VIVEKANAND COLLEGE, KOLHAPUR (EMPOWERED AUTONOMOUS)

Department of Biotechnology (Entire)

Department of Biotechnology (Entire) Curriculum Relevance- Course outcome with relevance to Local, Regional, National, Global Needs								
Sr No.	Course Name Biotechnology- Entire	Course Code	Year of implementation	COs local regional needs	COs related to national needs	COs relevance to global needs		
1			2018-19	CO1- Understand the importance of Chemicals in Day to day life.		CO2- Construct the thermodynamic model for reaction rate.		
2	Chemistry	DSC-1331-A DSC-1332-A	2018-19	Day to day me.	CO2- Outline the importance of carbohydrates, lipids in diet.	CO1- Understand the concept of Origin of life		
3	Biochemistry	DSC-1333-A	201819		CO1- Understand general classification of plant Kingdome	CO4- Explain the rules of Taxonomy.		
4	Plant Science	DSC-1334-A	2018-19		the mathematical Theorem			
5	Mathematics	DSC-1335-A	2018-19	CO2- Learn different aspects of Office	CO3- Outline the database management.			
6	Computer-I	DSC-1336-A	2018-19	operation		CO2- Demonstrate different lab instruments.		
	Instrumentation					S.L.		

7						
	Microbiology	DSC-1337-A	2018-19			CO3- Understand the Bacterial
8		DSC-1338-A	2018-19			Taxonomy
	Physics-I		2010-19			CO1- Reflect the importance of Various temperature
9			2018-19			scale.
	Chemistry	DSC-1331-B	2010 17			CO1- Describe the mechanism of Organic
10	Biochemistry	DSC-1332-B	2018-19		CO4- Explain the IUB Classification of	evolution.
11	Animal Science	DSC-1333-B	2018-19		Enzymes. CO1- Understanding the Diversity Life.	
Sr No.	Course Name Biotechnology- Entire	Course Code	Year of implementation	COs local regional needs	COs related to national needs	COs relevance to global needs
12	Statistics	DSC-1334-13B	2019-2020			CO1- Differentiate between correlation and regression
13	Computer-II	DSC-141335-B	2019-2020		CO1- Importance of Programming	-8
14	Cell biology	DS15C-1336- 16B	2019-2020		CO4- Undrstanding of	

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22	Plant Tissue	DSC-1350-C	2021-2022		CO1- Construct	
	Biotechnology- Entire		implementation	regional needs	national needs	to global needs
Sr No.	Course Name	Course Code	Year of	COs local	COs related to	COs relevance
	Molecular Biology-	DSC-1349-C	2020-2021			
21	Ecology Molecular Pints	D0C 1240 C	2020 2021		biogeochemical cycles.	Evolution theories in ecology
20		DSC-1348-C	2020-2021		CO2- Construct the relationship between different	CO4- Reflect the importance of
	Metabolic Path		2020-2021			CO2- explain different methods to study metabolism
18	Biophysics & Enzymology	DSC-1346-C	2020-2021	CO4- Able to construct models explaining mech of enzyme action.	analysis. CO2- Study and select spectroscopy fr elucidation of structure of Biolmolecule	disease.
	Genetics	DSC19-1345-C	2020-2021	тистовсору.	CO4- Predict and illustrate model of Pedigree	CO3- Perceive knowledge about the genetic
17	Physics-II	DSC-118338-B	2019-2020	CO1- to correlate optics with microscopy.	iviicroorganisms	
15	Microbiology	DSC-133177-B	1010 2020		elements. CO1- Acquire the knowledge about isolation of Microorganisms	,
					cytoskeleton	

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	Culture				the design fr	1
23					PTC lab	
23		DSC-1345-D	2021-2022			CO4- Perform
						various
						serological test fi
	Immunology					Diagnosis of
24	Advances in Cell	700.11				Diseases.
24		DSC-1346-D	2021-2022			CO3- Predict
25	Biology	200				causes of Cancer
23		DSC-1347-D	2021-2022			CO2- Illustrate
	Di Di i					concept of
26	PlantBiochemistry					Photosynthesis
26		DSC-1348-D	2022-2023			CO4- Discover
						the different
	Environment					ways of
	Biotechnology					Bioremediation.
27		DSC-1349-D	2022-2023			CO2- Outline the
	Molecular Biology					character of
	-II					Genetic code.
28		DSC-1350-D	2022-2023			CO4-
	Animal Tissue					importance of
	Culture					stem cell tech.
29			2022-2023			CO1 –
						Understand the
	Basics in Genetic					concept of
	Engineering	DSC-1355-E				Cloning
Sr No.	Course Name	Course Code	Year of	COs local	COs related to	COs relevance
	Biotechnology-		implementation	regional needs	national needs	to global needs
	Entire		- Charles			CO3. Discover
30		DSC-1356-E	2022-2023	CO1 -		various ways of
50				Construct the		illustration the
				design required		Nature of
				for Industrial		industrial
	Industrial			set up.		Processes.
	Biotechnology					Processes.

