

BHARATHIAR UNIVERSITY, COIMBATORE.
M. Sc. FOOD AND NUTRITION DEGREE COURSE WITH COMPULSORY DIPLOMA
(AFFILIATED COLLEGES - Effective from the academic Year 2009-2010)
SCHEME OF EXAMINATIONS – CBCS PATTERN

Sem.	Study Components	Course title	Ins. hrs/ week	Exam				Credit
				CIA		Uni. exam	Total	
I	Paper I	Food Science I	5	3	25	75	100	5
	Paper II	Physiological aspects of nutrition	5	3	25	75	100	5
	Paper III	Bio-chemistry	6	3	25	75	100	6
	Paper IV	Nutrition through life cycle	4	3	25	75	100	3
	Paper V	Community nutrition	4	3	25	75	100	3
	Practical I	Food Analysis	3	-	-	-	-	-
	Elect./Dip. I		3	3	25	75	100	3
II	Paper VI	Food Science II	4	3	25	75	100	3
	Paper VII	Research Methodology and Statistics	6	3	25	75	100	6
	Paper VIII	Nutrition in Diseases – I	5	3	25	75	100	5
	Paper IX	Macronutrients	6	3	25	75	100	6
	Practical I	Food Analysis	6	3	40	60	100	2
	Elect./Dip. II		3	3	25	75	100	3
III	Paper X	Food Processing	5	3	25	75	100	5
	Paper XI	Micronutrients	6	3	25	75	100	6
	Paper XII	Bio-technology	6	3	25	75	100	6
	Paper XIII	Nutrition in disease – II	5	3	25	75	100	5
	Paper XIV	Software Programming in Nutrition - Theory	2	3	10	40	50	2
	Practical II	Software Programming in Nutrition - Practical Activity	3	3	20	30	50	2
	Elect./Dip. III		3	3	25	75	100	3
IV	Practical III	Clinical Nutrition Techniques	9	3	40	60	100	5
	Project	Project	15	-	-	-	200*	6
	Elect./Dip. IV	Practical	3	3	40	60	100	3
Total							2200	90

One month training in Food industry, compulsory to qualify for the degree.

* Project report - 160 marks; Viva-voce – 40 marks

List of Group Elective/Diploma papers (Colleges can choose any one of the Group/Diploma papers as electives)

	GROUP A Diploma in Food Processing and Quality Control	GROUP B Diploma in Food Institution Management
Paper I/ Sem I	Convenience foods	Institutional Food Management
Paper II/Sem II	Food packaging	Food Product Development
Paper III/Sem III	Food quality control	Culinary Techniques
Paper IV/Sem IV	Food quality control - Practical	Food Service Management Practical

Note : The syllabus for the above papers (except compulsory Diploma B) be the same as prescribed for the academic year 2007-08.

The Syllabus for the compulsory Diploma B are furnished below.

DIPLOMA II FOOD INSTITUTION MANAGEMENT

PAPER I Institutional Food Administration

Objectives:

To enable the students

1. By emphasizing the various facets of functioning of food service institutions,
2. With the necessary knowledge to become an efficient manager.

UNIT - I

Food service system

Introduction to food service system, evaluation of the food service industry, characteristics of the various types of food service units-commercial, institutional, hospital, military, any other. Scope and development of food service institution in India
Principles and functions of food service management.

UNIT – II

Food service organization

Definition and types of organization in food, tools of organization and administrative leadership.
Financial management –definitions, application of management accounting to catering operations, budgeting, determining the financial needs sources and book-keeping and accounting.

UNIT – III

Quantity food purchase

Procedures and records involved in purchasing, receiving, storing, and issuing of food materials. Factors involved in selection of raw materials. Quantity food service - types, objectives, Indian and western styles of service.

UNIT – IV

Quantity food preparation

Menu planning – definition, types of menus. Standardization of recipe – definition, standard recipe format and uses. Standard portion sizes - definition, portioning equipment and portion control. Use of left over foods.

UNIT – V

Organization of space and equipment

Kitchen- type, designing, storage space and service areas.

Equipment - planning, selection and purchasing.

Sanitation and safety of food service Industry-Sanitation of plant – measures taken to maintain sanitation – types of cleaning. Personnel hygiene – facilities and benefits provided to workers.

