

GOVERNMENT POLYTECHNIC, MANDI ADAMPUR		
Name of Faculty: NEERU RANI		
Discipline: FOOD TECHNOLOGY		
Semester: 3rd		
Subject: Food Microbiology		
Lesson Plan Duration: 15 Weeks (July 2018-Nov. 2018)		
Work load (Theory/Practical) per week (in hours): Theory: 03, Practical: 04		
Week	Lecture day	Theory
1st	1	Introduction to Syllabus and Evaluation Scheme.
	2	Introduction to Food Microbiology.
	3	Definition of Food Microbiology and related terms.
	4	Introduction to Laboratory and its equipments. (Practical)
	5	To check the quality of milk sample by methylene blue reduction dye. (Practical)
2nd	6	Historical developments in the food microbiology.
	7	Significance of Food Microbiology.
	8	Revision of unit 1.
	9	Estimation of total microbial bacterial plate count of food sample by direct microscopic(Practical)
	10	Estimation of total microbial bacterial plate count of food sample by SPC method (Practical)
3rd	11	Introduction to Microbiology of milk and milk products.
	12	Microbiology of cheese.
	13	Microbiology of butter.
	14	Study of the growth curve of micro-organisms (Practical)
	15	Estimation of total microbial count of yeast (Practical)
4th	16	Microbiology of Ice-cream.
	17	Microbiology of milk powder.
	18	Revision of unit 2.
	19	Estimation of total microbial count of mould (Practical)
	20	Estimation of total microbial count of milk products (Practical)
5th	21	Introduction to microbiology of meat, fish and poultry products.
	22	Microbiology of meat.
	23	Microbiology of fish.
	24	Estimation of total microbial count of fruits (Practical)
	25	Estimation of total microbial count of water (Practical)
6th	26	Microbiology of poultry.
	27	Microbiology of egg products.
	28	Revision of unit 3.
	29	Estimation of total microbial count of surface (Practical)
	30	Estimation of total microbial count of air (Practical)

7 th	31	Introduction to Microbiology of fruits and vegetable products.
	32	Microbiology of Jam.
	33	Microbiology of Jelly.
	34	Estimation of total microbial count of workers (Practical)
	35	Estimation of total microbial count of canned foods (Practical)
8 th	36	Microbiology of Sauce.
	37	Microbiology of Juice.
	38	Revision of unit 4.
	39	Estimation of total microbial count of poultry products. (Practical)
	40	Demonstration of effect of different anti-microbial agents i.e. chemical preservatives on the growth of microbes
9 th	41	Introduction to microbiology of different cereals.
	42	Microbiology of various cereal products.
	43	Microbiology of bread.
	44	Demonstration of effect of different anti-microbial agents i.e. high and low temperature (Practical)
	45	Demonstration of effect of different anti-microbial agents i.e. UV radiation (Practical)
10 th	46	Microbiology of other cereal products.
	47	Revision of unit 5.
	48	Introduction to Microbial spoilage of foods.
	49	Estimation of total microbial bacterial plate count of food sample by direct microscopic (Practical)
	50	Estimation of total microbial bacterial plate count of food sample by SPC method
11 th	51	Food borne pathogens-Causes.
	52	Food borne pathogens- Prevention.
	53	Food poisoning-Causes.
	54	To check the quality of milk sample by MBRT (Practical)
	55	Estimation of total microbial count of surface (Practical)
12 th	56	Food poisoning- Prevention.
	57	Food infection- Causes and Prevention.
	58	Food intoxication- Causes and Prevention.
	59	Estimation of total microbial count of air (Practical)
	60	Estimation of total microbial count of worker (Practical)
13 th	61	Difference b/w Food infection and intoxication.
	62	Revision of unit 6 th .
	63	Concept of TDT.
	64	Estimation of total microbial count of mould (Practical)
	65	Estimation of total microbial count of Yeast (Practical)

14th	66	Concept of F, Z and D value.
	67	Revision of unit 7 th .
	68	Introduction to Anti-microbial agents.
	69	Study of the growth curve of micro-organisms (Practical)
	70	Estimation of total microbial count of water (Practical)
15th	71	Physical agents– their mechanism of action.
	72	Chemical agents – their mechanism of action.
	73	Revision of unit 8 th .
	74	Estimation of total microbial count of vegetable products (Practical)
	75	Internal examination of students. (Practical)