

Shri Swami Vivekanand Shikshan Sanstha's
Vivekanand College, Kolhapur (Empowered Autonomous)
Department of Microbiology (PG)
Academic Year 2024-25

M. Sc. II

Course outcomes

	Semester III
DSC20MIC31	AGRICULTURAL MICROBIOLOGY AND PHYTOPATHOLOGY
	CO 1 Understand scope of agricultural Microbiology and microflora of soil and their importance in agricultural Microbiology CO 2 Know about biofertilizers and biopesticides CO 3 Describe various plant diseases and their control CO 4 Explain interactions of plants pathogens with host and defense mechanisms in plants
DSC20MIC32	ENZYMOLGY AND ENZYME TECHNOLOGY
	CO 1 Explain history, properties, classification, structure, and specificity of enzymes CO 2 Describe enzyme kinetics CO 3 Elucidate structural modifications and types of enzymes CO 4 Narrate various applications of enzymes
DSE20MIC31	QUALITY CONTROL MICROBIOLOGY -I
	CO 1 Describe fermentation equipment and its uses CO 2 Explain fermentation economics and patents CO 3 Explain control of different metabolic pathways, Contamination and computer applications in fermentation technology CO 4 Produce vitamins, organic acids, beverages, and vaccines
DSE20MIC32	FERMENTATION TECHNOLOGY
	CO 1 Evaluate biosafety levels of laboratories



	CO 2 Explain good microbiological laboratory techniques CO 3 Describe various techniques of microbial control CO 4 Explain biosafety guidelines
DSE20MIC33	BIOSTATISTICS, BIOINFORMATICS AND SCIENTIFIC WRITING
	CO 1 Describe the method to collect samples, design the experiments, apply the measures of central tendency CO 2 Explain the concept of hypothesis testing, ANOVA, correlation and regression CO 3 Describe components, objectives, and applications of bioinformatics CO 4 Construct scientific documents, present and publish research papers, acknowledge legal aspects of scientific authorship
	Semester IV
DSC20MIC41	FOOD AND DAIRY MICROBIOLOGY
	CO 1 Write about food spoilage and various methods of food preservation CO 2 Prepare various Indian and western fermented foods CO 3 Describe different food borne disease, their preservation, and control CO 4 Explain role of enzymes in food processing, various applications of enzymes, and Laws regarding food safety
DSC20MIC42	INDUSTRIAL WASTE MANAGEMENT
	CO 1 Explain types and characteristics of industrial wastes CO 2 Write Microbiology and biochemistry of wastewater treatment CO 3 Describe methods of industrial waste treatment CO 4 Explain biological methods of industrial waste
DSE20MIC41	RECOMBINANT DNA TECHNOLOGY
	CO 1 Explain basic tools of recombinant DNA technology CO 2 Describe basic cloning strategies



	CO 3 Describe cloning procedure in eukaryotes CO 4 Explain various applications of DNA technology
DSE20MIC42	QUALITY CONTROL MICROBIOLOGY-II
	CO 1 Describe regulatory affairs concerning pharmaceutical drug CO 2 Explain cleanrooms classification, contamination, testing, and microbiological environmental monitoring CO 3 Determine bioburden of finished products CO 4 Explain quality management systems in pharmaceutical
DSE20MIC43	ENVIRONMENTAL MICROBIOLOGY
	CO 1 Understand developments in the field of environmental microbiology with special emphasis on the role of microbes in mitigating environment pollution. CO 2 Acquaint with various cultural, biochemical and molecular techniques used in understanding microbial diversity CO 3 Understand the role of microbes in management of waste plant biomass CO 4 Understand the role of microbes in bioremediation of environmental pollutants like petroleum hydrocarbons, pesticides, plastic and electronic waste; also understands

