As Per NEP 2020

University of Mumbai



Syllabus for Basket of OE				
UG First Year Programme				
Semester	II			
Title of Paper	Credits			
I) Food Safety & Nutrition	2			
From the Academic Year	2024-25			

Sr. No.	Heading	Particulars
1	Description the course :	Food Safety & Nutrition
	Including but Not limited to :	The importance of food safety in the hospitality industry lies in the creation of integrated information systems based on HACCP principles to ensure the safety of food products at all stages of production, storage, transportation, sale, and disposal. Nutrition being on priority today. The course is very relevant in this era. As Nutritionist in hospitals. Diet Planner, Chef, Cruise Liner
2	Vertical :	Open Elective
3	Type:	Theory
4	Credit:	2 credits
5	Hours Allotted :	30 Hours
6	Marks Allotted:	50 Marks
7	 To minimize food poisoni To gain knowledge of nut 	ne and sanitation in the catering industry. ng and infections. rition and acquaint with food standards. es brought about in food nutrients during processing.

8 **Course Outcomes:**

- 1 Summarize importance of Hygiene and explain the importance of effective waste disposal.
- 2 Recognize critical points to maintain highest standards in food safety and identifying microbes and

its impact on food and its impact on nutrients

3 Recognize the importance to store food appropriately and identify the problems that evolve with

food toxins and microbial contamination and differentiate food adulterants used in the food. 4State the relation between food and various factors influencing Malnutrition, under nutrition and over nutrition and summarize the basic need of vitamins, minerals, water colloids and their functions. Sources, deficiency, excess balance, importance and sources in food.

5 Identify the various factors influencing eating habits and state the breakup of proteins, carbohydrates and fats components and discuss the balance diet, food groups, food pyramids, and explain the special nutritional diet requirements.

9 Modules:-

Module 1:

Introduction to Hygiene

- **1.1** Rules &Introduction to Hygiene
- **1.2** Personal Hygiene
- 1.3 Cleaning of premises (Pest Control, Dish washing methods, waste disposal)

MICROBES

- 2.1 Classification
- **2.2** Introduction (Bacteria, Yeast, Mould)
- 2.3 Role of microbes in foods
- **2.4** Factors for growth and elimination of Microbes

FOOD BORNE ILLNESS

- 3.1 Natural toxins (Mushrooms, Shell Fish) Chemical Toxin(Benzoic acid, Lead)
- **3.2** Bacterial toxin in perishable foods & water (staphylococcus, salmonella, Clostridium perfringens, Clostridium botulinum)
- **3.3** Food Poisoning & infections
- **3.4** Definitions, types and differentiation Modes of contamination, & Spoilage

FOOD ADULTRATION

4.1 Definition and types

4.2 Case Study (Adulteration of Oil, Tea, Pulses, Milk)

FOOD PRESERVATION

- **5.1** Definition & Importance
- **5.2** Methods of Preservation (Natural & Chemical preservations- any 2)
- **5.3** High Temperature(Pasteurization, Sterilization, Canning)

FOOD STORAGE

- **6.1** Low temperature (Refrigeration, Freezing)
- **6.2** Dry food store
- **6.3** Holding at High Temperature
- **6.4** Stock rotation & cross contamination

Module 2:

7 HACCP

- 7.1 Introduction & Importance
- **7.2** Food standards in India (PFA, FPO, FSSAI, BISISI, AGMARK, ISO)
- 7.3 VII Critical Control Points

8 INTRODUCTION TO NUTRITION

- **8.1** Definitions(Food, balanced diet, nutrition, over nutrition, under nutrition, malnutrition, health)
- 8.2 Balanced diet-Food pyramid
- **8.3** Carbohydrates, Protiens, Fats &Oils
- 8.4 Introduction, Definition, Sources
- **8.5** Uses in food preparation Gelatinization, Dextrinization, Caramelisation Coagulation and Rancidity)

9 VITAMINS, MINERALS, WATER

- **9.1** Introduction, Classification
- 9.2 A,D,E,K& B complex
- **9.3** Minerals (Ca,P, Na,K,Fe,I,FI)

			er based Beverag n tea, fruit infused						
11	Reference Bo	oks:							
	1. Knowles T Butterworth F			Food Safe Hospitalty		h n			
12	Internal Continuous Assessment: 40% External, Semester End 60% Individual Passing in External Examina				n Internal and				
13	Continuous Evaluation through:				Class Tests, presentation, project writing, assignment etc.				
14	Format of Question Paper: Theory Courses Evaluation Scheme for First Year (UG) under NEP For theory courses with 2 credit points total marks Allotted would be 50 Internal Assessment: 20 marks External Assessment: 30 marks								
	Nature of Examination Bifurcation of Marks			Time	Total Marks				
	Continues	Sessment f	or Theory Course Examination	<u>es </u>	Module	Marks	Time	Total	
	Internal Assessment (CIA)	nent 1 Class Test			Module I or on	10	30 Min	Marks 20	
	Assignment 2		Assignments / Case Study / Presentations / Project / Group Discussion / Ind. Visit. / Tutorial			10	30 Min		
	Note: Class T 1. MCQ's – 5 I 2. Answer in 0 3. Answer in 1	marks. One line -10		I5 marks.					

II. External A	ssessment	for Theory Courses				
Semester	Question	Paper Pattern (Theory	Unit	Marks	Time	Total
End	No	question paper pattern: All				Marks
Examination		questions are compulsory.)				
	Q. 1	Match the Column/Fill in	From All	5	1	30
		the blanks/Multiple Choice	modules		Hour	
		Questions				
		(1/2 Mark each)				
	Q. 2	Answer in one sentence	From All	10		
		(1 Mark each)	modules			
	Q. 3	Short Notes (Attempt any	3 questions	15		
		3 out of 6)	per module			
			to be set.			
			Each			
			student will			
			choose 1			
			question per			
			module.			

Sign of the BOS Chairman Name of the Chairman Name of the BOS Sign of the Offg. Associate Dean Name of the Associate Dean Name of the Faculty Sign of the Offg. Dean Name of the Offg. Dean Name of the Faculty