

**BHARATHIAR UNIVERSITY, COIMBATORE**  
**B.Sc. FOOD SCIENCE AND NUTRITION**  
**SCHEME OF EXAMINATION (modified) - CBCS PATTERN (AFFILIATED COLLEGES)**  
**For the students admitted during the academic year 2017 – 2018 batch onwards**

Part	Study Components	Course title	Ins. hrs/ week	Examinations				Credit
				Dur.Hr	CIA	Marks	Total Marks	
	<b>Semester I</b>							
I	Language – I		6	3	25	75	100	4
II	English – I		6	3	25	75	100	4
III	Core paper – I Food Science		4	3	25	75	100	4
	Core Paper II - Chemistry of Foods		3	3	25	75	100	4
	Core Practical I – Food Science Practical		3	3	20	30	50	2
	Allied A : Chemistry I		4	3	20	55	75	3
	Allied Practical		2	-	-	-	-	-
IV	Environmental Studies #		2	-	-	50	50	2
	<b>Semester II</b>							
I	Language – II		6	3	25	75	100	4
II	English – II		6	3	25	75	100	4
III	Core Paper III – Human Physiology		4	3	25	75	100	4
	Core Practical II - Human Physiology Practical		2	3	20	30	50	2
	Core Paper IV Principles of Nutrition		4	3	25	75	100	4
	Allied A : Chemistry II		4	3	20	55	75	3
	Allied Practical (Chemistry)		2	3	20	30	50	2
IV	Value Education – Human Rights #		2	3	-	50	50	2
	<b>Semester III</b>							
I	Language – III		6	3	25	75	100	4
II	English – III		6	3	25	75	100	4
III	Core Paper V - Nutrition in Health		5	3	25	75	100	4
	Core Practical III – Family Meal Management		3	3	20	30	50	2
	Allied B: Paper I – Bio-Chemistry - I		3	3	20	55	75	3
	Allied Practical - Bio-Chemistry		2	-	-	-	-	-
IV	Skill Based Subject I – Basic Computer Science in Nutrition		3	3	20	55	75	3
	Tamil @ / Advanced Tamil# (OR) Non-major elective - I (Yoga for Human Excellence)# / Women’s Rights#		2	3	50		50	2
	<b>Semester IV</b>							
I	Language – IV		6	3	25	75	100	4
II	English – IV		6	3	25	75	100	4
III	Core Paper VI - Dietetics		4	3	25	75	100	4
	Core Practical – IV Dietetics Practical		3	3	20	30	50	2
	Allied B : Paper II – Bio – Chemistry - II		4	3	20	55	75	3

	Allied Practical - Bio – Chemistry	2	3	20	30	50	2
IV	Skill based Subject 2 – Food Safety and Quality Control	3	3	20	55	75	3
	Tamil @ /Advanced Tamil # (OR) Non-major elective -II (General Awareness #)	2	3	50		50	2
	<b>Semester V</b>						
III	Core Paper VII Food Microbiology	6	3	25	75	100	4
	Core Paper VIII Food Processing	5	3	25	75	100	4
	Core Paper IX Community Nutrition	5	3	25	75	100	4
	Practical V - Nutrition Practical	3	3	20	30	50	2
	Practical VI : Computerized Database Management in Nutrition	3	3	20	30	50	2
	Elective 1	5	3	20	55	75	3
IV	Skill based Subject 3 - <b>Neutraceuticals</b>	3	3	20	55	75	3
	<b>Semester VI</b>						
III	Core Paper X – Food Service Management	6	3	25	75	100	4
	Core Paper XI – Food Preservation	6	3	25	75	100	4
	Elective – II	6	3	20	55	75	3
	Elective – III	6	3	20	55	75	3
	Practical VII : Food Preservation	3	3	30	45	75	3
IV	Skill Based Subject 4 - Health and Fitness	3	3	20	55	75	3
	Skill Based Subject 5 Dietary Internship report and viva	-	-	-	-	50**	2
V	Extension Activities @	-	-	50	-	50	2
	Total					3500	140

\*\* One month internship in Dietary Department in the summer vacation after II year of study. For Viva : 10 marks & report : 40 marks.

@ No University Examinations. Only Continuous Internal Assessment (CIA)

# No Continuous Internal Assessment (CIA). Only University Examinations.

List of Elective papers (Colleges can choose any one of the paper as electives)		
Elective – I	A	Bakery *
	B	Post Harvest Technology
Elective – II	A	Quality Food Service & Physical Facilities
	B	Food Hygiene and Sanitation
Elective - III	A	<b>Hospital Food Service</b>
	B	Food Packaging

\* Training in Bakery for 15 days in semester break of V Semester compulsory to earn the 3 credits.

Minimum ten practical exercises per paper per semester

**Note: The syllabus for the following papers furnished below be followed and there is no change in the syllabi of remaining papers**

## **Core Paper-X** **FOOD SERVICE MANAGEMENT**

### **Hours of instruction/week: 6**

Subject description: Basics of running the food service, principles and techniques of effective management, principles and types of organization, personnel management and cost control.

