

Quality Education for Today & Tomorrow Kovilachori, Kumbakonam. 612 503. Ph: 0435 2453007 Accredited by NAAC with '8' Grade & Recognized by UGC under Section 2(1) & 12(8) Affiliated to Bharathidasan University. Truchirappalli E-Mail acasdmn@gmail.com Annai Collegeof Arts & Science

PG DEPARTMENT OF MICROBIOLOGY

Attainment of Programme outcome, Programme Specific outcome with Course outcome

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PRINCIPAL

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Mapping of Programme outcome, Programme Specific outcome with Course outcome

PG Programme outcome:

scientific method PO1: Get ability to apply the process of science by formulating hypotheses and design experiments based on the

PO2: Analyze and interpret results from a variety of microbiological methods

microbiology. PO3: Use quantitative reasoning by using mathematical calculations and graphing skills to solve problems in

of microbiology in written and oral format PO4: Communicate and collaborate with other disciplines by effectively communicating the fundamental concepts

PO5: Identify credible scientific sources to interpret and evaluate the evidences

ethical issues in microbiology PO6: Understand the relationship between science and society by recognizing and discussing logical, scientific and

PO7: Apply the Microbiology discipline through involvement in research or internship activities

industries important to human wellbeing. PO8: Evaluate examples of the vital role of microorganisms in biotechnology, fermentation, medicine, and other

studying viruses PO9: Know how viruses are classified, understand the architecture of viruses and know the methods used in



PG Programme Specific outcome:

PSO1: Apply the knowledge of biological, microbial and biochemical fundamentals to find the solution for complex

molecular functions and physiology.

PSO2: Developing skilled persons in the sector of Disease diagnosis, treatment and prevention.

PSO3: Pest control using microbes and improving soil quality and agricultural output through sustainable

microbiological applications.

industries PSO4: To train the students in both theory and practical to accommodate them in both higher education and

PSO5: To augment problem-solving skills of students through industry oriented training programmes at various

levels.

PSO6: To enrich the Graduates with solid fundamentals of microbiology and advanced technologies.

PSO7: To enable them to employ the acquired theoretical knowledge wherever necessary.

PSO8: To occur hands on skills in Industry and/or Institutes, to better placement



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DEPARTMENT OF MICROBIOLOGY

GENERAL MICROBIOLOGY/ PI6MBI2.

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Course ourcome	РО	Od	PO PO	PO	РО	PO	РО	PO	PO	PSOI	PSO2	PSO3	PSO ₄	PSO5	PSOI PSO2 PSO3 PSO4 PSO5 PSO6	PSO	PS
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CO1: Significant knowledge will be						-											
obtained about various microbes including cell structure.																	
CO2: Complete information about cell									-				_				
cycles, reproduction in bacteria												_	<u> </u>				
and aspects of bacterial growth.							+	+			-	1					
CO3: A firm grasp of the basics of																	
microscopy and the principles,			-														
working and applications of			No. of Street, or other Persons and the Person														
bright field microscopes and			4														
electron microscopes.				-	+			+	-	-	-	+	+		_		
CO4: Explain the classification of																	
Microorganisms, prokaryotes,																	
and eukaryotes.					-	-			+	+	-		+	_	1		
CO5: Describe the morphology and											-						
general properties of bacteria, actinobacteria, cyanobacteria.										7	1	-	-				
CO6: Narrates the morphology,					1	No of the last of											
cultivation, me cycle of protester.				-	-	-		-	-	-	-	-	-	-			



VIROLOGY/ PI6MBI3:

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Course outcome			Sour	Programme outcome	10 00	10011		property Ambrogan		-	100		100	-	-	Constitution of the Consti	
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CO1: Understand the architecture of viruses.				/	-									and the second			
CO2: Explain the historical background of virus, taxonomy, nomenclature, evaluation and classification.														1	Approximately and the second		
CO3: Learning the life cycle, replication strategies and application of bacterial and plant viruses.																The second secon	
CO4: Understanding the strategies of anti-viral agents and viral vaccination.				<	1									7	1	Annual An	A STANSON OF THE STAN
CO5: Analyzing the pre-cautions and issues of vaccination.					The state of the s												STATE AND STATES
CO6: Explain the basics of cyano, myco and phycophages.							1							Baconton da	China and China		ACT -
CO7: Understand the plant viral diseases and its control measures.				1												AND PROPERTY SEASONS AND ADDRESS OF THE PROPERTY ADDRESS OF THE PROPERTY AND ADDRESS OF THE PROPERTY ADDRESS OF THE PR	
CO8: Analyze the Pre-cautions and issues of vaccination												1	-		The state of the s		
CO9: List out the application of cyano, myco and phycophages.												<					



GENERAL BIOCHEMISTRY/ PI6MB14:

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Course outcome			Prog	grami	Programme outcome	исоп			-		110	51.01		200	200	DCO	Coa
	PO	PO	PO	РО	PO	PO	PO 7	[®] PO	PO 9	PSO1	PSO2	PSO3	PSO ₄	PSOS	PSO1 PSO2 PSO3 PSO4 PSO5 PSO6	7	80 3
COI: Describe various types of Biomolecules.																	
CO2. Pinpoint biochemical characteristics of amino acids.														1			
CO3: Write down biochemical characteristics of proteins and							<	1									
cnzymes. CO4. Explain the concept of energy and thermodynamics.																	
CO5: Apply thermodynamics in biology - photosynthesis and respiration.					1								1				
CO6: List out biochemical characteristics of Carbohydrates.																	
CO7: Narrate biochemical characteristics of Lipids.						1											
CO8: To enumerate the organization of signaling pathways															3		
CO9: The structures of amino acids, their chemical properties and their organization into Polypeptides and proteins. Methods for isolating and characterizing proteins the basic elements of protein structure key.)															



