamin A deficiency (xerophthalmia – National prog for control of	
	Blindness	
	Anaemia	
	Osteoporosis & Rickets	
	IDD – national Goitre control programme	
	PEM – National Nutrition Programme.	

Unit IV Assessment of Nutritional Status of a community – (theoretical aspects). (5)

Anthropometry

Measurement of height, weight, head and chest circumferences, mid arm circumference, skin fold, thickness, interpretation of measurements and comparison with standards (NCHS, ICMR), classification according to grades of malnutrition.

Clinical signs and symptoms of PEM, mineral and vitamin deficiencies, (5)

Biochemical parameters for assessing nutrition status.

Diet Surveys

Sampling techniques. (4)

Unit V Nutritional education and nutritional intervention schemes/programs (5)

operating in INDIA

Communication for Behavioural change ,planning, conducting, evaluating the nutrition education programmes.

Nutrition intervention schemes ,ICDS, midday meals (3)

Food Based strategies for control of deficiencies.

National guidelines on infant and young child feeding.

Role of various national and international agencies in promoting nutrition and health status of the vulnerable sections of society eg. FAO, WFCO, UNICEF, NIM, CFTRI,

CARE.

References :

Beredict A. (1997) Preventive Nutrition – The Comprehension guide to health professionals (Ed.) New Jersey : Huma. Press Inc.

Ebrahim G. J. (1983) Nutrition in mother and child health – London Mac Millan and Co.

Gopaldas T. Seshadri S. (1987) Nutrition monitoring and assessment Delhi : Oxford University Press.

Jelliffe D (1966) The assessment of Nutritional Status of the Community. Geneva WHO.

Osman, S.R. (1991) Nutrition and Poverty (Ltd.) Oxford; Oxford University Press

Rajlaxmi, R. (1981) Applied Nutrition, New Delhi : Oxford and IBH

Shukla P. (1982) Nutritional Problems of India, New Delhi Pretice Hall of India.

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Wadhwa A, Sharma S. (2003) Nutrition in the Community (New Delhi) Elite Publishing House Pvt. Ltd.

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Wadhwa A, Sharma S. (2003) Nutrition in the Community (New Delhi) Elite Publishing House Pvt. Ltd.

T.Y.B.SC (HOME SCIENCE)
BRANCH I: FOODS, NUTRITION AND DIETETICS
HUMAN NUTRITION
(THEORY)

Marks : 100

Objectives:

1. To reinforce the basic principles of nutrition
2. To impart in-depth knowledge on the functions, deficiency and toxicity of macro and micronutrients.
3. To enable the students to apply knowledge of nutrition to daily life.

Course Content :

		NOL
Unit I	Human Body composition: Models of Body Composition changes in body composition during life cycle. Effect of Nutrition on body composition.	(6)
Unit II	Determination of RDAs:- Concept of RDA, Methods of deriving RDAs, Criteria for the interpretation and application of RDAs.	(6)
Unit III	Macronutrients: <u>Carbohydrates:-</u> Review of classification and functions. Effect of sugars and complex carbohydrates on health. Fibre supplements.	(4)
	<u>Proteins :-</u> Review (Brief) of classification and functions; Evaluation of Quality of Proteins : Biological and Chemical methods, Amino Acid antagonism/ Toxicity / Supplementation/ Requirements and Deficiency. Assessment of Protein Nutritional Status	(6)
	<u>Lipids -</u> Brief review of classification and functions. Health effects of EFA, MCTs, SFA, cholesterol and Transfats. Role of Phospho lipids in the body, oil blends.	(4)
Unit IV	<u>Energy :</u> Measurements of Energy Expenditure, Estimation of Energy requirements, review of factors affecting BMR and TEE; Nutrients involved in energy metabolism, Excess and deficiency of Energy.	(8)

Unit V	Vitamins – Fat soluble and water soluble vitamins Chemistry, Metabolism, functions, RDA, deficiency and Toxicity: Effect of cooking and/or processing	(15)
Unit VI	Minerals – Metabolism, functions, RDA, Deficiency and Toxicity of Major and Trace minerals. Effect of Cooking/Processing.	(8)
Unit VII	Inter-relationship between Macro-nutrients, Micronutrients and Macro and Micronutrients	(4)
Unit VIII	Phytochemicals and Functional foods - An Overview	(2)
Unit IX	Role of nutrients in the maintenance of fluid and electrolyte balance.	(4)
Unit X	Nutrition for special conditions:- -Sports Nutrition- - Metabolism of macronutrients and importance of micronutrients for sports persons -Nutritional and non nutritional ergogenic aids -Space nutrition -Nutrition at high altitudes	(8)

References:

- Anderson, L., Dibble, M. and Mitchell, H. (1992) Nutrition in Health and disease, 17th ed., J.B. Lippincott Co. Philadelphia
- Bamji, M., Prahlad Rao, N. and Reddy, V., Textbook of Human Nutrition., Oxford and IBH Pub. Co.
- Davidson, S., Passmore, R., Brock, J and Truswell, A., (1975) Human nutrition and Dietetics, 6th ed., ELBS Edinburgh
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- Robinson, C. and Lawler, M., (1982) Normal and therapeutic Nutrition, 16th ed., Macmillan publishing Co. New York
- Williams, S. (1981) Nutrition and Diet Therapy, 4th ed., the C.V. Masby Co., Missouri.

T.Y.B.Sc. (HOME SCIENCE)
BRANCH I: FOODS, NUTRITION AND DIETETICS
FOOD SERVICE MANAGEMENT
(THEORY)

Marks : 50

Objectives :

1. To be aware of the scope of FSM in commercial and welfare organizations
2. To learn and develop skills in menu planning
3. To acquire knowledge about the process of food preparation and service.
4. To understand concepts of Marketing and Entrepreneurship with reference to Food Service organizations.

Course Content :

NOL

(6)

Unit I

Brief History and study of the Development of the Food Service

Industry/Organisations

Commercial /Welfare

Factors affecting growth of the industry

Recent trends in Food Service

Food Services

Classification of Food Services

System approach to Food Service Management

Types of Food Service systems.

Unit II

(10)

Menu

Menu planning -- Menu Types

Factors affecting Menu planning

Trends in Menu presentation

Menu writing, design and format

Evaluation of Menu

Menu Marketing

Unit III

(20)

Food Product Flow

A. Kitchen Design and Layout

Procurement – Purchasing, Concepts of Market, Buyer, Vendor etc.

Methods of Purchasing

Purchasing Process

Receiving Facilities required for good receiving practices.
The Receiving Process
Storage
Inventory Records and Control

Production Recipe Formulation
Forecasting
Quantity Production
Equipment needed for food production
Production Scheduling, Control and Evaluation
Energy Management in Production

B. Distribution and Methods of distribution and service

Service Factors Affecting choice of distribution systems
Styles of service
Service Management
Equipment needed for Service
Outputs – Meals, satisfaction and Accountability

Food Safety Controlling Microbial quality of food throughout the food flow.
Proper Food Handling.
Foodborne Illness
Standards for food safety
Employee Health and Personal Hygiene
Sanitation and Maintenance Standards
Risk Management

Unit IV

Resource Management

Human Resources with reference to FSO
Employment Process
Developing and maintaining workforce
Productivity Improvement
Labour Relations
Financial Resources
Financial Statements
Tools used for Analysis
Budgeting
Menu Pricing
Controlling costs

(6)

Unit V

Marketing Food Service

Unique aspects of Food Service Marketing
Marketing as a Managerial Function
Merchandising and Sales
Promotion in FSO

(8)

Entrepreneurship in Food Service

Starting a catering business
Facilities needed – equipment, space, human skills etc.
Pricing decisions
Selling Products and Services
Legal and Financial issues.

References:

- Bhojwani M. (2007) , Food service Management : Principles and Practice
Eckel P. J. (1985), College and University Food Service Management
Delfakis H, Nancy L, Van Burns J (1992) , Food Service Management
Spears M. C ,Vaden A. E (1985), Food Service Organizations—A management and systems approach
Drummond K. (1997) Nutrition for the Food Service Personnel
National Association Institute (1998) Handbook for Food Service Management
Verghese B (1999) Professional Food and Beverage Service Management
. Singh Y..P. (2001) Effective Food Management
Fox A. (1971) Hygiene and Food Production.

References on Entrepreneurship:

- Barrow Colin, Brown Robert, Clarke Liz, (2006). The Successful Entrepreneurs guide book
London: Kogan and Page.
Shring S, Jardine R., Mills J. (2001). Introduction to Catering. India : Delmar – Thomson Learning
Coltman Michael M. (2000). Start and Run Profitable Restaurant. Mumbai: Jaico Publishing House.
Erdosh George (2000). Start and Run a Profitable Catering Business. Mumbai : Jaico Publishing House.

T.Y.B.Sc. (HOME SCIENCE)
BRANCH I: FOODS, NUTRITION AND DIETETICS
DIET THERAPY
(PRACTICALS)

Marks : 100

Objectives:

1. To familiarize the students with basic concepts of raw and cooked weights of foods the appropriate weights of measures and standardization procedures.
2. To teach diet modification through use of food exchange lists and calculated values.
3. To learn to plan therapeutic diets for management of clinical disease conditions.

Course Content:

1. Standardization of weights & measures -- dry and liquid

2. Standardization of some basic recipes

3. Diet Planning for various therapeutic conditions.

(a) Obesity

(b) Under weight, PEM & fevers

(c) Diabetes Mellitus

-- Type I

-- Type II

-- Gestational DM

(d) Disease of Gastrointestinal tract (upper)

-- Oesophagitis & GERD

Peptic ulcers – Gastric & esophageal

(e) Diseases of the gastrointestinal tract (lower)

-- Diarrhoea

-- Constipation and Flatulence

-- Gluten induced enteropathy

-- Lactose intolerance

-- Inflammatory bowel diseases

(f) Cardiovascular diseases

-- Myocardial infraction

-- Hypertension

-- Metabolic syndrome

-- Hyperlipidemias

-- Congestive cardiac failure

(g) Liver diseases :-

-- Hepatitis

-- Cirrhosis

-- Alcoholic liver disease

- Hepatic Encephalopathy
- Gall bladder diseases
- Cholecystitis
- Cholelithiasis
- Pancreatitis

(h) Renal diseases

- Glorreunephritis
- Nephrotic syndrome
- Acute renal failure
- Chronic renal failure
 - Conservative mgmt
 - Haemo and Peritoneal dialysis
 - Renal transplant
- Calcium oxalate & uric acid stones.

References :

- Roth, R.A. and Townsend C.E. (2003), Nutrition and Diet Therapy. Thomson, Delmar Learning.
- Whitney E.N. and Rolfes S.R. (2002) Understanding Nutrition. Wadsworth, Thomson Learning.
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- Rolfes, Pinn & Whitney (2006). Understanding Normal and Clinical Nutrition. Thompson Wadsworth.
- Peckenpauh. N.J. (2003) Nutrition Essentials & Diet Therapy. Saunders Publications.

Additional Reading

- Mermel, V.L. (1995). Focus on Nutrition Mosby Publications.
- Williams. S.R. (1993) Nutrition & Diet Therapy. Mosby Publication.

T.Y.B.SC (HOME SCIENCE)
BRANCH I: FOODS, NUTRITION AND DIETETICS
SUB. COMMUNITY NUTRITION
(PRACTICALS)

Marks: 50

Objectives :

1. To study and acquire skills for the different methods in the assessment of nutritional status of the community.
2. To prepare and use the various types of communication aids for imparting nutrition education.

Course Content :

1. Assessment of nutritional status.
 - (a) To learn techniques of measuring height, weight, head and circumference, chest circumference, mid arm circumference.
 - (b) Interpretation of results and comparisons with standards.
 - (c) Classification according to grades of malnutrition.
2. Nutrition education
 - (a) Preparation of various audio visual aids-puppets, posters etc.
 - (b) Learning different techniques – demonstrations, story telling, skits, exhibitions.
3. Visits to various community centres-governmental and non-governmental

References :

- Gopaldas, T. Seshadri, S. (1987). Nutrition monitoring and assessment. Delhi. Oxford University Press.
- Jelliffe, D. (1966). The assessment of nutritional status of the community. WHO (Geneva).
- Swaminathan, M. (1985). Essentials of food and nutrition. Vol. I and II. Bangalore: Bangalore Printing and Publishing Ltd.

T.Y.B.SC (HOME SCIENCE)
BRANCH I: FOODS, NUTRITION AND DIETETICS
FOOD ANALYSIS AND CLINICAL BIOCHEMISTRY
(PRACTICALS)

Objectives:

1. To impart practical skills in analytical procedures of foods and synthetic body fluids.
2. To enable the students understand the significance of various food and biochemical components
3. To enable the students understand the principles of various analytical techniques.

