

SARDAR PATEL UNIVERSITY, VALLABH VIDYANAGAR

B.Sc. Home Science

(Under Choice Based Credit Scheme)

Semester - Fifth (Foods Science and Quality Control)Vocational

Sr. No.	Course Type	Course Code (10 Digit)	Name of Course	Theory (T) Practical (P)	Credit	Contact hrs/ week	Exam Duration in hrs	Marks		
								Internal	External	Total
1	Foundation Courses	UH05FPRO21	Programme for Rural and Urban Development	T	3	3	3	30	70	100
2		UH05FPRO22	Programme for Rural and Urban Development	P	1	2	3	15	35	50
3	Core Courses	UH05CFDN23	Computer Application in Foods and Nutrition	P	1	2	3	15	35	50
4		UH05CFDN24	Medical Nutrition Therapy-1	T	3	3	3	30	70	100
5		UH05CFDN25	Medical Nutrition Therapy-1	P	1	2	3	15	35	50
6		UH05CFDN29	Clinical Nutrition	T	3	3	3	30	70	100
7		UH05CFDN30	Maternal and Child Nutrition	T	2	2	2	15	35	50
8		UH05CVFN41	Training	P	2	4	Internal	100	-	100
9		UH05CVFN42	Techniques in Instrumentation	T	2	2	2	15	35	50
10		UH05CVFN43	Techniques in Instrumentation	P	2	4	3	30	70	100
11		UH05CVFN44	Post Harvest Technology-I	T	2	2	2	15	35	50
Elective Course (Any One 12,13,14,15)										
12	Elective Courses	UH05EHSC01	Consumerism	T	2	2	2	15	35	50
13		UH05EHSC02	NGO Management	T	2	2	2	15	35	50
14		UH05EHSC03	Accessories and Adornment	T	2	2	2	15	35	50
15		UH05EHSC04	Public Health Epidemiology	T	2	2	2	15	35	50
			Total		24	31	29	325	525	850

SARDAR PATEL UNIVERSITY
THIRD YEAR BSC (HOME) V SEMESTER
PROGRAMME FOR RURAL AND URBAN DEVELOPMENT
COURSE CODE: UH05FPRO21

Theory

Credit: 03

Pd/wk: 03

Marks: 100

Objectives:

1. To develop understanding regarding the national towards urban and rural development
2. To examine the cumulative impact of these developmental efforts in quantitative and qualitative dimensions.

Theory	Content	Weightage
I	Introduction Introduction to Community Development Programmes. Program-Before and After Independence	10%
II	History and Concept History in planning in India Five year plan and their focus. Planning at different levels: National to grassroots	10%
III	Programmes to enhance food productions: Thrust on agriculture. National food production programmes. Independence, Intensive production schemes.	20%
IV	Poverty alleviation efforts: Rural and Urban communities, characteristics, nature, difference, village organization, rural and urban development (NGOs working), role of CAPART Programmes for poverty alleviation for rural and urban areas, employment generation and social inputs. Current programmes for rural and urban poor. (Latest five year plan should be emphasized).	30%
VI	Programmes for women and Children: Women as target groups, Specific measures for women and children such as DWCRA, ICDS, IMY, ANARDE, SEVA, CHETNA, TF, SGSY, ARSP. Current programmes for women as initiated and implemented by the different ministries and departments. Shift from welfare to development to empowerment approach. Role of Home Science in rural and urban development.	30%

Outcomes:

1. The students can get the knowledge of different five years plan.
2. They use the knowledge in self empowerment and indirectly helps the society in poverty alleviation.

References:-

1. Upadhyaya, H.C.(1991): Modernisation and Rural Development New Delhi, Anmol publications.
2. National institute of Rural development, Hyderabad, 1991. Rural development statistics NIRD.
3. Narayan Manohar S(1989) Integrated Rural energy programmes, Delhi Shree Hari printers.
4. Ghosh Bahanisikha (1990) The Indian population problem, Madras, Sage publications.
5. Thingalaya N.K(1986) Rural India-Real India, Bombay, Himalaya Publishing House.
6. Journal of Social welfare, Journal of Rural development, Journal of Yojana, Journal of Family welfare, Journal of extension education.

SARDAR PATEL UNIVERSITY
THIRD YEAR BSC (HOME) V SEMESTER
PROGRAMME FOR RURAL AND URBAN DEVELOPMENT
COURSE CODE: UH05FPRO22
Practical

Credit: 01

Pd/wk: 02

Marks: 50

Experiment

- 1 Appraisal of the efforts of the students in the community.
- 2 Examining the impact of the development efforts in selected rural areas Quantitative achievement and qualitative improvement of a programmes
- 3 Study of the evaluation reports of the various departments.
- 4 Conducting Welfare programmes for target groups.
- 5 Planning a programme for the target groups in link with ongoing programmes in Home Science Problems/need identification of a community.

SARDAR PATEL UNIVERSITY
THIRD YEAR BSC (HOME) V SEMESTER
COMPUTER APPLICATION IN FOODS AND NUTRITION
COURSE CODE: UHO5CFDN23
Practical

Credits: 01
Practical

PD/WK-02

Marks: 50

- 1 a) Introduction to Excel-including writing formulas.
b) Formatting Data
i. Changing column- Width and row height.
ii. Aligning work sheet data
iii. Formatting fonts
iv. Changing number formats
v. Formatting dates
vi. Adding borders and colors
- 2 a) Charting data
i. What are charts?
ii. Creating charts
iii. Selecting the chart type
iv. Modifying a chart
v. Creating a chart sheet
vi. Simple data analysis- coding and graphs
- 3 a) Preparation of slides in power point
i. 13. Slide presentation
ii. 14. Adding clip art to slides
iii. 15. Insert pictures in slides
iv. 16. Setting time for slides show.
v. 17. Preparing note pages
vi. 18. Preparing audience handouts
- 4 a) Use of internet
Web search for updated information.
Net surfing specific topics related to the subject including the latest advances.
Locating journals on website.
Listing of software related to food and nutrition available in the market.
- 5 Use of any one software for nutritional calculation

SARDAR PATEL UNIVERSITY
THIRD YEAR BSC (HOME) V SEMESTER
MEDICAL NUTRITION THERAPY –I
COURSE CODE: - UHO5CFDN24
Theory

Credit: 03

Pd/wk: 03

Marks:100

- Objectives:
1. This course will enable students to learn about different diets other than routine diets.
 2. It will help them to plan and calculate diets according to the disease condition

