### COURSE OBJECTIVES AND COURSE OUTCOMES

### S. Y. B. Sc. SEMESTER - III

### **MICROBIOLOGY PAPER - III**

#### SUBJECT: INTRODUCTION TO CLINICAL MICROBIOLOGY (USMB303A)

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Sr. No.	Course Objectives	Course Outcomes
1)	To describe the basic fundamentals of Microbiology	Students will understand the core concepts in the discipline of Microbiology
2)	To discuss common infectious diseases of skin, respiratory tract, digestive tract and nervous system	Students will gain the knowledge of the most common medically important organisms and the infections they cause
3)	To explain the concept of epidemiology and public health awareness	Students will understand the epidemiology of infectious disease and their control Students will be able to procure knowledge about public health measures to reduce the incidence of communicable diseases like food and water purity regulation, vector control, immunization, quarantine, disease surveillance and pathogen eradication
4)	To identify and categorize different methods of sterilization and disinfection procedures in clinical laboratory	To understand the procedure of sterilization and disinfection in clinical laboratory
5)	To identify and investigate safety in clinical microbiology	To understand laboratory safety practises to be followed in the clinical microbiology

# COURSE OBJECTIVES AND COURSE OUTCOMES S. Y. B. Sc. SEMESTER - IV MICROBIOLOGY PAPER - III

# SUBJECT: ADVANCES & APPLICATIONS OF MICROBIOLOGY AND SOFT SKILLS (USMB403B)

Sr. No.	Course Objectives	Course Outcomes
1)	To illustrate basic concepts of Nanobiotechnology	Students will acquire fundamental concepts in the field of nanotechnology and can take up a career in Nano science
2)	To describe the concept like biofilm and biosensor	Students will be able to understand and analyse biofilms in nature Students will understand the use and function of biosensors in the medicine and environmental field
3)	To outline the fundamentals of research and format of writing report, abstract and papers	Help the students to develop reading and writing skills and interest in the field of research
4)	To illustrate statistical tools used in research	Students will be able to present and analyse statistical data
5)	To discuss the application of microorganisms in varied fields of agricultural and environmental microbiology like bioremediation, biofertilizers and biopesticides	Students will gain knowledge and understanding of the concept of biofertilizers, Biopesticides, production and their application Students will acquire knowledge with respect to deterioration or transformation of waste using microbes thereby reducing environment degradation