

DEPARTMENT OF MICROBIOLOGY

COURSE OUTCOMES: 2018-19

SEMESTER I: Introduction to Microbiology & Microbial Diversity

- Explain relationship and apply appropriate terminology relating to the structure, genetics, metabolism and ecology of prokaryotic microorganisms, algae, viruses and fungi.
- Students will get basics and importance of Microbiology
- Demonstrate appropriate laboratory skills and techniques related to isolation, staining, identification and control of microorganisms.

SEMESTER II: Microbial Biochemistry and Metabolism

- Explain working principle and application of colorimetry, chromatograph, spectrophotometry and Gel Electrophoresis.
- Knowledge on microbial Nutrition, Bacterial growth, metabolism and Respiration.
- The students will get first-hand experience on separation methods.

SEMESTER III: Microbial Genetics & Molecular Biology

- Develop Knowledge on microbial genetics and molecular biology and instrumentation.
- To develop knowledge and skill related to Genetic engineering
- To be able expertise in cloning techniques

SEMESTER IV: Immunology and Medical Biology

- Explains non-specific body defenses and the immune response.
- Develop knowledge on disease transmission and control
- Demonstrate on collection and handling of laboratory specimens
- Develop information making personal health decision in regard to infectious diseases.

SEMESTER V: Environmental & Agricultural Microbiology

- The students will have fundamental concepts in soil microbiology, soil microbial diversity,
- Basic concepts of nitrogen fixation. And plant growth promotion.

- Understanding the role of microorganisms in treatment of solid and liquid waste.
- The students will acquire knowledge on application of microorganism in agro-environment fields.
- Knowledge on plant disease control.

SEMESTER V: Food and Industrial Microbiology

- The course aim to improve general principles and food microbiology.
- It is assume that students will have got basic information on spoilage, principle of food preservation and single cell proteins.

SEMESTER VI: Microbial Biotechnology (Elective)

- Student should be able to demonstrate with the wide diversity of microbes and their potential for use in microbial biotechnology.
- It is assume that students will get outlines of intellectual property rights



Signature of Lecturer IN-Charge

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