CONTENT

WEIGHTAGE

I	Therapeutic Diets: <ol style="list-style-type: none"> 1. Diet therapy and types of therapeutic diets. Hospital diets and Modification of normal diets. <ol style="list-style-type: none"> 2. Nutrition support method 3. Effective nutrition Counseling -Role of Dietitian. -Nutrition care process. -Documentation in nutrition care record. -Guideline for counseling. -Behavior change, counseling strategy, cognitive behavioral therapy, motivation of effectiveness.	20%
Unit 2	Nutrition in weight management <ol style="list-style-type: none"> 1. Body weight components. 2. -Regulation of body weight. 3. -Weight Imbalance overweight and obesity management of obesity in adults. 4. -Nutrition in underweight. 	20%
Unit 3	Nutrition in eating disorder <ol style="list-style-type: none"> 1. Anorexia Nervosa 2. Bulimia. Nutrition during fever and infection	20%
Unit 4	<ol style="list-style-type: none"> 1. Nutrition in Rheumatoid arthritis. 2. Nutrition for oral health. 3. Inborn errors of metabolism 4. Food allergy 	10%
Unit 5	Medical nutritional therapy in Gastro Intestinal Disorders. <ol style="list-style-type: none"> 1. Etiology, symptoms, dietary management in 2. Diarrhea, constipation, peptic ulcer and ulcerative colitis 	25%
Unit 6	Medical nutritional therapy in menopause	5%
Outcomes	The student will be able to calculate nutrients and plan diets according to disease condition	
References:	<ol style="list-style-type: none"> 1. Joshi S.A.(1992) Nutrition and Dietetics Tata McGraw Hill Publication New Delhi. 2. Anderson, L, Dibble, M.U.Turkki, P.R.Mitchell, H.S. and Rynbergin, H.J. (1982) Nutrition In Health Disease latest ed, J.B.Lippincott& Co. Philadelphia. 3. Antia, F.P. (1973) Clinical Dietetics and nutrition 2nded, Oxford University press New Delhi. 4. Mahan, L.K. Arli, M.T. (1992) Krause Food Nutrition and Diet Therapy 8th ed. W.B. Saunders Co. London. 5. Robinson, C.H.Lawer, M.R.,Chenoweth, W.L. and Garwlic, 6. A.E.(1986) normal and therapeutic 17th ed. Mac.Millsn Publishing Co. 7. Williams S.R. (1989) Nutrition and Diet therapy 6th ed. Tumes mirror/Mosby College publishing St. Louis. 8. Raheena Begum (1989) A text book of Food Nutrition and Dietetics Sterling Publisher New Delhi. 	

SARDAR PATEL UNIVERSITY
THIRD YEAR BSC (HOME) V SEMESTER
MEDICAL NUTRITION THERAPY –I
COURSE CODE: - UHO5CFDN25
Practical

Credit: 01

Pd/wk: 02

Marks :50

Objectives:

1. This course will enable students to learn about different diets other than routine diets.
2. It will help them to plan and calculate diets according to the disease condition

Practical

Content

- 1 Planning preparation for the following diets:
Modification in normal diet (Clear fluid ,full fluid and soft diet)
- 2 Medical nutrition therapy in weight management
 - a) Over weight
 - b) Underweight
- 3 Medical nutrition therapy in Eating Disorders
 - a) Anorexia nervosa
 - b) Bulimia Nervosa
- 4 Medical nutrition therapy in fevers and infections
 - a) Acute Fever
 - b) Chronic Fever
- 5 Diet for oral health.
Diet for rheumatoid arthritis patient
- 6 Medical nutrition therapy in gastrointestinal disorder
 - a) Diet for Diarrhea patient
 - b) Diet for constipation patient
 - c) Diet for Peptic Ulcer patient
 - d) Diet for Ulcerative Colitis patient

Outcomes

The student will be able to calculate nutrients and plan diets according to disease condition

References:

1. Joshi S.A.(1992) Nutrition and Dietetics Tata McGraw Hill Publication New Delhi.
2. Anderson, L, Dibble, M.U.Turkki, P.R.Mitchell, H.S. and Rynbergin,H.J.(1982) Nutrition In Health Disease latest ed, J.B.Lippincott& Co. Philadelphia.
3. Antia, F.P. (1973) Clinical Dietetics and nutrition 2nded, Oxford University press New Delhi.
4. Mahan, L.K. Arli, M.T. (1992) Krause Food Nutrition and Diet Therapy 8th ed. W.B. Saunders Co. London.
5. Robinson, C.H.Lawer, M.R.,Chenoweth, W.L. and Garwlic, A.E.(1986) normal and therapeutic 17th ed. Mac.Millsn Publishing Co.
7. Williams S.R. (1989) Nutrition and Diet therapy 6th ed. Tumes mirror/Mosby College publishing St. Louis.
8. Raheena Begum (1989) A text book of Food Nutrition and Dietetics Sterling Publisher New Delhi.

SARDAR PATEL UNIVERSITY
THIRD YEAR BSC (HOME) V SEMESTER
CLINICAL NUTRITION
COURSE CODE: UHO5CFDN29
Theory

Credits: 03

PD/WK: 03

Marks: 100

I	<p>Introduction ,principles of clinical nutrition</p> <ol style="list-style-type: none"> 1. Spectrum of nutritional problems, nutrient requirements. 2. Effects of disorders on nutritional requirements. 3. Importance of nutritional screening. 4. Clinical assessment of nutritional status. 5. Nutritional assessment tools in clinical decision making. <ol style="list-style-type: none"> a) MUST, SGA, NIA, MNA GMRI b) Different types of histories 	15%
II	<p>Over nutrition and Under nutrition-</p> <ol style="list-style-type: none"> 1. Introduction, clinical presentation, clinical assessment, treatment approaches and prevention , 2. Chronic under nutrition, under nutrition in elderly individuals, assessment of under nutrition, metabolic disorder, treatment. 	20%
III	<ol style="list-style-type: none"> 1. Gastrointestinal tract-the pathophysiology, laboratory assessment and nutritional assessment - <ol style="list-style-type: none"> a. Esophagitis, peptic ulcers b. Celiac disease-ulcerative colitis and Irritable Bowel Syndrome 2. Liver diseases-- the pathophysiology, laboratory assessment and nutritional assessment- <ol style="list-style-type: none"> a. Acute Viral Hepatitis, Chronic Viral Hepatitis b. Alcoholic Liver Diseases-Hepatic Steatosis, Alcoholic Hepatitis, Alcoholic Cirrhosis, Malnutrition in Liver Disease. 3. Pancreatic and gall bladder disorder- the pathophysiology, laboratory assessment and nutritional assessment- <ol style="list-style-type: none"> a. Diseases of Exocrine Pancreas <ol style="list-style-type: none"> i. Acute Pancreatitis ii. Chronic Pancreatitis iii. Diseases of Endocrine Pancreas iv. Diabetes mellitus-types, factors causing, pathophysiology, v. Complications of Diabetes Mellitus- DKA, Macro Vascular Diseases, Micro Vascular Diseases b. Diseases of gall bladder <ol style="list-style-type: none"> i. Cholestasis ii. Cholelithiasis 4. Kidney Disorder- the pathophysiology, laboratory assessment and nutritional assessment- <ol style="list-style-type: none"> a. Nephritis b. Nephrotic Syndrome 	45%

- c. Nephrolithiasis,
 - d. Acute Renal Failure
 - e. Chronic Renal Failure
 - f. ESRD
5. Heart and blood vessels- the pathophysiology, laboratory assessment and nutritional assessment-
- a. Cardio Vascular Diseases-
 - b. Atherosclerosis-Factors-Modifiable and Non-Modifiable
 - c. Lipoproteins- their role in CVD
 - d. Hyper tension
 - e. Heart Failure

IV Nutrition in surgery and trauma- 10%
Introduction, stress response to trauma and its effects on mechanism

V Nutrition support in preoperative care. 10%
Nutrition and Drug interaction

- a. Risk factors of Food drug interactions
- b. Effect of Drugs on Nutritional Status,
- c. Effect of Drugs on Food and Nutrition
- d. Effect of food on Drug Therapy

REFERENCES:

1. Antia F.P. "Clinical Dietetics" Nutrition 3rd 2000. Oxford University Press. New Delhi/Bombay.
2. Passmore, R. Eastwood M.A. "Human Nutrition & Dietetics" 8th Ed. 1986. ELBS Publ.
3. Robusseau C.H. & Wyley E.S. "Basic Nutrition & Diet Therapy" 6th Ed. 1989 Macmillan Pub New York.
4. Anderson L. & Others "Nutrition in Health & Disease" 1982 17,th ed J.B. Lippincott Cp. Philadelphia. Vocational Training Course - Clinical Nutrition & Dietetics.

