

GOVERNMENT OF GOA
GOA COLLEGE OF HOME SCIENCE
CAMPAL, PANAJI – GOA

(Affiliated to Goa University)

Bachelor of Science in Home Science

Revised syllabus

To be implemented from June 2005

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Community Resource Management

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5. T.Y.B.Sc. (Home Science) Course Summary (Including scheme of examination)

6. T.Y.B.Sc. (Home Science) Syllabus

A. Food , Nutrition & Dietetics

- Paper IV: Human Nutrition (Theory)
- Paper V: Community Nutrition (Theory)
- Nutritional Assessment & Education (Practical)
- Paper VI: Food Technology (Theory)
- Food Analysis & Clinical Biochemistry (Practical)
- Paper VII: Nutritional Biochemistry (Theory)
- Paper VIII: Food Service Systems (Theory)
- Paper IX: Clinical Nutrition & Diet Therapy (Theory)
- Quantity Cooking & Diet Therapy (Practical)
- Diet Planning (Practical)
- Seminar/Project (Practical)
- internship

7. T.Y.B.Sc. (Home Science) Course Summary (Including scheme of examination)

8. T.Y.B.Sc. (Home Science) Syllabus

B. Textiles and Clothing

- Paper IV: World Historic Textiles & Costumes (Theory)
- Paper V: Dyeing and Printing (Theory)
- Dyeing & printing (Practical)
- Paper VI: Textile Testing (Theory)
- Textile Testing (Practical)
- Paper VII: Fabric Structure and Construction (Theory)
- Fabric Structure and Construction (Practical)
- Paper VIII: Marketing, Merchandising & Consumer Education (Theory)

Pattern Drafting (Practical)

Garment Construction & Introduction to Draping (Practical)

Seminar/ Project (Practical)

Internship

9. T.Y.B.Sc. (Home Science) Course Summary (Including scheme of examination)

10. T.Y.B.Sc. (Home Science) Syllabus

C. Human Development

Paper V: Psychological testing (Theory)

Paper VI: Early Childhood Care and Education (Theory)

Paper VII: Adulthood & Ageing (Theory)

Paper VIII: School Administration (Theory)

Paper IX: Social Welfare (Theory)

Paper X: Guidance & Counselling (Theory)

Paper XI: Exceptional Children (Theory)

Field Work (Practical)

Seminar/Project (Practical)

Internship

11. T.Y.B.Sc. (Home Science) Course Summary (Including scheme of examination)

12. T.Y.B.Sc. (Home Science) Syllabus

D. Community Resource Management

Paper V: Housekeeping Management (Theory)

Paper VI: Marketing & Entrepreneurship Management (Theory)

Paper VII: Human & Environment Resource Management (Theory)

Paper VIII: Home Furnishing & Interior Design (Theory)

Paper IX: Community Health (Theory)

Paper X: Introduction to Ergonomics (Theory)

Interior Design (Practical)

Field Work (Practical)

Seminar/Project (Practical)

Internship

COURSE SUMMARY

I.

F.Y. B.Sc. (Home Science)

Subject	T/ P	Exam hrs.	Exams marks	CIA	Total	Periods of class/ week/ batch
1	2	3	4	5	6	7
Introductory Biochemistry	T	3	70	30	100	3
Introductory Biochemistry	P	2	30	20	50	2
Food, Nutrition & Dietetics Paper I: Food Science	T	3	70	30	100	3
Food Science	P	3	30	20	50	4
Textiles and Clothing Paper I: Fibre to Fabric	T	3	70	30	100	3
Fundamentals of Clothing and Children's Wear	P	3	30	20	50	4
Human Development Paper I: Child Development	T	3	70	30	100	3
Paper II: Psychology	T	3	70	30	100	3
Community Resource Management Paper I: Introduction to Resource Management	T	3	70	30	100	3
Paper II: Principles of Design	T	3	70	30	100	3
Communication Skills	T	3	70	30	100	3
TOTAL					950	34

1: Students will have to compulsorily undergo a practical course in Basic Computer Applications with 3 periods of instruction per week, comprising 50 marks with CIA, which they should satisfactorily pass before admission to the Third Year.

SCHEME OF CIA

A) THEORY PAPERS – (30 MARKS)

	Ist Periodic Test	IInd Periodic Test	Total	Average
Marks	30	30	60	30
Duration	1 hour	1 hour	-	-

B) PRACTICAL PAPERS – (20 MARKS)

One practical test in the 2 nd term of 1 hour duration	--	15 Marks
Years work (including journal if any)	--	25 Marks
Total	--	40 Marks
Scaled to	--	20 Marks

No Retests shall be conducted except on grounds of Sports/NSS/Cultural Activities/Medical Grounds.

F.Y.B.SC. (HOME SCIENCE)
INTRODUCTORY BIOCHEMISTRY
(THEORY)

Marks : 100

OBJECTIVES:

1. To enable the students to gain basic knowledge of biochemistry with respect to the chemical structure and metabolism in the human body.

COURSE CONTENTS:

1. An introduction to functional groups, reactions of functional groups and Isomerism.
2. Carbohydrates – Compositions, chemistry, Classification, Reactions, Digestion and Absorption.

Metabolism – Glycolysis, TCA, Glycogenesis, Glycogenolysis and Gluconeogenesis
3. Proteins – Composition, Chemistry, Classification, Reactions, Digestion and Absorption.
Metabolism – Deamination, Transamination, Decarboxylation, Urea Cycle
- 4.. lipids- Composition, Classification, Reactions, Fat Constants, Digestion and Absorption
Metabolism – B-oxidation, ketone body formation
5. Vitamins – Classification, Chemistry and Function (In brief)
6. Minerals – Functions in the body (In Breif)
Calcium, Phosphorus, Sodium, Potassium, Chloride, iron, Copper, Zinc, Iodine, Fluoride
7. Water – Role of water in the body, Water balance
8. Acid base balance
9. Enzymes
Definition, classification and factors influencing enzyme activity
10. Nucleic acids – an outline
 - (a) Purines and Pyrimidines
 - (b) DNA and RNA

REFERENCES:

Devlin, T.H. (1997) Textbook of biochemistry with clinical correlations,.
New York: John Wiley

Lihninger A. (1993). Principles of biochemistry, New Delhi, Kalyani Publications.
Murray R.K. (2000). Haper's biochemistry, Conenctcut: Aooleton and Lange Publications.
Ramakrishna S. (1989) Textbook of medical biochemistry, New Delhi: UBS
Ramarap A. V.S.S. (1998) A textbook of medical biochemistry, new Delhi: UBS.

F.Y.B.SC. (HOME SCIENCE)
INTRODUCTORY BIOCHEMISTRY
(PRACTICAL)

Marks : 50

OBJECTIVES:

1. To impart knowledge of the properties of sugars, amino acids and minerals
2. To develop skills and learn the methods of estimating the above nutrients.

COURSE CONTENT:

1. Standardization of acids and alkalis
2. Qualitative Identification of:
 - (a) Sugars – glucose, fructose, maltose, lactose, sucrose
 - (b) Amino acids
 - (c) Minerals
3. Qualitative Analysis of:
 - (a) Starch Hydrolysis
 - (b) Fat
4. Quantitative Estimation of
 - a) Sugars
 - (i) Glucose
 - (ii) Lactose in milk
 - By Cole;s and Benedict's method
 - (iii) Sucrose – Benedict's method
 - b) assorbic acid from unknown solution

REFERNCES:

Jayaram. T. (1981) Laboratory manual in biochemistry, New Delhi: Wiley Estern Ltd.
Oser, B.L. (1970) Hawk's physiological chemistry, New Delhi: Tata McGraw Hull.

F.Y.B.SC. (HOME SCIENCE)
FOOD, NUTRITION AND DIETETICS
PAPER I – FOOD SCIENCE
(THEORY)

Marks : 100

OBJECTIVES:

1. To acquire knowledge of various concepts of nutrition – its facts and principles
2. To develop the ability to select and apply known principles to practical situations in the laboratory and at home.

COURSE CONTENT:

1. (a) Introduction to nutrition – Facts and Principles
(c) Classification of foodstuffs
 - i. Nutritive value
 - ii. Food groups
2. Cooking methods
 - (a) Reasons for cooking
 - (b) Various cooking techniques
 - © Physical and chemical changes during cooking
3. Detailed study of foodstuffs and the importance in the diet.
 - a) Milk and Milk products
 - i) Composition and nutritive value
 - ii) Processing of milk – pasteurization, homogenization
 - iii) Milk products – a dried milk, concentrated milk, filled and imitation milk, butter, ghee, cream
 - Cheese – definition, manufacturing process, Indian cheese, processed cheese and cheese spread
 - Ice-cream – definition, role of ingredients, manufacturing process
 - iv) Digestibility.
 - b) Eggs
 - i) Structure, composition and nutritive value
 - ii) Measures of quality
 - iii) Storage of eggs
 - iv) Digestibility
 - c) Meat
 - i) Structure, composition and nutritive value
 - ii) Post-mortem changes and ageing

- iii) Classification
 - iv) Storage and preservation
 - v) Digestibility
- d) Poultry
- i) classification and market forms
 - ii) Composition and nutritive value
 - iii) Processing
 - iv) Storage
 - v) Digestibility
- e) Fish and shell fish
- i) Classification
 - ii) Composition and nutritive value
 - iii) Characteristics of fresh and spoiled fish
 - iv) Storage and preservation
 - v) Digestibility
- f) Vegetables
- i) Classification – green leafy vegetables, succulent and root and fruit vegetables
 - ii) Composition, nutritive value
 - iii) Selection and storage
 - iv) Digestibility
- g) Fruits
- h) Classification
- i) Composition and nutritive value
- j) Changes during ripening
- k) Storage and selection of some common fruits
- l) Digestibility
- h) Cereals
- i) Importance, structure, composition and nutritive value
- j) Common cereal grains and their products
- Rice – parboiling of rice
 - Wheat – milling of wheat, types of wheat flours
 - Maize
 - Millets
 - Breakfast cereals
- i) Pulses
- Importance, composition and nutritive value and processing
- k) Fats and Oils
- Vegetable and animal fats
 - Processing of fats
 - Rancidity and its prevention

Note: Effect of cooking, methods of cooking and the role of cookery for each of the above to be included

4. Emulsion and its application
 - a) Temporary
 - b) Permanent
 - c) Cooked
 - d) Uncooked

5. Bakery and Confectionary products
 - a. Batters and doughs
 - b. Cakes, Cookies & Biscuits, Pastries, Bread
 - Types / Categories
 - Role of ingredients
 - Principles and Methods of preparation
 - Desirable characterists
 - Storage

6. Food Additives
 - a) Leavening agents – applications
 - b) Food Preservation – applications
 - Jam, jellies, marmalade and pickles
 - c) Others (in breof)

REFERENCES:

- Arora, K. (1993). Theory of cookery, new Delhi: Frank Bors and Co.
Bennion, M. (1975). Introductory foods. New York: Macmillan Publishing Co. Inc.
Many, N.S. (1995). Food facts and principles. New Delhi. New Age International
Mcwilliam, M. (1980). Food Fundamentals. New York: John Wiley and Sane
Srilankshmi.B. (1997). Food Science. New Delhi: New Age.
Swaminathan, M. (1991) Food science and experimental foods: Madras: Ganesh and Co.

Marks : 50

OBJECTIVES:

To familiarize the students with:

1. Common ingredients, devices and equipments available for food preparation and their functionality.
2. Different cooking methods and techniques used in food preparation
3. Principles involved during preparation of different foods and their application

COURSE CONTENT:

1. Introduction to:
 - a) Food Science – Culinary terms used in preparation and cooking of food, Regional names of ingredients
 - b) Measuring techniques used for different foods – weights and volumes
 - c) Use of appropriate devices, equipments, cutlery etc. in preparation of food
2. Methods (dry heat, moist heat and others) and techniques used in the preparation of food, et. Roasting, Baking, Grilling, Frying, Boiling, Parboiling, Poaching, Streaming, Pressure Cooking, Microwave Cooking, Blanching, Marinating, Dicing, Slicing, Grating, Germination, Fermentation, Blending etc.

Note:

- i. Concepts will be made clear with the demonstration of simple recipes using common ingredients like cereals, vegetables, eggs, meat and poultry.
 - ii. Methods and techniques will be reinforced during the different practicals
3. Sensory Evaluation – Detection of primary flavour and sensitivity
 - a) Pair test
 - b) Triangle test
 - c) Scoring test
 - d) Ranking test
 - e) Threshold tests
 4. Sugar Cookery
 - (a) Effects of moist heat – stages of sugar syrup
 - i. One thread
 - ii. Two thread
 - iii. Soft ball
 - iv. Hard ball
 - v. Re-crystallization

Suggested recipes: - Rose syrup, Lemon squash, Gulab Jamun, Chikki, Coconut cubes

(b) Candies

- i. Crystalline candies

Suggested recipes: Fondant preparation, Sugar coated groundnuts, Balushahi

- ii. Non-crystalline candies
Suggested recipes: Til brittle and Groundnut brittles

5. Starch Cookery – Gelatinization: Observation for stiffness and temperature of starch gel.
 - a) Different types: - e.g. corn, rice, maida and sago etc.
 - b) Different concentrations: 5%, 10% and 15%
 - c) Addition of acid and fat
 - d) Effect of roasting
 - e) Syneresis of gel
 Suggested recipes: - Rice – dala khichadi, Upama, American Chopsuey, Tomato bake macaroni

6. Pectin gel formation – Determination of pectin content in fruits at different stages of ripening (methylated spirit test)
Suggested recipes: Apple jam, Mixed fruit jam, Orange marmalade and Guava jelly

7. Progein gelation using gelating
Suggested recipe: - Aspic salad

8. Denaturation and Coagulation of Protein
 - (a) Effect of acid [Lemon juice, curd & vinegar] on coagulation of milk progein e.g. Preparation of Panner
 - (b) Effect of heat on protein
Suggested recipes:- Soft boiled & hard-boiled egg (black ring formation), Prawns masala, Fish curry and Chicken masala
 - © Effect of enzyme
Suggested recipes: - Pineaplle milkshake, Papaya custard

9. Cluten formation in wheat – Extraction of gluten, Factors affecting gluten formation i.e. kneading time, addition of different cereals flours to wheat flour and amount of fat
Suggested recipes: - Plain puri, Masala pur, Palak puri, Cheese Biscuits

10. Egg Cookery:-
Role of egg in cookery
 - a) thickening agent – Trifle
 - b) Binding agent – Cutlet (Minced Meat)
 - c) Leavening agent – Marble cake, Date and Walnut Cake
 - d) Emulsifying agent – Mayannaise
 - e) Glazing agent – Baked Patties

11. Emulsions – Types : Oil in water, Water in oil, /Temporary and Permanent
Suggested recipes: Russian Salad, Green Salad with French dressing

12. Factors affecting fat absorption
 - a) Frying temperature of medium
 - b) Water percent in dough

- c) Fat type and concentration in dough (shortening used)
 - d) Size of material to be fried (surface area)
 - e) Addition of soda or baking powder
 - f) Types of frying – shallow and deep
- Suggested recipes: Cabbage Samosa, Patato Kachori, Patato chips, Sev, Papad

13. Browning Reactions in foods

- a) Enzymatic browning
 - i) Browning effect on cut cubes of potato and apple
 - ii) Effect of lemon juice and sugar syrup

- b) Non-enzymatic browning
 - i) Dextrinization – Effect of dry heat on sugar
Suggested recipe: Veg and Non-veg. Paratha, Besan Laddoo

 - ii) Caramelization:- Effect of dry heat on sugar
Suggested recipe: - Caramel custard

 - iii) Maillard reaction – Effect of heat on protein and reducing sugars
Suggested recipe:- Basundi

14. effect of leavening agents

- a) Effect of baking powder/soda-bicarb
Suggested recipes:- Eggless cake, Dhokla
- b) Effect of Egg
Suggested recipe:- Pineapple Pastry
- c) Effect of Yeast
Suggested recipe:- Bread

15. Effect of heat (with or without lid), Acid and alkali on vegetable pigments – Chlorophyll, Anthocyanins, Flavonoids and Carotenoids Suggested recipes:- Palak Paneer, Carrot Halwa.

REFERENCES:

- Jameses, 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 experiments 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.

F.Y.B.SC. (HOME SCIENCE)
TEXTILES AND CLOTHING
PAPER – I FIBRE TO FABRIC
(THEORY)

Marks : 100

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 care and maintenance of textiles.

COURSE CONTENT:

1. Fibers:
 - a) Detailed study of the history, varieties, chemical structure, manufacturing process, properties and uses of the following major fibers: cotton, jute, wool, silk, nylon, polyester, acrylic and regenerated fibers such as viscose rayon, cellulose acetate rayon etc.
 - b) Study of blends.
 - c) Brief study of other natural and synthetic fibers such as hemp, pineapple, banana, mohair, PVC, PVA, elastomeric, metallic, glass, carbon, etc.
2. Yarns:

Yarn formation-Staple and filament (Spinning, conventional and non-conventional),
Concept of yarn number, Types of yarns their properties and uses
3. Fabrics:
 - a) Woven: Parts of the loom, yarn preparatory stages, steps in weaving, basic weaves (Plain, twill and satin).
 - b) Knits: Warp and weft knitting-types, properties and uses, steps in knitting,
 - c) Non-woven: Definition, manufacture, properties and use.
4. Recent developments in fibres, yarns and fabrics.
5. Theory of Clothing
 - a) Selection of fabrics for various age groups and end uses – (self help features in Garments for kid's wear and physically impaired).
 - b) Care labels and care of textiles and clothing – introduction.
 - c) Social and Psychological aspects of clothing.
 - d) Trade names referring to various fabrics.

REFERENCE:

- 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.
- Gawne, J.E. (1973). Fabrics for clothing. Illinois: Chas A. Bennett.
- Goswami, B.C. Martinadale, J.G. & Scardino, F.L. (1977). Textiles Yarns-Technology structure an applications. New York: John Wiley.
- Hall, A.J. (1975): the standard handbook of textiles: London: Newne-Butterworths.
- Hollen, N. & Saddler. J., Langford, A.L. 7 Kadolf, S.,J. (1988) Textiles (6th 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. Textile fibres. Vol. I. (3rd Ed.) India: Sevak.
- Tortora, P.G. (1978). Understanding textiles. New York: Macmillan.
- Wynne, A. (1997). Textiles – The motivate series. London: Macmillian Education.

F.Y.B.SC. (HOME SCIENCE)
TEXTILES AND CLOTHING
FUNDAMENTALS OF CLOTHING AND CHILDREN'S WEAR
(PRACTICAL)

Marks : 50

OBJECTIVES:

1. To introduce the students to fundamentals of clothing.
2. To introduce the students to basic pattern construction of garments for children.
3. To apply this basic knowledge for stitching of children wear.

COURSE CONTENT:

1. Introduction to sewing equipment – sewing machines – oiling, cleaning, use and care
2. Fundamental samples of clothing:
 - a) Basic stitches
 - b) Seams and seam finishes
 - c) Fastners
 - d) Facings (fitted and bias)
 - e) Piping
 - f) Plackets
 - g) Tuck-pin, shell, spaced broad
 - h) Patch pocket
 - i) Smocking
 - j) Fancy Stiches
 - k) Collars: Peter pan, bush shirt
 - l) Straight yoke with gathers
 - m) Elastic insertion

- n) Mounting of sleeve: plain and puff-
 - o) Machine embroidery sample
4. Flat pattern construction
 - a) Child's basic block
 - b) Basic sleeve and its variations such as bell and puff.
 - c) Yokes with gathers and pleats
 - d) Baby knicker
 - e) Pyjama
 - f) Shorts/pant and its variation
 5. Garment construction
 - a) Layette/A-line dress with knicker and bib
 - b) Bush-shirt and shorts
 - c) Frock-collar, pleasts/gathers, sleeves, yoke
4. Journal: Pattern drafting, layout of drafts and fabric consumption.

REFERENCES:

- Bane A. (1974). Tailoring Mc Graw Hill.
- Brey, N. (1978) Dress pattern designing, London, Crossby Lockwood and Staples.
- Mc. Call's. (1963). Sewing in colour. The Hamlyn Publishing Group Ltd. Middlesos
- Mostimer, G. (1996). Pattern design for children clothes. B.T. Batsford Ltd., London
- Rande House. (1972). Golden hands complete book of dressmaking. New York. Rande House.
- Singer, (1988). Sewing for children. Minnesota: CY Decosse.
- Thomas, A.J. (1993) The all of sewing, New Delhi: UBS Publisher's Distributors Ltd.

F.Y.B.SC. (HOME SCIENCE)
HUMAN DEVELOPMENT
PAPER – I CHILD DEVELOPMENT
(THEORY)

Marks : 100

OBJECTIVES:

1. To provide students knowledge of the needs of children and the pattern of growth and development from conception to the end of lat childhood, i.e. 12 years
2. To create in students an awareness of the various factors that influence growth and development during this period.
3. To inculcate in students healthy attitudes, which will enable them to provide for the all-round development of the child

COURSE CONTENT:

1. Introduction
 - a) Meaning of child development and importance of understanding child development
 - b) Careers in child development
 - c) Principles of development
 - d) Factors influencing development (heredity and environment)
2. Prenatal period
 - a) Conception, miscarriages, abortion, genetic counseling
 - b) Reproductive technologies and genetic engineering
 - c) Diagnosis of pregnancy – sings, symptoms, tests
 - d) Preparing for the baby
3. Perinatal and Neonatal period
 - a) Childbirth: stages of labour, types of delivery, modern trends in childbirth, multiple births, complications in delivery.
 - b) Newborn: examination and assessment, characteristics, reflexes, sensory capacities, prematurity
 - c) Adjustments in the family.
4. Infancy and Toddlerhood
 - a) Childcare: bathing, clothing, feeding (breast feeding, bottle feeding, weaning), Daycare, childproofing the environment, facilitating development
 - b) Physical development: growth in infancy, factors influencing physical development, motor skills, immunization, toiler training.
 - c) Cognitive development: sensorimotor period, sensory and perceptual development
 - d) Language development: Process of language development, factors influencing language development, speech problems and early interventions
 - e) Psychological development: attachment, separation anxiety, development, of trust, temperament, emotions of infants, handling tamper tantrums
 - f) Social development: patterns in social development and play, enhancing social development

5. Preschool period

- a) Physical development: body size and proportions, illness, health and development.
- b) Motor development: developing motor skills (large and fine muscle development)
- c) Cognitive development: Preoperational period
- d) Language development: grammar words and concepts, bilingualism
- e) Emotional development: emotions of preschoolers, handling temper tantrums
- f) Psychological development: general trends in social development, play (importance, types of play, factors influencing play), importance and selection of toys for preschoolers, sex role stereotypes
- g) Preschool: importance, choice, activities, school readiness, indicators of quality education

6. Middle and late childhood

- a) Physical and motor development: Physical growth and change, motor skills, health, illness and accidents, stress and coping,
- b) Cognitive development: concrete operational period
- c) Language development: Language development and literacy
- d) Emotional development: emotions of middle childhood
- e) Psychosocial development: personality development in an expanding social world, family influence, peer relationships and social competence
- f) School: new demands and expectations: achievement; developing competent learners and critical thinkers, teacher, parent, peer influences, problems of the school-age child, learning disabilities, use and misuse of technologies such as internet, videogames, films etc.