MICROBIAL PHYSIOLOGY/ PI6MB21:

Course outcome			Pro	gram	Programme outcome	outco	me				Pro	gram	me S	pecil	ic ou	Programme Specific outcome	
	РО	РО	ро ро		РО	РО	РО	РО	PO	PSO1	PSO1 PSO PSO PSO PSO	PSO	PSO	PSO	PSO	PSO	PSO
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CO1: Explain the principles of the energy-yielding and consuming reactions, the various catabolic and anabolic pathways, the transport systems and the mechanisms of energy conservation in microbial metabolism.																	
CO2: Identify the various physiological groups of bacteria/ archaea with their special features, their applications and ways to study them.																	



ENVIRONMENTAL & AGRICULTURE MICROBIOLOGY/ PI6MB22:

ENVIRONMENTAL & AGRICULTURE MICKOBIOLOGY AND ARCHITECTURE	SE MIC	KOBI	OLO	1/1	101717	-											
Course outcome			Prog	Programme outcome	me oı	ıtcon	ne				Prog	ramn	ne Sp	ecitic	Programme Specific outcome		
Course outcome		3		S S	PO O	PO	od	PO	РО	PSO1	PSO2	PSO3	PSO4	PSOI PSO2 PSO3 PSO4 PSO5 PSO6	90S		PSO
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CO1: Learning and exploration of site							-					4		No. of Street, or other Persons and the Street, or other Persons a			
application through met genomic approach.															*		
CO2: Basics of aerobiology and aquatic microbiology ant its applications.																	
CO3: Exploring the microbes for waste water treatment and sustainable agriculture development.							1										
CO4: Understanding the plant microbe interaction and strengthening the helow ground diversity.																<	
CO5: Learn the basic concept of Microbial adaptation in natural	Land																
CO6: To explain the difference between					,					Parket in Stanyon de Parket							
bioremediation. bloadsorphon, bioaccumulation and biomagnifications.				?	Contract Section 1999												
CO7: To narrate the Outline of											Ten						
biogeochemical cycles.					-						St. Orange						
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IMMUNOLOGY/ PI6MB32:

Course outcome			Pro	Programme outcome	me o	utco	me				Pro	gran	ıme S	peci	nc ou	Programme Specific outcome	4
	PO	PO	PO	PO	РО	РО	РО	РО	РО	PSO	PSO	PSO	PSO.	PSO	PSO1 PSO2 PSO3 PSO4 PSO5 PSO6	PSO	
		2	نىئ	4	Un.	6	7	000	9							7	ox
CO1: Demonstrate an understanding of key concepts in immunology.			6														
CO2: Understand the concept of Immune system, Immunity, Immune response											<						
CO3: Describe the structure and, functions of antigen and antibody.							<										
CO4: Explain the humoral and cell medicated immune response.															A. Maria		
CO5: Narrates the antigen, antibody reactions.									1								
CO6: Explain the transplantation immunology.	<																
CO7: Describe the autoimmune diseases					<												
CO8: Explain the hypersensitivity reactions.	<																
CO9: list out the immunodeficiency disorders.			4														



MEDICAL MICROBIOLOGY/ PI6MB41:

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	РО	РО	РО	PO	РО	РО	РО	PO	PO	PSOI	PSO	PSO	PSO	PSO PSO PSO PSO	PSO	PSO	PSO
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CO1: Exploring the role of microbiology in medicine.							_						San				
CO2: Skilled at diagnosis of bacterial, viral, protozoan and other parasitic diseases.			,	Carlot and													
CO3: Learning the concept, etiology and epidemiology of infections.											1						
CO4: List out the prevention of medically important microbes.	<																
CO5: Understand the Host-microbe interactions.										<							
CO6: Analyze the molecular biology of animal virus and various antiviral agents.			1														
CO7: Describe the various types of parasite and its control measures												2					
CO8: Understand the description and pathology of Mycotic diseases.		79	The state of the s														



BIOPROCESS TECHNOLOGY/ PI6MB42 DEPARTMENT OF MICROBIOLOGY

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Course outcome		Pr	Programme outcome	nme	outco	me				Pros	rami	me S	pecif	ic ou	Programme Specific outcome	
	PO PO	РО	PO	РО	РО	PO	РО	РО	PSOI PSO	PSO	PSO PSO PSO PSO	PSO	PSO	PSO	PSO	PSO
CO1: Explain the growth cycle of microbes.	1 2	w	4	ر. د	6	7	00	9		10	w	4	U1	6	7	00
CO2: Discuss about fermentation																
	<															
CO3: Describe immobilization techniques.				,												
CO4: Elaborate the design and types of fermentor.												,				
CO5: Write down the applications of recombinant products.										(1					
CO6: Discuss about fermentation economics.		,														
CO7: Explain different classes of fermenters.													,	est.	Contract of the second	
CO8: Discuss fermenter design and operation.					<	The state of the s										
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