(Affiliated to Andhra University)
An Institution of Priyadarshini Educational Academy
NAAC ACCREDITED COLLEGE

Dr.V.Rama Rao, M.A., Ph.D., Secretary & Correspondent Dr.A.Balakrishna,M.Sc.,Ph.D., Principal

DEPARTMENT OF MICROBIOLOGY

Bachelor of Science (B.Sc. MB BC BT)

APSCHE, Revised Syllabus of Microbiology under CBCS Frame Work

w.e.f 2020 – 21 (Revised in April, 2020)

Course Out Comes (Cos) for Microbiology

CODE	TITLE OF THE PAPER	Cos) for Microbiology OUTCOMES
CODE	TITLE OF THE TATEK	OCICONES
MBT-1 (TH)	INTRODUCTION TO MICROBIOLOGY AND	<u>CO1:</u> The main objective of the course to
(/	MICROBIAL	know the students about contributions of
	DIVERSITY	scientists and to know the general
		characteristics of microorganisms.
		CO2: This course introduces to know the
		different methods of sterilization and
		concepts of microbial culture.
		<u>CO3:</u> The main objective of the course to
		make the students aware of Principles,
		Instrumentation and Handling of
		Microscopy and also the students
		understand about different staining
		techniques and culture medias.
		CO4: Students get the knowledge about
		microbial growth methods and steps in
		cultivation of microbes.
		CO5: The main objective of this course
		is to understand the students and get the



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(UG And PG Courses)

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to suntur	escribe and recognize the s	knowledge about the structure of cell
- 3883100	cicie acids compare and	organelle of different prokaryotic and
	NA and RNA.	eukaryotic species.
pathways	Our Desembe the metabolic	
MBP 1	INTRODUCTION TO MICROBIOLOGY AND	CO1: To learn how to determine types of
(PR)	MICROBIAL	bacteria by using staining techniques.
tone otno	DIVERSITY	CO2: Able to acquire the techniques and
	i na zapadina zapato z a ni na zapata na ni	inoculation methods.
	nivîrasta ni vilida al ErêQ	CO3: Preservation of bacterial cultures
	id also inderstand the med	by various techniques.
	ualysis carployed by the	CO4: Microscopic observation of
	iaracierizad enzynaes	bacteria (Gram positive bacilli and cocci,
	splain how the curyme	Gram negative bacilli).
erainic Ph	quisted and affected by rem	27
MBT II	MICROBIAL	CO1: Describe the chemistry of
(TH)	PHYSIOLOGY AND	carbohydrates, lipids, proteins and amino
	BIOCHEMISTRY	acids. JAISOSOM H984
	c analysis of earbohydrates	CO2: Describe the classification and
	ahii	structural organization of proteins.
		CO3: Describe the primary, secondary
	Off to determine and e	tertiary structure in proteins and identify
	NA and RUNA areasods	the types of interactions important in each
	omi to noisminusisti <u>AO</u>	case.



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Heo in or	ow <mark>iedge ab</mark> ora nie structu	Describe and recognize the structure of
yotic and	ganelle of different prota	nucleic acids compare and contrast -
	karyotic species	DNA and RNA.
		CO4: Describe the metabolic pathways
to expet of	O1: To learn how to deteron	of aerobic and anaerobic respiration
.201/p.0	niou gramera grava ya masto	pathways.
bas comple	doo! ent campos or clos. <u>:19</u>	To understand the oxygenic and
	column methods	anoxygenic photosynthesis in bacteria.
al continues	notomi io montemberg 180	CO5: The ability in classifying enzymes
	various techniques.	and also understand the mechanism of
lo none	O4: Microscopie obser	catalysis employed by the most well
and exect.	Hippy azitisog (gent)) arrotog	characterized enzymes.
	rein negative hacilit)	Explain how the enzyme activity is
		regulated and affected by temperature, Ph
io mem	(11: Teseribe the the	and concentration.
MBP II	arbohydratos, lipids, proteius	PRESIDENCE AND C
(PR)	MICROBIAL	CO1: Able to acquire a knowledge about
bus noting	PHYSIOLOGY AND	the analysis of carbohydrates and amino
	BIOCHEMISTRY	acids.
	O3: Describe the primary,	
will identify	ciery sinuctore in proteins	CO2: To determine and estimate the
	e types of interactions impo-	DNA and RNA methods.
	.986.	CO3: Determination of immobilization

