

SARDAR PATEL UNIVERSITY, VALLABH VIDYANAGAR

B.Sc. Home Science

(Under Choice Based Credit Scheme)

Semester - Fifth (Foods and Nutrition)

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	UH05FPRU21	Programme for Rural and Urban Development	T	3	3	3	30	70	100
2		UH05FPRU22	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		UH05CFDN26	Nutritional assesment and Surveillance	T	3	3	3	30	70	100
7		UH05CFDN27	Nutritional assesment and Surveillance	P	1	2	3	15	35	50
8		UH05CFDN28	Nuetracuetical annd functional foods	T	2	2	2	15	35	50
9		UH05CFDN29	Clinical Nutrition	T	3	3	3	30	70	100
10		UH05CFDN30	Maternal and Child Nutrtrion	T	2	2	2	15	35	50
11		UH05CFDN31	Cuisine	P	2	4	Internal	100	-	100
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 Adomment	T	2	2	2	15	35	50
15		UH05EHSC04	Public Health Epidemiology	T	2	2	2	15	35	50
				Total	24	30	30	325	525	850

SARDAR PATEL UNIVERSITY
THIRD YEAR BSC (HOME) V SEMESTER
PROGRAMMES 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
Unit-I	Introduction Introduction to Community Development Programmes. Program-Before and After Independence	10%
Unit-II	History and Concept History in planning in India Five year plan and their focus. Planning at different levels: National to grassroots	10%
Unit-III	Programmes to enhance food productions: Thrust on agriculture. National food production programmes. Independence, Intensive production schemes.	20%
Unit-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%
Unit-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
PROGRAMMES FOR RURAL AND URBAN DEVELOPMENT
COURSE CODE: UH05FPRO22
Practical

Credit: 01

Pd/wk: 02

Marks: 50

Experiment

- 1 Appraisal of the efforts-
- 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 APPLICATIONS IN FOODS AND NUTRITION
COURSE CODE: UHO5CFDN23

Practical

Credits: 01

PD/WK-02

Marks: 50

Objectives:

To enable the students to use computer for Nutrition Education and Nutrition Research.

Content

- Practical-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

- Practical-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

- Practical -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

- Practical-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.

- Practical – 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

Unit 1	Therapeutic Diets: a) Diet therapy and types of therapeutic diets. b) Hospital diets and Modification of normal diets. c) Nutrition support method d) 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 a) Body weight components. b) -Regulation of body weight. c) -Weight Imbalance overweight and obesity management of obesity in adults. d) -Nutrition in underweight.	20%
Unit 3	Nutrition in eating disorder a) Anorexia Nervosa b) Bulimia.	20%
Unit 4	Nutrition during fever and infection a) Nutrition in Rheumatoid arthritis. b) Nutrition for oral health. c) Inborn errors of metabolism d) Food allergy	10%
Unit 5	Medical nutritional therapy in Gastro Intestinal Disorders. a) Etiology, symptoms, dietary management in b) 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, 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

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

SARDAR PATEL UNIVERSITY
THIRD YEAR BSC (HOME) V SEMESTER
NUTRITIONAL ASSESSMENT AND SURVEILLANCE
COURSE CODE: UHO5CFDN26

Theory

Credits-03

Pd/Wk: 03

Marks: 100

OBJECTIVES

This course will enable the students to

1. Understand the concept of nutritional status and its relationship to health.
2. Know aims, objectives, methods used for assessment of nutritional status.
3. Identify the factors responsible for the malnutrition.

Unit -1	Nutritional status assessment and surveillance-meaning, need, and importance.	05%
Unit-II	Nutrition surveillance system and Nutrition Monitoring. Diet surveys-need, importance, methods of diet survey. Interpretation-concept of consumption unit, intra and inter individual Distribution in family, Adequacy of diet with respect to RDA. Concept of family food security.	25%
Unit-III	Direct Nutritional Assessment of Human groups- a) Clinical signs-need, importance, identifying signs of PEM, Vitamin A, Anemia, Iodine deficiency. Interpretation of descriptive list of clinical signs b) Nutrition Anthropometrics-need and importance, Standards for references, techniques of measuring height, weight, head, chest and arm circumference, Comparison and interpretation of these measurements with the Standards and use of growth charts and interpretation c) Biochemical tests d) Biophysical methods	25%
Unit-IV	a Rapid assessment procedures- need and importance, technique of rapid assessment, interpretation. b Surveillance Systems-International, National and Community.	20%
Unit-V	Secondary sources of Community health data: Sources of relevant vital statistics, importance of infant, child and maternal mortality rates. Epidemiology of nutritionally related diseases. Sociological factors in etiology, prevention of malnutrition, food production and availability, Cultural influences, socio-economic factors, food consumption, conditioning infections, Psychosocial, emergency/disaster conditions like Famine, Floods.	25%