OUTCOME:

1. At the end of the course the students shall have the knowledge of
2. The basic nutrition screening process and the tools used
3. Clinical assessment of nutritional status in various diseases
4. Metabolic changes in stress and trauma and drug and nutrient interaction

SARDAR PATEL UNIVERSITY
THIRD YEAR BSC (HOME) V SEMESTER
MATERNAL AND CHILD NUTRITION
COURSE CODE: UH05CFDN30
Theory

Credits-02

Pd/Wk-02

Marks-50

OBJECTIVES:

This course should enable the students to-

1. Understand the physiology of pregnancy and lactation and how these influence nutritional requirements.
2. Learn benefits of breast feeding.
3. Be aware of problems encountered in pregnancy and during breast feeding and how to cope with these problems.
4. Understand the process of growth and development from birth until adulthood.
5. Get familiar with nutritional needs at different stages of growth.
6. Understand the concept of growth promotion.

THEORY	CONTENT	WEIGHTAGE
Unit-I	Nutrition during pregnancy: a) Placental development and function, foetal growth and development b) physiological changes during pregnancy, Importance of proper weight gain c) Nutritional and non- nutritional factors affecting pregnancy outcome d) Antenatal care ,Effects of fetal malnutrition e) Common problems of pregnancy and their management f) Pregnancy induced diabetes and hypertension g) Food aversions and cravings, Pica h) Importance of nutritional requirements and modification of a. existing diet. supplementations, Deficiency of nutrients and their b. impact. i) Adolescent pregnancy, consequences, cares, etc.	35%
Unit-II	Nutrition during Lactation: a) Nutrition during lactation and dietary management, food supplements, lactogogues b) Physiology of lactation c) Factors affecting lactation d) problems during lactation e) lactation amenorrhea, breast hygiene, milk bank in India and its function	25%
Unit-III	Nutrition during Infancy: a) Breast feeding- colostrums, its composition and importance in	20%

- feeding. Initiation of breast
- b) Feeding and duration of breast feeding. Nutritional and other advantages of breast feeding.
 - c) Introduction of complimentary foods, initiation and management of weaning, sterilization of bottles, mixed feeding and artificial feeding. Teething and management of problems.

Unit-IV Growth and development during preschool, school going and adolescent child with special needs: **20%**

- a) Management of preterm and low birth weight children
- b) Dietary management of preschoolers and school going child.
- c) Physical, brain and mental development, anorexia nervosa & bulimia during Adolescents.
- d) Puberty, Prepubertal and pubertal changes, Menarche/menstrual cycle.

OUTCOME:

1. The students will get the knowledge of importance of nutrition during childhood and adolescence which influence a woman's preconceptional nutritional status which subsequently influences the outcome of pregnancy and health of her child.

SARDAR PATEL UNIVERSITY
THIRD YEAR BSC (HOME) V SEMESTER
TRAINING
COURSE CODE UH05CVFN41
Practical

Pd/wk: 04

Credit:02

Marks:100

Objectives: To develop knowledge and specific skills for working in food industries

Content

Unit 1 The students will be placed for on the Job training at various food Industries, Small scale/large scale. Foods and Drug Lab for a period of 3 weeks. Where they will be exposing to and will be trained in the following area.

- a) Food Manufacture, Packaging, Marketing
- b) Quality Control aspects
- c) Plant Layout, Sanitation, Hygiene & Safety.
- d) Cost Control

Unit 2 Report writing and presentation would be done at the end of the training period.

Unit 3 Evaluation would be carried out for the same.

OUTCOME:

- The students will get firsthand knowledge of plant layout ,working with the workers supervisors .
- They will get firsthand experience to work in the quality control laboratory with latest techniques and instruments.

SARDAR PATEL UNIVERSITY
THIRD YEAR B SC (HOME) V SEMESTER
TECHNIQUES IN INSTRUMENTATION
COURSE CODE: UH05CVFN42
Theory

Credits: 02

PD/WK: 02

Marks: 50

OBJECTIVES:

To enable the students-

1. To be familiar with different methods of investigation used in Food Analysis and biochemical assays.
2. To gain knowledge different that are used in Food Analysis and biochemical assays.
3. To know the principles and applications of different techniques used in Food and Nutrition research.

THEORY	CONTENT	WEIGHTAGE
I	Visual Colorimeter, Photoelectric Colorimeter, Spectrophotometer, Atomic absorption and fluorometer- Their principles and applications.	25%
II	Principles and Techniques of separation of biologically important components of: 1. Paper Chromatography 2. Column Chromatography 3. Thin Layer Chromatography 4. Gas Liquid Chromatography	25%
III	Electrophoresis- 1. Paper electrophoresis. a. Agar. b. Moving Boundaries.	25%
IV	1. Acid Base Buffers- Measurement of pH 2. Principles of –Flame photometer and densitometer	25%

OUTCOME:

1. The students will understand basic principles of various Analytical Instruments.
2. The students shall be able to operate different types of Analytical Instruments

REFERENCES:

1. Joslyn. M.A.(1970) "Methods of Food analysis".
2. Physical, chemical & Instrumental methods of analysis. 2nd edition academic press, New York.
3. Pearson David,(1976) "The chemical analysis of food". 7th edition. Churchill Livingstone: New York
4. Pomeranz Y cliffton.E.M. (1996) Food Analysis. Theory and Practical' IIIrd edition CBS .Publishers & Distributors

SARDAR PATEL UNIVERSITY
THIRD YEAR BSC (HOME) V SEMESTER
TECHNIQUES IN INSTRUMENTATION
COURSE CODE: UH05CVFN43
Practical

CREDITS: 02

PD/WK: 04

MARKS: 100

PRACTICALS

CONTENT

1. Use of Colorimeter:
 - a. Maximum wavelength of different color solution.
 - b. Estimation of concentration of different unknown solutions

2. Types of Chromatography:
 - a. Paper chromatography
 - b. Column Chromatography
 - c. Thin layer Chromatography

3. Separation of Amino acids by paper electrophoresis.
4. Use of fluorimeter to find fluorescence from standard solutions.

SARDAR PATEL UNIVERSITY
THIRD YEAR BSC (HOME) V SEMESTER
POST HARVEST TECHNOLOGY-I
COURSE CODE: UH05CVFN44

Theory

Credits: 03

Pd/Wk: 03

Marks: 100

OBJECTIVES:

1. This course enables students to know the importance of food processing and various methods used.
2. Understand the basic principles and other procedures used in food processing.
3. Be familiar with technological developments in the field.