Note: Piaget's theory for cognitive development to be studied.
Kohlberg's theory for moral development

7. An overview of the methods of child study

Observation – Types of observation

- Steps in observational study
- Advantages & disadvantages

Interview – Types of interviews

- Skills required by an interviewer
- Constructing an interview schedule
- Questionnaire – Types of questionnaires
- Constructing a questionnaire

Case Study – History

- Parts of case study
- Importance of multi-agent and multi-method approach

REFERENCES:

- Bee, H. (1985). The developing child. New York: Harper & Row
Berk, L. (1996), Infants, children and adolescents. (2nd Ed) Boston: Allyn and Bacon.

Bisacre, M. (Ed) (1984). The illustrated Encyclopedia of Human Development. London: Marshall Caventish.
Harvet, D. (1982). An new life: London: Marshall Cavendish.
Kail, R. Cavanaugh, J. (2000). Human development-A life span view. (2nd Ed) New York: Wadsworth.
Kitzinger, S (1980). Pregnancy and childbirth. London: Michael Joseph.

Minett, P (1985). Child care and development, London: John Murnay
Santrock, J. (1997). Children (5th Ed) WI : Borwn and Benchmark.
Schiamberg, L. (1988). Child and adolescent development. New York: McMillan
Sroufe, L. Cooper, R. & DeHart, . G. (1992). Child development – its nature and course. (2nd Ed). New York: McGraw hill.

F.Y.B.SC. (HOME SCIENCE)
HUMAN DEVELOPMENT
PAPER – II PSYHOLOGY
(THEORY)

Marks : 100

OBJECTIVES:

1. To provide students the basic knowledge of psychology for understanding human development.
2. To promote in the students, an understanding of various areas in psychology such as learning, cognition, motivation, emotions, personality, as well as the applications in these areas
3. To introduce the students to the concept of abnormal psychology and its content

COURSE CONTENT:

1. Introduction to Psychology
 - a) Definition and goals of Psychology
 - b) Different theoretical viewpoints in psychology (history)
 - c) Specialty areas/branches of modern psychology (basic and applied)
 - d) Scientific methods used to study the subject.
2. Learning and memory
 - a) Definitions of learning
 - b) Theoretical viewpoints on learning (classical and operant conditioning, social learning, insight learning)
 - c) Definition and process/stages of memory
 - d) Forgetting and why it occurs (theories of forgetting)
 - e) Methods of improving one's (chunking, mnemonic devices, study techniques, etc. application)
 - f) Concept of intelligence (definition and types-intelligence Quotient [IQ], Emotional Quotient [EQ], Spiritual Quotient[SQ])

3. Motivation
 - a) Definition of motivation
 - b) Theoretical viewpoints with regards to motivation
 - c) Types of motives (primary motives and socio- psychology motives)
 - d) Application of psychology theory in day-to-day life.

4. Emotions
 - a) Definition and theories of emotions
 - b) Characteristics of emotions
 - c) Socialization of emotions (e.g. cultural rules for displaying emotions)
 - d) Expression of emotions (verbal and non-verbal)
 - e) Emotional health (indicators of emotional health; strategies for promoting emotional health)
 - f) Application of emotion theory in day-to-day life

5. Personality
 - a) Definitions of personality
 - b) Factors influencing the development of personality
 - c) Theories of personality (e.g. psychodynamic, neo-Freudian, Humanistic)
 - d) Personality assessment (e.g. personality inventories, projective techniques)
 - e) Application: facilitating personality development

6. Introduction to Abnormal psychology
 - a) Changing conceptions of psychology disorders over time
 - b) Definitions and characteristics of abnormality
 - c) Types of psychology disorders (DSM-IV)
(Definition, symptomatology, causes and treatment of each)
 - I: Mood disorders
 - Anxiety disorders
 - Sexual and gender identity disorders
 - Eating disorders
 - Personality disorders
 - d) Myths about those with personality disorders
 - e) Advocacy and community education

REFERENCES:

- Baron, R.A. (1998) psychology (3rd Ed). Prentice Hall of India
 Lahey, B. (1998) psychology (6th Ed). New Delhi. Tata-McGraw: Hill
 Shultz, D.P. & Schultz, S.E. (2000) A history of modern psychology (7th Ed) Harcourt College Publishers.

F.Y.B.SC. (HOME SCIENCE)
COMMUNITY RESOURCE MANAGEMENT
PAPER – I INTRODUCTION TO RESOURCE MANAGEMENT
(THEORY)

Marks : 100

OBJECTIVES:

1. To provide the students with a comprehensive, systematic and relevant Introduction to the field of management.

COURSE CONTENT:

1. Managers and management
 - a) different meanings
 - b) Definition and principles of management
 - c) Management influences everyone

2. Process of management
 - a) Planning
 - b) Organising
 - c) Leading
 - d) Controlling

3. Management knowledge
 - a) The approaches – Classical, behavioral, management
 - b) Science, systems, contingency

4. Factors motivating management
 - a) Goals-definitions, types and utility
 - b) Values-importance, sources, classification, characteristics, changing values
 - c) Standards-definition, classification: quantitative and qualitative standards
 - d) Conventional and non-conventional.

5. Levels of management
 - a) Types of managers
 - b) Managerial skills and roles
 - c) Environmentally sound principles of social responsibility
 - d) Managerial ethics in a changing environment

6. Managers and the environment
 - a) Changes in the environment
 - b) The external and internal environment

7. Management of specific resources
 - a) Time, money, energy, space, equipments and other community resources

REFERENCES:

- Donnelly, J.H. Gibson, J.L, and Ivancevich, J.M. (1995). Fundamentals of management. Chicago Irvin
Fisher, C.D. (1997). Human resource management. Chennai: All India Publishers and Distributors Gross,
I, and Crandall, E.W. Knoll, M.M. (1973). Management of modern families. New Jersey,, Prentice Hall I.N.C.
Kale M.G. (1998). Management and human resources: Mumbai: Manisha Pakashan.

F.Y.B.SC. (HOME SCIENCE)
COMMUNITY RESOURCE MANAGEMENT
PAPER II- PRINCIPLES OF DESIGN
(THEORY)

Marks : 100

OBJECTIVES:

1. To enable students to learn the principles of art and design.
2. to enable students to design and devorate homes and institutions

COURSE CONTENT:

1. Design in every day life
 - a) The basic elements of art – function, beauty and individually
 - b) Indian traditional design
 - c) Current trends in interior design
2. Elements of design: the definition and effects of line,s form, colour, texture, Space, scale, pattern and light
3. Principles of design and their applications
 - a) Proportion
 - b) Balance
 - c) Rhythm
 - d) Harmony
 - e) Emphasis
4. Design and colour: Classification of colour, colour theories, psychological impact of colours. Use of colour in different rooms

5. Floor finishes and coverings: The different types, selection and use
6. Wall finishes: different types, their suitability, beauty, economy, easy care and maintenance
7. Lighting
 - Characteristics and use of incandescent and fluorescent lighting. The effect and creation of direct and indirect lighting with the use of different light sources
8. Selection and arrangement of accessories – their suitability in room
9. Windows and window treatment
 - a) Structure of a typical window, different types of windows
 - b) Types of treatments
10. Furniture
 - a) Modern and traditional furniture
11. Gardening
 - a) Landscape in relation to interior design
 - b) Different types – formal and informal
 - c) Theoretical principles and underlying gardening

REFERENCES:

- Allen, P.S. (1985). Beginnings of internet environment. New York: MacMillan Publishing Co. I.N.C.
- Bhatt, P. and Goenka, S. (1990). Foundation of art and design, Mumbai: Lakhani Book Depot Goldstein,
- V. (1983), Art in every day life. (4th Ed.) Oxford and IBH Publication. LMorton, R, (1974). The Home and its Furnishings. New York: Mc. Graw Hill Company INC.
- Orchard, J. (1993). Lighting for a Beautiful Home. London,: Premier Books
- Ruth, A.H. (1974), Home and its Furnishings. (2nd Ed.) New Delhi; Wiley Eastern Ltd.

F.Y.B.SC. (HOME SCIENCE) **COMMUNICATION SKILLS** **(THEORY)**

Marks : 100

OBJECTIVES:

1. To equip the students with effective skills in oral and written communication
2. To develop a sense of professional etiquette in the students
3. To stimulate an interest in literature and develop skills of appreciating literature

COURSE CONTENT:

1. Introduction to Communication
 - a. Definition

- b. Process
 - c. Types/Modes
 - d. Ethical issues in communication
2.
 - a. Factors facilitating effective communication
 - b. Interpersonal perceptional and its relationship to communication
 - c. Barriers in effective communication
 - d. Ingredients of an effective relationship
 3. Interpersonal Communication
 - a. Concepts of self-awareness, self-disclosure, Johari window and their role in interpersonal communication
 - b. Verbal and non-verbal messages; skills of attending, listening, responding, providing feedback, and effective enquiry.
 4. Communicating with a group
 - a. Function of a group
 - b. Planning group as opposed to individual sessions
 - c. Group dynamics and problem solving in groups
 - d. Evaluation and feedback in a group setting
 5. Verbal communication/Oral expression
 - a. Characteristics of good public speaking
 - b. Debates and discussions
 - c. Seminars and symposia
 6. Written communication – Importance of professional writing, choice of words and phrases, sentences and paragraph structure and length, final draft.
 - a. Reports – i. Types ii. Structure iii. Steps to writing a good report
 - b. Business correspondence-
 - i) Purpose
 - ii) Structure and different forms of letters (Indented form, block form etc.,)
 - iii) Types
 - d) Social correspondence (Letters of introduction, recommendation, formal and informal invitation)
 - e) Job applications and Resumes
 - c. Notices and minutes of a meeting
 - d. Precis writing – Summarizing, importance of being concise and relevant
 7. Professional and Social Etiquette
 8. Interviews
 - a. Types
 - b. Techniques

SUGGEST INPUTS

1. Correct usage of language – gender, tenses, punctuations, active and passive voice, Idioms, direct and indirect speech, prefixes and suffixes, common errors.
2. Use of dictionary and thesaurus
3. Emphasis on vocabulary and summarizing through book reviews.

REFERENCES:

1. Luke, T. (1981) Relationships Toxby Press Ltd.
2. Di Vito, J.A. (1978) Communucology. An Introduction to the Study of communication, Harper & Row Pub, N.Y.
3. Myers, G.E. and Myers, M.T. – The Dynamics of Human Communication, 5th Ed. 1988. McGraw Hill Book Company, New York
4. Mohan, K. and Banerji, M. Developing Communication Sjills, 1st Ed. 1990, Macmillan India Limited Delhi.
5. Krishnan, L. Patnaik, B.N. and Sharma, M.K. Aspects of Human Communication, 1st Ed, 1989, Mittal Publications, New Delhi.
6. De Vito, J.A. (1986) the Interpersonal Communication Book Harper & Row Pub. N.Y. 1986.
7. Burgeon, N. Ruffiner, M. (1978 Human Communication Holt Rhinohert & Winsoton.
8. Egan, Gerard (1976) Interpersonal Living Wadsworth, California
9. Taylor, A. Rosegrant T. Mayor, A.C. and Samples, B.t. (1977) Communicating, Prentice Hall, New Jersey.
10. Mc.Crosky J.c. Larson, C.E. Knapp, L, (1971) An Introduction to Interpersonal Communication, prentice Hall, New Jersey.
11. Luts, William D. (1974) the Age of Communication. Goodyear Pub.Co., California Pacific Palisades.
12. Taylor, A, Meyer, Act at (1992) Communicating, Prentice Hall, New Jersey.

F.Y.B.SC. (HOME SCIENCE)
BASIC COMPUTER APPLICATIONS
(THEORY)

Marks : 100

OBJECTIVES:

To enable the students to:

1. To use the PC and the peripherals attached like printer, LCD, Scanner.
2. To make reports, simple accounting, and power-point presentation.
3. To browse the Internet for information and send/receive e-mail.

COURSE CONTENTS:

1. **FUNDAMENTALS OF COMPUTER**

Genesis of computers, classification of computers, what computers can do, application of computers, block diagram of a computer, INPUT-PROCESS-OUTPUT system, concept of computer hardware & software, starting a computer and switching-off procedure and computer virus.

2. **WINDOWS 98**

Window basics- Start windows, using different windows simultaneously, moving through windows with mouse, maximize/minimize windows, use of help feature, exit windows, starting an application, run and manage multiple applications, close applications using the program manager Move/Copy/Delete program items, change program item, properties, open windows explorer, expand compressed directories and files, open and manage multiple directory windows, view and sought files, save windows explorers, setting, copy, move delete files/directories, creating directories, renaming files and directories, using windows explorers, associated files. Using essential accessories. Starting and using word pad, type and edit document in word pad. Insert pictures in a document in word pad, format text in a word pad document, save and print a document file in word pad, starting and using paint, printing a drawing, clip-board, cut, copy and paste command.

3. **WORD PROCESSING PACKAGE-WORD**

Basics of word processing-Text selection, opening documents and creting documents, saving documents/quitting documents, cursor control, printing documents, using the interface (menu, toolbars), editing text (copy, delete, more, etc), finding and replacing text, spell check feature/auto-correct feature, grammar facility, retrieving often used text – auto-text, character formatting, page formatting. Document enhancement-Adding borders and shading, addition headers and footers, setting up multiple columns, sorting blocks, adjusting margins and huphenating documents, creating master document, creating data source, merging documents, using mail-merga feature for labels and envelopes.

4. SPREADSHEET PACKAGE – Excel

Worksheet basics:- Data entry in cells, entry of numbers, text and formulae moving data in a worksheet, moving around in a worksheet, selecting data range, using the interface (toolbars, menu), editing basics, working with workbooks, saving and quitting, cell referencing. Formatting and calculations – calculations and worksheet – Using auto-fill, working with formulae, efficient data display with data formatting (number and date), working with ranges, worksheet printing, working with graphs and charts – Adding/Formatting text data with auto-format, creating embedded chart using chart wizard, sizing and moving parts, updating charts, changing chart types, creating separate chart sheets, adding titles, legends and gridlines, printing charts. Database management: - Finding records with data forms, adding/deleting records, filling records in a work sheet, queries.

5. INTERNET AND E-MAIL.

6. PRESENTATION PACKAGES – Power- point

REFERENCE :

1. Rajiv Mathur, Learning word 6 for windows step-by-step, Galgotia 96
2. Rajiv Mathur, Learning Excel 5 for windows Step-by-step, galgotia 96
3. Donald H. Sanders Computers Today, Mac Graw Hill Third Edition, 1988
4. Mastering Office, professional for win 95 Mosely & Boodley.

**COURSE SUMMARY
S.Y. B.Sc. (Home Science)**

Paper	T/ P	Exam hrs .	Exams marks	CIA	Total	Periods of class/ week/ batch
1	2	3	4	5	6	7
Food, Nutrition & Dietetics Paper II: Nutrition & Meal Planning	T	3	70	30	100	3
Paper III: Food Microbiology & Preservation	T	3	70	30	100	3
Food & Nutrition	P	4	30	20	50	4
Textiles and Clothing Paper II: Textile Processing & Laundry Science	T	3	70	30	100	3
Paper III: Traditional Indian textiles & Costumes	T	3	70	30	100	3

Fundamentals of Clothing and Women's Wear	P	3	30	20	50	4
Textile Colouration and Laundry science	P	2	30	20	50	2
Human Development Paper II: Adolescent Development	T	3	70	30	100	3
Paper III: Marriage & Family Relations	T	3	70	30	100	3
Community Resource Management Paper III: Health and Hygiene	T	3	70	30	100	3
Paper IV: Applied Economics	T	3	70	30	100	3
TOTAL					950	34

Note:

Orientation for students before selection of specialization at the end of the year.

SCHEME OF CIA

A) THEORY PAPERS – 30 MARKS

	Ist Periodic Test	IInd Periodic Test	Total	Average
Marks	30	30	60	30
Duration	1 hour	1 hour	-	-

b) PRACTICAL PAPERS – 20 MARKS

One practical test in the 2 nd term of 1 hour duration	--	15 Marks
Years work (including journal if any)	--	25 Marks
Total	--	40 Marks
Scaled to	--	20 Marks

No Retests shall be conducted except on grounds of Sports/NSS/Cultural Activities/Medical Grounds.

S.Y.B.SC. (HOME SCIENCE)
FOOD NUTRITION & DIETETICS
PAER II – NUTRITION AND MEAL PLANNING
(THEORY)

Marks : 100

OBJECTIVES:

1. To understand the role of nutrients in the maintenance of health, their digestion, absorption, utilization and metabolism in the body
2. To obtain knowledge regarding the composition, function, food sources requirement and deficiencies of nutrients.
3. To be able to plan meals for individuals, families and other groups during the different periods of the life cycle.

COURSE CONTENT:

1. Role of nutrition in the health of individuals and populations – An overview
 - a) Concept of nutrition
 - b) Nutrients
 - c) Nutritional Status – malnutrition / overnutrition
 - d) Nutritional care
 - e) Significance & functions of food
2. A brief Introduction to Energy Metabolism
 - a) Forms of energy
 - b) Energy content of food (Bomb Calorimeter)
 - c) Measurement of energy expenditure – direct calorimetric, indirect calorimetric and non-calorimetric methods.
 - d) Components of energy expenditure of man BMR (RMR), Physical activity, SDA
 - e) Factors influencing energy expenditure
 - f) Estimation of energy requirements
3. Proximate Principles of Food
 - a) Carbohydrates
4. Classification
5. Functions
6. Sources and Requirements
7. Dietary Fibre
8. Digestion and absorption
 - b) Lipids
 - i) classification
 - ii) Functions – Role of diet/Role in body
 - iii) Sources and Requirements
 - iv) Cholesterol/PUFA/MUFA/SFA
 - v) Digestion and absorption

- c) Proteins
 - i) Classification
 - ii) Functions
 - iii) Sources and Requirements
 - iv) BV, NPU, PER (in brief)
 - v) PEM
 - vi) Digestion and absorption
4. Minerals – functions, Sources, Requirements, Deficiencies, Toxicity and Metabolism of each of the following:
- a) Macro
 - i. Calcium
 - ii. Phosphorus
 - iii. Sodium
 - iv. Potassium
 - b) Micro
 - i. Iron
 - ii. Iodine
 - iii. Zinc
5. Vitamins – Functions, Sources, Requirements, Deficiency, Toxicity and Metabolism of each of the following:
- a) Fat soluble
 - i. A
 - ii. D
 - iii. E
 - iv. K
 - b) Water Soluble
 - i. B Complex
 - ii. Vitamin C
6. Meal Planning
- a) Factors affecting meal planning
 - b) Balanced Diet
 - c) Planning meals for individuals/families
 - d) Planning meals for occasions
 - e) Food exchange list, its usage
7. Cultural food patterns of India – an exposure
8. Nutritional care for the various stages in the life cycle
- a) i. Infancy
 - ii. Preschool
 - iii. Childhood

- iv Adolescence
 - v. Adults
 - vi. Pregnancy
 - vii. Lactation
 - viii. Old age
- b) Planning of diets using the Food Exchange List in the above mentioned states
 - c) Adaptations of normal diets
 - i. For Texture
 - a. Soft diet/fibre restricted
 - b. Clear fluid
 - c. Full fluid
 - ii. Energy content
 - a. Calorie dense
 - b. Low Calorie

REFERNECES:

- Garow, J.S. and Hames W.P.T. (1993). Human nutrition and dietetics. New York, Churchill Livingstone.
- Ghosh, S. (1997). 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 Publication.
- Maney, N.S. and Shadaksharswamy, M. (1998). Foods-facts and principles. New Delhi: New age international
- Robinson, G.H. and Lowler, M.R. (1984). Normal and therapeutic nutrition. Macmillan N.Y.
- ICMR (1990) Nutrient requirements and recommended dietary allowances for Indians.

S.Y.B.SC. (HOME SCIENCE)
FOOD NUTRITION & DIETETICS
PAER III- FOOD MICROBIOLOGY & PRESERVATION
(THEORY)

Marks : 100

OBJECTIVES:

1. to introduce students to the field of microbiology and its relevance to everyday life.
2. To enable students to understand classification, morphology, reproduction, cultivation and microscopic examination of microorganisms
3. to enable students to understand methods of control of microorganisms

ADDITIONAL INPUTS

A practical in microscopic examination of microorganisms – Types of microscopes, unstained organisms (wet mount and hanging drop techniques), stained organisms, Simple staining and differential staining – Gram's staining and acid fast staining methods of culturing

REFERENCES:

- Bharucha, F.D. and Mehta, A. (2000). Handbook of microbiological methods and media. Published by Sevak Printers.
- Burdon, L.K. (1958). Textbook of microbiology. New York: the Mc. Millan Co.
- Burrows, W. (1973). Text book of microbiology, Philadelphia/London/Toronto: W.B. Saunders Co.
- Frazier, W.C. and Westhoff, D.c. (1978). Food microbiology. New Delhi: Published by S.K. Jain for C.B.S. Publishers and Distributors.
- Hoshua, A.K. (1971) Microbiologyu. Madra: the India Printing Works.
- Pelczar, M.J. Reid, R.D. and Chan, (1977), Microbiology, New Delhi: Tata McGraw Hill.
- Stainer, R.Y. Ingraha,. J.L. Wheelis, M.L. Painter, P.R. (1986). General microbiology. London: Me. Millan Education Ltd.