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lo andron	Off Discuss diagnostic apr	of enzyme activity.
io apog	munology: Praetical to	CO4: Effect of temperature / Ph on
moisanta	tigen-antibody	enzyme activity.
	ecrpitation add aggintmation	G_{ij}
MBT III (TH)	MEDICAL	CO1: Identify normal micro-flora of
	MICROBIOLOGY AND	humans. General methods of laboratory
andolgams	IMMUNOLOGY	diagnosis - cultural, biochemical,
		serological and molecular methods.
	id also differential the lettera- 103: - Identifi - hacteria-	CO2: Identify epidemiology of general
	AND THE RESERVE OF THE PERSON	bacterial diseases, fungal and protozoal
	endomonas, šiaphylococul sine laboratory strams (m. t	diseases.
		Describe the life cycle, pathogenesis,
Esperionece	ntungi, morphological and l naracterisdics: INVIC.	laboratory diagnosis of viral diseases.
CALL ARIA		CO3: Identify the pathology of diseases
	oduction and oatalase tests.	caused by Aspergillus, Penicillium and
esaredu er	O41. Study symptoms of t	
zeribaz, z	th the help of photograph	also Hemoflagellates.
21m/2 7/11	Life, Herpes Chicker post	Students get the knowledge about
		antibacterial, antifungal and antiviral
	Figure Service Annual Mount	drugs.
		<u>CO4:</u> The main objective of this course
		study of the immune system cells and
Ellis COHESC	Of: The main objective of	organs.



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	cazyme activity.	CO5: Discuss diagnostic application of
no de v	<u>Ost</u> Effect of temperature	immunology: Practical aspects of
	zyme activny	antigen-antibody interaction:
		Precipitation and agglutination.
MBP III		CO1: Identification of human blood
(PR)	MEDICAL	groups and separate serum from the blood
vietsiodsl	MICROBIOLOGY AND	sample.
lesimedon S		CO2: To estimate the blood hemoglobin,
	rological and molecular meth	and also differential the leucocyte count.
LEIDEDE ID	vgoleinabige /finabl <u>120</u>	CO3: Identify bacteria- E. coli,
hiesoloiq	eterial disenses, tungal and stases	Pseudomonas, Staphylococcus, Bacillus,
		using laboratory strains on the basis of
	escribe the trie cycle, pu	cultural, morphological and biochemical
	beistory diagnosis of viral d	characteristics: IMVIC, Urease
weeksteels to	(A): Identify the pathology	production and catalase tests.
bes motili	used by Aspergillies, Penis	
	so Hemoflageilates.	with the help of photographs: Anthrax,
morts ag	udents get the knowled	
listivims	dibactorial, castrongal and	Polio, Herpes, Chicken pox, HPV warts,
	Sun	Dermatomycoses (ring worms).
2217/23 2280	to sviragio niem odf :140	
MBT IV	idy of the immune system	
(TH)	INDUSTRIAL	<u>CO1:</u> The main objective of this course
	MICROBIOLOGY	to understand students how the

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	ur grupe s.	microorganisms have the importance in
van to solan	15: Growth curve and kin	industry.
mahogaa		CO2: Have developed an understanding
		of different types of reactors or fermenters.
		CO3: Students get the knowledge about the role of microorganisms in pharma and
		therapeutic enzymes.
33800		CO4: Have acquired a detailed
100 mm	PRINCIPAL DEGREE COLLEGE	knowledge of number of products which are produced by industrial fermentation process.
	Mile Nagar Gartouka, CHASATHAM - CHICKE	CO5: Students get the knowledge about bioreactors and it concepts.
MTP IV (PR)	INDUSTRIAL MICROBIOLOGY	 <u>CO1:</u> To determine the production and estimation of alcohol. <u>CO2:</u> To isolate the amylase producing microorganisms from soil.
		CO3: Demonstration of fermenter.
		CO4: Microbial fermentation for the production and estimation of ethanol



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rootganisms have the impartance in	from grapes.
V.Ve	CO5: Growth curve and kinetics of any
2; Have developed an understanding ;	two industrially important
different types of reactors or	microorganisms.
renters	10)

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