PG.GOVT COLLEGE FOR GIRLS, SECTOR-42, CHANDIGARH

Teaching Plan 2018-19

Class: BSc Microbiology E Semester I Subject: Microbiology

Teacher: Akashdeep Sandhu

Paper code: MIC 101 Fundamentals of Microbiology R.No: 316 Lect: 6th

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| S. No | Date From | | Date Upto | Topics to be covered |
| Week 1 | (For ongoing classes) | | | Admissions |
| July 24, 2018 | | July 28, 2018 |
| Week 2 | July 30, 2018 | August 4, 2018 | | History development and scope of Microbiology |
| Week 3 | August 6, 2018 | August 11, 2018 | | Methods of microbiology Isolation of pure culture |
| Week 4 | August 13, 2018 | August 18, 2018 | | Theory and practice of sterilization |
| Week 5 | August 20, 2018 | August 25, 2018 | | Nature of Microbial world prokaryotes and eukaryotes |
| Week 6 | August 27, 2018 | September 1, 2018 | | Growth pattern in microbes |
| Week 7 | September 3, 2018 | September 8, 2018 | | Morphology and fine structure of bacteria and fungi |
| Week 8 | September 10, 2018 | September 15, 2018 | | Morphology and fine structure of actinomycetes and algae |
| Week 9 | September 17, 2018 | September 22, 2018 | | Organisation of cell wall, cell membrane, flagella and capsules in bacteria. |
| Week 10 | September 24, 2018 | September 29, 2018 | | Morphogenesis in bacteria, formation of spores and cysts. |
| Week 11 | October 1, 2018 | October 8, 2018 | | rDNA technology, genetic engineering and gene cloning in microbes. |
| MID SEMESTER EXAMINATION (October 11, 2018 to October 17, 2018) | | | | |
| Week 12 | October 20, 2018 | October 27, 2018 | | Strategies of genetic engineering: Restriction enzymes |
| Week 13 | October 29, 2018 | November 3, 2018 | | Vectors and Plasmids |
| Week 14 | November 5, 2018 | November 10, 2018 | | Microorganism association with vascular plants Rhizosphere and rhizoplane microbes and Mycorhizae |
| Week 15 | November 12, 2018 | November 17, 2018 | | Nitrogen Fixation: Symbiotic and non symbiotic. |
| Week 16 | November 19, 2018 | November 22, 2018 | | Biofertilizers. |
| Week 17 | November 26, 2018 | December 1, 2018 | | Biopesticides. |

PG.GOVT COLLEGE FOR GIRLS, SECTOR-42, CHANDIGARH

Teaching Plan 2018-19

Class: BSc Microbiology E Semester III Subject: Microbiology

Teacher: Akashdeep Sandhu

Paper code: MIC 302 Introductory Immunology R.No: 316 Lect: 1st

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| S. No | Date From | | Date Upto | Topics to be covered |
| Week 1 | (For ongoing classes) | | | Admissions |
| July 24, 2018 | | July 28, 2018 |
| Week 2 | July 30, 2018 | August 4, 2018 | | Introduction and history of immunology |
| Week 3 | August 6, 2018 | August 11, 2018 | | Non specific defence: Physical barrier |
| Week 4 | August 13, 2018 | August 18, 2018 | | Chemical and cellular barrier |
| Week 5 | August 20, 2018 | August 25, 2018 | | Phagocytosis Inflammatory barriers Inflammation Fever |
| Week 6 | August 27, 2018 | September 1, 2018 | | Types of immunity active and Passive Immunological memory |
| Week 7 | September 3, 2018 | September 8, 2018 | | Humoral imuune Response Antibodies/ immunoglobulins |
| Week 8 | September 10, 2018 | September 15, 2018 | | Structure Function and types of Antibodies |
| Week 9 | September 17, 2018 | September 22, 2018 | | Cell mediated Immune System Mechanism of CMI |
| Week 10 | September 24, 2018 | September 29, 2018 | | Types of effector T cells Helper T cellsd Suppressor T cells |
| Week 11 | October 1, 2018 | October 8, 2018 | | Cytotoxic T cells killer T cells |
| MID SEMESTER EXAMINATION (October 11, 2018 to October 17, 2018) | | | | |
| Week 12 | October 20, 2018 | October 27, 2018 | | Interaction between T and B lymphocytes |
| Week 13 | October 29, 2018 | November 3, 2018 | | Antigen Antibody Interactions |
| Week 14 | November 5, 2018 | November 10, 2018 | | Precipitation Reaction |
| Week 15 | November 12, 2018 | November 17, 2018 | | Immunodiffusion test |
| Week 16 | November 19, 2018 | November 22, 2018 | | Counter current immunoelectrophoresis |
| Week 17 | November 26, 2018 | December 1, 2018 | | Compliment fixation tests |

PG.GOVT COLLEGE FOR GIRLS, SECTOR-42, CHANDIGARH

Teaching Plan 2018-19

Class: BSc Microbiology E Semester V Subject: Microbiology

Teacher: Akashdeep Sandhu

Paper code: MIC 502 Food & Industrial Micro R.No: 222 Lect: 6th

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| S. No | Date From | | Date Upto | Topics to be covered |
| Week 1 | (For ongoing classes) | | | Admissions |
| July 24, 2018 | | July 28, 2018 |
| Week 2 | July 30, 2018 | August 4, 2018 | | Food as substrate for microbes |
| Week 3 | August 6, 2018 | August 11, 2018 | | Nutritive value of food stuffs |
| Week 4 | August 13, 2018 | August 18, 2018 | | Effect of pH on food |
| Week 5 | August 20, 2018 | August 25, 2018 | | Moisture requirement of food |
| Week 6 | August 27, 2018 | September 1, 2018 | | Staphylococcal intoxication |
| Week 7 | September 3, 2018 | September 8, 2018 | | botulism |
| Week 8 | September 10, 2018 | September 15, 2018 | | Salmonellosis |
| Week 9 | September 17, 2018 | September 22, 2018 | | Shigellosis |
| Week 10 | September 24, 2018 | September 29, 2018 | | Contamination preservation and spoilage in cereal and cereal products |
| Week 11 | October 1, 2018 | October 8, 2018 | | Contamination preservation and spoilage in sugar and sugar products |
| MID SEMESTER EXAMINATION (October 11, 2018 to October 17, 2018) | | | | |
| Week 12 | October 20, 2018 | October 27, 2018 | | Production strains |
| Week 13 | October 29, 2018 | November 3, 2018 | | Isolation of strains |
| Week 14 | November 5, 2018 | November 10, 2018 | | Preservation |
| Week 15 | November 12, 2018 | November 17, 2018 | | Genetic modification |
| Week 16 | November 19, 2018 | November 22, 2018 | | Yeast and its uses |
| Week 17 | November 26, 2018 | December 1, 2018 | | Fermentation of beer. Fermentation of wine and alcohol |