THEORY	CONTENT	WEIGH
	Introduction of post-harvest management of food, Status of products, losses, need, scope and importance.	10'
I		
II	Principles of food processing, high temperature, low temperature, irradiation, chemical and physical changes in food. Due to foods processing transportation and storage affecting colour, texture, flavour, odour stability and nutritive quality of food.	25%
III	General Principles and storage structure of cereals, Legumes, fruits, Vegetables, Meat, Fish, Poultry, Oilseeds its products with traditional and modern processing technology.	20'
IV	Post-harvest treatment to increase shelf life: Packaging and its type, Concept of modified atmosphere packaging, Freezing, Chilling, dehydration, Canning etc.	20%
V	Fermentation Technology: types, products and methods used, home and commercial operations, Food additives and preservatives, Extruded foods, food concentrate and semi moist food.	25%

OUTCOME:

1. The students can get the knowledge of post-harvest techniques for different foods.
2. They use the knowledge of various technologies in quality improvement and storage of different foods.

References:

1. Salunkhe D.K.(1947) Storage processing and nutritional quality of fruits and vegetables. -CRC press Ohio
2. Encyclopedia of food technology AUI Publication
3. Girdhari Lal (1967) Preservation of fruits vand vegetables.
4. Desrosier, N.W. and desrosier J.N. (1977) the technology of food preservation AUI Publishing Co. Connecticut
5. Joslyn M.A.and J.L. (19674) Food Processing operations ,their management machines materials and methods AUI Publishing Co. Connecticut

SARDAR PATEL UNIVERSITY
THIRD YEAR B.SC. (HOME) V SEMESTER
CONSUMERISM
COURSE CODE: UH05EHSC01
Theory

Credit:02

Pd/Wk: 02

Marks:50

Objectives:

1. To make them understand the role of consumer in the market.
2. To increase their awareness about consumer buying behaviour, their rights and responsibilities.
3. To familiarize them with various consumer problems.
4. To enhance their knowledge base about redressal agencies.

Unit	Content	Weightage
Unit I	Consumer and consumer problems 1. Definition of a consumer. 2. Problems of consumer (including services as water, gas, electricity etc) 3. Adulteration 4. Misleading advertisement 5. Other malpractices	25%
Unit II	Advertisement and consumer guides 1. Advertisement features, importance, media, usefulness 2. Brands, trademark, quality mark 3. Labels 4. Grading and standardization	25%
Unit III	Consumer Buying Behaviour 1. Consumer Behaviour models 2. Factors influencing buying Behaviour	15%
Unit IV	Consumer Movement and consumerism 1. Meaning, characteristics and objectives 2. Need for consumer education 3. Consumer rights and responsibilities	20%
Unit V	Consumer protection 1. Meaning, Need 2. Ways of providing consumer education 3. Acts of Agencies	15%

Outcome:

After the completion of this course the student should be able to deal with the consumer problems and become aware about various laws and regulations for redressal.

References:

1. Sarkar A.(1989) "Problems of consumers in modern India" Discovery publishing House, New Delhi.
2. Agarwal Anju (1989) "A practical handbook for consumers" Bombay, India book house.
3. Singh Gurbase (1990) "Law of Consumer Protection", Bharat law publishers Jaipur.
4. Hevery Asset "Consumer behavior and marketing action" South western college publishing.
5. Leon G. Schiffman, "Consumer Behavior" Prentice hall of India.
6. MohiniShethi, "Consumerism a growing concept".
7. Consumer reports CERC, Thakurbhai Desai SmarakBhavan, Ahmedabad.
8. Consumer Confrontation CERC, Thakurbhai Desai SmarakBhavan, Ahmedabad.
9. "The Consumer Protection Act" Bhuvenshwer capital Law Bhubabeshwar 1987.

SARDAR PATEL UNIVERSITY
THIRD YEAR B.SC. (HOME), V SEMESTER
ACCESSORIES AND ADORNMENT
COURSE CODE: UH05EHSC03

Credit: T2

PD/WK: 02

Marks:50

Objective:

1. To gain knowledge on importance of accessories & adornments in dress design.
2. To enable students gather knowledge on accessories & adornment used in garments.
3. To make students aware of the materials, styles and placement of accessories and adornments.

Theory:

UNIT	CONTENT	WEIGHTAGE
I	Importance of adornment and accessories	10%
II	Accessories & adornments during middle age	20%
III	Accessories in modern times: 1. Hats & headgear 2. Jewellery 3. Sash 4. Shoes& boots 5. Muffs & gloves 6. Handbags	30%
IV	Adornments 1. Buttons 2. Lapel pins 3. Laces & ruffles 4. Ribbons 5. Braids 6. Through surface ornamentation 7. Hand & machine embroidery	30%
V	Innovations in adornment & Accessories	10%

Outcome:

After this course learner can coordinate adornments & accessories in garments.

Reference:

1. Inside the Fashion Business VII Edition; Dickerson K.G.; Person Education Pvt. Ltd., Indian Branch, New Delhi.
2. Inside the Fashion Business IV Edition (1987); Jarnow, Guerreiro, Judelle; Macmillan publishing company, New York
3. Fashion Tourism (2010); Kumar A.; Sonali Publication, New Delhi, India.
4. Fashion Source Book, II Edition (2006); Makelvey K ;Blackwell publishing Ltd. U.S.A.
5. Fashion Technology- today &tomorrow (2007); Pundir N.; Mittal Publication, New Delhi, India.
6. Fashion & Textile design(2009); Neelima; Sonali Publications New Delhi

SARDAR PATEL UNIVERSITY
THIRD YEAR BSC (HOME) V SEMESTER
PUBLIC HEALTH AND EPIDEMIOLOGY
COURSE CODE: UH05EHSC04
Theory

Credit: 02

Pd/wk: 02

Marks:50

Objectives:

1. To understand the concept of health from the individual and community perspective.
2. To know the importance of epidemiology and demography in health.
3. To know factors affecting health and nutritional status of individuals and community.

THEORY

CONTENT

WEIGHTAGE

I	Health 1. Health and dimensions of health. 2. Tobacco consumption, Alcohol, HIV, STDs, etc epidemiology ,mode of transmission, control measures and prevention	25%
II	Public health, demography and epidemiology. 1. Demography and its applications 2. Epidemiology –study of the epidemiologic approach-time distribution, place, person & methods of epidemiology. 3. Prevention and levels of prevention, vital statistics.	25%
III	Community water and waste management. 1. Importance of water to the community etiology and effects of toxic agents, water borne infections agents, sources of water, safe drinking water/portability and test for portability. 2. Community waste and waste disposal-sewage disposal and treatment, solid waste and disposal, liquid waste disposal. (an over view)	25%
IV	Community food protection. 1. Epidemiology of food borne diseases, modes of transmission, control measures and prevention. 2. Vector control, rodent control, modes of transmission, control measures and prevention.	25%

Outcomes:

1. The students will be able to identify various problems in community and design preventive measures for the same
2. They will come to know about government programme working for the benefit of community

References:

1. Smith G.W. (1957): Preventive medicine and public health.2nd Mac Millen Co. New York.
2. Park K (1994): Park's textbook of preventive and social medicine, 9th edition m/s.Banarasidas Bhanot, Jabalpur.
3. Cassens B. (1990): Preventive and public health. Wiley medical publication. John Wiley and sons.
4. Aston G. Tiffany J (1981): Guide to improving food hygiene. North World, London.
5. Saha A., Shattock F., Moustafa T. (1989): Epidemiology in primary health care interpret.
6. B eaglehole R., Bonita R., Kjellstorm T (1993): Basic epidemiology, WHO, Geneva.
Clark J., Hriderson J. (1983): Community health, Churchill Livingstone.