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31	Application	DSC-1357-E	2022-2023			
32	Biotech Agriculture	Dag	2022 2023			
		DSC-1358-E	2022-2023	CO1- Learn the		CO4- Elaborate
	Development			Concept of		mechanism of
33	Biology			apomixes poly embryony.		regeneration
33	Advances in		2022-2023	cineryony.		COA Invest 6
	Genetic engineering	DSC-1355-F				CO4- Impact of GM Foods on
34	- Smeeting	DSC-1355-F	2022 2022			Human health
		250 1550-1	2022-2023	CO3- Study of Characteristics	CO4- Outline the	
	Food & Microbial			of Food Supply	importance of food preservation	
35	Biotechnology				100d preservation	
33		DSC-1357-F	2022-2023	CO2 Students		
				will be able to		
				study the importance of		
				Vaccine for		
	Application of			human		
36	Biotech Health	DSC-1358-F	2022 2022	Therapy.		
30		DSC-1338-F	2022-2023			CO1- Outline the
						importance of Human Genome
	Bioinformatics					Project.
		B.Sc-I Biotechno	ology Entire NEP 2	2023 (As Per NEP	2020)	3
Sr No.	Course Name	Course Code	Sem - I Year of	COs local	60 1.11	
Sr No.	Biotechnology-	Course Code	implementation	regional needs	COs related to national needs	COs relevance to global needs
	Entire		implementation	regional needs	national needs	to global fleeds
				CO4- To learn	CO2- To learn	CO1- To
	Biotechnology-I			the techniques	the different	enumerate the
1	(Biotechnology for	DSC07BTE11	2023	of production of Biofertilizer	aspect of Biotechnology	importance of biotechnology in
	human welfare-I)			of Bioternizer	Bioteciniology	human
	,					development

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1	Biotechnology-I (Biotechnology for human welfare-I)	DSC07BTE11	2023	the techniques of production of Biofertilizer	the different aspect of Biotechnology	enumerate the importance of biotechnology in human development
	Biotechnology- Entire		implementation	regional needs CO4- To learn	CO2- To learn	CO1- To
Sr No.	Course Name	Course Code	Year of	COs local	COs related to national needs	COs relevance to global needs
			Sem - I	,	,	
		B.Sc-I Biotechno	ology Entire NEP 2	2023 (As Per NEP	2020)	
	Bioinformatics					importance of Human Genome Project.
36	Biotech Health	DSC-1358-F	2022-2023	Therapy.		CO1- Outline the
	Application of			will be able to study the importance of Vaccine for human		
35	- Steeming of	DSC-1357-F	2022-2023	CO2 Students		
JŦ	Food & Microbial Biotechnology	DSC-1356-F	2022-2023	CO3- Study of Characteristics of Food Supply	CO4- Outline the importance of food preservation	
34	Advances in Genetic engineering	DSC-1355-F				CO4- Impact of GM Foods on Human health
33	Development Biology	DSC-1358-E	2022-2023	CO1- Learn the Concept of apomixes poly embryony.		CO4- Elaborate mechanism of regeneration
31	Application Biotech Agriculture	DSC-1357-E	2022-2023			





2	Biotechnology-II (Biochemistry-I)	DSC07BTE12	2023	CO2- Outline the importance of carbohydrates, lipids in diet.		CO1- Understand the concept of Origin of life
3	Microbiology-I (Introduction to Microbial world)	MIN07BTE11	2023		CO1- Understand historical background for development of Microbiology	CO3- Understand the Bacterial Taxonomy
4	Microbiology-II (Techniques in Microbiology)	MIN07BTE12	2023		CO1- Acquire the knowledge about different sterilization techniques.	
5	(Bio- 6Instrumentation- I)	OEC07BTE11	2023			CO2- Demonstrate different lab instruments.
6	(Plant Sciences)	OEC07BTE12	2023		CO1- Understand general classification of plant kingdome	CO4- Explain the rules of Taxonomy.
7	English	AEC07ENG11	2023			
,	25		Sem	– II		
					CO2 Acquire	CO4- Acquire
	Biotechnology -III				232 1124	

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VIVERANAND COLLUTE, ROLHAPUR

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1	(Biotechnology for human welfare-II)	DSC07BTE21				
Sr No.	Course Name Biotechnology-	Course Code	2023 Year of	COs local	the knowledge about applications of biotechnology in commercial products. COs related to	conservation of enviornment
2	Entire		implementation	regional needs	national needs	COs relevance to global needs
	Biotechnology-IV (Biochemistry-II)	DSC07BTE22	2023		CO4- Explain the IUB Classification of	to gionai needs
3	Microbiology-III (Bacterial Cytology and Cultivation)	MIN07BTE21	2023		Enzymes. CO1- Acquire the knowledge about isolation of	
4	Microbiology-IV (Virology)	MIN07BTE22	2023		Microorganisms	CO3- Compare
5	(Ecology)	OEC07BTE21	2023		CO2- Construct the relationship between different biogeochemical	the replication of Viruses. CO4- Reflect the importance of Evolution theories in
6	(Animal Sciences)	OEC07BTE22	2023		cycles. CO1- Understanding the Diversity	ecology
7	(Basics in Cell Biology)	SEC07BTE21	2023		Life. CO4- Undrstanding of cytoskeleton elements.	
8	English	AEC07ENG21	2023		Cicinents.	



M.Sc-I Biotechnology Entire NEP 2023 (As Per NEP 2020) Sem – I

Sr No.	Course Name Biotechnology- Entire	Course Code	Year of implementation	COs local regional needs	COs related to national needs	COs relevance to global needs
1	Biological Chemistry	DSC21MBT11	2023			CO1- Understand the concept of Origin of life
2	Microbial technology	DSC21MBT12	2023	CO4- Appreciate the relation between microbes and Environment		CO1- To describe the microbial diversity.
Optional Subject	Environmental Biotechnology and Ecology	DSE21MBT11	2023	CO4-To learn the different concept of Evolution		renewable and non renewable natural resources
	Genetics and Basic Cell Biology	DSE21MBT12	2023			Col- Learn the concept of Genetics.
4	Research Methodology	RMD21MBT11	2023	Co1- To understand the different types of research work.		CO2- To present the research work scientifically

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