REFERENCES

1. Jelliffe D.B.(1966): Assessment of nutritional status of the community, WHO
2. Saln D R Lockwood R Scrimshaw N S (1981) Methods for the evaluation of the Impact and Nutrition Programme U N University.
3. Rutchie J A S (1967): learning better nutrition, FAO Rome.
4. Gopalan C. Nutritional and Health Care, Nutrition foundation of India, special publication series.
5. Beghan I Cap M Dajardan B (1988) A guide to Nutritional Status Assessment WHO Geneva.
6. Gopaldas T and Seshadri S (1987) Nutrition monitoring and assessment, Oxford University press.
7. 7. Mason J B Habicht J P Tabatabai H Valverde V (1984): Nutritional Surveillance WHO.

OUTCOMES

At the end of the course the students shall have the knowledge to

1. Understand the concept of nutritional status and its relationship to health.
2. Know aims, objectives, methods used for assessment of nutritional status.
3. Identify the factors responsible for the malnutrition.

SARDAR PATEL UNIVERSITY
THIRD YEAR BSC (HOME) V SEMESTER
NUTRITIONAL ASSESSMENT AND SURVEILLANCE
COURSE CODE: UHO5CFDN27

Credits-01	Practical	Marks-50
PRACTICAL	Pd/Wk-02	
	CONTENT	
1.	To assess the nutritional status by use of anthropometric measurements: <ol style="list-style-type: none">a. Measurement of child's height, weight, circumference measurements-head, chest, mid upper arm, waist-hip ratio.b. Assessment of BMI of adolescents.c. Interpretation of data in weight for age, height for age, weight for height.d. Measurements of fat using skin fold thickness.e. Clinical assessment of PEM, Vitamin A, Anemia, B complex vitamins	
2.	Formulating tool, collection of Data, estimation of Intake by different dietary methods.	
3.	Nutrition Health Education activities-preparation of charts, posters, street plays, skits, puppets, lecture demonstration (any one activity by one group).	
4.	<ol style="list-style-type: none">a) Field visits for surveillance system used in nutrition and health programmes.b) Assessment of BMI for Adolescents	

SARDAR PATEL UNIVERSITY
THIRD YEAR BSC (HOME) V SEMESTER
NUTRACEUTICALS AND FUNCTIONAL FOODS
COURSE CODE: UH05CFDN28

Theory

Credits: 02

Pd/Wk: 02

Marks: 50

OBJECTIVES:

THEORY	CONTENT	WEIGHTAGE
I	1. Introduction to Nutraceuticals as Science: a. Historical perspective, classification, scope & future prospects. b. Applied aspects of the Nutraceutical Science. c. Sources of Nutraceuticals. 2. Structure and functions of various Nutraceuticals: a. Glucosamine, Octacosanol, Lycopene, Carnitine, Melatonin and Ornithine alpha ketoglutarate. Use of proanthocyanidins, grape products, flaxseed oil as Nutraceuticals.	25%
II	Functional Foods – I a) Functional Foods-1: Definition, Relation of functional foods & Nutraceuticals (FFN) to foods & drugs. b) Applications of herbs to functional foods. Concept of free radicals and antioxidants; Nutritive and Non-nutritive food components with potential health effects.	25%
III	Food as remedies: a) Nutraceuticals bridging the gap between food and drug, Nutraceuticals in treatment for cognitive decline, Nutraceutical remedies for common disorders like Arthritis, Bronchitis, circulatory problems, hypoglycemia, Nephrological disorders, Liver disorders, Osteoporosis, Psoriasis and Ulcers etc. b) Brief idea about some Nutraceutical rich supplements e.g. Bee pollen, Caffeine, Green tea, Lecithin, Mushroom extract, Chlorophyll, Kelp and <i>Spirulina</i> etc. c) General idea about probiotics and prebiotics as nutraceuticals.	30%
IV	Functional Foods – II a) Sources and role of Isoprenoids, Isoflavones, Flavonoids, carotenoids, Tocotrienols, polyunsaturated fatty acids, sphingolipids, lecithin, choline. terpenoids. Vegetables, Cereals, milk and dairy products as Functional foods. b) Health effects of common beans, <i>Capsicum annum</i> , mustards, Ginseng, garlic, grape, citrus fruits, fish oils, and sea foods, nuts. c) Role of dietary fiber in disease prevention. d) Anti-nutritional Factors present in Foods: e) General idea about role of Probiotics and Prebiotics as nutraceuticals.	20%