Marks: 7

Course Content :

1. **Standardization of Acids and Alkalis**

2. **Food Analysis**

I. Chemical Analysis of foods

Macronutrients :

- a) Quantitative Estimation of sugar in foods by BQR & Lane – Eynon's methods (Fruit juices, Carbonated beverages)
- b) Estimation of total fat in foods by Soxhlet method – (Nuts & oil seeds, Fried foods etc.)
- c) Qualitative analysis of fat in foods – Determination of Iodine No., Saponification No. and Peroxide value.
- d) Quantitative Estimation of Protein in foods by Macrokjeldahl method (nuts, oilseeds, cereals and pulses)
- e) Qualitative analysis of Protein by chromatography (with explanation of different chromatographic techniques by Resource Persons (demonstration).
- f) Estimation of moisture in foods.
- g) Estimation of crude fibre.
- h) Estimation of ash

Micronutrients

Estimation of minerals – Ca, P, iron, Na and K.

Calcium – EDTA Method

Phosphorus – Fiske and Subba Rao Method

Iron – Ram, say's/Wong's method

Na – Fluorimetry (Demonstration)

K – Flame Photometry (Demonstration)

Vitamins

Estimation of Vitamin C in different foods dye method

II. Microbial analysis of food

- (a) Techniques of sterilization and Preparation of microbial media.
- (b) Plating techniques and Staining techniques.

Clinical Biochemistry :- In synthetic body fluids.

3.

Urinary analysis.

- (a) Qualitative analysis of urine for abnormal constituents – glucose, bile pigments etc.
- (b) Estimation of urinary creatinine.

Blood analysis

- (a) Estimation of blood glucose
- (b) Estimation total cholesterol by kit method.
- (c) Estimation of Haemoglobin by Sahli's and Drabkins method.
- (d) Estimation of Serum Protein and A:G ratio.

References :

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T.Y.B.Sc. (HOME SCIENCE)
BRANCH I: FOODS, NUTRITION AND DIETETICS
FOOD SERVICE MANAGEMENT
(PRACTICALS)

Marks: 50

1. Menu Planning
 - types of menu patterns
 - Menu evaluation
 - Menu presentation
2. Standardization of Recipes
 - Recipe Formulation
 - Stepping up for Quantity Production
3. Study and Preparation and presentation of
 - Soups
 - Snacks
 - Sandwiches and Salads
 - Mock tails
 - Baked dishes (savory/Sweet)
 - Desserts
4. Planning and preparation of different cuisines --- Indian, Chinese, Italian, Continental etc.
5. Food Service
 - Preparation
 - Procedures
 - Styles of Service
 - Clearing
 - Service Equipment
6. Napkin Folding
7. Flower Arrangement
8. Fruit and Vegetable carving

References :

- Lillierap D.R. (1998). Food and beverage service. (5th Ed.). Elbs/Holder and Stoughton.
Morrison Paul. (1993). Cost management for profitable food and beverage operations. John
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Verghese B. (1999). Professional food and beverage service management. Bangalore :
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T. Y. B. Sc. (Home Science)
Branch II: Human Development

Subject	Theory/ Practicals	Internal Marks	University Exam Marks	Total Marks	Periods of Class per week per batch	University Exam hours	Internal/ External
Counseling and Psychological Testing	Theory	25	75	100	3	3	Both
Human Exceptionality	Theory	25	75	100	3	3	Both
Exceptional Children (Practical)	Practical	25	-	25	2	-	Internal
Administration Of Schools and Other Human Development Agencies	Theory	25	75	100	3	3	Both
Administration Of Schools and Other Human Development Agencies (Practical)	Practical	25	-	25	2	-	Internal
Social Psychology	Theory	25	75	100	3	3	Both
Family Relations and Family Welfare	Theory	25	75	100	3	3	Both
Theories of Human Behaviour and Development	Theory	15	60	75	3	3	Both
Curriculum Planning for Preschools	Theory	25	75	100	3	3	Both
Children's Literature (Practical)	Practical	25	-	25	2	-	Internal
Developmentally- Appropriate Practice II (Practical)	Practical	50	-	50	3	-	Internal
TOTAL				800			

T.Y. B. Sc. (HOME SCIENCE)
BRANCH II: HUMAN DEVELOPMENT
COUNSELING AND PSYCHOLOGICAL TESTING
(THEORY)

Marks: 100

Objectives:

1. To introduce students to key concepts in counseling, psychological testing and assessment.
2. To have students construct knowledge about the counseling process and related professional skills.
3. To familiarize students with selected child and adult counseling methods/approaches/models/specializations.
4. To provide exposure to selected developmental scales, and intelligence, creativity, personality and behavioral tests.
5. To sensitize them to the professional training of counselors and the ethics of counseling and testing.

Course Content :

NOL

Unit I. Definitions of Professional Counseling and Goals of Counseling; Types of Mental Health Professionals (6)

- Classic and/or exemplary definitions
 - Key ideas
 - Advancements in the conceptualization of counseling
 - Illustration of key ideas (using transcripts of counseling)
- Goals of counseling
 - Advancements in the conceptualization of the goals of counseling
- Difference between counseling, clinical psychology, and psychiatry; distinguishing counseling from psychotherapy
- Mental health professionals
 - Types
 - Minimum degree requirements
 - Work settings

Unit II. Relevance and Need for Counseling Children, Adolescents, and Adults (3)

- Relevance and need for counseling children and adolescents
 - Indicators of distress in children and adolescents (e.g., low self-worth, aggression, suicide, depression)
 - Developmental concerns/challenges in childhood and adolescence (e.g., peer pressure)
 - Challenges/problems faced by children that are not developmental in nature (e.g., physical abuse, sexual abuse)
 - Characteristics of current society that accentuate the need for professional counseling services for children and adolescents; Environmental challenges that children and adolescents face

- Relevance and need for counseling adults
 - Indicators of distress in adults
 - Developmental concerns/challenges in adulthood
 - Challenges/problems faced by adults that are not developmental in nature
 - Characteristics of current society that accentuate the need for professional counseling services for adults; Environmental challenges that adults face
- Unit III. The Counseling Process and Adaptations for Children/Adolescents (10)**
- Number and Variety of Counseling Techniques/Approaches/Methods
 - Preparing for the counseling interview
 - Arranging the physical space
 - Creating an optimal socio emotional space
 - What are some things to consider during the first interview?
 - Children's resistance to counseling; steps to overcome children's resistance
 - First interview goals and observations
 - A general model for counseling
 - Step 1: Defining the problem through active listening
 - Step 2: Clarifying the child's expectations
 - Step 3: Exploring what has been done to solve the problem
 - Step 4: Exploring what new things could be done to solve the problem
 - Step 5: Obtaining a commitment to try one of the problem-solving ideas
 - Step 6: Closing the counseling interview
 - Questions counselors ask
 - How much self-disclosure is appropriate for the counselor?
 - What types of questions should the counselor use?
 - How can silences be used in counseling?
 - Should counselors give advice?
 - Should counselors give information?
 - How does the counselor keep the client on task during the counseling session?
 - What limits should be set in counseling?
 - What about the issue of confidentiality?
 - Is the child telling me the truth?
 - What can be done when the interview process becomes blocked?
 - When should counseling be terminated?

Unit IV. Selected Counseling Techniques/Approaches Especially Suitable for Use With School Children and Adolescents (10)

- Individual Counseling Methods
 - Carl Roger's Person-Centered Counseling
 - Solution-Focused Brief Counseling (SFBC)
 - Play Therapy
- Group Counseling
 - Group leadership skills
 - Steps in group counseling

Unit V. Professional School Counseling (no. of sessions=12)

- Distinguishing School Counseling from General Counseling
- Advancements in the Conceptualization of School Counseling:
 - Norman Gysber's Developmentally Comprehensive School Counseling Model (Also known as: The Missouri Comprehensive Guidance Program Model)
 - ASCA-promoted Comprehensive School Counseling Programs
- Role of the professional school counselor
 - Program development, management, and leadership
 - Prevention and wellness
 - Developmental and educational consultant
 - Vocational guidance/career counseling
 - Multicultural counseling
 - Accountability, evaluation, and research
- Code of ethics governing professional school counselors
- Status of school counseling
 - USA
 - India

Unit VI. Counseling Adults: Selected Counseling Processes

- Family Counseling
 - Special focus on Virginia Satir
- Couples Counseling
- Gerontology Counseling

Unit VII. Testing and Assessment in Counseling Practice

- A framework for using tests in counseling
- Psychological testing and assessment defined
- With whom, what, why, and where?
- Test development/construction/standardization
- Legal and ethical considerations
- Indian initiatives in psychological testing

Unit VIII. Developmental Assessment of Young Children

- Brazelton Neonatal Assessment Scale
- Bayley Scales of Infant Development
- Denver Developmental Screening Test
- Current trends and issues in infant and early childhood assessment

Unit IX. The Assessment of Intelligence/Creativity

- WPPSI, WISC, and WAIS (Wechsler Intelligence Scales)
- Torrance Tests of Creative Thinking
- Current issues in intelligence testing; new directions (e.g., Sternberg)

Unit X. Personality and Behavioral Assessment

- Achenbach's Child Behavior Checklist (CBCL)
- Myers-Briggs Type Indicator (MBTI)
- Strong Interest Inventory
- Projective tests
 - The Rorschach
 - TAT and CAT
- Current issues in personality and behavioral assessment

(8)

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- Corey, G. (2004). *Theory and practice of group counseling*. Pacific Grove, CA: Brooks/Cole.
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T.Y. B. Sc. (HOME SCIENCE)
BRANCH II: HUMAN DEVELOPMENT
HUMAN EXCEPTIONALITY
(THEORY)

Marks : 100

Objectives:

1. To help students develop an awareness and concern for exceptional children and adults, their needs and problems.
2. To help students gain knowledge about the different categories of exceptionality, their prevalence, causes and prevention.
3. To have students comprehend the current status of legislation and services pertaining to the identification, education, and rehabilitation of exceptional children and adults, with special reference to the Indian context.

Course Content:

Unit I. Introduction to human exceptionality

(7)

- (a) Definition and terminology
 - Exceptional individuals
 - Disability versus handicap
 - Developmentally delayed and at-risk
 - Special education
- (b) Brief history of the development of special education.
- (c) Categories and labels
- (d) Exceptionality across life-span
- (e) Rights of the exceptional child and adult and related legislation
- (f) Identification of individual differences
- (g) Referral and assessment for special education (service delivery options)

Unit II. Mental retardation

(9)

- (a) Definition of mental retardation
- (b) Classification of individuals with mental retardation
- (c) Prevalence, causation, characteristics, assessment, prevention
- (d) Educational considerations
- (e) Services for young children with mental retardation
- (f) Transition to adulthood
- (g) Family issues
- (h) Trends, issues, and controversies

Unit III. Learning disability

(8)

- (a) Definition of learning disability
- (b) Classification of individuals with learning disability
- (c) Prevalence, causation, characteristics, assessment, prevention
- (d) Educational considerations
- (e) Services for young children with learning disability
- (f) Transition to adulthood
- (g) Family issues
- (h) Trends, issues, and controversies

Unit IV. Emotional or behaviour disorders

(7)

- (a) Definition of emotional or behaviour disorders
- (b) Classification of individuals with emotional or behaviour disorders
- (c) Prevalence, causation, characteristics, assessment, prevention
- (d) Educational considerations
- (e) Services for young children with emotional or behaviour disorders
- (f) Transition to adulthood
- (g) Adults with emotional or behaviour disorders
- (h) Family issues
- (i) Trends, issues, and controversies

Unit V Speech and language disorders

(8)

- (a) Definition of speech and language disorders
- (b) Classification of individuals with speech and language disorders
- (c) Prevalence, causation, characteristics, assessment, prevention
- (d) Educational considerations
- (e) Services for young children with speech and language disorders
- (f) Adolescents and adults with speech and language disorders
- (g) Family issues
- (h) Trends, issues, and controversies

Unit VI Hearing impairment

(7)

- (a) Definition of hearing impairment
- (b) Classification of individuals with hearing impairment
- (c) Prevalence, causation, characteristics, assessment, prevention
- (d) Educational considerations
- (e) Services for young children with hearing impairment
- (f) Transition into adulthood
- (g) Family issues
- (h) Trends, issues, and controversies

Unit VII Visual Impairment

(8)

- (a) Definition of visual impairment
- (b) Classification of individuals with visual impairment
- (c) Prevalence, causation, characteristics, assessment, prevention
- (d) Educational considerations
- (e) Services for young children with visual impairment
- (f) Transition to adulthood
- (g) Family issues
- (h) Trends, issues, and controversies

Unit VIII Physical disabilities

(7)

- (a) Definition of physical disabilities
- (b) Classification of individuals with physical disabilities
- (c) Prevalence, causation, characteristics, assessment, prevention
- (d) Educational considerations
- (e) Services for young children with physical disabilities

- (f) Transition to adulthood
- (g) Family issues
- (h) Trends, issues, and controversies

Unit IX Health disabilities

(8)

- (a) Definition of health disabilities
- (b) Classification of individuals with health disabilities
- (c) Prevalence, causation, characteristics, assessment, prevention
- (d) Educational considerations
- (e) Services for young children with health disabilities
- (f) Transition to adulthood
- (g) Family issues
- (h) Trends, issues, and controversies

Unit X Gifted and talented individuals

(6 lectures)

- (a) Defining giftedness
- (b) Differences among individuals who are talented and gifted
- (c) Prevalence, causation, characteristics, assessment, prevention
- (d) Educational considerations
- (e) Services for young children
- (f) Adolescence and adults who are talented and gifted
- (g) Family issues
- (h) Trends, issues, and controversies

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T. Y. B. Sc. (HOME SCIENCE)
BRANCH II: HUMAN DEVELOPMENT
EXCEPTIONAL CHILDREN
(PRACTICAL)

Marks : 25

Objectives:

1. To expose students to different settings and institutions catering to the needs of special children.
2. To acquaint students with selected tests for assessing exceptionality.
3. To facilitate in students the skill of completing a case study.