Objectives: To enable students

1. Understand the principles of planning, organizing and controlling in food service institutions.
2. Develop skills in meal planning to catering institutions .
3. Understand the principles of sanitation and hygiene.

**UNIT I** Different types of catering institutions and services, classifications of food service institutions according to a. Function : Profit oriented, service oriented and public health facility oriented. b. Method of processing : Conventional systems, Commissary system, fast food service system. c. Service of food : Self service, tray service, waiter-waitress services

**UNIT II** Organisation - Types and principles, organizational structure for catering institutions. Management - Definition, principles and techniques of effective management, leadership and managerial abilities.

Tools of management-organisational chart, work study and work improvement.

**UNIT III** Personnel Management - Methods of selection, orientation, training, supervision and motivation of employees, importance of good human relations, legal aspects of catering.

**UNIT IV** Accounting - Definition and principles. Journal and ledger. Book of account – Cash book, purchase book, sales book, purchase returns & sales returns book.

Art in food service - Design selection-structural and decorative.

. **UNIT V.** Hygienic role of persons delivering Food- personnel hygiene.

Sanitation and safety-significance of hygienic management in food preparation and service, sterilization, pest control, garbage disposal. Health care of food service personnel, safety measures to be adopted in foodservice

Reference Books:

1. West ,BB, Wood “Food service in Institutions” ,Johnwiley & Sons,New York
- 2.Khan MA “Food service operations”, AVI publishing Company Inc.1987.
- 3..Sethi and Mahan S.-Catering Management and integrated approach, Johnwiley & Sons,New York .
4. Kotas R and Davis B “food cost control” Billing & Sons Ltd, Great Britian ,1976

5. Dr. B.K. Chakravati, “ A Technical guide to Hotel operation” , Metropolitan, New Delhi India.

6. Earl R. Palan and Judity A. Stadler (1986) Preparing for the food service Industry, AVI – Publishing& co

7. Mickey Warner (1989) Recreatoinal food service Management Van Nostrand Reinhold, Newyork.

8. J.M. Diwan (1997) Catering and food service Management, Common Wealth publishers.

9.Tersel MC and Harger – Profession food preparation , Johnwiley & Sons,New York.

### SKILL BASED SUBJECT III

#### NEUTRACEUTICALS

**Hours of Instruction / week : 3**

Objectives To enable students

1. Understand the principles of planning, organizing and controlling hospital food service.
2. Develop skills in meal planning, production and service.
3. Understand the principles of sanitation and hygiene.

**Unit I Nutraceuticals:** Introduction to nutraceuticals and functional foods-definition, classification, list of functional foods and their health benefit.

**Unit II Secondary metabolites:** phyto chemicals– sources, classification and functions.  
Zoo chemicals – sources, classification and functions.

**Unit III - Role of nutraceutical foods in health and disease-** GI disorders, cancer, CVD, diabetes, Diabetes, HIV, obesity.

**Unit IV Antioxidants:** sources, classification and functions; Antioxidant paradox

**Unit V Functional Foods:** Pro biotic, prebiotic and symbiotic foods and their health benefits  
herbal foods , Health claims and safety issues.

#### References

1. Spark, Arlene. “Nutrition in Public Health: Principles, Policies, and Practice”. CRC Press, 2007.
2. Mann, Jim and Stewart Truswell “Essentials of Human Nutrition”. 3<sup>rd</sup> Edition. Oxford University Press, 2007.
3. Gropper, Sareen S. “Advanced Nutrition and Human Metabolism”. 5<sup>th</sup> Edition, Smit Wadsworth Publishing, 2008.

## **ELECTIVE-III-A**

### **HOSPITAL FOOD SERVICE**

**Hours of Instruction / week : 6**

Objectives To enable students

1. Understand the principles of planning, organizing and controlling hospital food service.
2. Develop skills in meal planning, production and service.
3. Understand the principles of sanitation and hygiene.

**UNIT I** Types of service in hospitals – Food service definition and its types, equipment used for serving the food in hospitals.

**UNIT II** Physical requirements: Kitchen area – Size and type of kitchen, design of kitchen, ventilation, lighting, flooring, carpets, wall covering and sample layout of kitchen.

Storage area –Equipment - Equipment required.

**UNIT III** Purchasing – Meaning of purchase and buying methods.

Receiving & Storing – Importance of receiving raw materials .

Production – Menu planning for patients and process of food production.

Holding of foods – methods.

**UNIT IV** Management - Definition, principles and techniques of effective management, leadership and managerial abilities (in a hospital & dietary).

Tools of management - organisational chart of the food service team of the hospital.

**UNIT V** Accounting - Definition and principles. Journal and ledger. Book of account – Cash book, purchase book, sales book, purchase returns & sales returns book.

Reference Books:

1. Sethi M and Mahan S.-Catering Management an integrated approach , 2006, 2nd edition, John wiley & Sons, New York.
2. Tersel MC and Harger – Profession food preparation , John wiley & Sons, New York.
3. Joan C Boason , Lennox M.-Hotel, hostel & hospital housekeeping , 2004, 5th edition, Book power publishers, New York.
4. Mcswane D, Linton R – Essentials of food safety & sanitation, 1998, Prentice hall international, London