OUTCOME:

Students will learn the knowledge of nutraceuticals of food

REFERENCES:

- Owen R.Fennema:Food Chemistry,3rd Edition,Marcel Dekker Inc,New York

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

Credits: 03

PD/WK: 03

Marks: 100

I	Introduction ,principles of clinical nutrition	15%
	a. Spectrum of nutritional problems, nutrient requirements.	
	b. Effects of disorders on nutritional requirements.	
	c. Importance of nutritional screening.	
	d. Clinical assessment of nutritional status.	
	e. Nutritional assessment tools in clinical decision making.	
	i. MUST, SGA, NIA, MNA GMRI	
	ii. Different types of histories	
II	Over nutrition and Under nutrition-	20%
	a. Introduction, clinical presentation, clinical assessment, treatment approaches and prevention ,	
	b. Chronic under nutrition, under nutrition in elderly individuals, assessment of under nutrition, metabolic disorder, treatment.	
III	1. Gastrointestinal tract-the pathophysiology, laboratory assessment and nutritional assessment -	45%
	a. Esophagitis, peptic ulcers	
	b. Celiac disease-ulcerative colitis and Irritable Bowel Syndrome	
	2. Liver diseases-- the pathophysiology, laboratory assessment and nutritional assessment-	
	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-	
	a. Diseases of Exocrine Pancreas	
	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	
	i. Cholestasis	

ii. Cholelithiasis

4. Kidney Disorder- the pathophysiology, laboratory assessment and nutritional assessment-
 - a. Nephritis
 - b. Nephrotic Syndrome
 - 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- Introduction, stress response to trauma and its effects on mechanism Nutrition support in preoperative care.	10%
V	Nutrition and Drug interaction <ol style="list-style-type: none">a. Risk factors of Food drug interactionsb. Effect of Drugs on Nutritional Status,c. Effect of Drugs on Food and Nutritiond. Effect of food on Drug Therapy	10%

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" 17th 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
50

Pd/Wk-02

Marks-

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 amenorrhoea, 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-V 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.
2. The students will understand the beneficial effects of breast feeding for both mother and infant as well as how intrauterine malnutrition is a key predictor of developmental delay.

REFERENCES:

1. Ghosh (1992) The feeding and care of infant and young children UHAI.6th ed. New Delhi.
2. WHO (1978) A Growth chart of International use in maternal and child Health Care Geneva.
3. Swaminathan M.(1985) Essentials of Foods and Nutrition.Vol.I &II Ganesh and Co. Madras.
4. King M.H.King F.M.A Morley D: BURGESS A.P (1972) Nutrition for Developing countries ECBS Oxford Universities Press.
5. Indian National Code for protection of Breast feeding.Govt.of India Ministry of Social Welfare.
6. Indian Council of Medical Research (1989) RDI for Indians.
7. M C Laren D.S.Meguid M.M (1988) Nutrition and its Disorders. Churchill Livingstone waterlow J.C (1992) PEM Edward Arnold.
8. Sachdeva H.P.S Chaudhary P (1994)
9. Nutrition in Children: Developing country concerns Dept. of pediatrics.Maulana Azad Medical College New Delhi.
10. Worthing Roberts B.S. & William S (1989) Nutrition in Pregnancy & Lactation.

