



VIVEKANANDHA COLLEGE OF ENGINEERING FOR WOMEN
(Autonomous Institution, Affiliated to Anna University, Chennai)
Elayampalayam, Tiruchengode – 637 205
DEPARTMENT OF BIOTECHNOLOGY



Course Code / Name : U15BT513& FOOD PROCESSING TECHNOLOGY

Class (Year / Programme / Department / Section): III/B.TECH/BT

UNIT I –CHEMISTRY, NUTRITION AND ADDITIVES OF FOOD

S.No	Topics To Be Covered	Duration in Minutes	Teaching Aid	Books Referred
1.	Introduction to Food & food industry	45	BB	T1
2.	world food needs & Indian situation	45	BB	R1
3.	Constituents of food	45	BB	T1,R1
4.	Constituents of food, energy value of foods and nutritional aspects of foodstuffs	45	PPT	T1
5.	Classification of additives	45	BB	T1
6.	Food colorants- natural and artificial, food flavors	45	PPT	T1,R1
7.	Enzymes as food processing aids	45	BB	T1,R1

UNIT-II MICROORGANISMS ASSOCIATED WITH FOOD

S.No	Topics To Be Covered	Duration in Minutes	Teaching Aid	Books Referred
8.	Bacteria source	45	BB	T1,R1
9.	Yeast & molds-sources	45	PPT	T1,R1
10.	Types of bacteria, yeast, molds	45	BB	T1
11.	Types & species of importance in food processing & preservation	45	BB	T1
12.	Types & species of importance in food processing & preservation	45	PPT	T1
13.	Fermented food	45	BB	T1,R1
14.	Food chemicals	45	PPT	T1

15.	Single cell proteins	45	BB	T1,R1
16.	Single cell proteins	45	PPT	T1

UNIT-III FOOD BORNE DISEASES

S.No	Topics To Be Covered	Duration in Minutes	Teaching Aid	Books Referred
17.	Classifications	45	PPT	T1,R1
18.	Food infections-bacterial & other types	45	BB	T1
19.	Food intoxications & poisoning	45	BB	T1,R1
20.	Bacterial & non bacterial	45	BB	T1
21.	Food spoilage	45	BB	T1,R1
22.	Factors responsible for spoilage	45	BB	T1
23.	Spoilage of vegetables, fruit, meat	45	PPT	T1
24.	Spoilage of poultry	45	BB	R1
25.	Spoilage of beverage& other food products	45	BB	T1
26.	Spoilage of beverage& other food products	45	PPT	R1

UNIT-IV PRINCIPLES OF FOOD AND PRESERVATION

S.No	Topics To Be Covered	Duration in Minutes	Teaching Aid	Books Referred
27.	Principles of food preservation	45	PPT	T1,R1
28.	Processing and packaging technology principles involved in the use of sterilization	45	BB	T1,R1
29.	Processing and packaging technology principles involved in the use of Pasteurization and blanching	45	PPT	T1
30.	Processing and packaging technology principles involved in the use of Pasteurization and blanching	45	BB	T1
31.	Thermal death curves of microorganisms, canning	45	PPT	T1
32.	Frozen storage-freezing characteristics of food	45	BB	T1
33.	Microbial activity at low temperatures	45	BB	T1,R1
34.	Factors affecting quality of food in frozen storage	45	BB	T1,R1
35.	Irradiation preservation of foods	45	BB	T1

UNIT – V ADVANCES IN SCIENCE AND ENGINEERING

S.No	Topics To Be Covered	Duration in Minutes	Teaching Aid	Books Referred
36.	Properties of solid food materials	45	BB	T1,R1
37.	Flow properties of liquid foods	45	BB	T1
38.	Heat transfer, radiation heating ,evaporation	45	BB	T1,R1
39.	Extraction of leaching, distillation ,drying ,Separation methods	45	PPT	T1,R1
40.	Particulate solids ,food emulsions	45	BB	T1,R1
41.	Quality attributes safety and laws of foods	45	PPT	T1
42.	Production of additives ,colours and flavours by biotechnological approaches	45	BB	T1,R1
43.	Recent trends in food processing	45	BB	T1,R1
44.	Export agencies &marketing technology	45	PPT	T1,R1
45.	Utilization of computer databases			T1,R1

TEXT BOOKS:

1 . Frazier W.C. and. Westhoff D.C.”FOOD MICROBIOLOGY”,4th Ed., McGraw-Hill Book Co., New York2008

REFERENCE:

1. Sivasankar B,” Food processing and preservation”, Prentice-Hall of India Pvt, ltd, New delhi