SARDAR PATEL UNIVERSITY, VALLABH VIDYANAGAR

B.Sc. Home Science

(Under Choice Based Credit Scheme)

Semester - Sixth (Food Science and Quality Control) Vocational

Sr. No.	Course Type	Course Code (10 Digit)	Name of Course	Theory (T) Practical (P)	Credit	Contact hrs/ week	Exam Duration in hrs	Marks		
								Internal	External	Total
1	Foundation Courses	UH06FINT21	Interpersonal communication in workplace	T	3	3	3	30	70	100
2		UH06FSEM22	Seminar	P	1	2	Internal	50	-	50
3	Core Courses	UH06CFDN23	Medical Nutrition Therapy-II	T	3	3	3	30	70	100
4		UH06CFDN24	Medical Nutrition Therapy-II	P	1	2	3	15	35	50
5		UH06CFDN27	Nutritional Biochemistry	T	2	2	2	15	35	50
6		UH06CVFN41	Design and Development of Foods	T	3	3	3	30	70	100
7		UH06CVFN42	Design and Development of Foods	P	2	4	3	30	70	100
8		UH06CVFN43	Food Safety and Quality Control	T	3	3	3	30	70	100
9		UH06CVFN44	Post Harvest Technology-II	T	3	3	3	30	70	100
10		UH06CVFN45	Principles of Food science	P	1	2	3	15	35	50
Elective Course (Any One 11,12,13,14,15)										
11	Elective Courses	UH06EHSC01	Marketing	T	2	2	2	15	35	50
12		UH06EHSC02	Life skills	T	2	2	2	15	35	50
13		UH06EHSC03	Garments - Export and Import	T	2	2	2	15	35	50
14		UH06EHSC04	Hygiene and Sanitation	T	2	2	2	15	35	50
15		UH06EHSC05	Bakery Science	T	1	1	Internal	25	-	25
16		UH06EHSC06	Bakery Science	P	1	2	3	15	35	50
Total					24	30	27	300	525	825

**THIRD YEAR BSC (HOME) VI SEMESTER
INTERPERSONAL COMMUNICATION IN WORKPLACE
COURSE CODE: UHO6FINT21**

Theory

Credit:03

Pd/Wk: 03

Marks: 100

Objectives:

- a. To prepare the students for work place
- b. To include in them important aspects of life career growth leadership
- c. To help them understand the intricacies of team work in work place.

THEORY	CONTENT	WEIGHTAGE
I	Need for interpersonal skill development	20%
	<ul style="list-style-type: none">- Understanding the universal need for developing interpersonal skills- How to develop interpersonal skills in a workplace- Informal learning	
II	Understanding the difference between individuals	25%
	<ul style="list-style-type: none">- What is personality- The main personality traits and factors- Effect of personality traits o job performance- How to deal with different personality types- Value differences and how to deal with them- Different kinds of intelligences- Work ethics	
III	Interpersonal communication	25%
	<ul style="list-style-type: none">- How does communication happen- Relationship building- Non- verbal communication- Overcoming communication barriers- Steps to effective communication	
IV	Team work skills	20%
	<ul style="list-style-type: none">- Why team work is important- Types of teams- The advantage and disadvantage of teamwork- Role distribution	

- Guidelines for team level communication
- Trust, recognition, sharing

V Diversity in Understanding Cultural differences

10%

Outcome:

Students will be able to understand workplace strategies, importance of interpersonal skills and perform better in their workplace.

References:-

1. Cole M & Cole. S (1993) : The development of children. New York: Scientific American Books.
2. Arun Kumar (2000) Child Psychology, Anmol Pub. Pvt Ltd New Delhi.
3. Kumar K (1993) Study of childhood and Family. In T.S.Saraswati & B. kaur (ed) Human Development & Family Studies in India: An agenda for research and policy (PP67-76) new Delhi : Sage.
4. Lerner R.M & Hostech, D.F (1983) Human Development : A Life Span perspective New York: Ms GrawHill.
5. Mussen, P. N Conger, J.J. Kagar, J & Huston, A C (1990) Child Development & Personality (7ed) N. Y Harper Collins.

Third Year B.Sc. (Home) VI Semester
SEMINAR
Course Code: UH06FSEM22
Practical

Credit:01

Pd/Wk: 02

Marks: 50 (Internal)

Objectives:

1. To provide an opportunity to develop insight into various recent researches/ issues related to their fields.
2. To help students develop an ability to review contemporary articles in their own fields of specialization.
3. To help the students to develop confidence in preparing and presenting reports.

Outcome:

After the completion of the course the students will be able to get a brief idea about:

1. Making a research proposal, framing objectives, collecting review, preparing tool for data collection and implementing it.
2. They will be able to analyze and interpret the data.

**THIRD YEAR BSC (HOME) VI SEMESTER
MEDICAL NUTRITION THERAPY –II
COURSE CODE: UHO6CFDN23
Theory**

Credit:03

Pd/wk: 03

Marks:100

Objectives: **Course will enable the students to:**

1. Understand the role of diet in therapy.
2. Gain knowledge on dietary modifications for various diseases.
3. Be able to plan and prepare diets for various diseases.

THEORY	CONTENT	WEIGHTAGE
I	Diseases of liver: <ol style="list-style-type: none"> 1. Functions of liver (review) 2. Etiology, Symptoms and dietary management in – <ol style="list-style-type: none"> a. viral hepatitis, cirrhosis of liver ,hepatic coma 	20%
II	Diseases of kidney <ol style="list-style-type: none"> 1. Functions of kidney (review). 2. Etiology, Symptoms and dietary management in – <ol style="list-style-type: none"> a. Nephritis, Nephrotic Syndrome, Nephrolithiasis, <p style="margin-left: 40px;">Renal failure and dialysis, Low sodium diets.</p> <p style="margin-left: 40px;">Level of sodium restriction.</p>	20%
III	Diseases of Cardiovascular System: <ol style="list-style-type: none"> 1. Functions of Heart (Review). 2. Etiology Symptoms and dietary management in – Arthrosclerosis- hypertension and congestive cardiac failure. 	20%
IV	Diet in Diabetes Mellitus: <ol style="list-style-type: none"> 1. Classification and symptoms, Testes used for diagnosis of diabetes Mellitus. 2. Glycemic Index of Foods. 3. Etiology, Symptoms and dietary management in – of Diabetes Mellitus. Diabetic coma, Insulin shock and chronic complications due to diabetic mellitus (in brief) 	20%

V

1. Diet in cancer.
2. Diet in HIV Infection.

20%

Outcomes The student will be able to calculate nutrients and plan diets according to disease condition

References:

1. Joshi S.A.(1992) Nutrition and Dietetics Tata McGraw Hill Publication New Delhi.
2. Anderson, L, Dibble, M.U.Turkki, P.R.Mitchell, H.S. and Rynbergin,H.J.(1982) Nutrition In Health Disease latest ed, J.B.Lippincott& Co. Philadelphia.
3. Antia, F.P. (1973) Clinical Dietetics and nutrition 2nded, Oxford University press New Delhi.
4. Mahan, L.K. Arli, M.T. (1992) Krause Food Nutrition and Diet Therapy 8th ed. W.B. Saunders Co. London.
5. Robinson, C.H.Lawer, M.R.,Chenoweth, W.L. and Garwlic,
6. A.E. (1986) normal and therapeutic 17th ed. Mac. Millan Publishing Co.
7. Williams S.R. (1989) Nutrition and Diet therapy 6th ed. Tumes mirror/Mosby College publishing St. Louis.
8. Raheena Begum (1989) A text book of Food Nutrition and Dietetics Sterling Publisher New Delhi.