Course Content :

1. Students visit different settings and institutions catering to the needs of the following categories of special children (any 3 of the following) and prepare a report on the same:
 - Learning Disability
 - Mental Retardation
 - Speech Impairment
 - Visual Impairment
 - Physical Handicap
 - Chronic Medical Illness
 - Giftedness
2. Students present a report of the above mentioned experience in the classroom.
3. Students observe the following tests for assessing exceptionality through demonstration and maintain a file of the same:
 - Developmental Assessment Scale for Indian Infants
 - Diagnostic tests- Reading test (eg., Woodcock Reading Mastery Test) Math test (eg., Stanford Diagnostic Mathematical Test)
 - Creativity tests--Passi's Test of Creative Thinking
 - Weschler's Intelligence Scale for Children
 - Children's Apperception Test
4. Students observe one child with any exceptionality and record the same on a checklist.
5. Students write a case study of one child with any exceptionality.

T.Y. B. Sc. (HOME SCIENCE)
BRANCH II: HUMAN DEVELOPMENT
ADMINISTRATION OF SCHOOLS AND OTHER HUMAN DEVELOPMENT
AGENCIES
(THEORY)

Marks : 100

Objectives:

1. To comprehend the school as a system; thereby, to use a systemic approach in conceptualizing school administration.
2. To evaluate selected school policies and develop critical thinking skills with regard to school policies.
3. To be introduced to best practices in school education/innovations in school policies/school reform.
4. To become acquainted with exemplary school models.
5. To develop a cross-cultural perspective on school administration.
6. To learn how other human development agencies are organized and managed.

Course Content :

NOL

Unit I: Introduction & Overview

Definitions (including types of the following when applicable)

(5)

- School
- Education
- Administration
- Stakeholders
- System

Functions of Schools

General

From the point of view of each stakeholder/group in the system:

- Who are the stakeholders in a school system?
- Students
- Teachers
- Parents
- School Administrators
- Other School-Based Professionals (e.g., school counselors)
- Administrative Staff
- Custodial/Janitorial/Catering/Transport Staff

Unit II: Conceptual Framework for Understanding School Administration (7)

- School as a system
 - Participants/agents/stakeholders in a school system
 - (Students, teachers, parents, school administrators, other school-based professionals, non-teaching staff)
 - Process model/feedback cycle: Planning, implementing, evaluating, (and in the optimal case enhancing)
 - Distinguishing the following (in general and in relation to a school system):
- Vision, Mission, Goals and objectives
- Policy-making and other decision-making
 - Passive and active decision-making/policy-making
 - Inter-relationships between different policies
 - (inter-relationships between roles/policies involving the principal, students, teachers, and parents illustrated and discussed)
 - The UNESCO framework for school administration

Unit III: School Principal/School Administrator (9)

- Role of School Principal
 - Lead Educator and Lead Executive
 - Management versus leadership
 - Interpersonal role: roles vis-à-vis students, teachers, parents, trustees/school board members/management representatives, other school professionals, support school staff
 - Affective and effective role dimensions/emotional intelligence/ handling negativity/handling complaints; public relations; community relations and community support
 - Code of ethics for school leaders

Unit IV: Issues/Topics in School Administration Pertaining to Students/Children (9)

- Role of the child/student in the classroom
- Role of the child/student in the larger school system
- Classroom arrangement

- School size and class size
 - Scheduling Issues
 - Start time of the school
 - Scheduling teaching-learning periods
 - Block scheduling (innovation)
 - Recess-related policy (number, duration, timing, nature of activities during recess)
 - Character education; service-orientation
 - Student evaluation
 - Achievement-oriented education/marks-oriented education
 - Disadvantages
 - Alternatives
 - Social Promotion versus retention
 - Child nutrition and catering policies
 - Child health and safety
 - One or more topics of special interest to the class
- (Emphasis: Impact of each policy on students and other participants in the school system; inter-relationships between policies; best practices in education)

Unit V: Issues/Topics in School Administration Pertaining to Teachers: Which decisions have to be made pertaining to teachers? And subjected to continuous evaluation?

- Role of teacher in the classroom/Role of teacher vis-à-vis students including guidance and classroom management (8)
 - Role of teacher in the larger school system (vis-à-vis parents, other teachers, school administrators; as an agent facilitating school administration)
 - Teacher recruitment policy
 - Teacher reward policy
 - Formal and informal rewards
 - Teacher remuneration or monetary compensation policy (formal reward)
 - Other formal rewards
 - Types of informal rewards
 - Professional development policy/Teacher development policy
 - Teacher evaluation policy
 - Innovations: Teacher Looping
 - One or more topics of special interest to the class
- (Emphasis: Impact of each policy on students and other participants in the school system; inter-relationships between policies; best practices in education)

Unit VI: Other Issues/Topics in School Administration

- Issues/Topics in School Administration Pertaining to Parents : Role of parents in the school: various models and innovations (Emphasis: Impact of policy on students and other participants in the school system; inter-relationships between policies; best practices in education) (6)

- Current Topics in School Administration
 - Technology and Education:
 - Policies related to the use of technology

Unit VII: Exemplary School Models/Exemplary School Systems: An Analysis of School Administration (8)

- Toto Chan
- Rudolph Steiner and the Waldorf Schools, Mumbai school: Tridha
- J. Krishnamurti Schools (India and worldwide)
- Chinmaya Mission Schools
- Vishva Bharati, Shantiniketan: A Rabindranath Tagore initiative
- Mahatma Gandhi and the Nai Taleem
- Sri Aurobindo International Center for Education (SAICE), Pondicherry, India
- A Mumbai Initiative: Mukangan

Unit VIII: Cross-Cultural Comparisons of Schools or School Systems (7)
Schools and school administration in the following countries, including boards of education and national policy on education:

- India
- USA
- Finland
- Germany
- Singapore

Unit IX: Administration of Child Care Agencies (8)

- Playgroup, Daycare Center, and Preschool
 - Administration of: infant care programmes, toddler care programmes, preschool programmes
- Hobby Center/Recreational Center
- Children's Library/Children's Theatre
- Youth Club

Unit X: Administration of Other Human Development Agencies (8)

- Child Guidance Clinic
- NGOs and services for the underprivileged

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www.counseling.org (ACA: American Counseling Association)
www.asca.org (ASCA: American School Counselor's Association)
www.apa.org (APA: American Psychological Association)
www.nmha.org (NMHA: National Mental Health Association)
www.aasa.org (AASA: American Association of School Administrators)
www.education-world.com

T.Y.B.Sc. (HOME SCIENCE)
BRANCH II: HUMAN DEVELOPMENT
ADMINISTRATION OF SCHOOLS AND OTHER HUMAN DEVELOPMENT
AGENCIES
(PRACTICAL)

Marks : 25

Objectives:

To provide students with skills in:

1. examining and evaluating the framework of administration in various schools and other human development agencies,
2. identifying exemplary features of administration in schools and other related agencies of excellence, and,
3. designing best practices in education and related services.

Course Content:

1. Examining and evaluating the framework of administration in various schools (day schools, residential schools, schools of different boards of education, government-run schools, government-aided schools, private schools):
 - (a) locally
 - (b) nationally
 - (c) internationally
2. Identifying exemplary features of administration in schools of excellence:
 - (a) identifying schools of excellence locally, nationally, and internationally, and justifying why these schools are of excellence
 - (b) reflecting on exemplary policies and practices in schools of excellence
3. Designing best practices in education:
 - (a) designing and justifying innovations in physical arrangement of the classroom
 - (b) designing and justifying innovations in teaching-learning practices
 - (c) designing and justifying innovations in teacher-related policies (recruitment, remuneration, evaluation, and professional development)
 - (d) designing and justifying innovations in parent-related policies
4. Examining and evaluating the framework of administration in other human development agencies (playgroup, daycare center, preschool, hobby center/recreational center, children's library, children's theatre, youth club, child guidance clinic, and NGOs and services for the underprivileged):
 - (a) locally
 - (b) nationally
 - (c) internationally

5. Identifying exemplary features of administration in other human development agencies of excellence:
 - (a) identifying other human development agencies of excellence and justifying why they are excellent
 - (b) reflecting on exemplary policies and practices in these child care programs, child guidance programs, and NGOs.
6. Designing best practices in child care programs, child guidance agencies, and NGOs:
 - (a) designing and justifying innovations with regard to a playgroup or daycare center or preschool
 - (b) designing and justifying innovations with regard to a hobby center/recreational center or children's library or children's theatre or youth club
 - (c) designing and justifying innovations with regard to a child guidance clinic
 - (d) designing and justifying innovations with regard to an NGO and services for the underprivileged

Methods

A combination of learner-active methods is to be used: visits to schools and other human development agencies, virtual visits to schools and other human development agencies, collection of school-related and other literature from the Net/books, talks with experts/resource persons, debates, discussions, presentations, and projects.

T.Y.B.Sc. (HOME SCIENCE)
BRANCH II: HUMAN DEVELOPMENT
SOCIAL PSYCHOLOGY
(THEORY)

Marks : 100

Objectives:

1. To introduce the students to the concept of social psychology and its content areas (attribution, attitudes, conformity and persuasion, prejudice, aggression, interpersonal attraction, altruism, etc.).
2. To help students understand the behaviour of individuals in groups, group dynamics and group processes.
3. To encourage students to practically apply theories of social behaviour in their day-to-day lives.

Course Content :

- Unit I** Introducing social psychology (8)
- (a) Definition of social psychology
 - (b) Brief history of social psychology
 - (c) Methods of studying social psychology
- Unit II** The Self in a Social World (7)
- (a) Self-Concept and Self-Esteem
 - (b) Perceived Self-Control (self-efficacy, locus of control, learned helplessness versus self-determination)
 - (c) Self-presentation, self-justification, self-perception
- Unit III** Behaviour, Attitudes and Attributions (6)
- (a) The effect of attitudes on behaviour
 - (b) The effect of behaviour on attitudes
 - (c) Attributing causality
 - (d) The fundamental attribution error
- Unit IV** Group Influence (9)
- (a) Nature of groups
 - (b) Effects of the group on individual behaviour (social facilitation, social loafing, de-individuation)
 - (c) Decision-Making in groups (group polarisation, group think, minority influence)
 - (d) Leadership

Unit V Conformity

- (a) Classic studies (Asch's studies of group pressure; Milgram's experiments on obedience)
- (b) Conditions affecting conformity
- (c) Resisting social pressure

(8)

Unit VI Persuasion

- (a) The elements of persuasion
- (b) Case studies in persuasion
- (c) Resisting persuasion

(7)

Unit VII Prejudice

- a) Definition of prejudice
- b) Pervasiveness of prejudice
- c) Sources of prejudice (social, emotional, cognitive)
- d) Overcoming prejudice

(9)

Unit VIII Aggression

- a) Definition and nature of aggression
- b) Influences on aggression
- c) Reducing aggression

(6)

Unit IX Attraction: liking and loving others

- (a) Factors affecting interpersonal attraction (physical attractiveness, proximity, similarity, competence, reciprocity)
- (b) Loving (passionate love, compassionate love)
- (c) What enables relationships to endure
- (d) Ending relationships

(6)

Unit X Altruism

- (a) Definition of altruism
- (b) Theories of altruism
- (c) Conditions affecting helpfulness (personal and situational influences on helping)
- (d) Promoting altruism

(9)

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- Michener, H. A., & Dehamater, J. D. (1999). *Social psychology* (4th Ed.). New York: Harcourt College Publishers.
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T.Y. B. Sc. (HOME SCIENCE)
BRANCH II: HUMAN DEVELOPMENT
FAMILY RELATIONS AND FAMILY WELFARE
(THEORY)

Marks : 100

Objectives:

1. To examine the issues related to close interpersonal relationships in the family, especially, with regard to (a) marital dyad, (b) parent-child relationships, (c) grandparents, and, (d) extended kin members.
2. To study diversity, challenges and strengths in family types and processes.
3. To comprehend the challenges associated with the interface of the family with external institutions such as media, formal education, health, and religion.
4. To examine policies, laws, interventions and services for children, youth, women and families.