S.Y.B.SC. (HOME SCIENCE) **FOOD NUTRITION & DIETETICS** **(PRACTICAL)**

Marks : 50

OBJECTIVES:

1. To help students understand and utilize advanced techniques of cooking with emphasis on nutrient-rich recipes
2. To enable 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
 - c) 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) Maharashtra
 - b) Bengal
 - 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. Gastronomie, (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. Modern cookery for teaching and the trade. Vols, I and II, (3rd Ed).
Bombay, Orient Longman (Ltd).

S.Y.B.SC. (HOME SCIENCE)
TEXTILES AND CLOTHING
PAER II – TEXTILE PROCESSING & LAUNDRY SCIENCE
(THEORY)

Marks : 100

OBJECTIVES:

1. To introduce students to textile processing from gray to finished products (value addition)
2. To equip students with the knowledge of care and maintenance of textiles

COURSE CONTENT:

A. TEXTILE PROCESSING

1. Preparatory processes for gray fabric: de-sizing, scouring and bleaching.
2. Dyeing: Introduction to dyeing and printing, principles of dyeing, methods of dyeing (dope, fiber, yarn, fabric and garment) and study of auxiliaries used for dyeing
3. Printing: Styles of printing and methods of printing, study of auxiliaries used for printing
4. Finishing: physical finishes and chemical finishes, temporary and permanent finishes
5. Recent developments in textile processing and finishing

B. LAUNDRY SCIENCE

1. HARD & Soft water – Temporary & Permanent hardness.
Problems caused by hard water, Methods of softening water: chelating and sequestering agents
2. Soaps & Detergents – Chemical nature
Action of light and heavy-duty detergents.
Laundry Booster Products. Laundry pre-soaks and pre spotter reagents
3. Bleaches: Classification
Chemistry of Bleaching Compounds
Mechanism of bleaching
Commercial products
Application of bleaches to various fibre fabrics
4. Optical brighteners: blueing agents vs. fluorescent whiteners.
5. Starches & Stiffenings: Various types and their characteristics, Methods of application.
6. Stain removal & Dry-cleaning:
Various types of stains: Types of stain removers: absorbers and solvents
Dry cleaning agents and mode of application. Perchloro ethylene.
Tetrachloroethylene, Petroleum ether etc.
7. Care labels. The two international system of labeling
Laundering procedures for various fibre fabrics.
Precautions to be taken

REFERENCES:

- Clarke, W. (1977). Introduction of textile printing. London: Nowness Butterworth.
- Deoulkar, D. (1976) Household textiles and laundry work. Delhi: Atmaram & Sons.
- Ling, E.M. (1975). Modern household science. London: Mills & Boon.
- Nolble, E. (1998) Dyes and paints – A hand on guide to colouring fabrics. (1st Ed.) Fiber Studio Press/Martindale
- D'Souza, N. (1998). Fabric care, India: New Age International.
- Shah, K.M. (1994). Handbook of textile testing. Bombay: Handbook of Multi-tech.
- Shenai, V.A. (1984). Chemistry of dyes and principles of dyeing. Bombay: Sevak Prakashan.

S.Y.B.SC. (HOME SCIENCE)
TEXTILES AND CLOTHING
PAER III – TRADITIONAL INDIAN TEXTILES & COSTUMES
(THEORY)

Marks : 100

OBJECTIVES:

1. To acquaint the students with rich Indian heritage of woven, dyed, printed, painted and embroidered textiles
2. To introduce the students to special Indian articles like floor coverings and wall hangings
3. To orient the students to the traditional costumes of India.

COURSE CONTENT:

1. Hand woven textiles of India like Hamdhanis, Muslins, Doriyas, Tangail, Donakali, Brocades (silk and jari), Bnaluchari, Paithani, Gadwal, Chanderi, Kanjeevaram, Pitamber, Ircal, ?Narayan Peth, Khand, Shawls Blankets, etc.
2. Dyed textiles
 - a) Ikats – Patola (Gujarat), Pochampaili (Andhra Pradesh), Bandha (Orissa).
 - b) Tie & Dye- Bandhani (Gujarat, Rajashtan, etc.)
3. Painted and printed textiles: Kalamkari, Block, Patta Chitras, etc.
4. Embroidered textiles of various Indian states – Kantha, Phulkari, Kutchi and Kathiawar, Kasuti, Applique etc.
5. Carpets and Durries
6. Costumes and jewellery of Punjab, Gujarat, Assam, Rajashtan, Kerala, etc.

REFERENCES:

- Ahuja, S., Ahuja, M. and Maluste, M. (1999). Dhurrie – flat wovwn rugs of India, India: India Book House.
- Dhamija, J, and Jain, J. (1989). Hand woven fabrics of India. New Jersey: Gratha.
- Gillow, J. and Barnard, N. (1991). Traditional Indian Textiles. London: Thames and Hudson.
- Goswamy, B,N, (1993), Indian Costumes in the collections of the Calico Museum of Textiles India: Indian costumes Historic Textiles.
- Isreal, S. (1994). Crafts of West Bengal, New Jersey: Grantha.
- Kapoor, S. (1994). Crafts of West Bengal. New Jersey: Grantha.
- Kapoor, R.C. and Jain, R, (2000). Traditional and beyond-handcrafted Indian textiles, India: Roli Books.
- Kothari, G. (1995). Colourful textiles of Rajasthan, India: Jaipur Printers
- Lynton, L. (1995). The saree. London: Thames and Hudson.
- Moubray. D.A. Black, D. (1999). Carpets for the home. Laurence King Publishing, London,

Sarabai, M. (19889). Patolas and resist dyed fabrics of India. New Jersey: Gujarat State Handicraft & Handloom Development Corporation, Grantha.

S.Y.B.SC. (HOME SCIENCE)
TEXTILES AND CLOTHING
FUNDAMENTALS OF CLOTHING AND WOMEN'S WEAR
(PRACTICAL)

Marks : 50

OBJECTIVES:

1. To introduce adult's clothing
2. To introduce advanced pattern construction
3. To train students in the development of garments using fundamentals of stitching

COURSE CONTENT:

1. fundamentals:
 - a) Plackets-Kurta placket, double shirt placket
 - b) Collars-chinese, shirt, polo, rolling and any collar with shaped neckline,
 - c) Pockets-front pant, side pant, puch pocket
 - d) Corner finish-mitre corner (outer), square neck (inner)
 - e) Zip- with seam
 - f) Yoke-double yoke and plastron with pleasts
 - g) Skirt finishing
 - h) Reinforcement
2. Pattern Construction
 - a) Adults, bodice block (waist and hip)
 - b) Adults basic sleeve
 - c) Displacements of darts
 - d) Concealment of darts
 - e) Kalikar Kurta
 - f) Salwar/Churidar
 - g) Sleeves-Leg-o-mutton sleeve, bell sleeve etc.
 - h) Adaptation of bodice block to various patterns viz. A-line Kurta, nightie.
3. Garments:
 - a) Saree petticoat
 - b) Salwar/Churidar
 - c) Kalikar Kurta
 - d) Kurta with princess cut and sleeves
 - e) Night suit
4. Journal: Illustration of garments, layout of drafts and fabric consumption.

REFERENCES:

- Bane, A. (1974). Tailoring Mc Graw Hill.
Brey, N. (1984). Dress pattern designing. London: Crosby Lockwood & Staples.
House, R. (1972). Golden hands-Complete book of dressmaking. New York: Rande House.
McCall, (1963). Sewing in colour. Niddlesos: Hamlyn.
Kallal, M.J. (1985). Clothing construction. New York: Macmillan.
Carr, H.I. (1994). The technology of clothing manufacture. Oxford: Blackwell Scientific.
Armstrong & Joseph, H. (1986). Pattern making for fashion designing. New York: Harper and Row.

S.Y.B.SC. (HOME SCIENCE) **TEXTILES AND CLOTHING** **TEXTILE COLOURATION AND LAUNDRY SCIENCE** **(PRACTICAL)**

Marks : 50

OBJECTIVES:

1. To develop creative attitudes in designing using dyes and colours
2. To learn the household methods of laundering
3. Exposure to commercial laundering

COURSE CONTENT:

A. Textile designing

- Tie and dye techniques
- Batik, flock, block printing
- Preparation of screen and printing
- Preparation of stencil, different stencil printing techniques
- Fabric painting

B. Laundry Science

1. Stain removal . Household and industry methods
2. Bleaches – Effect of different bleaching agents on cotton
3. Washing – Washing and drying different type of fiber fabrics – cotton, woolen, silk, rayon, nylon and other items
4. soaping – Preparation of household soap, Manufacture of soap by cold and hot process
5. Ironing – Ironing different fiber fabrics and items, cotton, silk, wool, synthetics, Folding methods of different types of household linen and garments
6. Stiffening Agents – Preparing cold water and hot water starch. Their suitable application on different fabrics
 - Starch application on cotton
 - Silk weighting
 - Starching other items of household use

7. Dry cleaning – A visit to laundry unit to study the different solvents used.
8. Study of different care labels and other special finishers given to fabrics e.g. softening etc.

ADDITIONAL INPUTS

1. Collecting samples of different types of cotton, silk, wool, nylon, polyester, rayon, menon fibres-pineapple, banana etc. Other fibres – Glass, PVC, PVA, etc and observing the fibres under microscope
2. visits to commercial and industrial laundry units

REFERENCES:

1. Chitragonda Krishna- Batik and Tie-Dye, Hind Pocket books (P) Ltd.
2. Elaine Perry-Colour and design on fabric, Creative Publishing International.
3. Susan & Martin Penny, Stamping made easy; David and Charles 1998
4. Vijaya Hiremath; Creative Batik; abhinav publications 1985
5. Sudesh Sehgal & Harinderpal Kaur; a text book of Home Science; AP Publishers.
6. Noemia D'souza, Fabric Care, Newage International.

S.Y.B.SC. (HOME SCIENCE)
HUMAN DEVELOPMENT
PAPER II: ADOLESCENT DEVELOPMENT
(THEORY)

Marks : 50

OBJECTIVES:

1. The expose students to different aspects of adolescent development (physical, social, emotional, cognitive).
2. To sensitize students to the common adjustment problems during adolescence.
3. To acquaint students with the various way in which one can become an effective individual.

COURSE CONTENT:

1. Introduction to adolescence: Meaning of adolescence, its place in the life span (key terms, current status of adolescents), goals and developmental tasks of adolescence, and cross-cultural views about adolescence.
2. Physical development: Physical changes at puberty, role of endocrine glands and the hypothalamus, factors influencing physical development (e.g. nutrition), psychological aspects related to physical maturation (e.g. body image) and sex, education (need for, relevance of, content areas, personnel and method of sex education programmes and understanding sexual attitudes and behaviours)
3. Personality development: Theoretical viewpoints of Freud, Erikson and Glenn Elder; the self (self-understanding, self-concept, self-esteem), development of and Factors influencing the self-concept, identity (theoretical views, family influences, role of culture, gender-identity etc.) self-acceptance and self-rejection, and enhancing your personality.
4. Social development:
 - a. Theoretical viewpoints of Skinner, Bandura, and Bronfrenbrenner.
 - b. Family-nature of family processes, adolescent-parent relationships, sibling relationships, relationships with other members of the family, communication patterns and conflict management abuse in the family changing families in a changing society.
 - c. Peers-need for friends, nature of friendships, companionship and acceptance, youth groups (formal and informal), heterosexual relations (adolescent dating, problems etc.)
5. Emotional development: Concept of emotional maturity; the nature of specific emotions such as joy, anger, sadness; concept of heightened emotionality; and promoting emotional health.
6. Cognitive development: Piaget's theory and adolescent cognition (nature of formal operational thought), factors influencing cognitive development, social cognition (e.g. egocentrism, perspective taking), effects of adolescent thought on personality (idealism, hypocrisy, creativity etc.) information-processing (attention, memory computers and adolescents), and intelligence (tests, controversies, issues related to gender etc.)
7. Moral development: Defining and understanding moral thought, feelings and behaviour, theoretical viewpoints (Piaget, Kohlberg), role of family and society in influencing the adolescent's moral development, development of ethics, values and a philosophy of life.
8. Academic and vocational life: Role of schools and colleges (nature of these systems; making the transitions; role of teachers, peers and parents in the educational process). Vocational development (theories, factors influencing vocational choices, and , the process of vocational counseling).
9. Recreation and entertainment: Role and functions of recreation and entertainment in adolescent development, types of recreation and entertainment, healthy and unhealthy forms of recreation and their effects (e.g. misuse of internet and videogames)
10. Common problems in adolescence with a special reference to the Indian context: Nature of development problems and how to handle these (e.g. identity issues, conflicts within the family, peer relationships, academic stress), clinical problems (obsessive-compulsive disorders, fears, phobias, generalized anxiety disorder, eating disorders), and diagnosis and treatment issues (the settings: introduction to the concepts of psychological testing, counseling, psychotherapy; and personnel involved)
11. Emerging Adulthood: Transition into adulthood, attitudes of emerging adults and anticipation of adulthood.

REFERENCES:

- 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.
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- Newman, B. & Newman, P. (1979) Introduction to the psychology of a 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. Adolescence. USA: McGraw Hill.
- Tripathi, J. (1998). Adolescence. USA: McGraw Hill.
- Tripathi, A. (1990) Self and adolescent behaviour in Indian education. New Delhi: Deep and Deep.

S.Y.B.SC. (HOME SCIENCE)
HUMAN DEVELOPMENT
PAPER III : MARRIAGE & FAMILY RELATIONS
(THEORY)

Marks : 100

OBJECTIVES:

1. To facilitate in students an understanding of marriage and family life particularly in the Indian context.
2. To create an awareness of the factors to be considered in mate selection , preparation for marriage, wedding and honeymoon plans.
3. To help students recognize the changes across the family life cycle, and adjustments to be made at different stages and in different situations in marriage.
4. To teach students about effective communication and problem solving in marriage and family living.
5. To introduce and discuss important issues with regard to marriage and family living.
6. To create an awareness of the laws pertaining to the regulation of marriage and family life.

COURSE CONTENT:

1. Family: Definition, function, classification (according to form of marriage, family formed, family authority, descent, residence), changing structure and composition, the family in India (past and present)
2. Marriage: Definition, concept of marriage and marital roles in India, marital demographics (incidence, age at first marriage, age-differential between partners number and timing of children, life expectancy, marital dissolution and remarriage), models and topologies of marriage (e.g., Cuber and Haroff: Fitzpatrick, Burgess and Locke)
3. Historical perspectives on marriage, marriage in western society and in India, variant life-styles and relationships (cohabitation, two-step marriages, same-sex marriages, singlehood, communes, open marriage, swinging, group marriage), worldwide trends in marriage.
4. Values and goals of marriage, marriageability and readiness for marriage mate selection (theories, process, factors to be considered in mate selection), dating/courtship (reasons, purpose, functions), love (concept, theories of love, styles of loving, stages)
5. Preparation of marriage: Engagement (importance, functions, planning), marriage preparation (formal and informal, marriage education, wedding (functions, planning), honeymoon (functions, planning)
6. Family life cycle: Stages, changes in physical, psychosocial and cognitive development, adjustments over the life cycle by the couple and other family members; relationships between family members; the influence of the workplace, culture, religion, national policies etc.on the family. A) Marital quality: Adjustments, satisfaction, success, factors contributing to marital adjustment and satisfaction.
7. Marital communication: Importance, functions, levels, patterns, gender differences, time related changes in marital communication, problems in marital communication, communication effectiveness.
8. Marital conflict: definition, types: Causes, area, severity, outcome quality (constructive and destructive conflict, marital violence. Marital conflict resolution: styles of handling conflict, marital problem solving and skills training, third party intervention.
9. Importance issues in marriage with special reference to the Indian context:
Childlessness, genetic engineering and adoption, gender roles in dual-career marriages, divorce and remarriage, dowry, illness and death of the spouse.
10. Legislation for marriage, marital dissolution and adoption with reference to the Indian context.

REFERENCES:

- Bank, B.P. & Drier, B. (1989) Variant life-styles and relationships. Family studies text series II New Delhi: Sage.
- Coleman, J.C. (1988) Intimate relationships, marriage and family today (2nd Ed.) New York: Macmillan.
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Howse, K. Dunton, D., & Marshall, D. (1989). Family matters: A guide to family life, England: The Starborough Press.

Hutter, M. (1988) The changing family: Comparative perspectives (2nd Ed.) New York Macmillan.

Leslie, G.R. & Korman, S.K. (1989) The family in social context (7th Ed.) New York: Oxford University Press.

Melville, K. & Kekker, S. (1988) Marriage and family today (4th Ed.) New York: Random House,

Ministry of Welfare, Government of India UNICEF (1994) Enhancing the role of the family as an agency for social and economic development, Mumbai: Unit for social Studies, Tata Institute of Social Sciences,

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Unit for Family Studies, Tata Institute of Social Sciences. (1991) Research on families with problems in India. Vols, I and II Mumbai: Tata Institute of Social Sciences.

T.Y.B.SC. (HOME SCIENCE)
COMMUNITY RESOURCE MANAGEMENT
PAPER III : HEALTH AND HYGIENE
(THEORY)

Marks : 100

OBJECTIVES:

1. To educate the students about health, hygiene and sanitation.
2. To introduce the students to a basic understanding of the physiology of biologic systems in relation to health.
3. To provide insight into lifestyle management in an effort to promote good health.

COURSE CONTENT

1. Health and Disease
 - A. Meaning and concept of health
 - B. Indices and levels of health
 - C. Factors affecting health care (poverty, ignorance, cultural patterns, availability and non utilization of resources)
 - D. Raising health standards.
 - E. Immunization
2. The body as a whole (brief)
 - Cell Components
 - Muscles
 - Sense Organs
 - Anatomical and Physiological aspects of the following : (brief)
 - a. Digestive system

- b. Blood and Circulatory system
 - c. Respiratory system
 - d. Renal system
 - e. Nervous system
 - f. Reproductive system
 - g. Endocrine system
3. Communicable and non-communicable Diseases (brief)
- Causes, Symptoms, Prevention, Control and Care
4. Lifestyle Management
- a) Stress, diet and nutrition, physical fitness
 - b) Mental health
 - Causes and Prevention of mental illness
5. Hygiene and Sanitation
- a. Personal
 - b. Community
 - c. Industrial
6. Public Health Administration
- a. Objective
 - b. Agencies
 - c. Maternal and Child Welfare
 - d. School Health Services

REFERENCES:

1. Part K. (2000) ; Textbook of Preventive and Social Medicine; 16th Ed, Banarsidas Bharat Ltd.
2. Singh U.K. and Nayak A.K. (1997) Health Education: Commonwealth Publishers.
3. World health organization; (1989). The Community Health Workers, Jaypee Brothers.
4. Bhagava; (1988); Family health and Community Welfare: University Book House Ltd.
5. Sanjivi K.S. ; (1988) Planning India's Health: Chidambaran Institute of Community health.
6. Luckman Joan; (1980) Your Health: Prentice Hall Inc.
7. Best & Taylor – The Living Body.
8. Tortora Gerard J. & Anagnos Takes Nicholas F. Principles of Anatomty & Physiology (Harper New Publishers).
Guytan Arthur C. – Nasic Human Physiology
W.B. Saunders Company.

T.Y.B.SC. (HOME SCIENCE)
COMMUNITY RESOURCE MANAGEMENT
PAPER IV : APPLIED ECONOMICS
(THEORY)

Marks : 100

OBJECTIVES:

1. To enable the students to understand the basic concepts of economics.
2. To familiarize them with the economic problems of the country
3. To help students to develop ability to apply knowledge of economics in day-to-day problems
4. To help them gain better understanding of household resources and utilize them optimally and effectively.
5. To generate appreciation among the students regarding the functioning of the economy.

COURSE CONTENT:

1. Introduction to economics – positive and normative economics – nature of an economic problem
2. Fundamental concept in economics – wants, utility, value, goods, wealth, welfare, price, consumption, production
3. Demand Analysis-utility analysis-law of diminishing marginal utility, law of substitution, law of demand, elasticity of demand, variations and changes in demand, demand forecasting
4. Production-factors of production, scale of production, law of supply, elasticity of supply.
5. Price mechanism-different markets, their feature in brief, price determination in different markets- perfect competition, monopoly, monopolistic competition, oligopoly.
6. Money-functions of money, value of money, inflation, deflation
7. Banking-central banking, commercial, comparative, development banking- functions of commercial banks.
8. Public finance-public revenue, public expenditure, public borrowing, deficit financing – types of taxes, canons of taxation, effects of taxes, structure of the Indian tax system
9. Household income-personal income, sources of personal income, real income and money income, standard of living, factors affecting standard of living of the household, measures of improve standard of living in the country.
10. Savings and investments-objective of savings and investment, types of savings, types of savings, types of investments, importance of savings and investment, guiding principles of investment, avenues of investments.
11. Illustrative topics for field work/assignments/tutorials/seminars
 1. Basic economic concepts
 2. Identification of decision-making problems
 3. Law of demand
 4. Measurement of elasticity of demand
 5. Demand estimates and demand forecasting

6. Cost concepts
7. Law of supply
8. Markets and price fixation
9. Standard of living of the people (in an around the area where the student resides)
10. Credit creation by commercial banks
11. Taxation and public expenditure
12. Savings and investments.

Note: Two assignments/reports (one per term) to be submitted based on field work/tutorials/seminars by each student.