THIRD YEAR BSC (HOME) VI SEMESTER
MEDICAL NUTRITION THERAPY –II
COURSE CODE:-UHO6CFDN24
Practical

Credit:01

Pd/wk: 02

Marks:50

- Objectives:
1. This course will enable students to learn about different diets other than routine diets.
 2. It will help them to plan and calculate diets according to the disease condition

PRACTICAL CONTENT

- 1 Medical nutrition therapy in
 - a) Viral hepatitis (moderate and severe jaundice)
 - b) Diet in liver cirrhosis
- 2 Medical nutrition therapy in Renal disorder
 - a) Diet in acute and chronic nephritis
 - b) Diet in Nephrotic syndrome
 - c) Diet in kidney stones.
 - d) Diet in chronic Renal failure
- 3 Medical nutrition therapy in cardiovascular disorder
 - a) Diet in hypertension
 - b) Diet in Atherosclerosis
- 4 Medical nutrition therapy in Diabetes Mellitus
 - a) Diet for IDDM Patient
 - b) Diet for NIDDM Patient
- 5 Diet for Cancer Patient
- 6 Diet for HIVpositive patient

Outcomes The student will be able to calculate nutrients and plan diets according to disease condition

- References:
1. Joshi S.A.(1992) Nutrition and Dietetics Tata McGraw Hill Publication New Delhi.
 2. Anderson, L, Dibble, M.U.Turkki, P.R.Mitchell, H.S. and Rynbergin,H.J.(1982) Nutrition In Health Disease latest ed, J.B.Lippincott& Co. Philadelphia.

3. Antia, F.P. (1973) Clinical Dietetics and nutrition 2nded, Oxford University press New Delhi.
4. Mahan, L.K. Arli, M.T. (1992) Krause Food Nutrition and Diet Therapy 8th ed. W.B. Saunders Co. London.
5. Robinson, C.H.Lawer, M.R.,Chenoweth, W.L. and Garwlic,
6. A.E.(1986) normal and therapeutic 17th ed. Mac.Millsn Publishing Co.
7. Williams S.R. (1989) Nutrition and Diet therapy 6th ed. Tumes mirror/Mosby College publishing St. Louis.
8. Raheena Begum (1989) A text book of Food Nutrition and Dietetics Sterling Publisher New Delhi.

**THIRD YEAR BSC (HOME) VI SEMESTER
NUTRITIONAL BIOCHEMISTRY
COURSE CODE: UH06CFDN27**

Theory

Credit:02

Pd/wk: 02

Marks :50

Objectives:

- (1) It will enable students to learn the basics of nutritional biochemistry
- (2) Obtain an insight into chemistry of vitamins and minerals and physiologically important compounds.

Understand the biological process and system as applicable to human nutrition

Theory:	Content	Weightage
I	Structure and Function of DNA,RNA, Nucleotide	15%
II	Vitamins –structure and biochemical role	15%
III	• Fat soluble vitamins-A, D, E, K. Vitamins –structure and biochemical role	20%
IV	• Water soluble vitamins-B1,B2,B3, B6, folic acid ,B12 and C Minerals –biological occurrence of inorganic elements, biochemical role structure	30%
V	• Iron, calcium, phosphorus, iodine, selenium, zinc. Enzymes –classification , nomenclature ,enzyme inhibition, factor affecting enzyme activity	15%

Outcomes:

The students will learn nutritional biochemistry as applicable to human nutrition.

**THIRD YEAR BSC (HOME) VI SEMESTER
DESIGN AND DEVELOPMENT OF FOOD
COURSE CODE:-UH06CVFN41**

Theory

Credits: 03

Pd/Wk: 03

Marks: 100

OBJECTIVES:

1. Understand the process of development of food product.
2. Understand the role of research and development in food product development and food manufacture.
3. Apply the knowledge gained in various situations.
4. Development new food product which are nutritious, cost effective and marketable

THEORY	CONTENT	WEIGHTAGE
I	<ol style="list-style-type: none"> 1. Food needs and consumer preference –needs and types of food consumption trends, economic, psychological, anthropological and sociological dimensions of food consumption. 2. Trends in social changes and its role in diet pattern-consumer research and the market identifying the need for new products. 	25%
II	<ol style="list-style-type: none"> 1. Designing new products using need based perspective and application in various Situations the R and D process. 2. Developing standards products- Types of product and logistics, primary and secondary, various food ingredients used, use of additives. 	25%
III	<ol style="list-style-type: none"> 1. Standardization and large scale preparation. 2. Chemical and physical properties of foods- shelf life studies shelf predictions. 	25%
IV	<ol style="list-style-type: none"> 1. Storage and transportation – Types and mode of transportation optimization of transport taking into account the types of product distance storage facilities, Equipment and space. 	25%

OUTCOME:

1. The students will be able to develop food product to meet the needs of the changing requirements of consumers.
2. The students will be able to understand the principles of quality assurance, food safety, shelf life, functionality of packaging, labeling and cost for food product design.
3. The students can understand legislative requirements in the food standards.

REFERENCES:

1. Gordon W. Fuller(2011) New Food Product Development: From Concept to Marketplace, Third Edition
2. Guide Mary D. Earle and Richard L. (2000) Creating New Foods. The Product Developer's Earle First published 1999 by: Chandos Publishing (Oxford) Ltd, UK

**THIRD YEAR BSC (HOME) VI SEMESTER
DESIGN AND DEVELOPMENT OF FOOD
COURSE CODE: UH06CVFN42**

Practical

Credits: 02

Pd/Wk: 04

Marks: 100

PRACTICALS

CONTENT

Developing various food products by students

1. Introduction
2. Selection of target group
3. Market survey
4. Preparation of questionnaire
5. Standardization of recipe, Preparation method, sensory evaluation
6. Shelf life, packaging, labeling, costing, storage, transportation and distribution, advertising.
7. Report writing and Presentation.

**THIRD YEAR B SC (HOME) VI SEMESTER
FOOD SAFETY AND QUALITY CONTROL
COURSE CODE: UH06CVFN43**

Theory

Credits: 03

Pd/Wk: 3

Marks: 100

OBJECTIVES:

1. To understand the role of Food Safety in expanding food industrial activities.
2. To be acquainted with different types of food hazards, their detection and control through various quality control measures.
3. To be acquainted with the implementation of the total quality control concepts, through techniques such as HACCP.