Course Content :

NOL

Unit I: Introduction and overview

(7)

Close Interpersonal Relationships in the Family: The Marital Dyad

- The concepts of marital quality, marital satisfaction and marital stability
- Characteristics of high quality marital relationships
- Creating personal and dyadic well-being in marriages
- Policies, laws, and interventions related to marriages
- Legal rights of women

Unit II: Close Interpersonal Relationships in the Family: Parent-Child Relationships

(9)

- Parent-child relations over the life course: Development, continuities, transitions, and discontinuities
- The influence of parents on children and children on parents
- Characteristics of high quality parent-child relationships
- Mothers versus fathers: Gender discrimination, gender specificity or gender equity?
- Children's rights and parenting rights: Protection and assistance through policies and legislation
 - World trends
 - Indian legislation
- Child care: Diversity and challenges
 - Types of child care arrangements
 - Child care costs and resources
 - Child care quality and outcomes for children
 - Policies, laws, and interventions/services related to child care

- At-risk youth and the family: Diversity and challenges in parenting
 - Youth violence, delinquency, and nonconformity
 - Runaway and homeless youth/street youth
 - Sexual behaviour
 - Substance abuse
 - Policies, laws, and interventions/services related to youth at risk

Unit III: Other Close Interpersonal Relationships in the Family

(7)

- **Relationship between Grandparents and Grandchildren**
 - Roles, functions and status of grandparents in the family and in society
 - Grandmothers versus grandfathers: Gender discrimination, gender specificity or gender equity?
 - Roles of grandchildren: A life-course perspective
 - Characteristics of high quality grandparent-grandchild relationships
- **Relationship with Extended Kin Members**
 - Balancing well-being with regard to family of origin and family of procreation
 - Maintaining/enhancing wellbeing with members of one's family of origin
 - Creating/maintaining/enhancing well-being with in-laws
 - Sibling relationships: A life-course perspective

Unit IV: Diverse Families (Part I)

(7)

- **Optimal Functioning Families: Diversity and Complexity**
- **Contemporary Two-Parent Families: Strengths and Challenges**
- **Multi-Generation and Joint Families: Diversity, Strengths and Challenges**

Unit V: Diverse Families (Part II)

(9)

- **Divorce, Remarriage and Reconstituted Families**
 - The process of divorce
 - The impact of divorce on children and adults: short-term and long-term
 - Coping strategies: Effective and ineffective
 - Remarriage and reconstituted family dynamics
 - Impact of remarriage and reconstitution on children and adults
 - Policies, laws and interventions
- **Diversity, Strength, and Challenges of Single-Parent Households**
- **Adoptive Families**
 - Characteristics and well-being
 - Policies, laws, and services

Unit VI: Dysfunctional Families: Families with Violence

(6)

- Dowry deaths
- Wife battering
- Child abuse (physical, emotional, and/or sexual)
- Policies, laws and interventions

Unit VII: Family and External Institutions

(9)

- **Media-Family Interface**
 - The Wired Family (Television, movies, and the Internet): New Directions in Family and Media Research
- **Work-Family Interface**
 - Employees "Without" Families: Discourses of Family as an External Constraint to Work-Life Balance
 - Work and Family: The interaction between paid labor, unpaid labor, and the family.
 - The roles women and men play in the workplace and in the home as a function of gender, ethnicity, and history.
 - Changing trends: Towards gender equity?
- **Religion-Family Interface**
 - Family structure and processes in families of various religions: Hindu, Muslim, and Christian
 - Relational Dynamics in Interfaith Marriages
- **Health Care-Family Interface**
 - Families Experiencing Acute Health Issues and Chronic Health Issues (physical and/or mental)
 - Family caregiving
 - Policies, laws, and services

Unit VIII: Multiculturalism, Communalism, and Globalization

(8)

- Family processes in societies characterized by multiple and diverse cultures (based on language, religion, state of origin, socioeconomic status), separatist/disintegrative/destructive communalism, and globalization
- Underprivileged families

Unit IX: Child and Family Welfare in India: A Summary

(9)

- **Role of the Government: The Indian Family Welfare Programme**
 - Family welfare policy and programme in India: A package of essential reproductive and child health services
- **Role of Voluntary Agencies and Community Agencies (NGOs)**

Unit X: Critique of the Child and Family Welfare Programmes/Services, Policies and Related Laws in India (4 periods)

- **Changing Policies/Creating Policies: Role of Advocacy**

References :

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T.Y. B. Sc. (HOME SCIENCE)
BRANCH II: HUMAN DEVELOPMENT
THEORIES OF HUMAN BEHAVIOUR AND DEVELOPMENT
(THEORY)

Marks : 75

Objectives:

1. To have students value the role of theories in comprehending human behaviour and development.
2. To facilitate in students an understanding of the theories in human development and their application in day-to-day life.

Course Content :

NOL
(5)

Unit I. INTRODUCTION

- Reasons for studying theories
- Definition of a theory
- Structural components of developmental theories
- Theories and assumptions about human nature
- Limitations of developmental theories
- Overview of theories

Unit II. THE PSYCHODYNAMIC PERSPECTIVE

(20)

1. SIGMUND FREUD—A theory of psychosexual development

- Historical and biographical sketch
- Levels of consciousness
- Structure of personality
- Development through psychosexual stages
- Nature of anxiety and defense mechanisms
- Application, critical evaluation

2. ERIK ERIKSON—A theory of psychosocial development

- Biographical sketch
- Psychosocial stages
- Application
- Critical evaluation

Unit III. BEHAVIORISM

(25)

1. IVAN PAVLOV—Classical conditioning

- Basic concepts
- Pavlov's experiment
- Components of classical conditioning (acquisition, stimulus generalization, and stimulus discrimination, extinction, spontaneous recovery)
- Application and critical evaluation

2. **B. F. SKINNER—Operant conditioning**
 - Biographical sketch
 - Basic assumptions concerning human nature
 - Conditioned reinforcement and chaining
 - Application and critical evaluation
3. **ALBERT BANDURA—A social cognitive theory of learning**
 - Biographical sketch,
 - Basic assumptions concerning human nature
 - Learning through modelling
 - Reinforcement in observational learning
 - The nature of contextualism
 - Application and critical evaluation

Unit IV. THE COGNITIVE AND MORAL PERSPECTIVE

(15)

1. **JEAN PIAGET—A theory of cognitive development**
 - Concept of knowledge
 - Mechanism of development
 - Levels and stages of development
 - Application and critical evaluation
2. **LAWRENCE KOHLBERG—A theory of moral development**
 - Historical sketch
 - Kohlberg's research methods
 - Levels and stages of moral development
 - The interaction of nature and nurture
 - Application and critical evaluation

Unit V. THE ECOLOGICAL PERSPECTIVE

(10)

1. **URIE BRONFENBRENNER—A bioecological theory**
 - Background of ecological psychology
 - Biographical sketch
 - Theoretical constructs
 - Application and critical evaluation

References :

- Baldwin, A. (1980). *Theories of child development*. New York: Wiley.
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T.Y.B.Sc. (HOME SCIENCE)
BRANCH II: HUMAN DEVELOPMENT
CURRICULUM PLANNING FOR PRESCHOOLS
(THEORY)

Marks : 100

Objectives:

1. To have students develop an understanding of developmentally-appropriate teaching-learning practices to be used in preschools.
2. To introduce to students the historic overview, approaches and curriculum models in early childhood education.
3. To have students develop an understanding of the role of environment in child's learning and behaviour including schedules, materials, arrangement of learning activities indoor and outdoor, and centre-based learning.
4. To have students comprehend the nature of activities for young children in the following areas:
(a) music and movement, (b) language development, (c) cognitive development, (d) socio-emotional development, (e) physical and motor development, and, (f) art, craft, and aesthetics.

Course Content :

NOL

Unit I: DEVELOPMENTALLY-APPROPRIATE PRACTICE

(8)

- NAEYC & basic principles of developmentally appropriate practice: child-adult ratio, group size, mixed-age grouping, child-adult interaction, staff qualifications, staff consistency, respect and concern for staff, roles of child and teacher/adult, physical environment.
- Contrast between developmentally-appropriate practices and developmentally-inappropriate practices
- Curriculum:
 - ❖ Meaning and definition of curriculum
 - ❖ Components of a good curriculum
 - ❖ Purposes of planning: general goals, instructional objectives
 - ❖ Themes: children as a focus, family as a focus and community as a focus
- Scheduling:
 - ❖ Components of the schedule: activity time, large group activities, small group activities, outdoor activities, clean up, meals, nap and rest, transitions,
 - ❖ Elements of a good schedule: planning overall curriculum, units, lesson plans activities.
 - ❖ Guidelines for program scheduling: alternating active and quiet times, balancing child-initiated and teacher-initiated activities, activity level of the children, developmental level of children, arrival of children, seasonal considerations

Unit II: ORGANIZING AND STRUCTURING THE PRESCHOOL ENVIRONMENT

(8)

- Planning space arrangement, display space and storage
- Room arrangement
- The outdoor environment and outdoor safety
- Indoor environment and indoor safety
- Planning learning centres: dramatic play, art corner, blocks area, library, listening and writing area, wood work, sand and water table, manipulatives, science and discovery area, physical education area, quiet area and storage area.
- Creating, managing and enhancing learning environments

Unit III: HISTORICAL OVERVIEW AND APPROACHES / CURRICULUM MODELS

(10)

- Educators
 - ❖ Indian Educators (e.g. Tarabai Modak, Gijubhai Badheka)
 - ❖ Western Educators (e.g. Henry Pestalozzi, Friedrich Froebel)
- Approaches and curriculum models
 - ❖ Mixed –Age Educational Programs For Young Children
 - ❖ Montessori Approach
 - ❖ Tawharki Approach
 - ❖ The Developmental Interaction Approach / Bank Street Approach
 - ❖ The Head Start Program
 - ❖ The High Scope Curriculum For Early Childhood Care And Education
 - ❖ The Project/Thematic Approach
 - ❖ The Reggio Emilia Approach

Unit IV: PLAY:

(8)

- Defining play
- Stages / levels of play
- Describing play: social play, play with objects, Vygotsky on play, socio-dramatic play
- Child's role in play
- Teachers role: observer, elaborator, modeler, evaluator, planner
- Purpose of play

Unit V: LANGUAGE DEVELOPMENT ACTIVITIES:

(8)

- Language activities: stories, poetry, books, sharing time and group discussion, puppets, dramatization/role play, reading and writing readiness for preschool children;

Unit VI: COGNITIVE DEVELOPMENT ACTIVITIES:

- Science activities: defining science activities; developmentally appropriate science for preschool children; goals and objectives for science activities; scientific process: observing, classifying and comparing, measuring, experimenting and relating, inferring and applying; providing a safe environment;
- Mathematics activities: defining mathematics; mathematical concepts, processes, understanding and skills: classifying, comparing, ordering, patterning, counting, shapes and space, measurement, fractions, vocabulary, numerical operations, arithmetic readiness

Unit VII: ACTIVITIES PROMOTING SOCIO-EMOTIONAL DEVELOPMENT

- Fostering self-esteem
- Social studies
- Respect for multiple cultures and multiple forms and peace education.

Unit VIII: ACTIVITIES PROMOTING PHYSICAL AND MOTOR DEVELOPMENT

- Gross Skills: Movement, jumping, climbing apparatus, rolling and tumbling, throwing and catching, kicking and batting, blocks, sand, using tools
- Fine Motor skills: manipulative equipments, beads, sorting, drawing, painting, staking rings, small plastic figures

Unit IX: ACTIVITIES PROMOTING ART, CRAFT AND AESTHETICS:

- Modelling (clay, dough)
- Pasting
- Cutting and tearing
- Painting
- Graphic art
- Printing
- Sculpture
- Collage
- Sewing and weaving

Unit X: ACTIVITIES PROMOTING MUSIC AND MOVEMENT

- Goals of music and movements
- Singing: selecting songs, presenting songs, informal singing, group singing, playing instruments, rhythmic experiences, creating songs, listening experiences
- Movement and dance: fundamental movements walking, standing, balancing, running, jumping, galloping, skipping, playing

References:

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- Kaul, V. (1991). *Early childhood education programme* New Delhi: NCERT.
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- Swaminathan, M. (1998). *The first five years—A critical perspective on early childhood care and education in India*. New Delhi: Sage.

