DEPARTMENT OF Molecular Biology & Biotechnology
LESSION Plan
Session 2023-24
SEMESTER – V

Name of Teacher: Ms. Upasana Das

Paper Allotted: MLBGDSE02T (General Microbiology -Theory)

Month	Paper	Topic	No. of classes
September 2023 (25.09.2023)	**MLBGDSE02T**	**Unit 1: Introduction To Microbiology:** **General concepts on microbes and their distinctive characters,**	**3**
October 2023	**MLBGDSE02T**	**Whittaker's Five kingdom classification concept. Bergey's systematic – overview according to Bergey's Manual of determinative Bacteriology** **Unit 2: Morphology of Bacteria:** **Bacterial cell size and shape,**	**9**
		PUJA VACATION (19.10.2023 to 15.11.2023)	
November 2023	**MLBGDSE02T**	**bacterial cell wall – structural components and functional properties. Bacterial Cell appendages and cell inclusions – overview to introduce the terms and working/functions of each appendage.**	**6**
1st to 3rd Week of Dec 2023	**MLBGDSE02T**	**Unit 5: Algae and Fungi:** **General characteristics of algae. General characteristics of fungi. Morphology and mode of reproduction (asexual and sexual)**	**9**
4th week of Dec 2023 to 1st week of Jan 2024		**Internal Examination &** **Class for Slow Learners**	**4**
Jan – Feb 2024		**END SEMESTER EXAMINATION**	
Total Classes			**31**

Name of Teacher: Dr. Indrani Datta

Paper Allotted: MLBGDSE02T (General Microbiology -Theory) & MLBGDSE02P (General Microbiology -PRACTICAL)

Month	Paper	Topic	No. of classes
September 2023 (25.09.2023)	**MLBGDSE02T**	**Unit 3: Bacterial Growth and its dependence on environment: Nutritional types of bacteria. Physical conditions required for growth (temperature).**	**3**
	MLBGDSE02P	**Simple staining of bacteria.**	**4**
October 2023	**MLBGDSE02T**	**Physical conditions required for growth (oxygen, and pH). Unit 4: Bacterial Reproduction: Binary Fission, fragmentation and budding.**	**9**
	MLBGDSE02P	**Simple staining of bacteria. Gram staining of bacteria.**	**12**
		PUJA VACATION (19.10.2023 to 15.11.2023)	
November 2023	**MLBGDSE02T**	**Bacterial growth Curve. Unit 6: Control of microorganisms: Fundamentals of control**	**6**
	MLBGDSE02P	**Gram staining of bacteria.**	**8**
1st to 3rd Week of Dec 2023	**MLBGDSE02T**	**Definition of physical agents (high and low temperature, radiation, filtration) chemical agents (phenol and phenolic compounds, alcohol, chemotherapeutic agents). Introduction to antibiotics, mode of action of antibiotics like – penicillin, streptomycin, and chloramphenicol. Antibiotic resistance in microbes.**	**9**
	MLBGDSE02P	**Isolation of pure cultures of bacteria by streaking method.**	**12**
4th week of Dec 2023 to 1st week of Jan 2024		**Internal Examination & Class for Slow Learners**	**4**
Jan – Feb 2024		**END SEMESTER EXAMINATION**	
Total Classes			**67**