Safety at work – measures adopted.

REFERENCES

1. Sethi, m. and Matha, S. Catering Management – An Integrated approach, wiley Eastern Ltd., New Delhi, II Edition 1993.
2. Palacio, J.P. Harger, V., Shugart, G. and Theis, M. West's Introduction to food service, MacMillan Publication Co., New York, XVII Edition, 1994.
3. Kotschevar, L.H. and Teerell, M.E., Food service planning, Layout and Equipment, MacMillan Publication co., New York, III Edition, 1985.
4. Delfakis, H. Scanion, W.C. and Van Burch, J.B. Food service Management, South Western Publication Co., cincinatti, ohio, 1992.
5. Cracknell, H.C. and Nobis, G. Mastering Restaurant Service, Macmillan Master Service, Macmillan Education Ltd, (pub) London, 1989.

PAPER II

Food Product Development and Marketing

Objectives:

To enable the students

1. To understand and know various aspects of food product develop food science and technology, packaging, nutrition values and marketing.
2. To recognize the potential for entrepreneurship through marketing.

UNIT-I New product development

Definition and classification, characterization and factors shaping new product development. Health concerns impact of technology and market place influence.

UNIT-II Formulation of new product development

Formulation of new product development for infants, preschool, sports person, elderly- Selection of raw materials, portion size, standardization methods, calculation of nutritive values, cost production, shelf life.

UNIT-III Sensory evaluation

Establishing sensory panels – Designing testing facilities – Analytical Test – Conduct a sensory Evaluation Test – Designing score card, objective evaluation, Instruments used for texture evaluation.

UNIT-IV Packaging

Packaging – Introduction, Types of packing materials. New product development – patent, patent laws, international code for Intellectual property rights (IPR).

UNIT-V Marketing

Concept of market and marketing – Approaches to study marketing and marketing functions, market structure, market efficiency and market integration. Role of government in promoting agricultural marketing.

REFERENCES

1. Baker,R.C., Fundamentals of New Food Product Development,1988.
2. Fuller G.W, New Food Product Development from Concept to Market place.
3. Sivarama Prasad A. Agricultural marketing in India, Mittal Publication, New Delhi, 1985.
4. Aaron, L. Brody, Joha .B. Lord.Developing New Food Product for a changing Market place, 2nd Edition, 2005,
5. Acharya S. S. and N.L. Agarwal Agricultural Marketing in India – Oxford and IBH Publishing Co. Pvt. Ltd., New Delhi, 1992.

PAPER III Culinary Techniques

OBJECTIVES:

To enable the student

- To develop skills needed for a career in the food service industry.
- To learn a variety of cooking techniques

UNIT - I

Workstation set-up

The essentials for setting up workstations in basic commercial and institutional settings. Set up of the grill, hot and cold food stations, salad, dessert, and baking stations.

Culinary tools

Hand Tools, Light Kitchen Equipment, Heavy Kitchen Equipment – types and uses

UNIT - II

Dessert baking and cake decoration

Cake-mixing methods, cake preparation fundamentals, assembling and icing, and decorating techniques. Preparations of different types of cakes, pies, cookies, petite four, and pastries that use various dough bases. Preparations of butter cream and glazed icings. Cake decoration. Sweetening substitutions for sugar-restricted diets.

Desserts

Different types of puddings, (cream, baked, chilled, soufflé, mousses), gelatins, fruit dishes, parfaits, sorbets, éclairs, and crepes. Ingredient substitution for diet-restricted desserts.

UNIT - III

Salads

Components and preparation of salads and salad dressings. Salad preparation includes fruit, vegetable, leafy green, meat, seafood, gelatin, and pasta salads dressings made from the three basic types of salad dressings – oil and vinegar, mayonnaise, and boiled or cooked.

Sandwich production

Preparation of hot, cold, and grilled sandwiches.

UNIT - IV

Vegetable cooking

Vegetarian entrees and side dishes. Vegetables cuts and different methods of preparing common vegetables including boiling, steaming, and sautéing. Vegetables used for flavoring and garnishing. Vegetable carving

Soups, stocks, sauces, and gravies

Common procedures used to prepare stocks, ingredients used in making stocks, and the function of a stock in making sauces and soups. Classifications of soups, preparations methods of thickening, holding, and serving. Classic and contemporary sauces and the uses featuring the five major sauces in the culinary field.

