



"Education for Knowledge, Science and Culture"
-Shikshanmaharshi Dr. Bapuji Salunkhe

Shri Swami Vivekanand Shikshan Sanstha's

Vivekanand College, Kolhapur
(Autonomous)



Department of Microbiology (UG)

Academic Year 2020-21

Course Outcomes (COs): Microbiology

B.Sc. Part III Microbiology	
Semester V	
DSE-1010E1: Paper V: IMMUNOLOGY AND MEDICAL MICROBIOLOGY	
CO No.	On completion of the course, student will be able to:
CO1	Understand the overall organization of the Immune system.
CO2	Understand the salient features of antigen antibody reaction & its use in diagnostics and in various other studies
CO3	Understand various viral, bacterial & fungal diseases , their causative agent , mode of infection, epidemiology lab diagnosis, treatment and prophylaxis
CO4	Explain different antimicrobial agents with respect to their mode of action uses
DSE-1010E2: Paper VI INDUSTRIAL MICROBIOLOGY AND MICROBIAL BIOCHEMISTRY	
CO No.	On completion of the course, student will be able to:
CO1	Metabolic pathways and Bioenergetics
CO2	Various downstream processing
CO3	Basic concept related to enzyme
CO4	Enzyme production and determination of its activity
SEC-SE: SEC 3-MANAGEMENT OF HUMAN MICROBIAL DISEASES	
CO No.	On completion of the course, student will be able to:
CO1	Explain the causes of immune deficiency diseases
CO2	Understand the cause and transmission of diseases
CO3	Design the diagnostic test and therapeutic agents
CO4	Apply their knowledge to prevent diseases
Semester VI	

DSE-1010F1: PAPER VII VIROLOGY AND MICROBIAL GENETICS

CO No.	On completion of the course, student will be able to:
CO1	Describe various stages involved in multiplication cycle of viruses
CO2	Understand methodological approaches in isolation, cultivation & purification of viruses.
CO3	Understand molecular mechanism involved in gene regulation
CO4	Explain techniques used to manipulate genes & formation of clones

DSE-1010F2: PAPER VIII AGRICULTURAL AND ENVIRONMENTAL MICROBIOLOGY

CO No.	On completion of the course, student will be able to:
CO1	Understand various plant microbe interactions especially rhizosphere, phyllosphere and mycorrhizae and their applications especially the biofertilizers and their production techniques
CO2	Understand various biogeochemical cycles - C,N,P cycle and microbes involved
CO3	Understand the basic principle of environment microbiology and be able to apply these principles to understanding and solving environmental problems - waste water treatment and bioremediation
CO4	Know the Microorganisms responsible for water pollution and their transmission

SEC-SF: SEC4- FOOD FERMENTATION TECHNIQUES

CO No.	On completion of the course, student will be able to:
CO1	Understand the role of microorganisms in fermentation process
CO2	Start small scale food industry
CO3	Apply their knowledge in designing techniques for food processing
CO4	Explain the role and health benefits of microorganism in probiotic food



[Signature]
HEAD
 DEPARTMENT OF MICROBIOLOGY
 VIVEKANAND COLLEGE, KOLHAPUR
 (AUTONOMOUS)