REFERENCES:

1. Dewett K.K. and Verma J.D. – elementary Economics – S. Chand and Company Ltd. New Delhi
2. Ahuja H.L. – Advanced Economic Theory – S. Chand and Company Ltd. New Delhi
3. Hansen J.L. – A textbook of Economics – Mcdonald and Evans Ltd. London
4. Stonian A.W. and Hgue Douglas – A textbook of economic theory – ELBS, Longmans /Mcmillan.
5. Lipsey Richard – An introduction to positive economics – ELBS, Weidenfield and Nicholson
6. Misra S.K. and Puri V.K. – Indian Economy Himalaya Publishing House, Mumbai
7. Dutt Ruddar and Sundaram K.P. Indian Economy – S. Chand and Company Ltd., New Delhi
8. Mithani D.M. Modern Economic Alaysis – Himalaya Publishing House, Mumbai.
9. Kopardekar S.D. Economics – Kitab Mahal Publication.
10. Ajgaonkar M.S. Gokhale M.V. and Others – Concepts of Economics – Noble Publishing House.

COURSE SUMMARY

T.Y. B.Sc. (Home Science)

A) FOOD, NUTRITION AND DIETETICS

Subject	T/ P	Exam hrs .	Exams marks	CIA	Total	Periods of class/ week/ batch
Paper IV: Human Nutrition	T	3	70	30	100	3
Paper V: Community Nutrition	T	3	70	30	100	3
Nutritional Assessment and Education	P	–	–	50	50	2
Paper VI: Food Technology	T	3	70	30	100	3
Food Analysis and Clinical Biochemistry	P	3	30	20	50	3

Paper VII: Nutritional Biochemistry	T	3	70	30	100	3
Paper VIII: Food Service Systems	T	3	70	30	100	3
Paper IX: Clinical Nutrition and Diet Therapy	T	3	70	30	100	4
Quantity Cooking and Diet Therapy	P	3	30	20	50	3
Diet Planning	P	-	-	50	50	2
Seminar/Project	P	-	-	100	100	6
Internship						
TOTAL					900	35

- Orintation: Students shall be oriented towards the following topics
 1. Research Methods and Statistics at the beginning of the academic year
 2. Entrepreneurship in the second term
 3. Professional practice/work culture/ethics at the end of the academic year.
- Student are expected to undergo internship for a period of one month at the end of the academic year, after completion of the final examination.

SCHEME OF CIA

A) THEORY PAPERS – (30 MARKS)

	Ist Periodic Test	IInd Periodic Test	Total	Average
Marks	30	70	100	30
Duration	1 hour	3 hour	--	--
Time Frame	End of the Ist Term	End of the IInd Term	--	--

B – 1) PRACTICAL PAPERS – (20 MARKS)

One practical test in the 2 nd term of 1 hour duration	-15 marks
Years work (including journal if any)	-25 marks
Total	-40 marks
Scaled to	-20 marks

No retests shall be conducted except on grounds of Sports/NSS/Cultural activities/Medical Grounds.

B-2) Scheme of CIA for practicals with CIA only shall be as recommended by the BOS in Home Science

❖ **Seminar / Project - 100 marks.**

Seminar	-- 30 marks
Project	-- 70 marks
Total	-- 100 marks

a) **Seminar :**

- Each student shall present one seminar during the course of the Third Year on a topic related to the field of specialization but not specifically covered in the syllabus. The seminar presentation shall carry 30 marks and shall be assessed by the guide/teacher from the College and other faculty members.
- The Principal shall specify the time frame and the scheme of marking for the Seminar.

b) **Project :**

- Each student shall carry out a project at the T.Y. B.Sc. (Home Science) on any topic related to the syllabus prescribed in the field of specialization.
- Project work shall be based on field work / Laboratory work / Library work / Combination of these. The student shall submit a report of the same.
- The project shall carry 70 marks and shall be assessed by the guide/teacher from the College and another teacher from the College appointed by the Principal.
- The Principal shall specify the time frame and the scheme of marking for the Project

T.Y.B.SC. (HOME SCIENCE)
GROUP A: FOOD, NUTRITION AND DIETETICS
PAPER IV : HUMAN NUTRITION

(THEORY)

Marks : 100

OBJECTIVES:

1. To reinforce the basic principles of nutrition.
2. To gain information about the functions of nutrients, their sources, requirements and effects of deficiencies.
3. To apply this knowledge of nutrition in daily life.

COURSE CONTENT:

SECTION I

1. History of the science of nutrition
2. Energy: Unit of energy, Biologic oxidation of foodstuff. Measurement of energy expenditure. Direct and Indirect Calorimetry. Physiological energy values. Basal and Resting metabolism. Energy expenditure in man. Estimating energy requirements – Factorial approach and BMR factors. Recommended Dietary Allowances for different age groups.
3. Carbohydrates: Functions of carbohydrates. Digestion, absorption and utilization of carbohydrates (review). Role of carbohydrates in health and disease with special reference to complex carbohydrates.
4. Proteins: Functions of proteins in the body. Digestion and absorption (review) Essential and Non-essential amino acids. Amino Acid Availability, Antagonism, Toxicity and Imbalance, Amino acid Supplementation. Methods of evaluating quality of proteins – growth methods, biological methods and chemical methods. Protein requirements of man. Effects of deficiency. Food source and Recommended Dietary Allowances for different age groups.
5. Fats and Lipids: Nutritional importance of fats: Digestion, absorption and transport of fats. Essential Fatty Acids. Functions of fats, Fat storage – excess and deficiency. Importance of the following:
 - a) Omega – fatty acids.
 - b) Phospholipids
 - c) Cholesterol in the body
 - d) Mono, Polyunsaturated and Saturated Fatty Acids.

Dietary implications of fats and oils, Combination ratios of n6 and n3, MUFA, PUFA and SFA. Food sources and requirements.

SECTION II

6. Biochemical and Nutritional functions in metabolism. Effects of deficiency and excess, food sources, and Requirements of each of the following:
 - a) Fat soluble vitamins – A, D, E and K
 - b) Water soluble vitamins – B complex and C

7. Minerals
 - a) Major minerals – calcium, Iron, Iodine, Phosphorous, Sodium, Potassium and Chloride
 - b) Trace minerals – Zinc, Copper, Chromium, Cadmium, Molybdenum, Selenium, Manganese, Magnesium, Fluoride, Cobalt, Silicon, Nickel, and Vanadium.
 - Biochemical and Nutritional role, sources, Biological availability, effects of deficiency and excess.
 - Maintenance of water, Acid – Base and Electrolyte balance.
8. Phytochemicals, antioxidants and flavonoids present in foods and their role in health and disease.
9. Interrelationships of nutrients
 - a) Protein: Energy
 - b) Protein: Fats: carbohydrates
 - c) Vitamin D: Calcium
 - d) Vitamin E : PUFA
 - e) Vitamin C: Iron
 - f) Niacin: Tryptophan: Vit B6
 - g) Folic acid: Vitamin B12
 - h) Sodium: Potassium

REFERENCES:

- Anderson, L., Dibble, M. and Mitchell, N, (1982) Nutrition in health and disease (17th Ed.) Philadelphia: J.B. Lippincott Co.
- Davidson, S. Passmore, R. Broach, J. and Trussell, A. (1986). Human Nutrition and dietetics (8th Ed.) ELBS Edinburgh.
- Gopalan, C. and Narasingh Rao, B. (1988). Dietary allowances for Indians. Hyderabad: National Institute of Nutrition
- Gopalan, C. Ramassastri, B. and Balasubramaniam, S. (1988) Nutritive value of Indian foods. Hyderabad: National Institute of Nutrition
- Robinson, C and Lawler, M. (1982) Normal and therapeutic nutrition . (16th Ed.) New York, MacMillan Publishing Co.
- Swaminathan, M. (1985) Essentials of foods and nutrition (2nd Ed.) Vol, I and 2.
- Ganesh and Co. Williams, S. (1981) Nutritional diet therapy,. (4th Ed.) Missouri: The C.V. Mosby Co.
- Guthrie, H, (1986) Introductory nutrition (6th Ed.) Times Mirror/Mosby College Publication.
- Michele, J.S. Sadler, J. Strain, J, and Benjamin, C. (Ed.) (1999) Encyclopaet of human nutrition. Vol I to III, Academic Press
- Bamji, M. Pralhad Rao, N, and Reddy, V. (Ed) (1996) . Textbook of human nutrition. Oxford and IBH Publishing Co. Pvt.Ltd.

GROUP A: FOOD, NUTRITION AND DIETETICS
PAPER V : COMMUNITY NUTRITION
(THEORY)

Marks : 100

OBJECTIVES:

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

COURSE CONTENT

SECTION I

1. Concept of Community, Nutrition and Malnutrition
 - a) Indicators of malnutrition-infant mortality rate, maternal mortality rate, child mortality rates, birth rate, death rate, total fertility rate.
 - b) Background of the problem of malnutrition in India-Socio-economic, cultural and educational problems, food production, food availability, food consumption, distribution and storage patterns in India-green, brown, white and blue revolutions in food production
 - c) Impact of malnutrition on national development
 - d) Nutritional problems in India-xerophthalmia, PEM, anemia, rickets, iodine deficiency disorders, etc.

SECTION II

5. Assessment of nutritional status of a community – theoretical aspects
 - a) Diet surveys
 - b) Anthropometry – measurements of height, weight, head and chest. Circumference, 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, and deficiencies of vitamins and minerals
 - c) Biochemical parameters for assessing the nutritional status
 - d) Identification of vulnerable group-pregnant women, nursing mothers, infants and children
6. Nutrition education – theoretical aspects – planning, conducting and evaluating the nutrition education programmes
7. Nutrition intervention schemes and Programmes operating in India
 - a) ICDS, mid-day meals, vitamin A prophylaxis, anemia control, goiter control

- b) Role of various national and international agencies in promoting nutrition and health status of the vulnerable sections of the society e.g. FAO, WHO, UNICEF, CARE, NIN, CEFTRI, VHAJ, FNB, ICMR, ICAR. National Nutrition Policy, National Immunization Programme

REFERENCES:-

- Benedict A. (1997) Preventive nutrition- the comprehensive guide to health professionals. (ED;) New Jersey: Human. Press Inc.
- Ebrahim G.J. (1983) Nutrition in mother and child health. London: MacMillan 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 (Ed.) Oxford: Oxford University Press
- Rajlaxmi, r. (1981) Applied nutrition. New Delhi: Oxford and IBH.
- Shukla, P. (1982) Nutritional problems of India. New Delhi: Prentice Hall of India
- Bagchi, Public Health Nutrition

T.Y.B.SC. (HOME SCIENCE)
GROUP A: FOOD, NUTRITION AND DIETETICS
NUTRITIONAL ASSESSMENT AND EDUCATION
(PRACTICAL)

Marks : 50

OBJECTIVES:

1. To study and acquire skills for the assessment of nutritional status of a community
2. to prepare and use communication aids for imparting nutrition education
3. To gain an insight into the levels of malnutrition and suggest steps to overcome them by visiting community centers

COURSE CONTENT:

1. Assessment of nutritional status
 - a) Techniques of measuring height, weight, head circumference, chest circumference, mid arm circumference
 - b) Interpretation of results and comparisons with standards
 - c) Classification according to grades of malnutrition
 - d) Assessment of nutritional status of a community using anthropometric measurement and diet survey
2. Nutrition education
 - a) Techniques – demonstrations, story telling, skits, exhibitions for conducting nutrition education programmes
 - b) Preparation and use of audiovisual aids – puppets, posters, etc.

- c) Visits to community centers – government and non-government
- d) Development of low cost nutritious products.
- e) Exhibition and display of audio visual aids

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.
O.P. Dahama – communication
Manual.

T.Y.B.SC. (HOME SCIENCE)
GROUP A: FOOD, NUTRITION AND DIETETICS
PAPER VI : FOOD TECHNOLOGY
(THEORY)

Marks : 100

OBJECTIVES:

1. To gain an insight into the commercial aspects of food preservation and processing

COURSE CONTENT:

SECTION I

1. Principles of food preservation – a brief overview
 - a) General principles
 - b) Use of high temperature
 - c) Use of low temperature
 - d) Preservation by drying and concentration
 - e) Preservation by food additives
 - f) Preservation by ionizing radiations and microwave heating.
2. Elementary practical technology
Process techniques in brief for the following:
 - i) Cereals – wheat, rice, bread
 - ii) Pulses, legumes and nuts and oilseeds.
 - iii) Meat, fish poultry, eggs,
 - iv) Dairy products-milk, butter, cheese, ice cream
 - v) Fats and oils

- vi) Vegetables-frozen, dehydrated and canned vegetables, pickles, sauces and ketchups.
- vii) Fruits – Jams, jellies, marmalade, dried fruits, fruit juices.
- viii) Sugars

3. Food fermentation
4. Benefits of fermentation and use of probiotics
5. Control of fermentation in foods
6. Manufacturing processes of wine, beer, vinegar, soya sauce
7. Some Indian fermented products – idli, dosa, dhokla

SECTION II

4. Convenience foods and extruded food products
5. Packaging of foods
 - a) An overview of the types of containers and food packaging materials
 - b) Functions of food packaging
 - c) Requirements for effective food packaging
7. Role of food technology in combating malnutrition
 - Value addition of non-conventional foods
8. Food quality
 - Sensory evaluation
 - Factors affecting consumer safety
 - Nutritional quality
 - Sanitary quality
 - Keeping quality
 - Food safety standards (HACCP, ISO, etc)

SUGGESTED INPUTS:

1. Field visits to food processing plants
2. By-products of food industries to be included for e.g. pectin, papain, rice bran oil, wheat germ oil

REFERENCES:

CFTRI, (1972). Home –scale processing preservation of fruits and vegetables central food technological research institute. Mysore
Desrosier, N.W. Desrosier, J.N. (1987) The technology of food preservation (4th Ed.)
Delhi: CBS publishers and distributors

Ensminger, A.H. Ensminger, M.E. Konlande, J.E. and Robsoi, J.R.K. (1995) The concise encyclopaedia of foods and nutrition. Florida: CRC Press
Joshi, S. (1992) Nutrition and Dietetics. New Delhi: Tata McGraw-Hill Publishing Co. Ltd.
Kulshreshta, S.K. (1994) Food preservation. New Delhi: Vikas publishing House
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Subbulakshmi, G. and Udipi, A.A. (2001) Food processing and preservation., New Delhi: New age international Ltd. Publishers.
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T.Y.B.SC. (HOME SCIENCE)
GROUP A: FOOD, NUTRITION AND DIETETICS
FOOD ANALYSIS & CLINICAL BIOCHEMISTRY
(PRACTICAL)

Marks : 50

OBJECTIVES:

1. To impart knowledge and skills of the methods for detection and estimation of different nutrients in foods, common food adulterants and quality control
2. to impart the knowledge and skills of the methods of estimation of certain blood and urine constituents and their interpretation
3. To impart skills in handling of glassware and instruments commonly used in the laboratories

COURSE CONTENT:

1. Food analysis:
 - a) Standardization of acids and alkalis
 - b) Quantitative estimation of total and reducing sugars in different foods by LaneEynon's method
 - c) Estimation of total fat by Soxhlet method – demonstration
 - d) Qualitative analysis of fat-determination of iodine number, acid value, peroxide value and specification value
 - e) Estimation of protein in foods by micro kjeldahl kit method and by calorimetric techniques
 - f) Identification of amino acids in foods by paper chromatography

- g) Estimation of moisture content in foods
- h) Estimation of crude fibre
- i) Estimation of crude fibre
- j) Estimation of iodine in salt by volumetric methods
- k) Preparation of ash
- l) Analysis of Ash for minerals
 - i) Iron – 2 Dipyrindyl method
 - ii) Calcium – Clark-Collip method
 - iii) Phosphorus – Fisks and Subbarao method
- m) Estimation of Vitamin C in fruit juices and vegetables by 2,6 dichlorophenol indophenol dye method
 - 1) Lactose content in milk products
 - 2) Quality Control
 - j) Determination of consistency of fruit pulp
 - k) Identification of common adulterants and preservatives in foods
 - l) Tests for quality of some preserved foods, including microbiological tests

2. Clinical biochemistry

- a) Qualitative analysis of urine
- b) Quantitative analysis of urine
 - i. Creatinine
- c) Biochemical estimations in standard solutions and their interpretation in body fluids:
 - i. Estimation of total cholesterol – kit method demonstration
 - ii. Estimation of total protein and albumin
 - iii. Estimation of SGOT and SGPT-kit method demonstration
 - iv. Estimation of hemoglobin by Sahli's and Drabkin's methods
 - v. Oral glucose tolerance test

REFERENCE

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- Oser, L.B . (1976) Hawk's physiological chemistry (14th Ed.) Tata MCGraw Hill Pub. C. Ltd
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T.Y.B.SC. (HOME SCIENCE)
GROUP A: FOOD, NUTRITION AND DIETETICS
PAPER VII: NUTRITIONAL BIOCHEMISTRY
(THEORY)

OBJECTIVES:

To enable the students to understand:

- i. Basic principles of biochemistry
- ii. Explain functions of the body on a chemical basis
- iii. Apply biochemical knowledge to problems of human health, nutrition.

COURSE CONTENT:

SECTION I

1. Brief review of functional groups; isomerism
2. Carbohydrates:
Chemistry: Classification of sugars – monosaccharides, disaccharides, Oligosaccharides and polysaccharides with structures.
Reactions – oxidation and reduction of monosaccharides, sugar acids and sugar Alcohol; significance.
Ring structure
Metabolism: Embden Meyerhof pathway, Krebs's cycle, Hexose Monophosphate Shunt, Gluconeogenesis, uronic acid pathway, Glycogen metabolism
Homeostasis of blood glucose. Metabolism of fructose, galactose, sorbitol
3. Lipids
Classification of lipids (Bloor's) with appropriate examples and structure.
Prostanpids, cholesterol (structure and functions)
Metabolism – Lipolysis – Beta – Oxidation, Knoop's even carbon, Alpha and Omega Oxidation
Role of Carnitine, Energetics.
Biosynthesis of even carbon fatty acids
Ketone body formation
4. Proteins
Classification and structures. Physical and chemical properties of amino acids, Identification of short peptide. Physiological significance of amino acids and Peptides. 4 levels of protein structure with appropriate example.
Metabolism – General reactions of amino acids – Transamination, Transmethylation, deamination, decarboxylation, and physiological functions.
Urea cycle. Creatine Metabolism.
5. Nucleic acids
Chemistry – structures of purines, pyrimidines, nucleosides, nucleotides,
DNA – Watson and Crick Model, primary and secondary structure
RNA – Types of RNA
Protein Biosynthesis (Prokaryotic) Four steps (activation, initiation, Elongation, termination)

SECTION II

6. Inborn errors of metabolism
 - Fructose, Galactose
 - Urea Cycle
 - Beta Oxidation
 - Lipid storage disorders
 - Phenylalanine, Tyrosine, Sulphur – containing, Tryptophan
7. Enzyme Chemistry
 - Classification, factors affecting enzyme activity, enzyme inhibition, isoenzymes, Coenzymes, Active Site, Allosteric Site, Zymogen, Enzyme specificity. Definition and significance of K_m .
8. Hormones
 - Definition, classification, mode of action, functions of sex hormones, hormones of pancreas, thyroid adrenal and pituitary glands, Associated disease conditions.
9. Biological oxidation
 - Electron transport chain, Phosphorylation, ATP cyclic – AMP
10. Intermediary metabolism

REFERENCES:

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- Lehninger, A.L. (1993) Principles of biochemistry (2nd Ed.) New Delhi: CBS Publishers and Distributors Ltd.
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- Ramakrishnan S. (1995). Nutritional biochemistry. Madras : T.R. Publication
- Roa A.V. S.S. (1994) Text Book of biochemistry. New Delhi: UBS Publishers,
- Rao, K, (1994) Textbook of biochemistry for students of biology and medicine. (7th Ed.) New Delhi: Prentice Hall of India.
- Stryer L. (1995). Biochemistry (4th Ed.) New Delhi: CBS Publishers.
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T.Y.B.Sc. (HOME SCIENCE)
GROUP A: FOOD, NUTRITION AND DIETETICS
PAPER VIII – FOOD SERVICE SYSTEMS
(THEORY)

Marks: 100

OBJECTIVES:

1. To help students concepts services
2. To gain knowledge about various types services in commercial and welfare organizations

3. To study utilization of human, materials, financial and other resources in the operating of food service systems
4. To introduce management concepts in the working of food service organizations

COURSE CONTENT:

1. Types of food service institution

- a) Factors promoting their growth and development.
- b) Growth of the food service industry with special reference to India.
- c) Types of food services system.
- d) Food service operations (types of service, styles of service)

2. Quantity food production

- a. Menu planning –types of menus, menu patterns, menu evaluation
- b. Procurement
- c. Receiving, storage and inventory control
- d. Production
- e. Recipe standardization, stepping recipes
- e. Quality control

3. Sanitation food service organizations – review

- (a) Types of food spoilage
- (b) Sanitation standards
- (c) Control of microbial spoilage while handling food
- (d) Employee training in food sanitation
- (e) Energy utilization and conservation

SECTION II

4. Equipment used in food service organizations

- (a) For food production
- (b) For Storage
- (c) For service
- (d) Maintenance and care
- (e) Introduction to kitchen, floor planning and placement of equipment

5. Cost control

- (a) Basic concepts in accounting and financial statements
- (b) Food cost control, components of cost
- (c) Budgeting
- (d) Records and reports
- (e) Pricing methods, pricing decisions

6. Personal management (w.r.t. Food service institution)

- (a) Human resources planning
- (b) The employment process
- (c) Training and development
- (d) Performance and evaluation
- (e) Personnel action
- (f) Promotions, transfers, discipline etc
- (g) Benefits for employee
- (h) Labour management relationships.

REFERENCES:

Awatramani. P. (1980). Catering management for India hostels, Bombay: Popular book depot
Bessie B and West Le Wood. (1986). Foods service in institution. (6th Ed.) Memillan
Publishing Co. Buttle F. (1992). Hotel food service marketing –a managerial approach.
London ELBS/Cassell Drummond, K.E.(1997). Nutrition for the food, service personnel.
New York: Van Nostrand Reinhold Co. Kinton R. and Cesarani, V. (1989). The theory of
catering. (6th Ed.) London ELBS publishing lilierap D.R. (1998). Food and Beverage
services. (5th ED.) London: ELBS/H dder and Stoughton spears, M.C. (1999). Food service
procurement – purchasing for profit. Merrill prentice Hall.