SARDAR PATEL UNIVERSITY

THIRD YEAR BSC (HOME) V SEMESTER

CUISINE

COURSE CODE: UH05CFDN31

Practical

Credit: 02

Pd/wk: 04

Marks: 100

1. Brief Introduction, cooking terms, special ingredients and preparation of recipes of Northern India-Punjab, Jammu and Kashmir, Uttrakhand, Uttar Pradesh, Laddakh, Haryana, Himachal Pradesh –Any two states
2. Brief Introduction, cooking terms, special ingredients and preparation of recipes of Southern India-Andhra Pradesh, Tamilnadu, Kerala, Karnataka- Any two states
3. Brief Introduction, cooking terms, special ingredients and preparation of recipes of western India- Rajasthan, Maharashtra, Goa, Madhya Pradesh, Gujarat- Any two states
4. Brief Introduction, cooking terms, special ingredients and preparation of recipes of Eastern India- Assam, West Bengal, Tripura, Nagaland, Manipur, Arunachal Pradesh- Any two states
5. Oriental Cuisine- Arabic, Chinese, Japanese, Ceylonese, Thai, Indonesian-Any two
6. South American Cuisine- Mexican
7. Mediterrian Cuisine – Egyptian, Greek (Any one)

SARDAR PATEL UNIVERSITY, VALLABH VIDYANAGAR

B.Sc. Home Science

(Under Choice Based Credit Scheme)

Semester - Sixth (Foods and Nutrition)

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		UH06CFDN25	Food Processing Technology	T	3	3	3	30	70	100
6		UH06CFDN26	Food Service Management	T	3	3	3	30	70	100
7		UH06CFDN27	Nutritional Biochemistry	T	2	2	2	15	35	50
8		UHO6CFDN28	Analysis of food	T	1	1	internal	25	0	25
9		UH06CFDN29	Analysis of food	p	2	4	3	30	70	100
10		UH05CFDN30	Internship	P	3	6	internal	150	-	150
Elective Course (Any One 11,12,13,14)										
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	Garment Export and Import	T	2	2	2	15	35	50
14		UH06EHSC04	Hygiene and Sanitation	T	2	2	2	15	35	50
				Total	24	31	24	300	525	825

SARDAR PATEL UNIVERSITY
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 - Understanding the universal need for developing interpersonal skills - How to develop interpersonal skills in a workplace - Informal learning	20%
II	Understanding the difference between individuals - 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	25%
III	Interpersonal communication - How does communication happen - Relationship building - Non- verbal communication - Overcoming communication barriers - Steps to effective communication	25%
IV	Team work skills - Why team work is important - Types of teams - The advantage and disadvantage of teamwork - Role distribution - Guidelines for team level communication - Trust, recognition, sharing	20%
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 agends 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.

SARDAR PATEL UNIVERSITY
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.

SARDAR PATEL UNIVERSITY
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: a) Functions of liver (review) b) Etiology, Symptoms and dietary management in – viral hepatitis, cirrhosis of liver ,hepatic coma	20%
II	Diseases of kidney a) Functions of kidney (review). b) Etiology, Symptoms and dietary management in – Nephritis, Nephrotic Syndrome, Nephrolithiasis, Renal failure and dialysis, Low sodium diets. Level of sodium restriction.	20%
III	Diseases of Cardiovascular System: a) Functions of Heart (Review). b) Etiology Symptoms and dietary management in – Artherosclerosis- hypertension and congestive cardiac failure.	20%
IV	Diet in Diabetes Mellitus: a) Classification and symptoms, Testes used for diagnosis of diabetes Mellitus. b) Glycemic Index of Foods. c) Etiology, Symptoms and dietary management in – of Diabetes Mellitus. Diabetic coma, Insulin shock and chronic complications due to diabetic mellitus (in brief)	20%
V	a) Diet in cancer. b) 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

SARDAR PATEL UNIVERSITY
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.

SARDAR PATEL UNIVERSITY
THIRD YEAR BSC (HOME) VI SEMESTER
FOOD PROCESSING TECHNOLOGY
COURSE CODE: UHO6CFDN25
Theory

Credit: 03
Objectives:

Pd/wk: 03

Marks:100

1. To acquaint students with processing of various foods.
2. To acquaint the students with food additives fermented foods, role of enzymes in food processing.

