

Course Outcome

Course Title	MBT101-Basic Microbiology	
Co.Nos	Course Outcome	PSOs
CO1	Students will be gaining knowledge about the history of microbiology and the contribution of various scientists in the field of microbiology along with basic working principles of microscope.	PSO4
CO2	Concepts related to sterilization, preservation and staining techniques will learnt by the students.	PSO2
CO3	Knowledge in prokaryotic cell structure, its components and on their reproduction will be gained in detail.	PSO1
CO4	An overview on eukaryotic cells, structure and reproduction will be taught to students	PSO2

Course Title	MBP102-Basic Microbiology	
Co.Nos	Course Outcome	PSOs
CO1	Students will prepare the normal and molar solutions	PSO4
CO2	Students will learn PH meter calibration	PSO2
CO3	Students will comprehend qualitative estimation of amino acids, proteins and lipids	PSO1
CO4	Students will learn estimation of reducing sugars and proteins	PSO2

Course Title	MBT201-Microbial Taxonomy and Cultural Techniques	
Co.Nos	Course Outcome	PSOs
CO1	Knowledge about environment, health, and safety (EHS), good laboratory practices (GLP), good manufacturing practices (GMP) and standard operating procedures	PSO4
CO2	Principles which include sterilization of culture media, glassware and plastic ware to be used for microbiological work.	PSO2
CO3	Enables students to develop the competence for selecting methods and tools appropriate for research topics	PSO1
CO4	Brief introduction about different branches and the contribution of various scientists to the field of microbiology studied here	PSO2

Course Title	MBP202-Microbial Taxonomy and Cultural Techniques	
Co.Nos	Course Outcome	PSOs
CO1	Students will be able to Isolate Bacteria and Fungi from soil	PSO4

CO2	Students will be able to perform spread plate and pour plate techniques	PSO2
CO3	Students will be able to perform streaking techniques for isolation and purification of Bacteria.	PSO1
CO4	Students will be able to Identify Bacteria and Fungi	PSO2

Course Title	MBT301-Microbial Physiology and Microbial Genetics	
Co.Nos	Course Outcome	PSOs
CO1	To understand the basics of biomolecules, fermentative modes in micro-organisms and understand the enzymology, bioenergetics and the energy yielding processes in micro-organisms.	PSO4
CO2	To attain the knowledge of nucleic acids, replication process in prokaryotes and to study the genetic recombination and mutations in bacteria with transposable elements.	PSO2
CO3	bioenergetics and the energy yielding processes in micro-organisms	PSO1
CO4	process in prokaryotes and to study the genetic recombination and mutations in bacteria with transposable elements.	PSO2

Course Title	MBP302-Microbial Physiology and Microbial Genetics	
Co.Nos	Course Outcome	PSOs
CO1	Gaining better knowledge of biochemical tests used for differentiation of micro-organisms	PSO4
CO2	Better understanding of protein & sugar estimation by different methods	PSO2
CO3	Checking the growth curve of bacteria & fungi using different methods	PSO1
CO4	To study the genetic recombination in bacteria through different experiments	PSO2

Course Title	MBT401-Molecular Biology And R-DNA Technology	
Co.Nos	Course Outcome	PSOs
CO1	To understand the molecular biology basics	PSO4
CO2	To comprehend the tools used in genetic engineering and understand the gene transfer methods under in vitro conditions	PSO2
CO3	To analyze and learn biophysics basics and principles in analytical techniques	PSO1
CO4	To understand the Gene Structure and expression.	PSO2

Course Title	MBP402-Molecular Biology And R-DNA Technology	
Co.Nos	Course Outcome	PSOs
CO1	Understand the buffer preparation and perform quantitative analysis of DNA	PSO4
CO2	To perform antimicrobial and antibiotic sensitivity tests and examine the results	PSO2
CO3	Familiar with plasmid DNA isolation and gel electrophoresis	PSO1
CO4	Understand the restriction digestion	PSO2

Course Title	MBT501-Agriculture And Environmental Microbiology	
Co.Nos	Course Outcome	PSOs
CO1	Students will acquire detailed knowledge of plant pathogens	PSO4
CO2	Students will learn about soil microbiology in detail and biofertilizers and biopesticides are also studied	PSO2
CO3	Students will learn about biohazards in occupational environment and allergy testing	PSO1
CO4	Students will learn to determine the sanitary quality of water – N index, membrane filtration and biological oxygen demand in detail.	PSO2

Course Title	MBP502-Agriculture And Environmental Microbiology	
Co.Nos	Course Outcome	PSOs
CO1	Students will isolate and enumerate bacteria and fungi from rhizosphere & rhizoplane	PSO4
CO2	Students will study different plant pathogens, they will isolate airborne microorganisms, they will study different air samplers	PSO2
CO3	Students will determine biological oxygen demand, MPN test and they will study different fungi	PSO1
CO4	Students will isolate and study rhizobium from legume root nodules and azotobacter from soil.	PSO2

Course Title	MBT503-Food And Dairy Microbiology	
Co.Nos	Course Outcome	PSOs
CO1	Students will learn sources of food contamination	PSO4
CO2	Students will be able to comprehend spoilage of canned food, food sanitation and control	PSO2
CO3	Students will understand the microorganisms in milk	PSO1

CO4	Students will learn the methods of preservation of milk and milk products and fermentation of milk	PSO2
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Course Title	MBP504-Food And Dairy Microbiology	
Co.Nos	Course Outcome	PSOs
CO1	Students will learn how to isolate and identify the microbes from infected fruits and vegetables, curd, idli batter, and stored foods Jams, Jellies, Sauce and Pickles	PSO4
CO2	Bacterial examination of milk by SPC and DMC methods	PSO2
CO3	Estimation of Lactose in milk and Fat content in milk by Gerber's method	PSO1
CO4	Students will learn genetic engineering in dairy industry	PSO2

Course Title	MBT601-Immunology And Medical Microbiology	
Co.Nos	Course Outcome	PSOs
CO1	Students will study basic concepts in immunology	PSO4

CO2	Students will learn about vaccines	PSO2
CO3	Students will learn medical microbiology basics including human microflora and other important pathogenic organisms	PSO1
CO4	Students will gain knowledge of bacterial, viral and protozoan diseases in detail	PSO2

Course Title	MBP602-Immunology And Medical Microbiology	
Co.Nos	Course Outcome	PSOs
CO1	Students will isolate and identify the microbes from nose, throat and sputum on different media	PSO4
CO2	Students will isolate and identify the microorganisms in clinical samples	PSO2
CO3	Study and examine the pathogenic microorganisms	PSO1
CO4	Students will learn blood grouping	PSO2

Course Title	MBT603-Industrial Microbiology And Microbial Technology	
Co.Nos	Course Outcome	PSOs

CO1	Students will learn industrial microbiology basics	PSO4
CO2	Students will be learning fermentor and be familiar with downstream processing	PSO2
CO3	Students will understand the production of alcohol and other beverages at industries	PSO1
CO4	Students will gain knowledge of biofuels, types and importance	PSO2

Course Title	MBP604-Industrial Microbiology And Microbial Technology	
Co.Nos	Course Outcome	PSOs
CO1	Students will learn production of wine under laboratory conditions	PSO4
CO2	Students will learn production and estimation of citric acid from fungi	PSO2
CO3	Students will be able to produce and estimate lactic acid in milk	PSO1
CO4	Students will gain knowledge of biofuels, types and importance	PSO2