T.Y.BSc. (HOME SCIENCE)
GROUP A: NUTRITION AND DIETETICS
PAPER IX CLINICAL NUTRITION AND 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 condition to plan appropriate diets

COURSE CONTENT:

SECTION I

1. Regulation of food intake

2. Diet Therapy

- a) Rationale of nutritional modifications necessary in disease conditions.
- b) Principal of diet therapy
- c) Team work in nutritional care.
- d) Normal diet and its adaptation for texture.
- e) Enteral and parenteral nutrition.

3. A study of medical and public health problem under the following heads:

- a) Physiological aspects
- b) Etiology.
- c) Metabolic disturbances and clinical symptoms
- d) Diagnostic criteria
- e) Management with special reference to diet.
- f) Prevention
 - i. Obesity and overweight
 - ii. Under nutrition and eating disorders
 - iii. PEM
 - iv. Diseases of the cardiovascular:- coronary heart disease
 - Atherosclerosis
 - Hyperlipidemias
 - Hypertension-sodium restricted diets.
 - Congestive cardiac failure-an exposure

v. Diseases of the pancreas

- Diabetes mellitus
- Pancreatitis-an exposure

vi. Diseases of the gastrointestinal tract

- Peptic, gastric and duodenal ulcers

i. Malabsorption syndromes

- Celiac sprue
- Lactose intolerance
- Inflammatory disease of the large intestine- an exposure
- Constipation and diarrhea

vii. Disease of the urinary system

- Nephritis- acute and chronic
- Nephrotic syndrome
- Renal failure- acute and chronic
- Urinary calculi

viii. Disease of the liver and gall bladder

- Hepatitis
- Cirrhosis

- Hepatic coma
- Cholecystitis
- Cholelithiasis

ix. Food allergy

SECTION II

4. Dietary management involved in the following inborn errors of metabolism
 - a) Phenylketonuria
 - b) Wilson's disease

5. Nutrition and immunity (an overview)

6. basic concepts of nutritional management in the following conditions
 - a) Osteoarthritis, rheumatoid arthritis and osteoporosis and gout
 - b) COPD
 - c) Surgery, burns
 - d) Cancer
 - e) Special children

Nutrient – drug interactions

SUGGESTED INPUTS:

- 1) Assignments
- 2) Resources Persons
- 3) Visits Institutions

REFERENCE:

Antai A.P., (1997). Clinical dietetics and nutrition. (4th Ed). New Delhi: Oxford University Press. Bennion, Marion : (Clinical nutrition. (7th Ed) New York: Harper and Row Publishers. Burton B.T. (1980). Human nutrition. (3rd Ed.) New Delhi: Tata Mcgraw Hill. Devidson and Passmore. Human nutrition and dietetics. (18th Ed) New Delhi: Tata Mcgraw Hill Publications. Garrow J.S., (1993). Human nutritional and dietetics. (9th Ed). New York: Curchill livingstone. Krause and Mahan. (1996). Food nutrition and diet therapy. (9th Ed). Philadelphia: W.B. Saunders. Krause and Mahan; (2000) Food nutrition and diet therapy. (10th Ed) Philadelphia: W.B. Saunders Robinson: (1989). Normal and therapeutic nutrition. (7th Ed.) New York: Macmillah Pub, Company. Thomas Briony; (1995). Blackwell manual of dietetic practice. (2nd Ed. Oxford: New York Scientific Publication:

Zeeman, Frances J. (1998) . Application of clinical nutrition. Englewood cliffs: Prentice Hall International linc.

T.Y.B.Sc. (HOME SCIENCE)
GROUP A : FOOD, NUTIRTION AND DIETTICS
QUANTITY COOKING & DIET THERAPY
(PRACTICAL)

Marks: 50

OBJECTIVES:

1. To familiarize students with quantity cooking
2. To help them plan meals and price the same
3. To enable students to prepare therapeutic diets
4. To introduce concepts in table service

COURSE CONTENT:

1. Quantity food preparation
 - a) Standardization, Stepping up of recipes and pricing of the same
 - b) Preparation and sale of standardization recipes (rice, wheat, pulse vegetable, meat, and fish preparation, salads, desserts & baked products)
 - c) Cost Analysis

2. Preparation of therapeutic diets for the following conditions:
 - a) Obesity and underweight
 - b) Diabetes Mellitus
 - c) Disease of the gastrointestinal tract
 - I. Diarrhoea
 - II. Constipation
 - III. Lactose intolerance
 - IV. Gluten enteropathy
 - V. Peptic ulcers

 - d) Protein energy malnutrition and fevers

 - e) Cardiovascular disease
 - i) Myocardial infarction
 - ii) Hypertension

- f) Liver disease
 - i) Hepatitis
 - ii) Cirrhosis
 - iii) Hepatic coma

- g) Renal disease
 - i) Glomerulonephritis
 - ii) Nephrotic syndrome
 - iii) Acute renal failure
 - iv) Chronic renal failure

- h) Tube feeds

3. Table Service

- a) Identification of service equipment
- b) Setting up a table for service
- c) Napkin folding and flower arrangement for tables

SUGGESTED INPUTS:

- a) Vegetable carving, ice carving
- b) Organize theme – based food festival/s
- c) Visits to food Service Institutions

REFERENCE:

Lillierap D.R. (1998) Food and Beverage service. (5th Ed.) Elabs /Holder and Stoughton.

Morrison Paul. Coat management for profitable food and beverage operations. John Wiley and Sons.

Verghese B. (1999) Professional food and beverage service management. Banglore; Macmillan India

Gopalan, C, Ramasastry, B.V., Balsubramanian S.C. Narsinga Rao. B.S. Deo, hale, Y.G.and Pant, K.C. (1991). Nutritive value of Indian foods, Hydrabad, HIN

mahan L.K. and Escott – Stump, S (eds .) (2000) Krause’s food nutrition and Diet therapy (10th Ed). Phiadxelphia : W.B. Saunder Co.

Seth, V.and Singh, K. (1995). Diet planning through the life cycle in health and disease- a practical maual. (2nd Ed.) New Delhi Wheeler Publishing.

GROUP A: FOOD, NUTRITION AND DIETETICS
DIET PLANNING
(PRACTICES)

OBJECTIVES:

1. To teach diet modification through use of food exchange lists calculated values.
2. To prepare normal diets and incorporate adequate modifications based on it depending on the disease condition
3. To introduce the students to the concept of multiple disorder
4. To familiarize the student with diet counseling techniques

COURSE CONTENT:

1. Survey of the prices of various ingredients and food products available in the market
2. Diet plans for the various stages in the life cycle
 - a) Infancy
 - b) Childhood
 - c) Adolescence
 - d) Pregnancy
 - e) Lactation
 - f) Old age
3. Planning of diets for various therapeutic conditions (community based diets)
 - a) Obesity and under weight
 - b) Diabetes mellitus
 - i) NIDDM (suitable modifications for IDDM)
 - c) Disease of the gastrointestinal tract
 - i) Diarrhea
 - ii) Constipation
 - iv) Lactose intolerance
 - iv) Peptic ulcers
 - d) Protein energy malnutrition and fevers.
 - e) Cardiovascular disease
 - i. Myocardial infraction
 - ii. Hypertension
 - f) Liver diseases
 - i. Hepatitis
 - ii. Cirrhosis
 - iii. Hepatic coma

- g) Renal disease
 - i. Glomerulonephritis
 - ii. Nephrotic syndrome
 - iii. Acute renal failure
 - iv. Chronic renal failure
- 4. Diet counseling
- 5. Field placement in the dietetics department of a hospital for at least one week
 - a) Case studies (at least two)
 - b) Report

SUGGESTED INPUTES:

1. Visits to dietetics Departments
2. Computer applications in dietetics

REFERENCE:

Gopalan, C., Ramashastri, B.V., Balsubramanian, S.C., Narsinga Rao, B.S., Deo, hale, Y.G. and Pant, K.C. (1991). Nutiritive value of Indian foods. Hydrabad, Hin Mahan, L.K. and Escott – stump, S. (eds.) (2000). Krause's food nutrition and Diet therapy (10th Ed.) Philadxelphia: W.B. saunders Co.

Seth, V. and singh, K. (1995). Diet planning through the life cycle in helath and disease- a practical maual. (2nd Ed .) New Delhi: Wheeler publishing.

SEMINAR / PROJECT

Seminar: 30
Project: 70

Objectives:

1. To enable the students to search references material
2. To enable the students to review, analyze and evaluate research articles / reports.
3. To enable students to present facts & figures for discussion
4. To enable students to develop an ability to effectively present a research paper/report.
5. To help students to develop the ability to prepare & present reviews of articles.
6. To enable the students to prepare aids to facilitate presentation.

7. To improve the communication skills of students
8. To build confidence.

Seminar

Each student is required to present on seminar during the year. Topics drawn from current research shall be prepared and presented by individual students for discussion by the class and concerned faculty members.

Each paper shall be evaluated during the presentation by the concerned faculty member.

Project

Each student is required to conduct one project on any topic to the theory in the respective field of specialization.

The topic should be such that it enables the students to conduct the project in sufficient time so that it is completed and a project report submitted before the commencement of university examinations as per the time frame scheduled by the Institute.

- The project report shall be presented before the class and concerned faculty members before the commencement of university examinations
- The project report shall be neatly typed and bound
- The project report shall include the following chapter.

Chapter 1 Introduction	1- 2 pages
Chapter 2 Review of literature at least	15 – 20 pages
Chapter 3 Objectives	
Chapter 4 Methodology	
Chapter 5 Summary & conclusion	1 – 2 Pages
Bibliography	

- The review of literature shall include a review of research journals, books as well as review articles.
- The final assessment shall included the quality of work, the presentation and performance at the viva voce.

INTERSHIP

Objectives:

1. To provide hands –on – work experience to enhance the skills of students
2. To open up better employment opportunities

3. To establish links with “ Industry “
4. To build a strong infrastructural base for the professional growth of students

Students shall be placed in an organization related to the area of specialization for a period of one month after the completion of university examination.

a) Seminar

- Each student shall present one seminar during the course of the third year on a topic related to the fields of specialization but not specifically covered in the syllabus. The seminar presentation shall carry 30 marks and shall be assessed by the guide/teacher from the college and other faculty members.
- The principal shall specify the time frame and the scheme of marking for the seminar.

b) Project

- Each students shall carry out a project at the T.Y.B.Sc. (Home Science) on any topic related to the syllabus prescribed in the field of specialization.
- Project work shall be based on field work/ laboratory work/ library work/ combination of theses. The student shall submit a report of the same.
- The project shall carry 70 marks and shall be assessed by the guide/ teacher from the college and another teacher from the college appointed by the Principal.
- The Principal shall specify the time frame and the scheme of marking for the project.

T.Y.B.Sc. (HOME SCIENCE)
GROUP B: TEXTILE AND CLOTHING
PAPER IV – WORLD HISTORIC TEXTILE AND COSTUMES
(THEORY)

Marks: 100

OBJECTIVES:

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

COURSE CONTENT:

SECTION I

1. World textiles

- a) The ancient world: Mediterranean and central & Northern Europe.
- b) The Near and Middle East: Sassanian textiles, early Islamic textiles, Byzantine silks, Central Asian textiles.
- c) The far East: China and Japan.
- d) Western Europe: Italian, Spanish and French silks, tapestry and embroidery.
- e) America: Colonial North America. Native North America and Latin America.
- f) English and America textiles : Basic cloths, Revolution, Exuberance and Renaissance

SECTION II

2. World costumes and accessories

- a) The ancient world : Egypt, Rome, Etc.
- b) 19th Century antique Civilizations
- c) Europe from Byzantium to the 1800's
- d) Traditional costumes of the 1800's
- e) Middle ages 11th Century to 15th Century
- f) 16th 20th Century

3. Care and preservation of textiles

REFERENCE:

- Davenport, M. The book of Costumes. Vol.I New York: Crown.
- Harris, J. (1993) 5000 years textiles. London : British Museum.
- Kemper, H.R. (1979) Costume. New York : Newsweek Books.
- Kohler, C (1963) A history of costumes. New York: Dover.
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- Peacock J., (1997). Fashion source books – The 1920 's New York : Thames and Hudson.
- Racinet, A I; (1998). The historical encyclopedia of costumes. London: studio Editions.
- Ribond, K.(1989). In quest of themes and skills. India : Marg.
- Schoeser, M. (1989). English and American textiles. London : Thames and Hudson
- Spring C. (1989) African textiles. New York: Crescent Books.
- Turner, W.R. (1989). Folk and festival costumes of the world. London B.T. Batsford.

T.Y.B.Sc. (HOME SCIENCE)
GROUP B: TEXTILES AND CLOTHING
PAPER V – 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 on different fabrics and their fastness properties.
3. To impart knowledge of the various dyeing and printing processes and the machines used for them
4. To make students aware of recent developments in dyeing and printing with emphasis on ecological concerns

COURSE CONTENT:

SECTION I

1. Designs: Layout in designs, repeat bases, drop devices
2. Colourant: Dyes and pigments, classification of dyes and pigments on the basis of their application and chemical structure.
3. Dyeing : Mechanism of various dyeing processes, application of dyes on various fibers/fabrics and their fastness properties (washing, light, perspiration and rubbing fastness, ISO method), reflectance of dyes (spectrophotometer)

SECTION II

4. Natural dyes: Application and ecological concerns
5. Printing:
 - a) Styles of printing
 - b) Methods of printing – Block, transfer printing, flat and rotary screen
 - c) Preparation of blocks and screens
 - d) Fabric and garment printing

6. Recent developments in dyeing and printing: Toxicity of dyes, banned dyes, eco-friendly dyes etc.

REFERENCES:

- Broughton, K. (1995). Textile Dyeing. Massachusetts: Rockport
- Clark, W. (1997). An introduction to textile printing. Nowness London. Buttonworth, Boston.
- Cockett, B.R. (1964). Dyeing and Printing. Sir Isaac Pitman and Sons.
- Grosiki, (1975). Watson's Textile Design and Colour. Buttonworth.
- Gulrajani, M.L. (1990) Wool Dyeing and printing. New Delhi: T. Department of Textile Technology.
- Hurst, G.H, (1998). Silk dyeing, printing and finishing. Chandigarh: Abhishek
- Prayag R.S. (1989) Technology of textile printing. Noyes Data Corporation
- Prayag L.R. & Darwarlee R.W. (1981). Printing on textiles by direct and transfer techniques. Noyes Data Corporation.
- Shenai, V.A. (1998) Toxicity of dyes intermediates. Mumbai: Seva
- Shenai, V.A. (1999) Azo Dyes: Facts and figures. Mumbai: Sevak.
- Shenai, V.A. (1987) Technology of Dyeing Technology of Textile Processing. Vol. VI, Bombay, Sevak
- Shenai, V.A. (1985). Bombay, Technology of Printing, Technology of Textile Processing. Vol. IIV, Sevak publications
- Story Joyce, (1979). The Thames and Hudson Manual of Textile Dyes and fabrics. London: Thames & Hudson Ltd.
- Tyagi, O.D. (1990). A textbook of synthetic dyes. New Delhi:Anmol

T.Y. B.Sc. (HOME SCIENCE)
GROUP B: TEXTILES AND CLOTHING
DYEING AND PRINTING
(PRACTICAL)

OBJECTIVES:

Marks: 50

1. To introduce different techniques of coloration of textiles
2. To impart knowledge of the various dyeing and printing processes and the machines used for them
3. To make students aware of creative methods in dyeing and printing
4. To help students test dyes & identify them

COURSE CONTENT:

1. Printing: Making of screens and pastes for printing, block printing, screen printing

2. Dyeing fabrics using various dyes viz vegetable dyes (henna, pomegranate, madder, indigo, etc.) and synthetic dyes viz. direct, azoic, acid, basic, reactive, etc. using tie and dye and batik techniques
3. Use of various dyeing machines, like jigger ,padding mangle, launderometer, HTHP(high temperature high pressure)
4. Identification of dyes and testing of dyed fabrics
5. Color fastness
6. Pigment printing
7. Discharge printing

REFERENCES:

- Broughton, K (1995). Textile dyeing: The step by step guide and showcase. Rockport: Rockport publishers.
- Clark, W, (1977) An introduction to textile printing. Nowness London: Buttonworth.
- Gulrajajni, M.L. (1990). Wool dyeing and printing. New Delhi: IIT Department of textiles and technology.
- Hurst, G.H. (1998). Silk dyeing, printing and finishing. Chandigarh: Abhishek.
- Noble, E. (1998) Dyes and paints. Washington: Fiber studio press.
- Prayag, L.R., & Darwarlee R.W. (1981) Printing on textile by direct and transfer technics . Noyes Data Corporation.
- PrayagR.S.; (1989) Technology of textile printing. Noyes Data.
- Shenai, V.A. (1985). Technology of textile printing: Technology of textile processing. Vol.IV. Sevak
- Shenai,V,A, (1987)Technology of dyeing: Technology of textile processing. Vol.VI Bombay:Sevak.
- Shenai,V.A. (1993). Dyeing of silk.Mumbai: Sevak
- Shenai, V.A. (1994) Technology of textile processing. Vol. VI. Mumbai; Sevak
- Stoke, S.(1999). Silk painting New. York: Joanna Lorentz.
- Stofy, J. (1979). The Thames and Hudson manual of textile dyes and fabrics. London Thames & Hudson.
- Venables, J. (1994). The silk painting workshop. Neswton: David and Clares book.
- Zelanski, p. (1999). Colour. London: Herbet

T.Y.B.Sc. (HOME SCIENCE)
GROUP B: TEXTILE AND CLOTHING
PAPER VI – TEXTILE TESTING
(THEORY)

OBJECTIVES:

Marks: 100

1. To make students aware of the importance of textile testing and quality control
2. To impart knowledge to the physical and mechanical properties of textiles
3. To teach them the techniques and principles of testing physical and mechanical properties of textiles through demonstrations

COURSE CONTENT:

SECTION I

1. Purpose of textile standards and specifications
2. Standard institutes of textile testing and quality control in India and abroad
3. Moisture relations and testing: percentage regain & moisture content, factor affecting regain, measurement of atmospheric conditions (types of hygrometers), effect of regain on fiber properties, experiments and calculations to determine moisture content of various fabrics, regain and humidity relationship, correction weight of consignment
4. fiber dimensions quality:
 - a) Fiber length measurement for cotton and wool
 - b) Fiber fineness measurement and fiber maturity testing for cotton and wool

SECTION II

5. Yarn dimensions
 - a) Yarn count or yarn number- direct & indirect systems of yarn numbering
 - b) Twist and twist measurement
 - c) Crimp and yarn crimp measurement
 - d) Yarn evenness & yarn hairiness
6. Fabric dimensions and properties:
 - b) Length, width, ends & picks per inch, weight and thickness
 - c) Air and water permeability
 - d) Shrinkage
 - e) Wrinkle resistance and crease recovery
 - f) Abrasion resistance and pilling resistance
 - g) Flammability
7. Tensile strength:
 - a) Definition of stress, strain, initial modulus, elasticity, yield point and breaking point.
 - b) Tensile strength measurement of fiber, fiber bundle, yarn, skein and fabric.
 - c) Tensile strength testing instruments with their principles of measurement-CRL, CRE and CRT and working principles of instruments.
 - d) Tear strength test & bursting strength instrument.

8. Quality control and quality marks: eco marking and certification, sources of chemicals & textiles
9. Recent developments in the field of textile testing

REFERENCES:

- Angappan, p. & GopaKrishan R,(1993) Textile testing. S.S.M. Institute of Technology.
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T.Y.B.Sc. (HOME SCIENCE)
GROUP B: TEXTILE AND CLOTHING
TEXTILE TESTING
(PRACTICAL)

OBJECTIVES:

Marks: 50

1. To enable students to gain knowledge in physical testing of textile fibers

2. To know about the quality control methods adopted in the spinning mills and garment industry
3. To make students aware of the importance of testing equipments at the global level

COURSE CONTENT:

1. Experiments on moisture relations and testing- Hygrometers
2. Fiber dimensions and quality – Comb sorter, aerolometer, WIRA fineness meter
3. Yarn dimensions – yarn count, Crimpometer
4. Fiber dimensions – Length, width, ends and picks per inch thickness, shrinkage, crease recovery, pilling, drapability
5. Tensile strength – Fiber, yarn, fabric strength

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T.Y.B.Sc. (HOME SCIENCE)
GROUP B: TEXTILE AND CLOTHING
PAPER VII – FABRIC STRUCTURE AND CONSTRUCTION
(THEORY)

OBJECTIVES:

Marks: 100

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

COURSE CONTENT:

SECTION I

1. Yarns and their characteristics
2. Fabric formation: Introduction of methods such as yarn preparation and sizing, weaving, knitting, non-woven fabric formation, tufting, felting, knotting, etc., brief introduction to traditional and contemporary looms
3. Weaves:
 - a. Elementary weaves and their derivatives with their properties and uses: plain weaves and its derivatives (rib and hopsack), twill weave and its derivative (broken, transposed. Waved, pointed, diamonds, diapers, herringbone, curved, elongated, combination and fancy twills), Satin and sateen (regular, irregular and their extensions)
 - b. Complex weaves with their uses and properties: Huckaback, honeycomb, mock-leno, Bedford cord, welt and pique extra warp and weft, figured fabrics, crepes, pile weave and spot design
 - c. Colour and weave effects

SECTION II

4. Knits: Single, double, tricot, Rachel knitting and their variations
5. Non woven and multi-components

6. Recent developments in fabric construction

REFERENCES:

- Black, M.E. (1966) The key to weaving New York: Macmillian.
- Brown, R. (1978). Weaving, spinning and dyeing book. London: Routledge & Kegan Paul.
- Fannin & Allen. A. (1979).; Handloom weaving technology,. New York: Van Nostrand Reinhold.
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T.Y.B.Sc. (HOME SCIENCE)
GROUP B: TEXTILES AND CLOTHING
FABRIC STRUCTURE AND CONSTRUCTION
(PRACTICAL)

OBJECTIVES:

Marks: 50

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

COURSE CONTENT:

1. Collection and identification of different woven samples:
 - a) Analysis of woven samples for design, draft, peg plan and other particulars.