UNIT - V

Beverages

Hot and cold beverages and proper serving methods. Beverage products prepared with and without caffeine. Breakfast drinks such as hot cocoa and party beverages such as fruit-based punches.

Dairy products

The use of dairy products as thickening, binding, adhesive, emulsifying, clarifying, and lightening. Types of milk products such as cheese, cream, sour cream, and whipping cream. Desserts using eggs

Spices and seasonings

Use various spices and seasonings in food in order to enhance flavors in cereal and pulse preparations, meats, poultry, fish, and vegetables.
Enhancement of special diets that are fat and salt restrictive through various herbs and spices.
Basic procedures of infusion with fresh herbs and spices.

Reference Books

1. The new food lovers companion, Comprehensive Definitions of Nearly 6000 Food, Drink, and Culinary Terms (Barron's Cooking Guide) by Sharon Tyler Herbst
2. Recipes, Restaurants, & Pitmasters from America's Great Barbecue Regions by Michael Karl Witzel
3. [\(The\) Chef's Companion: A Concise Dictionary of Culinary Terms, 2nd Edition](#) by Elizabeth Riely
4. [Chef's Garden: Fresh Produce from Small Spaces](#) by Terence Conran
5. [Cook's Encyclopaedia: Ingredients And Processes](#) by Tom Stobart
6. [The Cook's Essential Kitchen Dictionary](#) By Jacques L. Rolland
7. [Culinary Artistry](#) By Andrew Dornenburg & Karen Page
8. [Knives Cooks Love: Selection. Care. Techniques. Recipes.](#) by Sur La Table and Sarah Jay
9. [Larousse Gastronomique](#) (2001 revised) Prosper Montagne (Editor)

10. [Knives Cooks Love: Selection. Care. Techniques. Recipes.](#)
by Sur La Table and Sarah Jay
11. [Larousse Gastronomique](#) (2001 revised) *Prosper Montagne (Editor)*
12. [\(The\) Professional Chef](#), 7th Edition *by Culinary Institute of America*
13. [\(The\) Professional Pastry Chef](#): Fundamentals of Baking and Pastry, 4th Edition *by Bo Friberg*
14. [\(The\) Science of Good Food](#): The Ultimate Reference on How Cooking Works
by David Joachim, Andrew Schloss
15. Professional Chef: The Art of fine Cooking, , by [Saraswat, A](#); Publisher: UBS
Publishers Distributors Ltd (Published: 2004)
16. The Kitchen Hand: A Miscellany of Kitchen Wisdom, by [Telford, Anthony](#); Publisher:
Sue Hines Book (Published: 10/2004)

PAPER IV- Practical

Food Service Management Practical

Objectives:-

- To gain an understanding of commercial food service.
- To have hands-on preparation of items popular in food operations.
- To gain experience in menu planning, recipe preparation, food portions and food preparation, presentation and cost and nutritive value calculation.
- To apply the interpersonal skills crucial to working with coworkers and others effectively.
- Perform cleaning and sanitation duties in accordance with sanitation and health codes
- Prevent food contamination

List of exercises

Recipe preparation, food portions, presentation, cost and nutritive value calculation for the following..

1. Prepare four salads and salad dressings
2. Prepare two each hot and cold sandwiches
3. Prepare eggs, for breakfast foods
4. Use dairy and cheese products in two recipes
5. Prepare two fruits and fruit dishes
6. Prepare two vegetables and vegetable dishes
7. Prepare pasta, grains, rice and legumes (two dishes each)
8. Prepare any two meat and meat dishes including beef, pork, poultry, fish or shellfish
9. Prepare four stocks, basic sauces and gravies
10. Prepare two vegetarian and two non- vegetarian soups
11. Prepare two basic baked goods - Fruit Tart and Lemon & Chocolate Cake
12. Two field trips after the mid-point of the program to hotels / restaurant to observe work station set up, tools used, preparation and portioning, pricing and presentations.