THEORY	CONTENT	WEIGHTAGE
I	a) Cereals and products- wheat, rice, maize, processing and their products (any two popular products) in detail. b) Dals and legumes including soybean technology, processing and their products (any two popular products) in detail.	20%
II	a) Nuts and Oilseeds –Processing and their products (any two popular products) in detail. b) Milk and Milk products- Processing and their products (any two popular products) in detail.	20%
III	a) Meat ,fish and poultry and eggs - Processing and their products (Any two popular Products) in detail. b) Vegetable and fruits - Processing and their products (any two popular Products) in detail.	20%
IV	a) Sugar and Jaggery- Processing and their products (any two popular Products) in detail. b) Beverages-classification, Processing and their products (any two popular Products) in detail.	20%
V	Food Irradiation, principles and applications. Food additives.	20%

Outcomes
References:

- Students will able to learn food processing technology
1. Foods science and experimental foods by M. Swaminathan (latest edition)
 2. Foods science by srilaxmi. (latest edition)
 3. Food, facts and principles by Shakuntala Manay and Shadrak Swamy. . (latest edition)
 4. Food science by Norman Potter. (latest edition)
 5. Fruit processing technology.
 6. Encyclopedia of food science and technology

SARDAR PATEL UNIVERSITY
THIRD YEAR BSC (HOME) VI SEMESTER
FOOD SERVICE MANAGEMENT
COURSE CODE - UHO6CFDN26
Theory

Credit:03

Pd/wk: 03

Marks:100

- Objectives:**
- 1) Gain knowledge of the types of food services in India and the factors which have led to their development,
 - 2) Understand the special characteristics of food service establishments.
 - 3) Know the types of resources required for the managing food outlets.
 - 4) Maximize resources use.
 - 5) Learn manpower management techniques.
 - 6) Understand human relations and behavior at work.
 - 7) Know the types of costs involved and how to control them.
 - 8) Maintain and analyze accounting information for decision making.

THEORY	CONTENT	WEIGHTAGE
I	Introduction to food service Institutions: 1. Development of food service institutions in India. a. Characteristics of food service Establishments. 2. Food service Management –Definition, Principles and Functions and tools of Management.	20%
II	Approaches to Management: 1. Traditional management, System approach, Management by objectives, Total quality management.	10%
III	Management of resources: 1. Finance, spaces, Equipment and furniture, materials, staff, time and energy procedures.	25%
IV	Personnel Management- 1. Definition, Development and policies, recruitment, selection and induction. Employee benefits, Training and Development, Human Relations. 2. Trade Union negotiation and settlement.	25%
V	Costs and management accounting-	10%

1. Definition and scope, costs and their control, management accounting profit planning.

- Outcomes:
1. The students will Understand the special characteristics of food service establishments
 2. Think of starting a food service.

- References:
1. Boella, M.J.(1983) Personnel Management in the Hotel and catering Industry 3rd Ed Huntchinson, London.
 2. Drucker P.F.(1975) Management, Allied Pub New Delhi.
 3. Fearn D (1969) Maagement System for the Hotel Catering and Allied Industries.
 4. Hitchcock M.J.(1980) Food Service systems administration, MacMillan New York.
 5. Koontz H.O, Donnel C Weihrich H (1983) Essentials of management Indian Ed.
 6. Kotas R (1972) Accounting in the hotel and catering industry intertext books 3rd Ed Bitler and tanner London.
 7. Moore C.L and Jaedicke R.K Managerial Accounting, South esternPub.Co.
 8. Sethi M. Malhan S (1983) Catering Management: An integrated approach Wiley Eastern New Delhi.
 9. Terry G.R (1972) Principles of Management 6th Ed. Irvin Dorsey International London.
 10. West.B.B. Wood L Revised by Hargar V.F. Shugat.G.S.Payne-Palacio J. (1989)
 11. Food Service In Institutions 6th Ed. MacMillaPub,Co.New York.

SARDAR PATEL UNIVERSITY
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.
- (3) 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 Fat soluble vitamins-A, D, E, K.	15%
III	Vitamins –structure and biochemical role Water soluble vitamins-B1,B2,B3, B6, folic acid ,B12 and C	20%
IV	Minerals –biological occurrence of inorganic elements, biochemical role structure Iron, calcium, phosphorus, iodine, selenium, zinc.	30%
V	Enzymes –classification , nomenclature ,enzyme inhibition, factor affecting enzyme activity	15%

Outcomes: 1. The students will learn nutritional biochemistry as applicable to human nutrition.