Journals and magazines:

Childhood Education

Parenting

Young Children

1

T.Y. B. Sc. (HOME SCIENCE)
BRANCH II: HUMAN DEVELOPMENT
CHILDREN'S LITERATURE
(PRACTICAL)

Objectives:

To provide students with skills in selecting, evaluating, designing, and using children's books and related educational software.

MARKS: 25

Course Content:

1. Orientation
 - (a) Definition
 - (b) Types of children's literature
 - (c) Value of children's literature
 - (d) Exemplary children's literature (award-winning books, authors, & illustrators)
2. Skills in selecting and evaluating children's books and related educational software:
 - (a) Visits to bookstores and children's libraries
 - (b) Examining books/educational software (using libraries and virtual sources)
 - (c) Developing criteria for evaluating books/educational software
 - (d) Evaluating books/educational software
3. Skills in designing children's books or related educational software:
 - (a) features to keep in mind (e.g., content, layout, target group, cost, text versus pictures)
 - (b) planning the designing
 - (c) making the book or software
4. Skills in using children's books or related educational software:
 - (a) roles of adult and child
 - (b) articulation and voice modulation
 - (c) eliciting active involvement of children

T.Y. B. Sc. (HOME SCIENCE)
BRANCH II: HUMAN DEVELOPMENT
DEVELOPMENTALLY APPROPRIATE PRACTICE II
(PRACTICAL)

MARKS : 50

Objectives:

To provide students with training such that, on graduation, they can choose to be teachers of young children, or plan, execute and evaluate educational and recreational activities in other human development agencies.

Course Content:

Skill development with regard to the following:

1. Planning, executing, and evaluating developmentally appropriate activities for children in the following areas:
 - Music and movement
 - Fine-motor and gross-motor activities (e.g. blocks, manipulatives, outdoor play)
 - Transition activities
 - Art and craft activities
 - Math activities
 - Science activities
 - Language activities (e.g., picture talk/object talk/circle time/story time)
 - Socio-dramatic play
2. Planning, executing, and evaluating developmentally appropriate activities for adolescents and adults in the following areas:
 - Socially relevant issues
 - Personal growth/self-esteem
 - Emotional intelligence/spiritual intelligence
3. Sensitivity in interacting with children, adolescents, and adults
4. Building and enhancing relationships with children, adolescents, and adults
5. Observation and (rudimentary) assessment of children, adolescents, and adults
6. Building a resourceful repertoire of activities enhancing each domain of development
7. Successful participation in teamwork
8. Task management
9. Professionalism (professional ethics and demeanor)

Implementation with the Following:

1. Children
2. Adolescents
3. Adults

Methods

The students are placed in 2 groups: each group has 15+ students, 4-5 M. Sc. trainee supervisors, and a teacher supervisor. Students plan and complete preparation work for the developmentally appropriate activities under guidance provided by teachers and M.Sc. trainee supervisors. They rehearse their activities in the college. Direct experience with a target group will be arranged either in the college and/or in agencies nearby.

T.Y.B.Sc. (HOME SCIENCE)

BRANCH III : TEXTILE & FASHION TECHNOLOGY

Subject	Theory / Practical	Internal Marks	University Marks	Total Marks	Periods / Week	University exam hours	Internal/ External
Dyeing and Printing	Theory	25	75	100	3	3	Both
Dyeing and Printing	Practical	10	40	50	3	3	Both
Textile Testing and Quality Control	Theory	25	75	100	3	3	Both
Fabric Structure and Construction	Theory	25	75	100	3	3	Both
Fabric Structure and Construction	Practical	10	40	50	3	3	Both
Marketing, Merchandising and	Theory	25	75	100	3	3	Both
Historic Textiles and Costumes	Theory	15	60	75	3	2 ½	Both
Fashion Illustration and Pattern Drafting	Practical	15	60	75	4	4	Both
Garment Construction and Draping	Practical	15	60	75	4	4	Both
Design Concepts and Computer Aided Designing	Practical	10	40	50	3	3	Both
Fieldwork/project/seminar	Practical	25	--	25	2	-	Internal
Total				800			

T.Y.B.Sc. (HOME SCIENCE)
BRANCH III: TEXTILE AND FASHION TECHNOLOGY
DYEING AND PRINTING
(THEORY)

Marks : 100

Objectives:

1. To create awareness of the different techniques used for coloration of textiles.
2. To gain knowledge of Chemistry of dyestuff, their application, processes machines for different fabrics and their fastness properties.
3. To make students aware of recent developments in dyeing and printing with emphasis on ecological concerns.

Course Content:

NOL

Unit I	Color and light relationship and dye constituent. Dyes and pigments: classification of dyes and pigments based on application and chemical structures.	(6)
Unit II	Dyeing: Mechanism of various dyeing processes, application of dyes on various fibers/fabrics and their fastness properties, including toxicity factors of Direct, Azoic, Basic, Vat, Sulphur, Acidic, Mordant, Natural, Reactive, Disperse, Solubilized vat dyes.	(15)
Unit III	Natural dyes: Classification and their application on natural fibers including ecological concerns.	(8)
Unit IV	Printing: Introduction to printing, styles of printing- direct, discharge, resist, methods of printing –preparation and use of block, flat and rotary screen, transfer printing, duplex printing and garment printing.	(8)
Unit V	Garment finishing and dyeing.	(7)
Unit VI	Evaluation of fastness properties of dyed and printed textile materials.	(7)
Unit VII	Ecological aspects of dyeing and printing process and consumables.	(7)
Unit VIII	Dyeing and printing of blended fabrics.	(7)
Unit XI	Colour Index	(5)
Unit X	Recent developments in dyeing and printing, banned dyes and eco friendly dyes.	(5)

References :

- Cegarra, J. P. and Valladperas, J. (1992). *The dyeing of textile manual, the scientific bases and the techniques of application*. Italy: Necova Ofllito.
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T.Y.B.Sc. (HOME SCIENCE)
BRANCH III: TEXTILE AND FASHION TECHNOLOGY
DYEING AND PRINTING
(PRACTICAL)

Marks: 50

Objectives:

1. To introduce students to different techniques of coloration of textiles.
2. To make students aware of creative methods in dyeing and printing.
3. To introduce students to dye identification.

Course Content:

1. Printing: Block printing, screen printing including making of screen and print paste and the use of commercial print paste. Printing of cotton/silk fabric using novel technique of gutta, acid printing.
2. Dyeing cotton, polyester using jigger, padding mangle and launderometer.
3. Creation of tie and dye samples(6) and batik samples(5) together with one article (stole/dupatta) using tie and dye technique (bandhani, tritik, twisting, rouching) using vegetable dyes (any two) and synthetic dyes: direct, azoic, acid, basic, reactive using various dyeing machines, like jigger, padding mangle, launderometer.
4. Identification of dyes on cellulosic and Proteinic samples.
5. Journal with experiments and samples.

References:

- Clarke, W. (1977). *Introduction to textile printing*. London: Newnes Butterworth.
- Giles, C. H. and others. (1974). *Laboratory course in dyeing*. (3rd Ed.). England: Society of Dyers and Colourist.
- Buchler, A. and Ederbard, F. (1977). *Clamp resist dyeing of fabrics*. Ahmedabad: Calico Museum of Textile.
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T.Y.B.Sc. (HOME SCIENCE)
BRANCH III: TEXTILE AND FASHION TECHNOLOGY
TEXTILE TESTING AND QUALITY CONTROL
(THEORY)

Marks : 100

Objectives:

1. To make the students aware of the importance of textile and garment testing and quality control.
2. To impart knowledge of the physical and mechanical properties of textiles and garments.
3. To demonstrate the techniques and principles of testing physical and mechanical properties of textiles and garments.

Course Content:

NOL

Unit I	Introduction to testing, purpose of testing, standards, specifications and institutes of testing	(4)
Unit II	Quality control and quality marks in India and abroad, eco marking and certification	(7)
Unit III	Moisture relations and testing: percentage regain and moisture content, factors affecting regain, measurement of atmospheric conditions (types of hygrometers), effect of regain on fiber properties.	(7)
Unit IV	Fiber dimensions and quality: a. Fiber length and measurement for cotton and wool b. Fiber fineness measurement and fiber maturity testing for cotton and wool	(6)
Unit V	Yarn dimensions: a. Yarn count and yarn number – direct and indirect system of yarn numbering b. Twist and twist measurement c. Crimp and yarn crimp measurement d. Yarn evenness and hairiness	(6)
Unit VI	Fabric dimensions and properties (woven, knitted and non – woven) a. Length, width, fabric count, weight and thickness b. Air and water permeability c. Shrinkage d. Wrinkle resistance and crease recovery e. Abrasion resistance and pilling resistance f. Fabric stiffness and drapability g. Flammability	(15)

- Unit VII Tensile strength (12)
- Definitions of stress, strain, initial modulus, elasticity, yield point
 - Tensile strength measurement of fiber, fiber bundle, yarn, skein and fabric.
 - Tensile strength testing instruments with their working principles of measurements – CRT, CRL and CRE
 - Tear strength and bursting strength measurement
- Unit VIII Garment testing: seam slippage, seam strength and puckering
- Unit IX Calculations for moisture relations and yarn numbering
- Unit X Advances in textile testing and quality control

References:

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T.Y.B.Sc. (HOME SCIENCE)
BRANCH III: TEXTILE AND FASHION TECHNOLOGY
FABRIC STRUCTURE AND CONSTRUCTION
(THEORY)

Marks : 100

Objectives:

1. To help students learn various fabric construction techniques with reference to consumer and technical textiles.
2. To help students to understand the creation of basic and complex weaves including other methods of creating visual effects.
3. To familiarize students with the various knitted, non-woven and knotted fabrics.

Course Content:

		NOL
Unit I	Yarns and their characteristics, including yarn count and yarn calculation	(7)
Unit II	Spinning – conventional and non – conventional	(7)
Unit III	Weaving – introduction, types of looms, preparation and sizing	(7)
Unit IV	Elementary weaves – plain, twill and satin, their properties and uses	(8)
Unit V	Variations of elementary weaves – rib, hopsack, broken, transposed, fancy twills, regular satin, irregular satin and their extensions	(11)
Unit VI	Complex weaves – huck – a – back, honeycomb, mock leno, bed ford cord, welt and pique, extra warp and weft, color and weave effects, their properties and use.	(11)
Unit VII	Knits – single, double, Rachel, and their variations, properties and uses.	(8)
Unit VIII	Non – wovens and multi components, types, properties and uses	(6)
Unit IX	Other methods of fabric formation – knotting, tufting and felting	(6)
Unit X	Advances in fabric construction	(4)

References :

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- Black, M.E. (1966). *The key to weaving* New York: Macmillan.
- Brown, R. (1978). *Weaving, spinning and dyeing book*. London: Routledge & Kegan Paul.
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T.Y.B.Sc. (HOME SCIENCE)
BRANCH III: TEXTILE AND FASHION TECHNOLOGY
FABRIC STRUCTURE AND CONSTRUCTION
(PRACTICAL)

Marks : 50

Objectives:

1. To source and identify different woven and knitted samples for analysis and testing.
2. To construct fabrics through techniques such as weaving, knitting, crochet, macramé and tufting.
3. To orient students to few fabric testing techniques.

Course Content:

1. Yarn And Fabric Testing:
 - a. Calculation Of The Weight Of Warp And Weft Of The Fabric, Fabric Thickness, Fabric Count.
 - b. Yarn Count And Yarn Twist.
2. Sourcing And Identification Of Different Woven Samples
 - a. Analysis Of Woven Samples For Design, Draft And Peg Plan And Other Particulars (5 Samples Under Each Type Of Weave)
 - b. Practical Weaving Of Samples On Table Looms With Straight And Transposed Drafts.
3. Sourcing And Identification Of Different machine Knitted Samples (Minimum 5 Under Each Category)
4. Constructing Fabrics Using:
 - a. Knitting (Manual – 5 Samples And Machine)
 - b. Tufting (Cut & Uncut Combined 1 Sample)
5. Constructing Fabrics Using:
 - a. Crochet (5 Samples)
 - b. Macrame (Various Knots And 1 Article)

References:

- Black M. E., (1980), *The key to weaving*, New York: Macmillan.
- Fanning & Allen A., (1979), *Handloom weaving technology*, New York: Van Nostrand Reinhold.
- Grosicki Z. J., (1980), *Watson's textile, design and color*, London Newness Butterworths,.

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T.Y.B.Sc. (HOME SCIENCE)
BRANCH III: TEXTILE AND FASHION TECHNOLOGY
MARKETING AND MERCHANDISING
(THEORY)

Marks : 100

Objectives:

1. To help students acquire knowledge and understanding of the basic principles involved in the field of marketing, and market research.
2. To help students understand consumer behavior.