THEORY	CONTENT	WEIGHTAGE
	Industrial food sector in India and the role of quality control in insuring Food safety.	10%
I		
II	Categories of safety hazards in food. Microbial and Non microbial, Microbial food hazards and their control, Microbial food toxicity and Food borne infection ensuring microbial food Safety	20%
III	Non microbial hazards and their control, natural toxins in foods, Genetically engineered foods (Hormones ,Pesticides etc),contaminants ,chemicals and physical hazards due to food processing techniques such as radiation, heat treatment, smoking of meat, fish, cheese etc. controlling non microbial food hazards.	20%
IV	Categories of food quality sensory, compositional nutritional and health quality of foods, quality standards for food- International and national standards-Codex alimentarius , ISO-9000, WHO, BIS, AGMARK, FPO, VOP etc.	20%
V	a. Control of quality parameters to ensure nutritional and health safety of food concepts of quality b. Evaluation, control and assurance. Quality assurance through HACCP. c. Role of food in combating deficiency disease through blending, enrichment and nutrient supplementation.	20%
VI	Legal administration and quality control- Laws relating to food hygiene.	10%

OUTCOMES:

At the end of the course the students shall come to know

1. About the importance of HACCP for Quality Assurance in Food industry.
2. About the various agencies and laws working for the betterment of the Food Quality in Industry
3. Shall get acquainted with the various food hazards, their detection and control through various quality control measures.

REFERENCES:

1. Hobs B.C. and Gilbert (1970) Food Poisoning and Food Hygiene.-Edward Arnold-London.
2. Rack B.G. Hygiene in food manufacturing and handling Food trade Press London.
3. Longree K. Blaker G.G (1971), sanitary techniques in food service John Wiley, New York.
4. Longree K. (1967) Quality Food Sanitation 2nd edition Inter Science Pub. John Wiley & Sons, New York.

**THIRD YEAR BSC (HOME) VI SEMESTER
POST HARVEST TECHNOLOGY -II
COURSE CODE: UH06CVFN44
Theory**

Credits: 03

Pd/Wk: 03

Marks: 100

- OBJECTIVES**
1. The students will be able to understand the technologies of post-harvest technologies and its role in providing better quality produce to the consumer
 2. The students will be made aware of technological changes that are occurring in food industry

UNIT	CONTENT	WEIGHTAGE
I	Method of food preservation: Thermo sonication, Hurdle technology, Hydrostatic pressure technology, Microwave processing	25%
II	Non thermal techniques: Ultra High voltage Electric field, Ohmic heating, Dielectric heating ,Induction heating and Infrared, Ossicillating magnetic field, Intense Light pulses	20%
III	Membrane based separation techniques: Introduction to membrane bases separation techniques, reverse osmosis, ultra filtration, micro filtration, pervaporation.	20%
IV	Super critical fluid extraction: Principles, methodology, area of applications Extrusion technology: Mechanism, Types and uses. Microencapsulation,	20%
V	Computerization in food Industry, image processing, new researches, new researches in food processing.	15%

OUTCOME: The students will be exposed to the latest techniques in food technology

References

1. Trends in food Science and technology, by Natrajan C.P. and Ranganna ,S
2. Ultrasound in Food Processing ,by Mason, T.J. and Povey M.J.W. Blackie Academic and Professional.
3. Novel Food Processing Technologies (Food Science and Technology),by Gustavo V, Barbosa –Canovas, Maria S.Tapia, and M.Pilar Cano, CRC Press.
4. Membrane Seperation Technology(Membrane Science and Technology), by NobleR.D and Stera S.A., Elsevier publication

**THIRD YEAR BSC (HOME) VI SEMESTER
PRINCIPLES OF FOOD SCIENCE
COURSE CODE: UH06CVFN45
Practical**

Credits: 01

Pd/Wk: 02

Marks: 50

1. Determining of total reducing sugar
2. Determination of sucrose content.
3. Determinations of adulteration
4. Determinations of fructose to glucose ratio
5. Determination of acid insoluble ash
6. Determination of impurities in oil
7. Presence of additives in milk
8. Determination of fat content
9. Determination of protein from milk
10. Determination of solid non fat from milk.
11. Isolation of synthetic color from jam squashes and sauces.

**THIRD YEAR B.SC. (HOME) VI SEMESTER
MARKETING
COURSE CODE: UH06EHSC01
Theory**

Credit:02

Pd/Wk: 02

Marks:50

Objectives:

1. To get acquainted with the basic concepts of market and marketing.
2. To familiarize the students about product development.
3. To make the students aware about different business organization.
4. To acquainted students with pricing policies and strategies.

Unit	Content	Weightage
Unit I	Concept of Marketing <ol style="list-style-type: none">1. Definition of marketing and marketing management.2. Concepts of market-place, area and demand.3. Types of market.4. Market Segmentation: Definition and basis. Organization and function of organization <ol style="list-style-type: none">1. Sole Proprietorship and Partnership.2. Characteristics of ideal form of organization.3. Sole Proprietorship merits & limitations.4. Features of partnership merits & demerits.5. Ideal partnership.6. Partnership Deed, Registration of firm, rights of partner.	25%
Unit II	The Product <ol style="list-style-type: none">1. Classification of consumer products.2. The product life cycle.3. The adoption & diffusion process.4. New product development.	15%
Unit III	Pricing <ol style="list-style-type: none">1. Definition and importance of pricing.2. Pricing objectives.3. Price determining process.4. Factors influencing price decisions.5. Pricing policies and strategies.	25%

Unit IV	Distribution	20%
	<ol style="list-style-type: none"> 1. Marketing channels. 2. Direct and Indirect. 3. Choice of distribution channel. 4. Types of distribution systems. 5. Physical distribution, warehousing and transportation. 	
Unit V	Promotion	15%
	<ol style="list-style-type: none"> 1. Sales Promotion: Definition and techniques. 2. Personal Selling: Definition, Kinds of salesman, qualities of successive salesman, types of training. 	

Outcome:

After the completion of the course the students will be able to get a brief idea about:

1. The role of marketing in the economy.
2. Marketing skills needed for sales promotion and personal selling.
3. Procedure for new product development, pricing decisions and distribution.

References:

1. Kotler Philip(2003) “Marketing management Pearson Education” Pvt. Ltd, Delhi.
2. SharlekarS. (1995) Marketing Management Himalaya Pub. House, Bombay.
3. SchoellF. (1985) Marketing Allyn and Bacon Inc, London.
4. Sarkar M. (2000) Marketing Management Crest Pub House, New Delhi.
5. Rajgopal (2000) Marketing Concepts and Cases, New AgeInternational (P) Ltd pub, New Delhi.
6. Fundamentals of business organization & management (Y.K.Bhushan).

**THIRD YEAR B.SC (HOME) VI SEMESTER
LIFE SKILLS
COURSE CODE: UH06EHSC02**

Credits: 02

Pd/Wk: 02

Marks: 50

OBJECTIVES

- 1) To cater the need of modern corporate economy and urban living.
- 2) To update students about globalization and multicultural work set up by providing valuable trained on life skills.
- 3) To motivate students for personal and professional growth.
- 4) To provide tools for success and character building.

