

Lesson Plan
Mehr Chand Mahajan DAV College for Women, Sector – 36A, Chandigarh
Monthly Teaching Plans- Even Semester (Semester-I)
Session – 2019-2020

Name of the Teacher- Dr. Vandana Sharma
Department- Food Science

Class- B.Sc. I MFT
Subject- Microbiology
BMF 1001 – GENERAL AND FOOD MICROBIOLOGY

Month	Date		Topics to be Covered	Academic Activity Undertaken
	From	To		
July	11.07.2019	31.07.2019	Organization of Cell - Concept of Prokaryotic and Eukaryotic cell, extra nuclear and nuclear organization of cell.	Interactive Lecture method, Power Point Presentations
August	01.08.2019	31.08.2019	Characteristics of major groups of microorganisms: Archaeobacteria, Eubacteria, Fungi, Protozoa and Viruses and Bacteriophages. Prokaryotic cell structure and function: Cell morphology; the capsule and slime layer; cell wall; cell membrane; ribosome; flagella; fimbriae and pilli; nuclear region and spores. Microbial Nutrition: Nutritional requirements of microbes; Types of culture media; Classification of microbes on the basis of nutritional requirements, Identification of bacteria.	Interactive Lecture method, Power Point Presentations, Audio-visual aid
September	01.09.2019	30.09.2019	Bacterial Growth - Bacterial growth curve, Methods of measurement of growth, Bacterial growth at high and low temperature; Other environmental factors affecting microbial growth, Synchronous and Diauxic growth. Control of microorganisms:-	Interactive Lecture method, Power Point Presentations Practical demonstration

			Physical and Chemical methods of sterilization/Disinfection. Human-Microbial Interactions: Normal flora – Gastrointestinal tract; Pathogenic mechanisms of food borne bacteria, Brief account of mechanisms of action of chemotherapeutic agents, Introduction to specific and nonspecific defense mechanisms to infections.	
October	01.10.2019	31.10.2019	Food-borne Pathogens: General characteristics and brief account of food borne diseases caused by- <i>Staphylococcus aureus</i> ; <i>Clostridium botulinum</i> ; <i>C. perfringens</i> ; <i>Listeria monocytogene</i> ; <i>Salmonella</i> ; <i>Escherichia.coli</i> ; <i>Yersinia enterocolitica</i> ; <i>Vibrio parahaemolyticus</i> , Mycotoxins. Detection of food pathogens: Overview of Conventional and Rapid methods to detect food pathogens. MST	Interactive Lecture method, Power Point Presentations, Group Discussion
November, December	01.11.2019	03.12.2019	Food Spoilage - Contamination of foods from natural sources, Intrinsic and Extrinsic parameters of food that affect microbial growth, Associations of microorganisms involved in spoilage, Physical and Chemical changes in food caused by micro-organisms. Microbiology of different foods –Spoilage of the different food products: a) Cereal and cereal products b) Vegetables and fruits c) Meat and meat products d) Milk and milk products e) Egg and egg products f) Canned foods.	Lecture method, PPT and group discussion

MCM DAV College for Women, Sector – 36A, Chandigarh
Monthly Teaching Plans (Semester I)
Session–(2019-20)

Name of the Teacher: Dr. Shruti Puri

Department: Department of Food Science

Class: B.Sc. MFT (I)

Subject: BMF 1002 – MICROBIAL AND FOOD BIOCHEMISTRY

S.No.	Date (Monthly)		Topics to be Covered	Academic Activity Undertaken*
	From	To		
1.	25.07.2019	05.08.2019	Introduction to major biomolecules	Lecture, Online Sources
2.	06.08.2019	30.08.2019	Bioenergetics, Bioavailability of nutrients, Enzymes classification, Enzyme kinetics, Enzyme inhibitions	Lecture
Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans				
3.	01.09.2019	15.09.2019	Introduction to carbohydrates, glycolysis, TCA, ETC, ED, PPP, Sweeteners	Lecture method, Cycles slides
4.	15.09.2019	28.09.2019	Classification of Proteins, amino acids, protein synthesis, protein catabolism, urea cycle Introduction to lipids	Lecture, Online Videos
Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans				
5.	28.09.2019	30.09.2019	Lipid classification, catabolism of fatty acids	Lecture, PPT
6.	01.10.2019	05.10.2019	Vitamins and minerals	Lecture, PPT
7.	06.10.2019	15.10.2019	Biological membranes, membrane transport	Lecture, PPT
8.	16.10.2019	22.10.2019	Pigments and flavors	Lecture, PPT
9.	23.10.2019	31.10.2019	Changes in food constituents during processing	Lecture, PPT
10.	01.11.2019	15.11.2019	Biosynthesis pathways	Lecture, PPT, Online Videos
11.	16.11.2019	20.11.2019	Revision of topics	Discussion
12.	20.11.2019	30.11.2019	Class tests and Discussions	Discussion

***Any of these** – (i) Lecture Method; (ii) PPT; (iii) Online Sources; (iv) Group Discussion; (v) Case Studies etc. Other Methods adopted by the teacher – Please write the specific teaching method