Course Content:

NOL

Unit I	Introduction: Meaning, nature, role, type and scope of market & merchandising, and its importance in the modern economy. Changing profile of market	(7)
Unit II	Organization of the textile industry: Public and private sectors, handlooms, cooperatives, multinational companies.	(7)
Unit III	Marketing Mix: A Product: Product policy decision (industrial v/s consumer goods differentiation), product life cycle, standardization and grading.	(7)
Unit IV	Marketing Mix: B Packaging, Branding and Advertising.	(7)
Unit V	Marketing Mix: C. Pricing: Pricing policy and economic concepts in pricing, pricing objectives and strategies, pricing methods based on costs including break even analysis.	(7)
Unit VI	Marketing Mix: D. Physical Distribution: Different types of distribution channel and their importance, choice of appropriate channels. Special emphasis on Retailing of garments.	(7)
Unit VII	Marketing Mix: E. Promotion: Meaning, objective, process of communication, promotion strategies, social aspect of promotion.	(7)
Unit VIII	Market research: Market segmentation, scope of market research, steps in the research process, types of market research.	(10)

Unit IX Consumer psychology and behavior: Consumer decisions in the market process, factors affecting consumer's decision in purchasing, consumer aids for right choice brands, trademarks, quality marks, buying guides with respect to textiles. (10)

Unit X Introduction to Merchandising (6)

References :

- Berkowitz, K., Hartley, R. (1994) *Marketing* (4th Ed)
Daver, R. S. Modern (1992) *Marketing Management*, Progressive Corporation
Diamond E. (2006) *Fashion Retailing*. New Jersey: Pearson Prentice Hall.
Donnellon J. (1999) *Merchandizing Buying and Management*, New York: Fairfield Publications.
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Sengupta, S. (1990) *Brand positioning strategies for competitive advantage*. Tata McGraw
Singh (1989). *Marketing and consumer behaviour*. India: Deep & Deep.
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T.Y.B.SC. (HOME SCIENCE)
BRANCH III: TEXTILE AND FASHION TECHNOLOGY
HISTORIC TEXTILES AND COSTUMES
(THEORY)

Marks : 75

Objectives:

1. To acquaint the students with the rich heritage of textiles and costumes of the world.
2. To acquaint the students with the care and preservation of textiles.

Course Content:

NOL

Unit I	a) Care and preservation of textiles. b) Textiles of • The ancient world Mediterranean Central & Northern Europe • Western Europe : Italian, Spanish and French	(15)
Unit II	Textiles of • The Near and Middle East: Sassanian textiles; early Islamic textiles, Byzantine silks, Central Asian textiles. • The Far East : China & Japan	(15)
Unit III	Textiles of • America: Colonial North America, Native North America & Latin American. • English and American textiles: Basic cloths, Revolution Exuberance and Renaissance.	(15)
Unit IV	Costumes of • The ancient world : Egypt, Assyria, Etruscans, Rome • Middle ages 11th Century to 15th Century • 16th – 20th Century	(15)
Unit V	Costumes of • Europe from Byzantium to the 1800's • Traditional costumes of the 1800's • 19th Century antique civilizations	(15)

References :

- Boucher F. (1987) *2000 years of fashion: The history of costume and personal Adornment*, New York: Harry and Abrams Inc. publishers.
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T.Y.B.Sc. (HOME SCIENCE)
BRANCH III: TEXTILE AND FASHION TECHNOLOGY
PATTERN DRAFTING
(PRACTICAL)

Marks : 75

Objectives:

1. To teach students how to read elaborate styles and patterns.
2. To equip students with the techniques of advanced pattern designing through flat pattern construction.

Course content:

1. Basic blocks : Adults bodice block, torso and dartless slopes, lower block and sleeve block (Revision) using anthropometric measurements.
2. Dart displacements and concealment techniques.
3. Fundamentals :
Collars : Rever, reversible, shawl, danton & sports
Sleeves: Bell, leg-o-mutton, raglan, drop-shoulder, magyar, butterfly, cap and their variations.
Necklines: Raised, raised, polo and cowl.
4. Garments: Katori choli, skirts, culottes, parallels/ pajamas, tops, kurta, gowns, night wear, shirt (male/female) and trousers (male/female).
5. Ensemble designing and theme garments
Journal with flat pattern construction.

References:

- Aldrich W. (1997). *Metric pattern cutting for Men's wear*. (3rd Ed.) Oxford. Blackwell Sciences.
- Armstrong, H.J. (1986). *Pattern making for fashion design*. New York: Harper Collins.
- Brackenbury, T. (1992). *Knitted clothing technology*. Oxford: Blackwell Science.
- Bray, N. (1986). *Dress pattern designing*. (5th edition). London. Granada.
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- Goldsworthy, M. (1980). *Simple Dressmaking* (1,2,3). London: Mills & Boon.
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T.Y.B.Sc. (HOME SCIENCE)
BRANCH III: TEXTILE AND FASHION TECHNOLOGY
GARMENT CONSTRUCTION AND DRAPING
(PRACTICAL)

Marks : 1

Objectives:

1. To acquaint students with the techniques and skills of garment construction through flat pattern.
2. To acquaint students with the techniques and skills of draping.
3. To make students competent to stitch garments with elaborate patterns.

Course Content:

1. Fundamentals :
Plackets : Continuous kurta placket
Collars: Sports, Shawl, Reversible, Rever, Shirt
Necklines: Raised, Cowl
Pockets : Side pant, welt, bound
Zips : Fly open, zip without seam
2. Garments
Katori choli
Shirt/top/kurta
Leg wear – Trouser/skirt/culottes
Miscellaneous/theme garment (set)
3. Draping :
Bodice block, torso sloper
Basic skirt
4. Journal : Illustration of designs, layout of drafts and fabric consumption
5. Showcasing of the theme garment.

References:

- Armstrong, H. (1986). *Pattern Making For Fashion Designing*. New York: Harper Collings.
- Armstrong, H. (1987). *Pattern Making For Fashion Design*. New York: Harper & Row.
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- Cunningham, G. (1969). *Singer Sewing Book*. Golden Press, New York: A Division of Western.
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- Wyllis, Ethel, (1979). *Today's Custom Tailoring*. Pooria, Ill, Chas A., Bonnet.

T.Y.B.Sc. (HOME SCIENCE)
BRANCH III: TEXTILE AND FASHION TECHNOLOGY
DESIGN CONCEPTS AND COMPUTER AIDED DESIGNING
(PRACTICAL)

Marks: 50

Objectives:

1. To develop skills in manual techniques and computer for basic designing of weaves, prints and illustration.
2. To teach manual techniques of embroidery.

Course Content:

1. Textile Designing: Four designs in all to study the different forms of design (geometric, abstract, natural & stylized), with various repeats and drop devices (block, drop, brick, brick, reverse, ogee, diamond, stripe, and mirror repeats) using different color schemes and layouts.
2. Embroidery: Indian stitches of Kasuti, Kantha, Chamba, Kashida, Zardozi, Chikankari, Gujarat and Rajasthan, Manipuri, Phulkari on samples.
3. Illustration: Introduction to basics of illustration: croquis making and 5 poses.
4. Demonstrations in computer aided designing for weave structures & prints with different repeats and color combinations and basic croquis making.
5. Portfolio making and presentation

References :

- Aldrich, W. (1994). *CAD in clothing and textiles*. (2nd Ed.) Oxford: Blackwell Science Ltd.
- Chattopadhyay, K. (1977). *Indian embroidery*. New Delhi: Wiley Eastern Ltd.
- Crill, R. (1999). *Indian embroidery*. (1st Ed.). New Delhi: Prakash.
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T.Y.B.Sc. (HOME SCIENCE)

BRANCH IV: COMMUNITY RESOURCE MANAGEMENT

PROPOSED SYLLABUS & MARKING SCHEME

Subject	Theory/ Practicals	Internal Marks	University Exam Marks	Total Marks	Periods of Class per Week batch	Univer- sity Exam hours	Internal/ External
Residential Interior Design	Theory	25	75	100	3	3	Both
Hotel Front Office & Housekeeping Operations	Theory	25	75	100	3	3	Both
Marketing Management & Entrepreneurship	Theory	25	75	100	3	3	Both
Introduction to Ergonomics	Theory	25	75	100	3	3	Both
Household Appliances	Theory	25	75	100	3	3	Both
Human Resource Management	Theory	25	75	100	3	3	Both
Extension Education & Communication for Development	Theory	10	40	50	2	2	Both
Community Service Practical	Practical	50	--	50	3	--	Internal
Elective Practicals : • Residential Interiors • Hotel Front Office & Housekeeping	Practical	100	--	100	4	--	Internal
	Total			800			

T.Y.B.Sc. (HOME SCIENCE)
BRANCH IV: COMMUNITY RESOURCE MANAGEMENT
RESIDENTIAL INTERIOR DESIGN
(THEORY)

100 Marks

Objectives:

1. To familiarize students to various building materials used in construction.
2. To enable students to select appropriate materials for different surfaces
3. To get an insight into a variety of furniture, lighting, furnishings suitable for interiors.
4. To be aware of the various household services

Course Content:

NOL

Unit I Introduction to Building Construction & Interior Design

(6)

- Definition of a building
- Types of buildings
- Basic components of a building
- Requirements of parts of buildings
- Structural Design
 - Load
 - Foundation
 - Column
 - Beam

Unit II Components of a Building

(12)

- Walls
 - Cavity Walls
 - Partitions
- Floors
 - Ground floor & Upper floors
 - Types of floors based on material of construction
- Windows & Ventilators
 - Terminology
 - Sizes
 - Points to be considered while locating a window
 - Classification of Windows
- Doors
 - Terminology
 - Size of Doors
 - Points to be considered while locating doors
 - Types of Doors
 - Door & Window Fixtures & Fastenings
- Stairs
 - Terminology
 - Design of a Stair

- Requirements of a good Staircase Design
- Classification of Staircases
-
- Roofs
 - Definition
 - Flat Roofs: Types
 - Pitched Roofs: Types
- Lintels
 - Definition
 - Classification based on material of construction

Unit III Introduction to Building Materials (7)

- Building Stones
- Clay Products
- Cement
- Concrete
- Mortar
- Timber
- Plywood
- Plastics
- Glass
- Paints
- Ferrous & Non - ferrous Metals
- Gypsum
- Adhesives or Glues

Unit IV Basic Principles of Residential Space Planning (6)

- Orientation: Sun, Wind & Rain
- Aspect
- Prospect
- Privacy
- Grouping
- Roominess
- Flexibility
- Circulation
- Light & Ventilation
- Furniture Arrangements
- Sanitation
- Other Practical considerations

Unit V Planning of Rooms (7)

- Space requirements
- Furniture needed
 - Factors influencing Furniture Arrangement
 - Types of Furnitures

- Ergonomical Considerations
 - Human space needs: Anthropometrics, Interior elements, Furniture design
 - Lighting requirements for different activities
 - Ventilation and Indoor air quality
 - Noise Control

Unit VI Residential Lighting

(7)

- Natural Lighting
 - Daylight factor
 - Calculation of openings for Natural lighting
 - Guidelines for good lighting design
- Artificial lighting
 - Types of lamps
 - Types of lighting arrangements: Direct, Indirect, Diffused, Composite, Concealed
 - Lighting Accessories
 - Protection devices
 - Calculation of Artificial Lighting requirement
 - Guidelines for Lighting Design

Unit VII Financial Considerations in Housing

(6)

- Factors affecting the cost of a house
 - Land
 - Development
 - Construction: Materials, Labour
 - Structural design employed
 - Taxes
- Purchase of
 - a plot for House Construction
 - an Apartment
- Housing decisions
 - Ownership Vs. Rental
 - Ready Accommodation Vs. Construction
- Finance: Loans, Mortgages, Self-finance.
 - Institutions and Agencies offering finance

Unit VIII Interior Finishes, Furnishings & Accessories

(10)

- Ceiling
 - Paint
 - False ceiling
- Walls
 - Paint
 - Wall paper
 - Paneling
 - Cladding
 -

- Fabrics
- Glass
- Doors & Windows
 - Curtains
 - Blinds
- Flooring
 - Hard floor finishes
 - Carpets & Rugs
- Furniture
 - Upholstery
 - Partitions
- Accessories
 - Functional
 - Decorative

Unit IX

Residential Services

(10)

- Electricity
 - Basic Units of Measurement
 - Safety Features
 - Estimation of cost
 - Electrical Fitting
 - Fixtures for Interiors
- Plumbing
 - Water Supply sources
 - Pumping Systems
 - Fittings & Fixtures
- Sewerage
 - Importance
 - Fittings
 - Special considerations & precautions
- Environmental considerations
 - Energy-efficient Homes
 - Rainwater Harvesting
 - Waste Water Disposal