THEORY	CONTENT	WEIGHTAGE
UNIT-I	Introduction 1) Understanding what are life skills meaning and usefulness 2) Need for life skills in today's world 3) Preparing and dealing with changes.	25%
UNIT-II	Driving our own growth. 1) Motivation: meaning need and sources 2) Development of positive thinking 3) Benefits of positive thinking 4) Mind power: Meaning, benefits of meditation	25%
UNIT-III	Stress management 1) Understanding stress symptoms and consequences 2) Techniques to manage stress 3) Understanding relation between life goals, motivation, productivity and stress.	25%
UNIT-IV	Leadership skills Key characteristics' of leader, self-confidence, assertiveness, trustworthiness, morality, emotional, stability, self-awareness, objectivity, developing of teamwork Skills, decision making, emotional stability.	25%

OUTCOMES:

- 1) It will develop personal and professional growth.
- 2) The knowledge will help in improvement of personality.
- 3) It will enhance employability.

REFERENCES:

- 1) Nishitesh, Dr.BhaskaraReddi (2012), "SOFT SKILLS & LIFE SKILLS, B Sc publishers. Hyderabad.
- 2) Rao M.S. (2010) Soft Skills, Enhancing Employability.
- 3) Mane M.S (2015) Personality development and Soft skills.

**THIRD YEAR B.SC. (HOME), VI SEMESTER
GARMENTS – EXPORT & IMPORT
COURSE CODE: UH06EHSC03**

Credit: T 2

PD/wk: 2

Marks: 50

Objectives:

1. To make students aware of garment import & export marketing techniques.
2. To acquire knowledge of textile policies in India.
3. To develop insight in quality assurance of apparel & textile products.

Theory:

UNIT	CONTENT	WEIGHTAGE
I	1. Introduction to export & import management 2. Management function	20%
II	Finance function 1. Nature & Scope 2. Methods of financing 3. Financial planning	20%
III	Policies in apparel & textile export 1. Government 2. Nongovernment	15%
IV	Business System 1. Laundering a proprietorship 2. Joint stock company 3. Cooperatives 4. Partnership	25%
V	Quality Control in apparel & textile units 1. Importance 2. Stage of Quality Control in Industry 3. Role of Information technology	20%

Outcome:

Learners can work in the field of export and import of textiles.

Reference:

1. How to export garments successfully (1995); Shukla R.S.; Abhinav Publishing Industries Pvt. Ltd. New Delhi, India.
2. Textile Industry ,- Problems & prospects in 21st Century (2002); Dr. Rai I; Books Treasure, Jodhpur, India.
3. Inside the fashion business (2003); Dickerson K.G.; Pearson Education Pvt Ltd, Delhi, India.
4. Indian Textile policy for 21st Century(1999); R. Venkatesan & V.Katti; B.R. Publishing Corporation New Delhi, India
5. Reorienting fashion “ The globalization of Asian dress” (2003)Edited by Sandra Niessen, A Leshkovich & C. Jones Published by BERG, Oxford International Publisher Ltd.
6. Fashion merchandise information(1986) ; D.D. Prisco & H.W. Moore; John Wiley & Sons, Inc ;
7. Inside the fashion business(1987); J.A. Jarnew, M.Guerreiro, B. Judelle; Macmillan Publishing Company, New York,
8. Introduction to clothing manufacture(1991), G. Cooklin, Black well Science Ltd, U.K.
9. Inside the fashion design(2004); S.L. Tate; Person Education Inc.
10. Introduction to clothing production management(1999) ,A.J. Chuter, Black well Science Ltd, U.K.
11. Garment technology for fashion designer(1997); G. Cooklin, Black well Science Ltd, U.K.

**THIRD YEAR BSC (HOME) VI SEMESTER
HYGIENE AND SANITATION
COURSE CODE: UH06EHSC04
Theory**

Credits- 02

PD/Wk- 02

Marks-50

Objectives:

This course will enable students to:

1. Develop correct habits of personal and environmental hygiene.
2. Learn safe handling of food and ensure complete safety of raw and processed foods.

THEORY	CONTENT	WEIGHTAGE
I	Definition of hygiene its application to everyday life. Personal hygiene care of skin, hair, hands feet, teeth, use of cosmetics and jewellery.	10%
II	Safe handling of food – Personal hygiene including uniform, medical checkup, good food handling habits and training, control and eradication of flies, cockroaches, rodents and other pests.	20%
III	Disinfections – Definition of disinfectant, sanitation, antiseptic and germicides, common disinfectants, use in case of working surfaces. Plant equipment's. Dish washing, hand washing etc., and sterilization of plant equipment's.	20%
IV	Care of premises and equipment's–impervious washable floors and walls, table tops, floors etc. Good ventilation and lighting, care of dark corners, crevices and cracks. Garbage disposal – collection storage and proper disposal from the premises including effluents.	25%
V	<ol style="list-style-type: none">1. Storage of food – Technique of correct storage temperature of different commodities to prevent bacterial contamination of milk, butter, cream, cheese, fruit juices. LTHT, HTST method, sterilization of milk, water etc.2. Legal administration and quality control – Laws relating to Food Hygiene.	25%

Outcomes:

1. Students can get the knowledge of personal and industrial hygiene and sanitation.
2. They can get the information regarding storage and care of food and equipment.
3. They will aware about legal standards related with food hygiene.

References –

1. Hobbs B.C. and Gilbert (1970): Food Poisoning and Food Hygiene, Edward Arnold , London.
2. Rack B. G. Hygiene in Food Manufacturing and Handling Food trade Press London .
3. Longree K. Blaker G. G. (1971): Sanitary Techniques in Food Services, John Wiley, New York.
4. Longree K. (1967): Quality food sanitation 2nd Edition Inter Science Pub, Johan Wiley & Sons. , New York.

**THIRD YEAR BSC (FSQC) VI SEMESTER
BAKERY SCIENCE
COURSE CODE: UH06EHSC05
Theory**

Credits: 01

PD/WK: 01

Marks: 25

Objectives:

To get the knowledge of different bakery items.

Unit	Content	Weightage
1	Bakery equipment- Types, selection, operations and maintenance	30%
2	Basic Concepts of Bakery: Ingredients & processes used for preparation of a) Cream cakes and sponge cakes b) Short crust pastry c) Breads, buns and pizza base d) Cookies and biscuits	35%
3	Product characteristics, common bakery faults and corrective measures a) Cream cakes and sponge cakes b) Short crust pastry c) Breads, buns and pizza base d) Cookies and biscuits	35%

Outcomes: 1. Students can understand about different bakery products.
2. They get the knowledge of new advances in equipments.

References:

1. Dubey, S.C. (2007). Basic Baking 5th Ed. Chanakya Mudrak Pvt. Ltd.
2. Khanna K, Gupta S, Seth R, Mahna R, Rekhi T (2004). *The Art and Science of*
3. *Cooking: A Practical Manual*, Revised Edition. Elite Publishing House Pvt Ltd.

**Third Year BSc (FSQC) VI Semester
BAKERY SCIENCE
Course code: UH06EHSC06**

Credits: 01

**Practical
PD/WK: 01**

Marks-50

Content

- 1** Learning the operating procedure of various bakery equipments

- 2** Ingredients & processes used for preparation of
 - a) Cream cakes and sponge cakes
 - b) Short crust pastry
 - c) Breads, buns and pizza base
 - d) Cookies and biscuits

- 3** Learning the product characteristics, common bakery faults and corrective measures
 - a) Cream cakes and sponge cakes
 - b) Short crust pastry
 - c) Breads, buns and pizza base
 - d) Cookies and biscuits