- b) Practical weaving of samples on table looms with straight and transport drafts.
 - c) Constructing fabrics by other methods like knitting (manual and machine), tufting (cut/uncut) crochet, macramé etc.
2. Collection and identification of different knitted samples.
3. Yarn and fabric testing
- a) Calculation of the weight of warp and weft of fabric, fabric thickness,
 - b) Yarn count and yarn twist

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- Brown, R. (1978). Weaving, spinning and dyeing book. London: Routledge & Kegan Paul.
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- White, A. V. (1975) Weaving is fun. New York: Dover.

(THEORY)

OBJECTIVES:

Marks: 100

1. To help students acquire knowledge and understanding of the basic principles involved in the field of marketing, retailing and advertising
2. To help students understand consumer behaviour as a result of the interaction of needs and wants as influenced by time, culture, socio-economic forces.
3. To gain an understanding of voluntary standards which affect textile products and how they may aid the producer, retailer and consumer
4. To enable students to understand the consumer's role in the market and to improve consumer practices
5. To develop awareness of the basic rights and responsibilities to consumers

COURSE CONTENTS:

SECTION I

1. General: Meaning, nature and scope of marketing, role and importance of marketing in modern economy, the new concept of marketing, market analysis and market environment, distribution, competition
2. Marketing mix:
 - a) Product: Product policy decisions (industrial v/s consumer goods marketing, product life cycle, product innovation (development of new product, product testing), product diversification (packaging, branding standardizing and grading)
 - b) Pricing: Pricing policy and economic concept in pricing, pricing objectives and strategies, pricing methods based on cost including break-even analysis.
 - c) Physical distribution-different types of middlemen and their importance, choice of appropriate channels
 - d) Promotion: Meaning, process of communication, promotion messages, main purpose of promotion social aspects of promotion, promotion strategies
3. Market research: Market segmentation, scope of market research, steps in the research process, types of surveys.
4. Organization of the textile industry: Public and private sectors, centralized and decentralized sectors, handlooms, co-operatives, import and export trend, multinational companies

SECTION II

5. Consumer psychology and behavior: Consumer decisions in the market process, factors affecting consumers decisions in marketing, consumer aids for right choice advertisement, attitude of the consumer towards advertisements, brands, trademarks, labels, quality marks, buying guides.
6. Consumer problems and protection services: Consumer protection service, government regulation and laws affecting the consumer with relation to textiles and garments.
7. Consumer education and consumer movement: Quality demand, lack of consumer education (labeling and packaging) guarantee, defects, implementation through public authority, business and trade associations with relation to textiles and garments.

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T.Y.B.Sc. (HOME SCIENCE)
GROUP B: TEXTILE AND CLOTHING
PATTERN DRAFTING
(PRACTICAL)

OBJECTIVES:

Marks: 50

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

COURSE CONTENT

1. Basic blocks: Adults bodice block, (upto waist and upto hip), skirt block,sleeve block and trouser block
2. Dart displacement and concealment techniques
3. Fashion illustration and flat pattern construction and portfolio making for the party wear garment
4. Drafting of:
 - a) Collars: Rever, reversible, shawl, danton, sports, etc.
 - b) Sleeves: Raglan, drop-shoulders, Magyar, kimono/dolman
 - c) Necklines: Raised, cowl, variations of cowl, halter, off shoulders etc.
5. Drafting of garments: Ladies Indian and Western wear viz. plain and katori choli, skirt, cullotes, house coat, ladies shirt with cuff and collar, party wear (Indian or Indo Western) and trousers.

REFERANCES:

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- Brey, N. (1978) Dress pattern designing. London:Crossby Lockwood &Staples
- Carr, Harold, & Latham, B.(1994) The technology of clothing. Manufacture .(2nd Ed Oxford: Blackwell Scientific
- Cooklin,G. (1991). Introduction to clothing manufacture Oxford Blackwell Scientific.
- Giselle, D.A.& Brete, B. Figure types and size ranges. Fairchild.
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- Goulboun, M(1971) Introduction pattern cutting, Grading & Modeling. London: B.T. Bastsford.
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T.Y.B.Sc. (HOME SCIENCE)
GROUP B: TEXTILE AND CLOTHING
GARMENT CONSTRUCTION AND INTRODUCTION TO DRAPING
(PRACTICAL)

OBJECTIVES:

Marks: 50

1. To acquaint students with the techniques and skills of garment construction through flat pattern
2. To acquaint student with the techniques and skills of draping/garment modeling

3. To make students competent to stitch garments with elaborate patterns

COURSE CONENT:

1. Garments:

- a) Katori choli
- b) Shirt with cuff and collar
- c) Trouser
- d) Housecoat
- e) Party wear (Indian/Indo western)
- f) Skirt

2. Fundamentals:

- a) Placket: Continuous Kurta placket, overlapping (Angarkha style)
- b) Collars: Rever, reversible, shawl, danton & sports
- c) Necklines: Raised, cowl, halter, off shoulders etc.
- d) Pockets: Side pant ,welt, bound etc.
- e) Zips: Fly open, zip without seam, invisible etc.
- f) Sleeves: Raglan, drop-shoulders, Magyar, kimono/dolman

3. Draping:

- a) Bodice block, waist and hip
- b) Basic skirt

4. Journal: Illustration of designs, layout of drafts and fabric consumption.

REFERANCES:

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- Bailey A. Draper W. & Dunn, L. (1970). Steps in clothing skills. Chas A. Illinois: Bonnet.
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- Stanley, H. (1977) Modeling and flat cutting for fashion London: Huchison. Wyllis, Ethel, (1979) Today's custom tailoring. Pooria, III, Chas A., Bonnet.

T.Y.B.Sc. (HOME SCIENCE)
GROUP B: TEXTILE AND CLOTHING
TEXTILE DESIGN AND ILLUSTRATION
(PRACTICAL)

OBJECTIVES:

Marks: 50

1. To expose students to develop skills in manual techniques and computer for basic designing of weaves, prints and illustrations
2. To expose students to manual techniques of embroidery

COURSE CONTENT:

1. Design concepts: (Manual)
 - a) Textile Designing: Four designs in all to study the different forms of design (geometric, abstract, natural & stylized), producing designs with various repeats and drop devices using different colour schemes and types of design like straight repeat (half drop, half reverse, brick, interlacing ogee, diamond, stripe, waved, diagonal) and mirror repeats colour separation
 - b) Embroidery: Indian stitches (8-10 stitches) on sampler
 - c) Illustration : Introduction to illustration, croquis making, poses and styles

2. Computer aided designing: demonstrations in:

- a. Weave structures: Tappet, dobby, colour and weave effect, jacquard
- b. Designing for prints: 7-8 designs with different repeats, colour combinations, colour separation
- c. Illustrations: Croquis making, designing of garments colour rendering

REFERENCES:

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- Joyce, C. (1993) Textile design. New York: Watson-Guptill.
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SEMINAR/PROJECT

Project : 70

seminar:30

OBJECTIVES:

1. To enable the students to search references material
2. To enable the students to review, analyze and evaluate research articles/reports
3. To enable students to present facts and figures for discussion

4. To enable students to develop an ability to effectively present a research paper/report
5. To help students to develop the ability to prepare & present reviews of articles
6. To enable the students to prepare aids to facilitate presentation
7. To improve the communication skills of students
8. To build confidence

Seminar

Each student is required to present one seminar during the year. Topics drawn from current research shall be prepared and presented by individual students for discussion by the class and concerned faculty members

Each paper shall be evaluated during the presentation by the concerned faculty member.

Project

Each student is required to conduct one project on any topic relates to the theory in the respective field of specialization

The topic should be such that it enables the student to conduct the project in sufficient time so that it is completed and a project report submitted before the commencement of university examinations as per the time frame scheduled by the institutes.

- The project report shall be presented before the class and concerned faculty members before the commencement of university examinations
- The project report shall be neatly typed and bound
- The project report shall include the following chapters

Chapter 1.	Introduction	1-2 pages
Chapter 2	Review of literature at least	15-20 pages
Chapter 3	Objectives	
Chapter 4	Methodology	
Chapter 5	Summary & conclusion	1-2 pages
	Bibliography	

- The review of literature shall include a review of research journals, books as well as review articles.
- The final assessment shall include the quality of work, the presentation and performance at the viva voce.

INTERNSHIP

OBJECTIVES:

5. To provide hands-on-work experience to enhance the skills of students

6. To open up better employment opportunities
7. To establish links with “industries”
8. To build a strong infrastructural base for the professional growth of students

Students shall be placed in an organization related to the area of specialization for a period of one month after the university examination.

COURSE SUMMARY
T. Y. B. Sc. (Home Science)
C : Human Development

Paper	T/P	Univ.Exam hrs.	Univ.Exams marks	CIA	Total	Periods per week
Paper V: Psychological Testing	T	3	70	30	100	3
Paper VI: Early Childhood Care and Education	T	3	70	30	100	3
Paper VII : Adulthood & Ageing	T	3	70	30	100	3
Paper VIII: School Administration	T	3	70	30	100	3
Paper IX: Social Welfare	T	3	70	30	100	3
Paper X: Guidance & Counselling	T	3	70	30	100	3
Paper XI: Exceptional Children	T	3	70	30	100	3
Field work	P	-	-	100	100	6
Seminar/Project	P	-	-	100	100	6
Internship						
Total					900	33

- Orientation: Students shall be oriented towards the following topics
 1. Research methods and statistics at the beginning of the academic year.
 2. Entrepreneurship in the second term
 3. Professional practice/work culture/ethics at the end of the academic year.
- Students are expected to undergo internship for a period of one month at the end of the academic year, after completion of the final examination.

SCHEME OF CIA

A) Theory papers – (30 marks)

	I ST Periodic test	II ND Periodic test	Total	Scaled to
Marks	30	70	100	30
Duration	1 hour	3 hours	--	--
Time frame	End of the I st term	End of the II nd term	--	--

No retests shall be conducted except on grounds of Sports/NSS/Cultural activities/Medical grounds.

B) Scheme of CIA for practical's with CIA only shall be as recommended by the BOS in Home Science.

C) Seminar/Project – 100 marks

Seminar	- 30 marks
Project	- 70 marks
Total	- 100 marks

a) Seminar

- Each student shall present one seminar during the course of the third year on a topic related to the field of specialization but not specifically covered in the syllabus. The seminar presentation shall carry 30 marks and shall be assessed by the guide/teacher from the college and other faculty members.

- The Principal shall specify the time frame and the scheme of marking for the seminar.
- b) Project
- Each student shall carry out a project at the T.Y.B.Sc. (Home Science) on any topic related to the syllabus prescribed in the field of specialization
 - Project work shall be based on field work/laboratory work/library work/combination of these. The student shall submit a report of the same.
 - The project shall carry 70 marks and shall be assessed by the guide/teacher from the college and another teacher from the college appointed by the Principal.
 - The Principal shall specify the time frame and the scheme of marking for the project.

T.Y.B.Sc. (HOME SCIENCE)
GROUP C: HUMAN DEVELOPMENT
PAPER V – PSYCHOLOGICAL TESTING
(THEORY)

OBJECTIVES:

Marks: 100

1. To introduce students to the concept of psychological testing
2. To familiarize students with various standardized tests.

COURSE CONTENT:

SECTION 1

1. Introduction to psychological testing
 - a. History
 - b. Definition, characteristics
 - c. Uses
 - d. Special advantages and disadvantages

2. Steps in the construction of standardized tests(eg. A review of literature, conceptual versus operational definition, item analysis, establishing validity and reliability , tests norms , the test manual)
3. Intelligence testing
 - a. Definition of intelligence, problems therein, changing notions
 - b. History, classic tests like the Binet-Simon scales
 - c. WAIS, WISC, WPPSI
 - d. Indian tests like the Kamat-Binet; group administered tests
 - e. Issues (eg. Culture-fairness)
4. Creativity testing
 - a. Definition
 - b. TTCT
 - c. Other approaches (eg. Starkweather)
 - d. Contrasting intelligence and creativity testing.

SECTION II

5. Projective techniques
 - a. History, definition, characteristics
 - b. Rorschach inkblot test
 - c. TAT
 - d. CAT
 - e. HTP
 - f. Sentence completion test
 - g. Issues
6. Tests used with neonates and infants

Neonatal inventories (eg. Brazelton), development scales (eg. Bayley's), the measurement of attachment (eg. Ainsworth)
7. Other tests-an illustration

Sociometry, personality assessment in childhood (eg. EPPS, HSPQ, CPQ), personality assessment in adolescence (eg. 16PF, MMPI), interest inventories (eg. Strong), standardized achievement tests (eg. SAT)
8. Ethics in the use of standardized tests

REFERANCES:

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- Garret, HE and Woodworth R.S. (1979) Statistics in psychology and Education. Mumbai Vakil, Feffy and Simon Ltd.
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T.Y.B.Sc. (HOME SCIENCE)
GROUP C: HUMAN DEVELOPMENT
PAPER VI – EARLY CHILDHOOD CARE AND EDUCATION
(THEORY)

OBJECTIVES:

Marks: 100

1. To facilitate in students an understanding of the significance, scope and nature of education in the early childhood years.
2. To give students knowledge regarding:
 - a. Planning and organizing of materials, equipment, curricula, teaching-learning activities, and parent involvement: in early childhood care and education settings.
 - b. Assessing, recording and reporting of children's growth and development
 - c. Teaching strategies and child guidance strategies in early childhood care and education settings

COURSE CONTENT:

SECTION I

1. Introduction
 - a. Importance and significance of early childhood years.
 - b. Nature, aims and objectives of early childhood care and education(ECCE)
 - c. Status of early childhood education in India.
 - d. Historical overview eg: Rousseau, Montessori, Dewey, Froebel, Tagore, Tarabai Modak and Gijubhai Badheka
 - e. Types of child development centers
2. Classroom design and organization
 - a. Characteristics of a well-planned environment
 - b. Room arrangement (infant classroom, toddler classroom, preschool programs)
3. Staffing
 - a. Different personnel in the center and their roles
 - b. Qualities and attitudes of an ECCE teacher
 - c. Role of an ECCE teacher
4. planning the environment

- a. Planing the indoor area (eg. Arrival and departure area, indoor space, bathrooms, sleep and relaxation areas)
 - b. Planning the outdoor area (eg. Criteria for outdoor play, types of playgrounds, outdoor play activities, playground safety, playground design)
 - c. Planning for material and equipment (eg. Selection of materials and equipment, planning for storage and maintainance of materials and equipment)
5. Planning the programme
 - a. Programme planner
 - b. The planning process (developing a philosophy identifying needs, developing goals and objectives).
 - c. Issues (eg. Diversity in classroom, a non-sexist approach, children with special
6. Planning the Curriculum
 - a. Purpose of curriculum
 - b. Overview of curriculum models (eg. Bank street approach, Montessori Education, Behaviouristic Instructional Technology)
 - c. Guidelines for developing a curriculum
 - d. Curriculum for developing personal awareness, emotional well-being, social competence, creative communication, cognition, perceptual motor skills (development milestones, goals and activities, and specific curriculum in each area for infant, toddler and preschool classrooms)
7. Activity planning
 - a. Guidelines
 - b. Selecting activities and learning centers
 - c. Theme and skill-based planning
 - d. Multicultural experience in the classroom
 - e. Technology in the classroom
 - f. Achieving developmental goals through effective planning.

SECTION II

8. Teaching techniques and strategies
 - a. Alternative strategies for dialogue (eg. Active listening, descriptive feedback, directing, telling, explaining, asking questions, modeling)
 - b. Alternative strategies for lesson (eg. Direct instruction lessons, structured inductive lessons, structure modeling lessons, cooperative learning lessons)
9. Assessing, recording and reporting children's growth and development and children's progress
 - a. Goals for development assessment
 - b. Planning assessment
 - c. Methods of assessment
 - d. Types of uses of records
 - e. Types of records
 - f. Reporting(purpose, methods of reporting, ethical issues)
10. Assessing the programme

- a. Teacher performance
 - b. Programme quality
11. Home-school and parent-teacher partnership
- a. Increasing interaction and continuity between home and the center.
 - b. Enriching the programme through parent participation and contribution
 - c. Techniques of parent involvement
 - d. Challenges in effective parent involvement
12. Classroom management and guidance
- a. Developing goals for guidance
 - b. Setting realistic expectations
 - c. Preventing misbehaviour
 - d. Responding to children's misbehaviour/Handling hostility and aggression
 - e. Building feelings of confidence and adequacy in children
13. Issues with special reference to the Indian context (contemporary issues like miseducation of the young, consequences of testing policies in ECCE)

REFERENCE:

- Amin, R (1997). Learning for life. From birth to five. Nurturing the growing child. Mumbai: Books for change.
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- Children's Christian Fund. (1994) Early childhood care and development (0-6 years) Trainers manual India Author
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JOURNALS:

Childhood Education
Young Children

T.Y.B.Sc. (HOME SCIENCE)
GROUP C: HUMAN DEVELOPMENT
PAPER VII – ADULTHOOD & AGEING
(THEORY)

OBJECTIVES:

Marks: 100

1. To present to students an overview of human development in adulthood
2. To help students understand development in early, middle and late adulthood with special reference to the Indian context
3. To make students aware of different issues in adulthood and concomitant coping styles
4. to sensitize students to death and bereavement

COURSE CONTENT:

1. Becoming an adult
 - a. Beginning of adulthood
 - b. Role transitions marking adulthood
 - c. Demographic and changing views of adulthood
 - d. Importance of the study of adult development
2. Early adulthood
 - a. Definition, development tasks
 - b. Physical development and health
 - i. Changes in physical functioning (eg. In cardiovascular, respiratory, reproductive, immune systems, and motor performance)
 - ii. Health and fitness(eg. Factors related to smoking, drinking, nutrition, and exercise)
 - iii. Changing perspectives and trends in health and fitness (eg. With regard to dietary habits)
 - c. Psychological development
 - i. Erikson's stage of Intimacy versus Isolation
 - ii. Personality and relationship enhancement
 - iii. Parenthood and adult development (stages of family life, transition to parenthood, child rearing and changing parental roles, childlessness)
 - iv. The diversity of adult life-styles (in brief –single hood, cohabitation, homosexuality, etc.)
 - v. Role of the adult in the community and society at large (eg. Responsible citizenship, exercising electoral franchise, concern of the neighbourhood and the environment, voluntary work)
 - d. Cognitive development
 - i. Intelligence in adulthood
 - ii. Going beyond Piaget's formal operational stage

- iii. Cognitive continuity and change (growth versus decline, changes in the structure of thought-Schaie's stages of adult thinking)
 - iv. Moral reasoning (Kohlberg's theory, alternatives to justice)
 - e. Work and leisure
 - i. Occupational choices and career development
 - ii. Meaning and importance of work
 - iii. The occupational cycle, job satisfaction
 - iv. Concerns in the occupational world (bias and discrimination, sexual harassment, competition, misfit, reservation policies)
 - v. Work and family (reciprocal effects, juggling multiple roles-dual-earner families)
 - vi. Leisure (types of leisure activities in a activities, benefits and drawbacks of leisure activities)
- 3. Middle adulthood
 - a. Defining the stage developmental tasks
 - b. Physical changes and health
 - i. Changes in appearance
 - ii. Dealing with physical ageing
 - iii. Changes in the reproductive system and in sexuality(eg. Menopause, male mid life crises)
 - iv. Health and fitness (diet, exercise, stress, illness, and coping, tragedies etc.)
 - c. psychological development
 - i. Middle age: a period of stress and stability, Erikson's stage of generative versus stagnation
 - ii. Changing priorities in middle adulthood
 - iii. Midlife crisis-myth or reality
 - iv. Family dynamics and middle age (middle aged adults and their children, their aged parents, the empty nest phenomenon)
 - v. Grandparenthood (including early grand parenting)
 - vi. Role of the adult in the community and society at large (eg. Responsible citizenship, voluntary work in the neighbourhood, and welfare settings, leadership roles/policy making)
 - d. Cognitive development
 - vii. Changes in mental abilities (crystallized and fluid intelligence, individual differences, experience and expertise)
 - viii. Information processing (speed of processing, memory, attention, creativity)
 - e. Work and leisure
 - i. Occupational transitions (changing occupations, occupational insecurity, coping with unemployment)
 - ii. Other occupational concerns(eg. Evaluating and coping with occupational aspirations, promotions, keeping pace with the astonishing rates of growth in technology and in various specializations keeping pace with changing economic conditions and policies)
 - iii. Relationship at work
 - iv. Work and family(eg. Reciprocal effects)

- v. Leisure (types of leisure activities in middle adulthood, developmental changes in leisure activities, benefits and drawbacks of leisure activities in middle adulthood)
4. Late adulthood
- a. Definition, characteristics, developmental tasks, demographics of aging.
 - b. Physical changes and health
 - i. Biological theories of aging
 - ii. Physiological changes
 - iii. Health issues
 - c. Psychological aspects in late adulthood
 - i. Theories of psychological aging
 - ii. Personality development in later life (Erikson's stage of integrity versus Despair, well being and the self-concept, religiosity and spiritual support
 - iii. Changing relationships (with spouse, friends, family, community)
 - iv. Attitude of others towards old age
 - v. Social issue and ageing (eg. Frail older adults, institutionalization, elder abuse and neglect, role of local/national/international bodies)
 - d. Cognitive Process
 - i. Changes in thought
 - ii. Information-processing in daily life (memory, creativity, wisdom)
 - iii. Mental health and intervention (eg. Depression, anxiety disorders, dementia, Alzheimer's disease)
 - e. Retirement
 - i. Meaning
 - ii. Planning for retirement (eg. At the personal and corporate levels, the Voluntary Retirement Scheme)
 - iii. Changes in status (eg. Prestige, finance, time, peer network, family interactions) and concomitant adjustments.
 - iv. Role of organizations such as the Senior Citizens Association
 - f. Death and bereavement
 - i. Definition, ethical issues
 - ii. Attitudes/ fears with regard to dying (eg. Death anxiety, dying with dignity)
 - iii. Bereavement (attitudes towards bereavement, cultural definitions of bereavement behaviours, surviving the loss: grieving process, normal grief reactions, Kibler-Ross theory of death, religious and spiritual support, support of family and friends)
 - iv. Funerals-rituals and customs.