Unit X

Interior Design - Professional Aspects

(4)

- Setting up a Professional Practice
 - Code of Conduct
 - Rules & Regulations
- Estimates & Tenders
- Building Rules & Regulations
- Interior Design terminology used in practice

References:

- Allen, P. S. (1985). *Beginnings of Interior Environment* (5th ed). Macmillan Publishing Co. London.
- Clifton, C., Mogg & Paine M. (1988). *The Curtain Book*. Reed International books. New York.
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- Kumar, S. (2008). *Building Construction*. Standard Publishers & Distributors, Delhi.
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T.Y.B.Sc. (HOME SCIENCE)
BRANCH IV: COMMUNITY RESOURCE MANAGEMENT
HOTEL FRONT OFFICE & HOUSEKEEPING OPERATIONS
(THEORY)

Marks 100

Objectives:

To enable students to:

1. understand the managerial aspects of Hotel Housekeeping & Front Office
2. describe, analyze & evaluate the roles and functions of Hotel Housekeeping & Front Office
3. gain knowledge of personal attitudes, characteristics, and work practices essential in Housekeeping & Reception operations

Course Content:

NOL

Unit I	Hospitality Industry	(11)
	• Introduction: Definition, Scope, Structure, Types of Hospitality Businesses, Relation to Tourism • Hotel: Definition, History of Lodging, Guestrooms & Plans, Organizational Structure • Property Management Systems: - Manual, Semi-Automated, Automated Systems - Software used for Rooms Management, Reservation, Accounts • Qualities of Front Office & Housekeeping Staff • Promotion of Products & Services: Target Markets, Upselling.	
Unit II	Front Office	(5)
	• Organization • Job Description • Job Specifications • The Guest Cycle: Pre- Arrival, Arrival, Occupancy, Departure • Communicating on the Telephone: Role & Responsibilities of the staff, Telephone & Switchboard equipment, Receiving calls.	
Unit III	Receiving reservations	(5)
	• Role & Responsibilities of the Reservation Staff • Reservation Process • Potential Reservation Problems • Types of Reservations • Reservation Records & Reports	

Unit IV

Reception, Check – In, Check – Out

- Role & Responsibilities of the staff at Reception
- Guest Arrival & Check -In
- Registration
- Other Reception Duties & Services
- Guest Departure & Check-Out
- Preparing Records & Reports
- Providing Porter Services
 - Role & Responsibilities of a Porter
 - Handling Guest Arrivals & Departures
 - The Role of the Porter in Security
- Lobby
 - Job Description: Bell Boy & Bell Captain
 - Control of Bell Boys
 - Procedures for: Left Luggage, Scanty Baggage, Wake – up Call, Processing Housekeeping Discrepancies
 - Other Duties of Lobby Staff.

Unit V

Financial Transactions

- Guest Accounting System
 - Types of Accounts
 - Processing, Maintaining & Settling Guest Accounts
- Credit & Credit Procedures.
 - Definition
 - Objectives of Credit Control
 - Credit Control measures during: Arrival, Occupancy, Departure & Post-departure
 - Safeguards adopted by Hotels
 - Legal Action that maybe taken against Defaulters.
- Night Audit
 - Role & Responsibilities of the Night Auditor
 - The Audit Process
 - Procedures to ensure Accuracy & Security of Financial Systems
- Cashier
 - Role & Responsibilities of the Cashier

Unit VI

Housekeeping Department

- Organization
- Job Description
- Job Specifications
- Inter Departmental Communication & Coordination
- Staffing Guides, Schedules and Shifts

- Areas of Responsibility
 - Managing Housekeeping Requests
- Unit VII Cleaning Equipments & Chemicals** (5)
- Types of Equipments
 - Factors affecting the choice of Cleaning Equipments & Detergents
 - Maintaining & storing Equipment & Chemicals
 - Safety Precautions in their use
 - Potential Hazards
 -
- Unit VIII Guestroom Cleaning** (9)
- Preparing Rooms for Guests
 - Making Beds
 - Cleaning Techniques & Procedures
 - Guest Supplies & Amenities
- Public Area Cleaning**
- Importance
 - Cleaning Public Areas
 - Managing Suspicious or Unusual Behaviour
 - Handling Special Requests & Projects
- Unit IX Laundry, Linen & Uniform room** (5)
- Planning OPL: Layout & Organization, Flow of linen, Linen treatment
 - Machines & Equipment in OPL
 - Managing Inventories: Par level, Uniforms, Linen, Guest loan items, Cleaning supplies & Guest supplies
- Unit X Housekeeping Concerns** (14)
- Cost Control
 - Budget Process
 - Types of Budget: Capital & Operating
 - Contract Vs. In – House Cleaning
 - Other Housekeeping Practices: First Aid, Pest Control
 - Conflict Situations
 - Definition
 - Types of Conflict
 - Resolving Conflicts
 - Responding to Customer Complaints
 - Turning Complaints into Opportunities
 - Safety & Security
 - Areas of Responsibility
 - Security Equipment

- Surveillance (CCTV)
 - Guestroom Security
 - Key Control & Lost and Found Procedures
 - Emergency Management
- Environmental Concerns
 - Energy Conservation
 - Water Conservation
 - Waste Management
 - Environment friendly concepts used in Hotels
 - Ecotel Certifications

References:

- Agarwal. A. & Agarwal. M. (2000). Careers in Hotel Management. Vision Books Pvt Ltd, New Delhi.
- Alan. T. S. & Wortman. J. F. (2006). Hotel and Lodging Management – An Introduction. John Wiley & Sons. New Jersey.
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- Walker. J. R. (2005). Introduction to Hospitality Management. Pearson Education Pvt Ltd, Delhi

T.Y.B.Sc. (HOME SCIENCE)
BRANCH IV: COMMUNITY RESOURCE MANAGEMENT
MARKETING MANAGEMENT & ENTREPRENEURSHIP
(THEORY)

Marks : 100

Objectives:

1. To understand different marketing functions and systematic distribution system.
2. To develop the analytical skills of students and enable them to use marketing strategies in a competitive environment.
3. To acquire knowledge and skills for entrepreneurship.

Course Content:

NOL

Unit I	Overview of Marketing • Meaning, Features, Marketing functions • Concepts of Marketing Marketing Planning • Marketing Environment – Definition • Factors influencing a Marketing Plan – Internal and External • Present Marketing Environment in India.	(7)
Unit II	Marketing Structures • Definition • Features of Marketing Mix • Marketing Strategies • Need and Types of Marketing Structures • Channels of Distribution: Types, Factors to be considered Market Segmentation, Targeting and Positioning • Definition, Need • Factors influencing Market Segmentation • Basis of Market Segmentation • Features of good Market Segmentation • Market Segmentation Strategies • Advantages and Limitations of Market Segmentation	(10)
Unit III	New Product Development • Stages in the process • Promotion Mix • Product Life Cycle and Marketing Strategies • Product Failure	(10)
Unit IV	Concepts of Cost • Fixed and Variable cost • Marginal Cost	(8)

- Break-Even Analysis
- Opportunity Cost
- Governmental Control
 - Taxes
 - Subsidies.
 - Financial statements – Cash flow, Income, Balance sheet.

Unit V Pricing

- Definition & Importance
- Types of Pricing
- Factors affecting Pricing

(5)

Unit VI Entrepreneur, Intrapreneur and Entrepreneurship

- Definition
- Concept
- Characteristic Features
- Entrepreneurial Skills
- Classification of Entrepreneurs based on
 - Types of Business
 - Use of Technology
 - Motivation
 - Growth
 - Stages of Development
 - Other factors

(8)

Unit VII Project Formulation & Feasibility Analysis

- Stages of Project Formulation
- Project Selection
- Project Evaluation
- Guidelines for Project Formulation
- Standards & Systems of Evaluation (HACCP, ISO)
- Identifying a Business Opportunity

(10)

Unit VIII Business Planning

- Importance of a Business Plan
- Purpose of a Plan
- Creating an effective Plan
- Business Acquisition, Franchising and Outsourcing

(7)

Unit IX Financial Requirements

- Fixed Capital and Working Capital
- Sources of Finance
- Record keeping and Accountancy

(6)

- Role of the Government: Government as a regulator, Inspection, Licenses, Government as a Provider of Public Goods, Government as a Provider of Social programs, Government as a Redistributor of Income

References:

- Amarchand. D. (1979). Introduction to Marketing, Vikas Publishing House. New Delhi.
- Bhatia. R.C. (2003). Marketing, Communication and Advertising Galgotia Publishing Co. New Delhi.
- Green. C. (2004). Entrepreneurship Ideas in Action. South Western Educational Publishing Pvt. Australia.
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- Kale. N.G. (1998). Principles and Practice of Marketing. Vipul Prakashan, Mumbai.
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T.Y.B.SC. (HOME SCIENCE)
BRANCH IV: COMMUNITY RESOURCE MANAGEMENT
INTRODUCTION TO ERGONOMICS
(THEORY)

Marks : 100

Objectives:

1. To introduce students to the concept and essential components of Ergonomics.
2. To provide students with ergonomic applications in home, office and industry.

Course Content:

Unit I	Ergonomics • Definition • Historical Perspective • Scope of Ergonomics • Need and Importance • Man – Machine – Environment system • Interdisciplinary Approach: - Anatomy - Psychology - Physiology • Time & Motion Studies	(5)
Unit II	Anthropometrics • Definition • Terminology Used • Body Dimensions: Definitions & Applications - Dynamic - Static • Body Types • Principles & Practice of Anthropometrics • Anthropometric Data	(10)
Unit III	Posture & Workload • Definition • Anatomy of the Body • Types of Postures: Standing, Sitting, Hand & Arm Postures • Guidelines of Good Posture • Biomechanics • Biomechanical, Physiological & Anthropometric Background	(8)

Unit IV	Work Space Design • Working Heights • Clearance • Work Zones: Convenient & Maximum Reach • Neck & Head Postures	(8)
Unit V	Physiological Aspects of Work • Muscular Work • Work Efficiency • Measurement of the Human Cost of Work	(8)
Unit VI	Sources of Energy • ATP • CP • Carbohydrates • Fats • Proteins	(8)
Unit VII	Fatigue • Definition • Types: Physiological and Psychological & their effect on Performance • Assessment of Fatigue • Work Design to avoid Fatigue	(8)
Unit VIII	Environmental Factors • Illumination • Noise & Vibration • Chemical & Biological • Indoor Climate: Heat, Ventilation & Air Pollution • Creating a harmonious Work Environment • Effect on Health with applications in Home, Office & Industry	(8)
Unit IX	Ergonomics in the Home • Equipment • Interior Design: Kitchen, Bathroom, Bedroom • Furniture	(6)
Unit X	Ergonomics in the Workspace • Office Desk & Chair • Visual Demands • Design of Screen-based Jobs	(6)

References:

- Bridger. R.S. (2003). Introduction to Ergonomics. Taylor and Francis Ltd. Great Britain.
- Chauhan. M. K. (2002). Ergonomics Practical Manual. SVT College of Home Science, Mumbai.
- Dalela S. & Saurabh. (1987). Textbook of Work Study and Ergonomics. (4th ed). Standard Publishers. Delhi.
- Gandotia. V., Oberoi K. & Sharma. P. (2005). Essentials of Ergonomics, Dominant Publishers and Distributors. New Delhi.
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T.Y.B.SC. (HOME SCIENCE)
BRANCH IV: COMMUNITY RESOURCE MANAGEMENT
HOUSEHOLD APPLIANCES
(THEORY)

Marks : 100

Objectives:

1. To enable students to select and effectively use equipment.
2. To create an awareness of the working principles, construction, cost and care of various equipments available in the market

Course Content:

		NOL
Unit I	Introduction • Classification of Equipment • Basic Facts of Electricity • Heating Elements and Thermostats • Motors • Cords and Plugs.	(6)
Unit II	Fuels • Conventional Fuels • Non-conventional Fuels • Environmental Impact of the use of various Fuels • Cost-effectiveness of Fuels	(6)
Unit III	Materials • Base Materials • Finishing Materials • Insulating Materials	(7)
Unit IV	Utensils • Methods of Forming – Casting, Spinning, Drawing, Stamping • Methods of Assembling - Riveting, Soldering, Welding, Braizing • Surface Cooking Utensils • Ovenware • Hand Tools: Knives, Peeler, Graters & Beaters	(7)

Study of the following equipment with respect to Construction, Working, Maintenance and Selection Criteria.