- References:**
2. West .S.Todd,W.R. Mason, H.S. Brugen,J.T(1974) Text Book of Biochemistry,Amerind Publishing co pvt .ltd.
 3. Biochemistry for Medial students by Vasudevan
 4. Biochemistry by Satynarayan
 5. LehningerA.I.NelsonD.L.and Cox M.M. (1930) Principles of Biochemistry
 6. Hawk PB, Oser BL Summerson WH (1954).Practical Physiological chemistry, McGraw Hill New york.

SARDAR PATEL UNIVERSITY
THIRD YEAR BSC (HOME) VI SEMESTER
ANALYSIS OF FOOD
COURSE CODE: UH06CFDN28

CREDITS: 01

PD/WK: 01

MARKS: 50

OBJECTIVES:

This course should enable the students to-

- 1) To get acquainted with various methods of Food analysis.
- 2) To make students aware regarding Analytical techniques used in Food industries.

THEORY	CONTENT	WEIGHTAGE
I	General physical methods of Analysis of foods. 1. Photo electrometric determination 2. Refractrometry 3. Food rheology 4. Viscosity 5. Surface tension 6. Specific gravity	25%
II	General chemical methods of analysis in food. 1. Proximate principles 2. Moisture determination 3. Ash types	25%
III	Total nitrogen 1. Total fats and fatty acids 2. Total carbohydrates 3. Crude fibre and dietary fibres	25%
IV	1. Determination of Vitamins and Minerals 2. Chemical, biological, microbiological and titrimetric methods	25%

OUTCOME:

1. The students will understand the quantitative analytical procedures commonly used to analyze various nutrients from the food.
2. After completion of this course, the students will be able to know the general physical and chemical methods for analysis of food.

REFERENCES:

1. Joslyn.M.A.(1970)"Methods of Food analysis".
2. Physical, Chemical & Instrumental methods of Analysis.IInd edition Academic press, New York.

3. Pearson David,(1976)''The chemical analysis of food''.7th edition. Churchill Livingstone: New York Pomeranz Y cliffton.E.M. (1996)Food Analysis.' Theory and Practical' IIIrd edition CBS .Publishers & Distributor

SARDAR PATEL UNIVERSITY
THIRD YEAR BSC (HOME) VI SEMESTER
ANALYSIS OF FOOD
COURSE CODE UH06CFDN29
Practical

Credits-02

PD/WK-04

MARKS:100

PRACTICALS

CONTENT

Estimation in Foods: Proximate principles, minerals, trace elements & Vitamins in the following:

1. Moisture in Foods: Vacuum drying, Moisture meter
2. Protein foods: Kjeldahl, Colorimetric, electrophoresis
3. Fat foods: Gravimetric, Volumetric, TLC, Chromatographic applications
4. Fiber: Crude fiber, dietary fiber
5. Minerals: Colorimetric, Flourometric and Chromatography
6. Vitamins: Colorimetric, Flourometric and Chromatography

SARDAR PATEL UNIVERSITY
THIRD YEAR BSC (HOME) VI SEMESTER
INTERNSHIP
COURSE CODE UH06CFDN30
Practical

Credit:03

Pd/wk: 06

Marks :150

- Objectives:** To enable the students to-
1. Understand the working of health organization and food industry.
 2. Gain the knowledge in various aspects in management of institutions and Beneficiaries.

Content

- 1 The internee would work for period of three weeks in any one setting such as
 - a) Multispecialty hospital
 - b) ICDS centers.
 - c) Women welfare organization
 - d) Hostels
 - e) Food industries
 - f) Canteens of Industries and Institutes.
- 2 Report writing and presentation would be done at the end of the training period.
- 3 Evaluation would be carried out for the same.

**SARDAR PATEL UNIVERSITY
THIRD YEAR B.SC. (HOME) VI SEMESTER
UH06EHSC01 MARKETING**

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	<p>Concept of Marketing</p> <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. <p>Organization and function of organization</p> <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	<p>The Product</p> <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	<p>Pricing</p> <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	<p>Distribution</p> <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. 	20%
Unit V	<p>Promotion</p> <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. 	15%

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.

SARDAR PATEL UNIVERSITY
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.

THEOR Y	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.

SARDAR PATEL UNIVERSITY
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.

SARDAR PATEL UNIVERSITY
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.