REFERENCES:

- Berker, L.E.(1998). Development through life span. Boston: Allyn and Bacon
 Craig, G.J. (1996) Humman development. New Jersey: Prentice Hall.

Kail, R.V., & Cavanaugh, J.C. (2000) Human development: lifespan view. USA: Woodsworth Thomson Learning.
Lemme, B.H. (1999). Development in adulthood. A Boston: Allyn and Bacon
Zenden, J.W.V. (1997) Human development. New York: McGraw Hill

T.Y.B.Sc. (HOME SCIENCE)
GROUP C: HUMAN DEVELOPMENT
PAPER VIII – SCHOOL- ADMINISTRATION
(THEORY)

OBJECTIVES:

Marks: 100

1. To enable students to recognize the place of school in the community
2. To introduce the students to the concepts of school administration especially in India
3. To understand the components of a well-functioning school, principals, coordinators, teachers, administrative staff, equipments, timetable, student activities and welfare)
4. To acquaint students with matters regarding policies (admissions, attendance, etc.)
5. To acquaint students with supervision and evaluation procedures used in schools especially in India.

COURSE CONTENT:

SECTION I

1. The school as an agency
 - a. The functions of school
 - b. Types of schools (nursery schools, primary schools, etc.)
 - c. Role of the schools in society (liaison with the family and the larger community)
2. Introduction to school administration
 - a. Need for school administration
 - b. Aims and objectives
 - c. Elements of administration
 - d. Organization and administrative structure of Indian schools
 - e. Organization and administrative structure of school in other cultures eg. U.S., U.K., Germany, Israel, France, & Japan

3. The principal, coordinators and teachers, administrative staff, support staff, parents
 - a. The roles and functions of each member, effective team work
 - b. The preparation process (qualifications, training & skills)
 - c. Essential qualities of each
 - d. Common problems faced by each member and by team as a whole
 - e. Involvement of children in decision related to school administration
 - f. Interpersonal relationships and conflict management

SECTION II

4. The basic set up
 - a. Policies (admission, attendance, promotion, etc.)
 - b. Time schedules (need for, importance of, principles of, etc.)
 - c. Discipline (need, personnel, system of rewards and punishments)
 - d. School records and registers (need for, types of, etc.)
 - e. Co-education (important considerations, advantages, problems, cautions, etc.)
 - f. Networking (with eg. Other schools, government bodies, affiliation boards, NGO's)

5. Students activities and welfare; staff activities and welfare
 - a. Academic activities for students (importance, types, advantages, cautions etc.)
 - b. Nonacademic activities for students welfare
 - c. Special activities for students welfare (eg. Sex education, career exhibitions)
 - d. Staff development activities (eg. Refreshers training)

6. Evaluation of curriculum, student progress and well-being, teachers/other staff and holistic evaluation
 - a) Supervision and inspection
 - b) Measuring fulfillment of goals (total scheme of evaluation-long –term versus short-term goals etc.)

REFERANCES:

- Aggarwal J.C. (1985) Development and planning of modern education. New Delhi: Vikas.
- Bhatia, H.R. (1977) Textbook of educational psychology. New Delhi: MacMillan Company of India
- Dewey & Dewey. (1962) Schools of tomorrow. New York: E..P. Dutton
- Kochhar, S. (1964) Secondary school administration. New Delhi: University Publishers.
- Lindman, R.H. (1971) Educational management. Bombay:D.B. TARAPOREWALLA sons and co.
- Safaya, R., & Shaida (1967) Schools administration and organization. Delhi: Dhanpat. Rai & Sons
- P.D. (1988) The new education policy in India. New Delhi: Sterling.

T.Y.B.Sc. (HOME SCIENCE)
GROUP C: HUMAN DEVELOPMENT
PAPER IX – SCHOOL- WELFARE
(THEORY)

OBJECTIVES:

Marks: 100

1. To help students understand the concept of social welfare
2. To create in students awareness about human rights including the rights of the child
3. To create in students awareness about the various social problems and the services offered to alleviate the problems

COURSE CONTENT:

SECTION I

1. Introduction
 - a. Concept of social welfare
 - b. Social welfare as an institution as a discipline
 - c. Relationship between social welfare and other academic disciplines with emphasis on social work
 - d. Relationship with human service
 - e. Interdisciplinary approach to social welfare (the role of psychologist, psychiatrists, human development lists and lawyers)
 - f. History of social welfare (early European history, the industrial revolution, contemporary situation)
 - g. Categories of social welfare programme.
2. Social welfare in India
 - a. Historical background
 - b. Welfare and the five year plan
 - c. Role of the Central Social Welfare Board
3. Human rights (including children's rights)

- a. Demographic profile (eg. Health, education, life expectancy, birth rate, infant mortality rate)
 - b. Charters of human and child rights
 - c. Local, state, national and international action (including relevant policies)
 - d. United Nations (history, objectives, role in the world, challenges, the Indian chapter)
4. Social work as profession and a career
 - a. A multiskilled profession
 - b. Professional activities
 - c. Goals of social work practice
 - d. Preparation and training
5. Poverty and public welfare
 - a. Defining poverty
 - b. Causes of poverty; poverty across the lifespan
 - c. The culture of poverty
 - d. Functions of poverty
 - e. Issues (eg. Feminization of poverty, poverty in the aged, globalization and poverty)
 - f. Welfare programmes to combat poverty (government, non-government and legal efforts)
6. Physical health problems
 - a. A perspective on physical health problems
 - b. Health problems in contemporary society (eg. AIDS, cancer)
 - c. Issues related to illness (eg. Civil rights, mediclaim, availability and quality of health care)
 - d. Welfare programmes (government, non-government and legal efforts)
7. Psychological health problems
 - a. A perspective on emotional and behavioural problems.
 - b. Issues related to mental illness (eg. Labelling, civic rights, asylum)
 - c. Welfare programmes (government, non-government and legal efforts)
8. Family problems and services to families with a special focus on women
 - a. Alternative family forms
 - b. Sociodemographic profile of the Indian women (tribal, rural, urban woman, women across different socioeconomic groups)
 - c. Problems in the family with a special emphasis on women's issues (eg. Female infanticide, dowry, divorce, violence, extra marital affairs, gender stereotypes)
 - d. Welfare programmes (government, non-government and legal efforts)

SECTION II

9. Human sexuality variations, sex counseling and sex therapy
 - a. Types of sexual variations
 - b. Commercial sex workers (causes, consequences)
 - c. Child sexual abuse, child sexual trafficking, child and pornography (causes, consequences)

- d. Welfare programmes (government, non-government and legal efforts)
10. Substance abuse
 - a. Types of substances abuse
 - b. Causes and consequences
 - c. Welfare (programme government, non-government and legal efforts)
 11. Crime, juvenile delinquency
 - a. Nature and extent of crime
 - b. Types of crime (eg. Organized crime, white-collar crime, sex-offences, homicide and assault, theft, juvenile delinquency)
 - c. Welfare programme (government, non-government and legal efforts)
 12. Problems in education from the pre-primary level to college education
 - a. Problematic areas in education (eg. Quality, equal access, reservation, shortage of teachers)
 - b. Welfare programme (government, non-government and legal efforts)
 13. Ageing and gerontological services
 - a. Defining old age
 - b. Problems faced by the elderly
 - c. Welfare programme (government, non-government and legal efforts)
 14. Ethnic minorities
 - a. Defining ethnic minorities (by religion, location, caste, class, colour, race, etc.)
 - b. Problem faced by ethnic minority groups welfare programmes (government, non-government and legal efforts)
 15. Occupational problems
 - a. Types of occupational problems (eg. Health hazards, accidents, sexual harassment, reservation)
 - b. Child labour (meaning, causes, consequences)
 - c. Welfare programme (government, non-government and legal efforts)
 16. Environmental problems
 - a. Types of problems
 - b. Effects of environmental problems
 - c. Welfare programmes (government, non-government and legal efforts)
 - d. Natural calamities and welfare services.

REFERANCES:

- Gupta, S. (1989) Social welfare in India: Chugh Pub.
- Human Development Report. (2001). Delhi: Oxford press, published for UNDP.
- Indian Development Report. (1997). Delhi: Oxford Press.
- World Development Report. (2000-2001). : Oxford Press.

Zastrow, E. (1990) Introduction to social welfare, California: wadsworth.

T.Y.B.Sc. (HOME SCIENCE)
GROUP C: HUMAN DEVELOPMENT
PAPER X – GUIDANCE AND COUNCELLING
(THEORY)

OBJECTIVES:

Marks: 100

1. To introduce the concepts of counseling and guidance to the students
2. To understand the role, scope, function and characteristics of school counselors
3. To understand the essentials of the counseling process.
4. To introduce the concepts of group work and counseling families
5. To understand the essentials of vocational guidance
6. To sensitize students to legal and ethical issues in counseling

COURSE CONTENT:

SECTION I

1. Counselling for children and adolescents
 - a. The child and adolescent in today's world
 - b. Development perspectives
 - c. Treatment settings for counseling
2. Counseling and guidance in school settings
 - a. Concepts of guidance and counseling
 - b. Understanding the nature of counseling (definition, clarifying myths, characteristics of the process of counseling, etc.)
 - c. The principles of counseling
 - d. The physical set-up required for counseling.
3. The school counselor
 - a. Characteristics of school counselor
 - b. Preparation of school counselors (qualifications, training, etc.)
 - c. Role and function of school counselor (clarify myths, and misconceptions, expectation, etc.)
 - d. Problems that school counselors face regarding their role, salary, partnership with teachers and parents etc.

4. Orientation to counseling
 - a. Basic schools of counseling (eg. Psychodynamic, behavioral, cognitive and client centered)
 - b. Basic skills for effective counseling (eg. Understanding non-verbal behaviour, attending, listening, paraphrasing, reflection of feelings, questioning, self disclosure)
 - c. Phases of counseling (rapport-building, exploration and problem solving termination, follow-up)
 - d. Decision about psychological testing, special education and reflect
5. Intervention strategies for typical problems of school-going children
 - a. Interpersonal problems (relationships with peers, parents, teachers)
 - b. Academic stress (eg. Underachievement, academic goal-setting, study habits, difficulties in concentration, competitiveness, handling academic results)
 - c. Emotional problems (eg. Shyness, loneliness aggression)
 - d. Sexuality problems (eg. Masturbation, teenage pregnancy)
 - e. Problems common to a school setting (eg. Indiscipline, bullying and ragging)

SECTION II

6. Working with groups (need and importance, relevant terms, characteristics of process, basic guidelines to be followed, common problems faced, limitations and cautions)
 - a. Counseling students in groups
 - b. Counseling parents and children in families
7. Career development
 - a. Theories of career development (eg. Holland, Ann Roe)
 - b. Factors effecting career choices
 - c. Vocational guidance (the process, personnel, materials and other considerations, advantages and limitations)
 - d. Career guidance programs and activities (eg. Holding exhibitions)
8. Effective counseling, programme in schools
 - a. Effective programmes and resource (illustrative programmes)
 - b. Evaluation and improvement
 - c. Ethical and legal issues
9. The status of school counseling
 - a. In the world
 - b. In India
10. Discussion of school counseling cases

REFERENCES:

Capuzzi, D. & Gross, D. (1999) Counseling and psycho therapy. Theories and interventions. New Jersey: Merrill

- Gibson, R.L. & Mitchell, M.H. (1999) Introduction to counseling and guidance. New Jersey: Merrill
- Nayak, A.K. (1997) Guidance and Counseling. New Delhi: APH Publishing.
- Nunnally, J.C. (1972) Education and evaluation. U.S.A.; McGraw Hill Book Co.
- Rao, S.N. (1992) Counseling and Guidance. New Delhi: Tata McGraw Hill. Delhi”Dhanpat
- Shertzer B. & Stone, S. (1976) Fundamentals of guidance. Boston: Houghton Muffin.

T.Y.B.Sc. (HOME SCIENCE)
GROUP C: HUMAN DEVELOPMENT
PAPER XI – EXCEPTIONAL CHILDREN
(THEORY)

OBJECTIVES:

Marks: 100

1. To help students develop an awareness and concern for exceptional children, their needs and problems.
2. To help students gain knowledge about the different categories of exceptionality, their prevalence, causes and prevention
3. To give information to the students regarding education, assessment and rehabilitation of exceptional children, with special reference to the Indian context

COURSE CONTENT:

SECTION I

1. Introduction to exceptionality

- a. Definition of terms such as exceptionality, handicap, disability, deviance, disorder, impairment, special needs, differently-abled and challenged.
 - b. Historical perspective: changing attitudes towards the exceptional individual; multicultural perspective: varying attitudes towards the exceptional individual across cultures
 - c. Categories of exceptionality, problems with categories and labels, alternative classification systems
 - d. Effects of child's exceptionality on parents and family
 - e. Rights of the exceptional child and legislation common to a variety of special needs children
 - f. Screening and identification-importance of early detection of exceptionality
 - g. Assessment and educational placement; special education(concept, objectives, types such as the Integrated Education Programme, mainstreaming, reverse integration; resource centers; team approach, team models, team personnel; current challenges and future directions with special reference to the Indian context).
 - h. Prevention of handicaps
2. Mental retardation
 - a. Definition and classification
 - b. Prevalence
 - c. Legislation and services
 - d. Teaching children who are mentally challenged
 - e. Parent involvement
3. Learning disability
 - a. Definition, characteristics and types
 - b. Prevalence, causation, identification, assessment
 - c. Legislation and services (eg. Medical, psychological)
 - d. Teaching children with learning disabilities
 - e. Parent involvement
4. Behaviour disorders
 - a. Definition, classification (eg. DSM-IV educational)
 - b. Prevalence, causation, identification, assessment
 - c. Legislation and services
 - d. Teaching children with behaviour disorders; use of intervention models
 - e. Parent involvement
5. Communication disorder
 - a. Communication, language and speech, language development (brief overview)
 - b. Definition and types of communication disorders
 - c. Prevalence, causation, identification, assessment
 - d. Legislation and services
 - e. Working with/ teaching/remediating children with communication disorders
 - f. Parent involvement
6. Hearing impairment
 - a. The hearing process-definition of hearing loss and types of hearing loss, characteristics

- b. Prevalence, causation, identification, assessment
- c. Legislation and services
- d. Teaching children who are auditorally challenges
- e. Parent involvement

SECTION II

7. Visual Impairment
 - a. The visual process-types of visual impairment, characteristics
 - b. Prevalence, causation, identification, assessment
 - c. Legislation and services
 - d. Teaching children who are visually challenged
 - e. Parent involvement

8. Physical disabilities
 - a. Definition, types (eg. Muscular dystrophy, accident victims), characteristics
 - b. Prevalence, causation, identification, assessment
 - c. Legislation and services
 - d. Parent involvement

9. Health impairment
 - a. Definition, types (eg. AIDS, seizure disorders, diabetes), characteristics
 - b. Prevalence, causation, identification, assessment
 - c. Legislation and services
 - d. Parent involvement

10. Gifted children
 - a. Definition, concepts and characteristics
 - b. Identification, assessment
 - c. Teaching gifted children
 - d. Parent involvement

11. Working with parents of exceptional children and the community
 - a. The parent, teacher and community partnerships
 - b. Guidelines for working with parents of exceptional children
 - c. Involving the community in advocacy and services for exceptional children.

REFERANCES:

- Howard, W.L. & Oransky, M.D. (1992). Exceptional children. Columbus; Merill fishing Co.
- Hardman, M.L. Drew, C.J. & Egan , M.W. (1999). Human exceptionality. Boston: Allyn & Bacon.
- Pirto. J. (1999). Talented children and adults. Their development and education. New Jercey:Merill.
- Sharma, U. (1996). Child development in India. Jaipur: Printwell.
- Singh, D. (1995). Issues, policies and programs for child development in India. Delhi: Kanishka Publishing and Distributors.

Yesseldyde, J.E., & Algozine, B.C. (1998) Special education: A practice approach for teachers. New Delhi: Kanishka Pub.

T.Y.B.Sc. (HOME SCIENCE)
GROUP C: HUMAN DEVELOPMENT
FIELD WORK

OBJECTIVES:

Marks: 100

1. To expose students to different settings and institutions catering to the needs of children, women, and older adults
2. To enable students to plan, implement and evaluate educational and recreational activities for children, women and older adults
3. To facilitate the development of teaching and classroom management skills in students
4. To help students to apply theoretical knowledge in practical situations

COURSE CONTENT

1. Preschool setting
 - a. Planning teaching-learning activities
 - b. Implementing the teaching-learning activities
 - c. Evaluating the teaching-learning activities
 - d. Demonstration of how to teach children in classroom settings using computers.
2. Special settings and special target groups (eg. Old age homes, hospitals, street children)
 - a. Planning educational and/or recreational activities
 - b. Implementing these activities
 - c. Evaluating these activities
3. Administration of psychological tests for children and evaluation

SEMINAR/PROJECT

Project:70

seminar : 30

OBJECTIVES:

9. To enable the students to search references material
10. To enable the students to review, analyze and evaluate research articles/reports
11. To enable students to present facts & figures for discussion
12. To enable students to develop an ability to effectively present a research paper/report
13. To help students to develop the ability to prepare & present reviews of articles
14. To enable the students to prepare aids to facilitate presentation
15. To improve the communication skills of students
16. To build confidence.

Seminar

Each student is required to present one seminar during the year. Topics drawn from current research shall be prepared and presented by individual students for discussion by the class and concerned faculty members.

Each paper shall be evaluated during the presentation by the concerned faculty member

Project

Each student is required to conduct one project on any topic relates to the theory in the respective field of specialization.

The topic should be such that it enables the student to conduct the project in sufficient time so that it is completed and a project report submitted before the commencement of university examinations as per the time frame scheduled by the institutes.

- The project report shall be presented before the class and concerned faculty members before the commencement of university examinations
- The project report shall be neatly typed and bound
- The project report shall include the following chapters

Chapter 1. Introduction 1-2 pages

Chapter 2. Review of literature at least 15-20 pages

Chapter 3. Objectives

Chapter 4. Methodology

Chapter 5 Summary & conclusion 1-2 pages

Bibliography

- The review of literature shall include a review of research journals, books as well as review articles.
- The final assessment shall include the quality of work, the presentation and performance at the viva voce

INTERNSHIP

OBJECTIVES:

9. To provide hands-on-work experience to enhance the skills of students

10. To open up better employment opportunities
11. To establish links with “Industry”
12. To build a strong infrastructural base for the professional growth of students

Students shall be placed in an organization related to the area of specialization for a period of one month after the completion of university examination.

COURSE SUMMARY
T. Y. B. Sc. (Home Science)
D: Community Resource Management

Paper	T/P	Univ.Exam hrs.	Univ.Exams marks	CIA	Total	Periods per week
Paper V: Housekeeping Management	T	3	70	30	100	3
Paper VI: Marketing & Entrepreneurship Management	T	3	70	30	100	3
Paper VII : Human & Environment Resource Management	T	3	70	30	100	3
Paper VIII: Home Furnishing & Interior Design	T	3	70	30	100	3
Paper IX: Community Health	T	3	70	30	100	3
Paper X: Introduction to Ergonomics	T	3	70	30	100	3
Interior Keeping	P	-	-	50	50	2
Housekeeping	P	-	-	50	50	3
Field work	P	-	-	100	100	6

Seminar/Project	P	-	-	100	100	6
Internship						
Total					900	35

- Orientation: Students shall be oriented towards the following topics
 - 1 Research methods and statistics at the beginning of the academic year.
 - 2 Entrepreneurship in the second term
 - 3 Professional practice/work culture/ethics at the end of the academic year.
- Students are expected to undergo internship for a period of one month at the end of the academic year, after completion of the final examination.

SCHEME OF CIA

A) Theory papers – (30 marks)

	I ST Periodic test	II ND Periodic test	Total	Scaled to
Marks	30	70	100	30
Duration	1 hour	3 hours	--	--
Time frame	End of the I st term	End of the II nd term	--	--

No retests shall be conducted except on grounds of Sports/NSS/Cultural activities/Medical grounds.

B) Scheme of CIA for practical's with CIA only shall be as recommended by the BOS in Home Science.

C) **Seminar/Project – 100 marks**

Seminar	- 30 marks
Project	- 70 marks
Total	- 100 marks

a) Seminar

- Each student shall present one seminar during the course of the third year on a topic related to the field of specialization but not specifically covered in the syllabus. The seminar presentation shall carry 30 marks and shall be assessed by the guide/teacher from the college and other faculty members.
- The Principal shall specify the time frame and the scheme of marking for the seminar.

b) Project

- Each student shall carry out a project at the T.Y.B.Sc. (Home Science) on any topic related to the syllabus prescribed in the field of specialization
- Project work shall be based on field work/laboratory work/library work/combination of these. The student shall submit a report of the same.
- The project shall carry 70 marks and shall be assessed by the guide/teacher from the college and another teacher from the college appointed by the Principal.
- The Principal shall specify the time frame and the scheme of marking for the project.