- | | | |
|-----------|--|------|
| Unit V | Small Kitchen Appliances | (11) |
| | <ul style="list-style-type: none">• Pressure Cooker• Mixers & Grinders• Electric Kettle• Coffee Maker & Coffee Percolator• Electric Toaster• Water Purifier• Waste Disposal unit | |
| Unit VI | Large Kitchen Appliances | (10) |
| | <ul style="list-style-type: none">• Cooking Range• Oven• Refrigerator• Freezer• Ventilation Equipment | |
| Unit VII | Home Laundry Appliances | (5) |
| | <ul style="list-style-type: none">• Iron• Washing Machine• Drier | |
| Unit VIII | Heating and Cooling Appliances | (7) |
| | <ul style="list-style-type: none">• Air Conditioner• Air Cooler• Air Filter• Electric Fan• Electric Water Heater | |
| Unit IX | Cleaning Appliances | (7) |
| | <ul style="list-style-type: none">• Vacuum Cleaner• Floor Polisher• Dishwasher | |
| Unit X | Appliances using Alternative Fuel | (9) |
| | <ul style="list-style-type: none">• Solar Water Heater• Solar Cooker• Smokeless Chullah• Kerosene Stove | |

References:

- Inman E. F. (1966). Equipment in the Home. Harper & Row Publishers, New York.
- Payne J & Theis M. (2005). Introduction to Food Service. (10 th ed). Pearson Education, Inc. New Jersey.
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- Verghese .B.(1999). Professional Food & Beverage Service Management. Macmillan India Ltd. Bangalore.
- Zante. V. & Helen. J. (1964). Household Equipment. Prentice Hall. New York.

T.Y.B.Sc. (HOME SCIENCE)
BRANCH IV: COMMUNITY RESOURCE MANAGEMENT
HUMAN RESOURCE MANAGEMENT
(THEORY)

Marks : 100

Objectives:

To provide the students with an:

1. overview of the basic concepts of Human Resource Management & its dimensions.
2. awareness of the relevance of HRM in an organization.
3. exposure to case studies in HRM practice.

Course Content:

Unit I	Introduction to Human Resource Management • Concept, Features, Objectives • Terminology used • Importance & Limitations • Principles of HRM • Activities of HRM • Role of an HR Manager • Difference between Personnel Management & HRM	(5)
Unit II	Human Resource Planning • Meaning, Objectives, Advantages & Limitations, Steps in the Planning Process • Job Analysis: Concept • Job Description & Job Specification. • Job Design: Concept, Factors affecting Job Design, Techniques of Job Design. • Job Evaluation: Concept, Purpose, Importance & Methods of Job Evaluation.	(11)
Unit III	Staffing • Recruitment & Selection : Meaning, Sources of Recruitment, Steps in the Selection Procedure. • Induction/Orientation : Purpose, Contents of the Orientation programme, Advantages of Induction.	(8)
Unit IV	Performance Appraisal • Meaning, Purpose, Need, Merits and De-merits • Methods • Limitations of Performance Appraisal Techniques • Suggestions for raising the effectiveness of Appraisal Programmes • Post Appraisal Interview	(11)

Unit V	Training & Development • Meaning, Need, Objectives • Types, Advantages of Training, Methods of Training, Principles of Training • Steps in the Training Process • Evaluation • Importance of Development • Methods of Development	(11)
Unit VI	Compensation • Wage & Incentive Payments • Fringe Benefits.	(7)
Unit VII	Promotion Policies • Reasons for Promotion • Benefits of Promotion • Principles of a sound Promotion Policy • Basis of Promotion	(6)
Unit VIII	Career Planning • Meaning & steps in the Career Planning Process • Job Rotation & Transfer - Meaning, Benefits & Drawbacks of Job Rotation - Purpose of Job Transfers - Principles of a sound Transfer Policy - Types & Procedures of Transfers • Role of an Organization in an Employee's Career Development	(6)
Unit IX	Grievance Management • Sources of Conflict • Conflict management Styles & Strategies	(5)
Unit X	Human Resource Audit • Meaning & Objectives • Advantages & Limitations	(5)

References:

- Certo, S.C. (2003). Modern Management. Pearson Education (Singapore) PTE, Ltd. Delhi.
- Kale, N.G., Latif, S.A. & Mehtab, A. (1998) Management and Human Resource Development. Manisha Prakashan. Mumbai.
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- Satya, R.R. and Parthasathy, A. (2000). Management: Text and Cases. Prentice Hall of India Pvt. Ltd. New Delhi.

T.Y.B.Sc. (HOME SCIENCE)
BRANCH IV: COMMUNITY RESOURCE MANAGEMENT
EXTENSION EDUCATION & COMMUNICATION FOR DEVELOPMENT
(THEORY)

Marks : 50

Objectives:

1. To orient students to the need for Extension Education
2. To facilitate the development of knowledge & skills in the preparation & use of various aids used in Extension Education.
3. To enable students to understand how to plan for & implement a Community Development Programme.

Course Content:

NOL

Unit I

Extension Education

- Concepts
- Principles
- Aims
- Role of an Extension Worker
- Qualities of an Extension Worker
- The Extension Worker as a Communicator

(6)

Unit II

Communication Approaches & Extension Work

- Communication & Extension Approaches & Methods
- Motivating the Audience
- Selection of Teaching Tools
- Extension Methods
 - Direct Contact
 - Demonstration
 - Puppetry
 - Drama, Role Plays & Street Plays
 - Talks: Meetings & Conferences
 - Group Discussions and Focus Group Discussions
 - Tours
 - Campaigns
 - Rural Camps
 - Exhibitions
 -

(12)

Unit III

Audio- Visual Aids

- Non Projected Visual Aids
 - Posters
 - Diagrams: Charts & Graphs

(11)

- Flip Charts
- Flash Cards
- Felt Boards & Flannel Graphs
- Chalk Boards
- Bulletin Boards
- Projected Aids
 - Projectors
 - Use of Computers, VCD, DVD & other Electronic Media
- Audio Aids
 - Radio, Tape Recorder & Electronic Media
 - Public Address Equipment
- Communication through the Written Word
 - Writing for Newspapers
 - Feature Stories
 - Leaflets, Pamphlets, Bulletins and Circulars
 - Writing for a Radio Talk and Television Programme

Unit IV Programme Planning & Organization

- Components
- Principles
- Abilities needed by Planners
- Developing a Plan of Work
 - Definition & Analysis of the concept
 - Elements of the Plan of Work

Unit V Community Development Programme

- Meaning
- Essential Elements
- Objectives
- Principles of Community Development
- Types of Community Development Programmes
- Community Development Processes
- Development & use of Organization Channels
- Role of the Community Development Worker.

References :

- Chadha, P.C. & Moquemuddin, M. (1979). Audio - Visual Education (Art & Teaching Aids).
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- Chadha, O.P. & Bhatnagar, O.P. (1980). Education & Communication for Development. 2nd
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- NIPCCD. (2002) Nutrition & Health Education Source Book. New Delhi
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Ltd. New Delhi.
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New Delhi.

T.Y.B.SC. (HOME SCIENCE)
BRANCH IV: COMMUNITY RESOURCE MANAGEMENT
COMMUNITY SERVICE PRACTICAL
(PRACTICAL)

Marks : 50

Objectives:

To provide students with:

1. basic skills in the preparation & use of audiovisual aids
2. an exposure to different community settings & enable students to render service in these settings using various aids.

Course Content:

1. Visual Aids : Importance in Community Service Programmes. Principles, Preparation and Use of Aids such as Posters, Charts, Flash Cards, Leaflets, etc.
2. Bulletin Board : Effective use of Bulletin Boards. Use of the Bulletin Board in bringing about awareness of community related issues among college students.
3. Use of the Computer in the preparation of A.V. aids.
4. Street Plays and Puppet Shows : Importance, Principles and Preparation of different types of Puppets. Writing of simple Scripts.
5. Seminar – Skills required for effective Seminar Presentations. Classroom presentation of a paper on topics of general interest focusing on developing the communication & presentation skills of the students.
6. Outreach Programme in the community making use of various aids.
7. A minor Project / Survey in the community set-up.

References :

- Chadha, P.C. & Moquemuddin, M. (1979). Audio – Visual Education (Art & Teaching Aids). Prakash Brothers. Ludhiana
- Dahama, O.P. & Bhatnagar, O.P. (1980). Education & Communication for Development. 2nd ed. Oxford & IBH Publishing Co. Pvt. Ltd. New Delhi.
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T.Y.B.Sc. (HOME SCIENCE)
BRANCH IV: COMMUNITY RESOURCE MANAGEMENT
RESIDENTIAL INTERIORS
(ELECTIVE PRACTICAL)

Marks : 100

Objectives:

1. To gain insight into the types of furniture, lighting & furnishings for interiors
2. To enable selection of appropriate materials for different surfaces
3. To impart skills in drawing ergonomically-fit interior schemes for residential buildings
4. To gain experience in scale drawing and presentation techniques.

Course Content:

1.
 - Introduction
 - Materials used
 - Lettering
 - Scales
 - Symbols used in building drawings
 - Study of building Blue Prints: Plan, Elevation, Sections, Key, Legend, Title Block, Scale, Site Orientation & Detailed Drawings
2.
 - Figures & Projections
 - Orthographic Projections
 - One-point Perspective of simple geometrical forms
3.
 - Working Details
 - Doors
 - Jamb
 - Windows
 - Ventilators
4.
 - Interior Presentations
 - Plan
 - Elevations
 - Sections
 - Perspectives
5.
 - Evolving simple house plans for a small area
 - Plan
 - 4 Sectional elevations
 - Evolving simple house plans for one large area
 - Plan
 - 2 Sectional elevations

6.
 - Furniture Designs for various areas:
 - Living room
 - Drawing-cum-dining room
 - Master bedroom
 - Children's bedroom
 - Guest bedroom
 - Kitchen
 - Bathroom
 - Toilet
7.
 - Planning Furniture Layout: Working out design and decoration plans with sectional elevations for:
 - Studio Apartment
 - 1 BHK Apartment
 - 3 BHK Apartment
8.
 - Presentation Techniques
 - Rendering
 - Model Making
9.
 - Site visits to observe Planning & Implementation of Services
10.
 - Exposure to Finishing Materials
 - Market Survey
 - Preparation of Scrap book.

References :

- Allen. P. S. (1985). *Beginnings of Interior Environment* (5th Ed), Macmillan Publishing Co. London.
- Cliffon C., Mogg & Paine. M. (1988). *The Curtain Book* Reed International Books. New York.
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- Rao R. & Subrahmanyam Y. (2007). *Planning & Designing of Residential Buildings*. Standard Publishers & Distributors. Delhi.
- Magazines: *Inside Outside*, *Society Interiors*, *Design & Interiors*, *Architecture & Design*

T.Y.B.Sc. (HOME SCIENCE)
BRANCH IV: COMMUNITY RESOURCE MANAGEMENT
HOTEL FRONT OFFICE & HOUSEKEEPING
(ELECTIVE PRACTICAL)

Marks : 100

Objectives:

1. To train students to manage the functions carried out in the Housekeeping & Front Office departments of an Institution.
2. To prepare students for Front Office & Housekeeping jobs in institutions like Hotels, Hostels, Hospitals, Offices, etc.

Course Content:

1. A study of the following:
 - Grooming & Etiquette required of Housekeeping & Front Office staff
 - General rules to be followed by employees on Guest floors & in the Lobby
 - Daily cleaning of a Guestroom
 - Bed making
 - Turn-down Service
 - Second Service
 - Procedure for cleaning a Guest Bathroom
 - Cleaning of Public areas
 - Preparation of a Staffing guide
 - Simple Flower Arrangements
 - Stain Removal
 - Cleaning of various Materials : metals, glass, wood
 - Communication
 - On the telephone
 - With guests
 - Inter-departmental
 - Folios & Formats
2. A survey of the various Cleaning Agents & Cleaning Equipment available in the market.
3. A visit to the Housekeeping & Front Office departments of a hotel / hospital to study the layout of the department, organizational structure and functions.
4. An assignment on Housekeeping contract firms to understand the kinds of services they provide.
5. An exposure to simple First Aid measures.

6. Simulations of situation handling with:
 - Guests
 - Other departments.
7. 3 weeks internship in the Housekeeping / Front Office department of a Hotel or in a Housekeeping Contract Firm.

References:

- Agarwal A. & Agarwal M, (2000). Careers in Hotel Management. Vision Books Pvt Ltd, New Delhi
- Andrews, S. (1982). Hotel Front Office – Training Manual. Tata McGraw Hill Publishing Co. Ltd., New Delhi.
- Andrews S. (2003). Hotel Housekeeping – Training Manual. Tata McGraw Hill Publishing Co. Ltd., New Delhi.
- Brown G.& Hepner, K.. The Waiter's Handbook. Hospitality Press Pty Ltd, Australia
- Ford, R.C. & Heaton, C. P, (2000). Managing the Guest Experience in Hospitality. Delmar Thomson Learning, New York.
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