

SARDAR PATEL UNIVERSITY, VALLABH VIDYANAGAR

B.Sc. Home Science

(Under Choice Based Credit Scheme)

Semester - Sixth (Food Science and Quality Control) Vocational (Effect from : 2020-21)

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 – <p style="margin-left: 20px;">Arthrosclerosis- hypertension and congestive cardiac failure.</p> 	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	<ul style="list-style-type: none">• Fat soluble vitamins-A, D, E, K. Vitamins –structure and biochemical role	20%
IV	<ul style="list-style-type: none">• Water soluble vitamins-B1,B2,B3, B6, folic acid ,B12 and C Minerals –biological occurrence of inorganic elements, biochemical role structure	30%
V	<ul style="list-style-type: none">• 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
I	Industrial food sector in India and the role of quality control in insuring Food safety.	10%
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.
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**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