T.Y.B.Sc. (HOME SCIENCE)
GROUP D: COMMUNITY RESOURCE MANAGEMENT
PAPER V – HOUSEKEEPING MANAGEMENT
(THEORY)

OBJECTIVES:

Marks: 100

1. To create awareness about various aspects of housekeeping at home
2. To enable students to manage resources in the housekeeping dept. in the hospitality industry

COURSE CONTENT:

SECTION I

1. Role of housekeeping
 - a. Meaning, application in the hospitality industry.
 - b. Housekeeping in relation to commercial and welfare sectors.
2. Management of housekeeping department

- a. Layout of housekeeping dept.
 - b. Organization of housekeeping dept.
 - c. Co-ordination with other departments
 - d. Roles/responsibilities to housekeeper
 - e. Planning and organizing
 - f. Communication
3. Procurement policies
- a. selection procedures
 - i. Training
 - ii. Handling of personnel
 - iii Advertisement
 - iv Recruitment
 - v. Evaluation and assigning
 - vi Distribution of jobs
 - vii Job analysis
 - viii Job schedules
4. Cost control
- a. Inventory management
 - b. Budget process
 - c. Types of budget
 - d. Controlling expenses (cleaning operations)
- 5 Safety, security and sanitation
- a. Safety-fire fighting/first aid.
 - b. Common housekeeping chemicals
 - c. Safety equipment
 - d. Security arrangements, lost and found, keys control
 - e. Sanitation-standards
 - f. Pest control

SECTION II

7. Cleaning and maintenance
- a. Cleaning activities
 - b. Cleaning equipment
 - c. Cleaning agents
 - d. Cleaning procedures
 - e. types of cleaning-daily, weekly, yearly
 - f. public areas
 - g. care of walls, furniture and fixtures
 - h. bed, linen, uniform
 - i. floor and floor covering
8. Linen rooms and its management
- a. planning and arrangement of linen room
 - b. Linen room staff and their duties

- c. Inventory and stock taking
 - d. Types of linen-bed, bath, kitchen, restaurant and banquet, soft finishing (selection, finishing and upkeep)
 - e. Storage and distribution of linen
 - f. Activities in linen room
 - g. Efficiency in the linen room
9. Laundry
- a. Requirement and systems of laundry
 - b. Types of laundry-on premium/contract
 - c. Laundry agents- soaps and detergents
 - d. Laundry equipments
 - e. Washing process
 - f. Stain removal
 - g. Dry cleaning
 - h. Ironing
 - i. Dyeing
 - j. Darning
10. Hostess training
- a. Menu planning
 - b. Order taking
 - c. Style of service, place setting
 - d. Napkin folding
 - e. Table decoration
 - f. Etiquette for hospitality
 - g. Organizing parties

REFERENCES:

- Andrew, S. (1985). Hotel housekeeping training. New Delhi Tata McGraw Hill Publication Co. Ltd.
- Andrew, S. (1991). Hotel housekeeping training manual. New Delhi Tata McGraw Hill Publication Co. Ltd.
- Branson, J., and Lennox, M. (1982) Hotel, Hostel, and hospital housekeeping (4th Ed.) London: Edward Arnold Pvt. Ltd.

OBJECTIVES:

Marks: 100

1. To understand the different marketing functions and the distribution system
2. To motivate students towards seeking an entrepreneurial career
3. To develop the analytical skills of students to involve marketing strategy in a competitive environment

COURSE CONTENT:

SECTION I

1. Market
 - a. Definition of market'
 - b. Classification of market
 - i. Perfect market
 - ii. Imperfect market
2. Marketing and pricing
 - a. Introduction to marketing
 - b. Functions of marketing
 - c. Marketing structures
 - d. Channels of distribution
 - i. Middle men
 - ii. Wholesalers
 - iii. Retailers
 - iv. Meaning and types of channels
 - v. Advantage and disadvantage of types of channels
 - vi. Factors considered in the selection of channels.
 - e. Pricing
 - i. Definition of pricing
 - ii. Importance of pricing
 - iii Types of pricing
 - v. Factors affecting pricing
 - vi. Pricing under perfect and imperfect competition
3. Product decisions
 - a. Product identification
 - b. Branding
 - c. Labeling
 - d. Trademark
 - e. Packaging
4. Promotion
 - a. Advertising

- b. Advertising budget
- c. Sales promotion
- d. Forms of promotion

SECTION II

5. Enterprise management
6. Resource management
 - Men, machine and material management of self and understanding human behaviour
7. Product service management-
 - a. Nature of product and market management
 - b. After sale service
 - c. Criteria for product selection and management
8. Creativity and problem solving-
 - Creativity and innovation
 - a. Institutions, financing procedures and financial incentives
 - b. Books of accounts, financial statement and fun analysis
 - c. Costing and pricing
 - d. Working capital and fixed capital assessment and management
9. Marketing
 - Marketing survey techniques, elements of marketing and sales techniques.
10. Export marketing-incentives by government, terms and documentation

REFERENCES:

- Acharya, B.K. and Gonekar, P.R. (1985) Marketing and sales management. Bombay: Homalaya Publishing House.
- Agarwala .A.S. (1984) Personnel management an overview. Bombay:Jaico Publishing House
- Amarchand, D. and Varadharajan, B. (1979) An introduction to markeing. New Delhi
- Chakraverty N.C. (1978) Financial planning and control. New Delhi: National productivity Council.
- Dates,D.(1987). The complete entrepreneur:A guide to survival for the small buisness. London: Mercury book.
- Giles, G.B. (1978) Marketing (3rd Ed.) London: ELBS AND Macdonald.

T.Y.B.Sc. (HOME SCIENCE)
GROUP D: COMMUNITY RESOURCE MANAGEMENT
PAPER VII – HUMAN AND ENVIRONMENT RESOURCE MANAGEMENT
(THEORY)

OBJECTIVES:**Marks: 100**

- 1.To enable the students to recognize the effective and efficient use of resources in the community
- 2.To enable the students to understand innovative environment management

COURSE CONTENT:**SECTION I**

1. Human resource management
 - a. Concept
 - b. Importance
 - c. Scope
 - d. Need
2. Key process and systems
 - a. Man power planning
 - b. Job description
 - c. Recruitment and selection
 - d. Induction
 - e. Training and development
 - f. Performance appraisal
 - g. Counseling
 - h. Compensation and reward
 - i. Organization and development
3. Conflict management
 - a. Creative problem solving
 - b. Group and inter group behaviour
 - c. Team management

SECTION II

4. Water management
 - a. Urban/rural water supply and treatment
 - b. Water borne diseases, causes, treatment, prevention and control
5. Waste management
 - a. Refuse-domestic and municipal
 - b. Collection, transport, storage, treatment, disposal, recycling, utilization and control
 - c. Health concerns due to garbage insanitation and lack of hygiene
6. Energy management
 - a. Conventional and non-conventional sources and utilization of energy.
7. Agricultural management
 - a. Plant nutrition
 - b. Fertilizers

- c. Pest control
 - d. Irrigation-conservation of water
 - e. Deforestation, agro forestry, social forestry
 - f. Food irradiation
8. Community development programmes
- a. NGO's
 - b. Government and international agencies
 - c. Development of women and children in rural/tribal areas
 - d. National adult education programmes

REFERENCES:

- Dahama, D.F. and Bhatnagar, O.P. (1980) Education and communication for development. New Delhi: Oxford and IBH Publishing House.
- Donnelly, J.H., Gibson, J.L., I vancevich, J.M. (1995) Fundamentals of management. (9th Ed.) Chicago: Irvin.
- Kale, N.G., Latif, S.A. & Mehtab, A. (1998). Management and human resource management. Mumbai: Manisha Prakashan.
- Mohan. I. (1989). Environmental pollution and management. New Delhi: Ashish publishing House.
- Wendell, L.F. Human resource management. Chennai: All India Publishers and Distributors.

T.Y.B.Sc. (HOME SCIENCE)
GROUP D: COMMUNITY RESOURCE MANAGEMENT
PAPER VIII – HOME FURNISHING AND INTERIOR DESIGN
(THEORY)

OBJECTIVES:

Marks: 100

1. To highlight the importance of housing as it affects family living.
2. To create awareness among the students about factors influencing selection of a site and a house.
3. To help students, learn various principles of house planning and judge better housing
4. To make students aware of the various financial agencies and institutions available for financial assistance for housing
5. To develop the skills in designing floor plans of a house
6. To develop an ability to select furniture and arrange it functionally in various rooms
7. To help students select proper furnishing materials, colour, and accessories for a residential house

COURSE CONTENT:

SECTION I

1. a. Importance of housing/functions of a house:
 - i. Protective
 - ii. Economic
 - iii. Emotional
 - iv. Social
 - vii. Recreational
 - viii. Productive
 - ix. Personal space
 - x. Freedom
- b. Housing in micro environment: MASLOW's PYRAMID
- c. Traditional houses:
 - i. Tent
 - ii. Igloos
 - iii. Mountain house
 - iv. Tree house/houses on stilts
 - v. Caves
 - vi. Grass huts
- d. Modern houses:
 - i. Prefabricated houses
 - ii. Mobile homes
 - iii. Tract house
 - iv. Condominium
 - v. Motor homes
 - vi. Row houses
 - vii. Solar house
 - viii. Apartments or flats
 - ix. Sky scrapers
 - x. Mud architecture
- e. Roofs
- f. Evolution of houses
- g. Factors affecting selection of a house
 - i. Cost
 - ii. Standard of living
 - iii. Family lifecycle
 - iv. Socio-economic status
 - vi. Physical conditions
 - vii. Life style
2. Factors influencing selection of a site for a house
 - a. Location

- b. Neighborhood
 - c. Physical features
 - d. Soil conditions
 - e. Community services
 - f. Sanitary requirements and drainage facility
 - g. Water and electricity supply
3. Important principles of house planning:
- a. Grouping of rooms
 - b. Orientation and light and ventilation
 - c. Circulation
 - d. Privacy
 - e. Flexibility
 - f. Roominess
 - g. Services-water, electricity and drainage.
4. a). Requirements of different rooms in relation to size, shape, storage, furniture
- i. Kitchen
 - ii. Bedroom
 - iii. Living room
 - iv. Dining room
 - v. Children's room
 - vi. One room living
 - vii. Terrace
- c. Designing of floor plan considering the minimum sizes of rooms:
- i. One room kitchen plan
 - ii. Two room kitchen plan
 - iii. Three room kitchen plan

SECTION II

5. Financial consideration in housing
- a. Low cost housing
 - b. Factors affecting the construction cost of a house
 - i. Land cost
 - ii. Development cost
 - iii. Construction cost
 - c. Types of structural systems:
 - j. Load bearing wall structure
 - ii. Reinforced cement concrete frames structure
 - d. Rental and ownership housing
 - e. Financial assistance available from:
 - CIDCO
 - HUDCO
 - HDFC

LIC
Co-operative banks etc.

- f) Materials used in construction of house. Their use, properties, prevention and care.
- i. Stone
 - ii. Bricks
 - iii. Cement
 - iv Concrete
 - v. Metals
 - vi. Wood-natural and artificial
 - vii .Lime
 - viii. Sand
 - ix Mortar
 - x Plaster

6. Selection of furniture

- a. cane, metal, wood and plaster type of furniture
- b. Points to be considered while selecting furniture: function of a room, size and shape of the room, number of activities conducted in a room, light and ventilation of the room, type of family, style of furniture, material of furniture, construction
- c. and finish of furniture, cost of furniture.
- d. Factors influencing in furniture arrangement: circulation of a room, functions of a room, size and shape, light and ventilation of a room, colour, texture, functions of furniture, principles of design and aesthetics
- e. Furniture layouts: living room, living cum dining room, master bedroom and single bed room
- f. Furniture finishes: natural varnish, synthetic varnish, French polish, wax polish, oil polish, melamine polish, ducco paints, etc. and their stability

7. Doors and windows:

- a. Types of windows and accessories used to furnish windows
- b. Typical structure of door and types of doors

8. Furnishing materials:

Fabric, rexin, leather, synthetic materials, their suitability, care and cost

REFERENCES:

- Deshpande,R.S. (1985). Build your home. (8th Ed.) Pune. United book corporation
Deshpande,R.S (1976) Modern Ideal homes for India.(9th Ed.) Pune. United book corporation
Faulkner, and Faulkner (1986). India todays home (5th Ed) New York: Macmillan & co.
Gilliart, M.(1986). The decorating book. London: Micheal Joseph.
Mehra, P.(1981) interior decoration. Delhi: Hind pocket books. Pvt. Ltd.
Thomson, C.H.(1970). Home with character (3rd Ed.) Lexington: Massachusetts D.C.health and co.

T.Y.B.Sc. (HOME SCIENCE)
GROUP D: COMMUNITY RESOURCE MANAGEMENT
PAPER IX: COMMUNITY HEALTH
(THEORY)

OBJECTIVES:

1. To enable students understand what good health is (value of good health)
2. To study the implications of health in a community
3. To study the relationship of health to foods and nutrition to environment and to recreation

COURSE CONTENTS:

SECTION I

1. Concept of health and disease
 - Mental health, personal health and community health
 - Recreation types and factors involved in conducting such recreational activities in a community.
 - Factors affecting health care-poverty, ignorance, superstitions, cultural patterns, availability and non utilization of reserves
 - Preventive health behaviour.
2. Prevailing problems in community health in India.
 - a. Communicable disease-causes, modes of transmission, signs and symptoms, general measures of prevention and control.
 - b. Metabolic diseases-cardiovascular diseases, diabetes, G.I. diseases.
 - c. Common nutritional disorders and their prevention-PEM Vitamin deficiencies, anaemia, goiter, furosis.
3. Assessment of community Health
Nutritional status, Diet and nutrition Surveys-planning of educational programmes for community health and hygiene.

SECTION II

4. Diet Therapy-Outline and principles applying to a common diseases and health disorder.
Relationship of Nutrition & Infection and Nutrition & Cancer
5. Effect of drugs, alcohol and smoking on the individual, family and the community.
6. National, International and Voluntary agencies concerned with Health problems-

- Information oriented programmes
7. Planning of health services
Elementary first aid and home nursing

REFERENCES:

1. Christian Barnard, C. Northcote Parkinson-All about good health. India Book House, Private Ltd. 1982.
2. Dishy-Textbook of Healthful Living. McGraw Hill Book Company Inc. 1960.
3. Pearce Evelyn-Environmental Health & Hygiene, Faber & Faber Ltd.
4. Rajlakshmi-Applied Nutrition, 3rd ed., Oxford & IBH Publishing co. 1981.
5. Ramchandran L. Dharmalingam T.-A Textbook of Health Education, Vikas Publishing House Pvt. Ltd. 1983
6. Swaminathan-Principles of Nutrition and Dietetics. The Bangalore Printing and Publishing Co. Ltd. 1986.
7. Swaminathan-Essentials of Foods and Nutrition-Vol. I & II. The Bangalore Printing and Publishing Co. Ltd. II Edition 1985
8. Tylor Shedley E. Health Psychology-First Edition, Random House, New York 1986.

T.Y.B.Sc. (HOME SCIENCE)
GROUP D: COMMUNITY RESOURCE MANAGEMENT
PAPER X – INTRODUCTION TO ERGONOMICS
(THEORY)

OBJECTIVES:

1. To become aware of the role of ergonomics in work effectiveness and efficiency
2. To gain knowledge about the human cost of work
3. To understand the environmental factors to performance of work

COURSE CONTENT:

SECTION I

1. Introduction to Ergonomics
 - a. Definition and aim
 - b. Importance and scope
 - c. Need for ergonomics

2. Man-Machine-System
 - a. UPE System
 - b. Three types of MME-Manual, Mechanical and Automatic
3. Works and Posture
 - a. Meaning of work
 - b. Types of work
 - c. Types of postures in work

SECTION II

4. Anthropometry
 - a. Static and Dynamic
 - b. Application in the home and industry
5. Physiology aspects of work
 - a. Muscular work
 - b. Sources of energy-TP, CP, carbohydrates, fats and proteins
 - c. Biomechanics
 - d. Measurement of human cost of work, direct and indirect calorimeter, oxylog, heart rate monitor
 - e. Fatigue-Physical and psychological
6. Work environment (Types)
 - a. Physical environment
 - b. Chemical environment
 - c. Psycho-social environment

REFERENCES:

- Bailey, R. (1982). Human performance engineering: A guide to system designer. Engle Wood Cliffs, N.F. Pentice Hall.
- Grandjean, E.(1978). Ergonomics of home. London: Tylor and Francis Ltd.
- Murell, K.F.H. (1975) Ergonomics, man in his environment. Cnamper and Hall
- Oberon, J.D. (1982). Ergonomics at work. London: Jhon Wiley and Sons.
- Stephen, P. (1990) Ergonomics work and health. Hongkong: Macmillan Press.
- William, D.M. Frank I.K., and Victor, L.K.(1991). Exercise physiology, energy, nutrition and human performance. (3rd Ed.) Philadelphia/London Lea and Febiger.

(PRACTICAL)

OBJECTIVES:

1. To orient students towards interior design concepts.
2. To give practical inputs in interior designing to understand space and proportion.

COURSE CONTENTS:

1. Line
2. Scale
3. Solid geometry
4. Title painting and designing on paper
5. Stain glass designing on paper
6. Murals
7. Texture in ink
8. Measured piece designing on paper and model making
9. Furniture piece designing on paper and model making
10. Photographic assignment
11. Measuring, drafting and designing a flat
12. Papier Mache
13. Commercial assignment
14. Market survey
15. Sketching
16. Rendering-colour pencil, ink, water colour
17. One point perspective

REFERENCES:

Deshpande R.S. (1976). Build your home. (8th Ed.) Pune: United Book Corporation.
Deshpande R.S. (1976). Modern ideal homes in India. (9th Ed) Pune: United Book Corporation.

T.Y.B.Sc. (HOME SCIENCE)
GROUP D: COMMUNITY RESOURCE MANAGEMENT
HOUSEKEEPING
(PRACTICAL)

OBJECTIVES:

1. To train the students for organizing of housekeeping department in institutions
2. To train them to become good hostesses
3. To prepare students for housekeeping jobs in institutions like hotels, hostels, offices, etc.

COURSE CONTENT:

1. Introduction to the hospitality-types of hotels, departments of hotels etc.
2. Table setting and food service
 - a) Table etiquette and manners
 - b) Personal hygiene and grooming
 - c) Table decoration
 - d) Napkin folding
 - e) Fruit and vegetable carving
 - f) Menu planning-A 'La carte and Table d' hote
 - g) Taking order-K.O.T. and B.O.T. (Kitchen Order Ticket & Bar Order Ticket)
 - h) Food service and table setting according to menu
 - i) Clearing of table
 - j) Organisation of party for business, Festival or birthday.
3. Flower arrangement
4. Gift wrapping and bow making
5. Rangoli and Alpana
6. Preparation of decorative article.
7. Cleaning and care
 - a) Different materials-glass, wood, brass, copper, silver, aluminium, floor cleaning, sink and wash basin cleaning, fan and fixtures cleaning.
 - b) Types of room cleaning-daily/weekly/yearly.
8. Bed making
9. First aid-shock, fainting, stroke,convulsion
10. Pest control-cockroach, flies, mites, rats and rodents, beetle and silver fish
11. Stain removal tea, coffee, ink, grease, fruit, turmeric, oil, blood etc.
12. Co-ordination Housekeeping and front office, engineering and other hospitality departments.
13. Residence course-additional input.
 - Housekeeping
 - Menu loaning/preparation
 - Purchasing
 - Organising parties (hostess duties)
 - Accounting

REFERENCES:

- Andrew,S. (1985) Hotel housekeeping training manual. New Delhi Tata Mc-Graw Hill Publication Co. Ltd.
- Nandrew, S.(1991) Hotel housekeeping training manual. New Delhi Tata Mc-Graw Hill Publication Co. Ltd.

Branson, J. and Lennox, M.(1982). Hotel, hostel and hospital housekeeping. (4th Ed.) London Edward Arnold Pvt. Ltd.

T.Y.B.Sc. (HOME SCIENCE)
GROUP D: COMMUNITY RESOURCE MANAGEMENT
FIELD WORK

OBJECTIVES:

1. To orient the students to prepare audio visual aids for extension activities.
2. To enable students to conduct extension activities in the community.
3. To inculcate in the students a sense of responsibility towards the community.

COURSE CONTENT:

1. Orientation towards extension activities
 - Preparation of audiovisual aids.
2. Conducting extension activities in the community
3. Field visits.
4. Exhibition

REFERANCES:

G.L.Roy,(1991) Extension Communication and Management. Calcutta:P.S.Basu and Co.
S.V.Supe, (1983) An introduction to extension education. New Delhi: Oxford and IBH Publishing Co. Pvt. Ltd.
Rajammal P.Devdas (1978) Methods of teaching
Home science. New Delhi: National Council of Educational Research and Training.
O.P. Dahana (1989) Extension and rural welfare. Agra: Ram Prasad and Sons.
Dr. T.S. Sodhi (1987) Adult Education – a multidisciplinary approach. Ludhiana: Katson Publishing House.

SEMINAR/PROJECT

Project : 70

Seminar :30

Objectives:

17. To enable the students to search reference material
18. To enable the students to review, analyze and evaluate research articles/reports
19. To enable students to present facts & figures for discussion
20. To enable students to develop an ability to effectively present a research paper/ report
21. To help students to develop the ability to prepare and present reviews of articles.
22. To enable students to prepare aids to facilitate presentation
23. To improve the communication skills of students.
24. To build confidence.

Seminar:

Each student is required to present one seminar during the year. Topics drawn from current research shall be prepared and presented by individual students for discussion by the class and concerned faculty members.

Each paper shall be evaluated during the presentation by the concerned faculty member.

Project:

Each student is required to conduct one project on any topic relates to the theory in the respective field of specialization.

The topic should be such that it enables the student to conduct the project in sufficient time so that it is complete and a project report submitted before the commencement of university examinations as per the time frame scheduled by the institutes.

- The project report shall be presented before the class and concerned faculty members before the commencement of university examinations.
- The project report shall be neatly typed and bound.
- The project report shall include the following chapters.

Chapter 1	Introduction	1-2 pages
Chapter 2	Review of literature at least	15-20 pages
Chapter 3	Objectives	
Chapter 4	Methodology	
Chapter 5	Summary & conclusions	1-2 pages
	Bibliography	

- The review of literature shall include a review of research journals, books as well as review articles.

- The final assessment shall include the quality of work, the presentation and performance at the viva voce.

INTERNSHIP

Objectives:

1. To provide hands-on-work experience to enhance the skills of students
2. To open up better employment opportunities
3. To establish links with “Industry”
4. To build a strong infrastructural base for the professional growth of students.

Students shall be placed in an organization related to the area of specialization for a period of one month after the completion of university examinations.