



# Sapthagiri College of Engineering

(Affiliated to Visvesvaraya Technological University, Belagavi & Approved by AICTE, New Delhi)

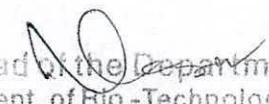
#14/5, Chikkasandra, Hesaraaghatta Main Road, Bengaluru – 560057  
Phone: 080-28372800/1/2 www.sapthagiri.edu.in Fax: 080-28372797

## Department of Biotechnology

### Curriculum Plan & Deployment 2022-23

Sl.No.	Subject Name /Code	Beyond Syllabus	Innovative teaching methods / ICT Tools Used	Deployment Strategy and Tool	Cross-cutting issues integrated	PO	PSO
1.	BSC 21MAT31 Mathematics course	-----	Google classroom & Google meet	Chalk and Talk method	-----	PO1, 2,3,4,5,6	PSO1,2,3
2.	IPCC 21BT32 Unit operations + lab		Google classroom & Google meet	Chalk and Talk method PPT, Project work, Internship		PO1,2,3,4, 9,10,11,12	PSO1,2,3
3.	IPCC 21BT33 Biochemistry + lab	-----	Google classroom & Google meet	Chalk and Talk method PPT		PO1,2,3, 9,10,11	PSO 1,2,3
4.	PCC 21BT34 Microbiology	-----	Google classroom & Google meet	Chalk and Talk method, PPT		PO1,2,5,12	PSO1
5.	PCC 21BTL35 Microbiology lab	Conduction of new experiments which are beyond the syllabus	Google classroom & Google meet	Chalk and Talk method, PPT		PO1,2,3,4, 9,11	PSO1,2,3
6.	UHV 21UH36 Social Connect and Responsibility	Seminar	Google classroom & Google meet	Chalk and Talk method, PPT	Human values	PO1, 2,3,4,5,6,7	PSO1,2

  
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Dept. of Bio-Technology  
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7.	HSMC21KSK37/47 Samskrutika kannada		Google classroom & Google meet	Chalk and Talk method PPT, Project and internship		PO1,2,3,4,6	PSO1,2,3
8.	HSMC 21KBK37/47 Balake kannada	-----	Google classroom & Google meet	Chalk and Talk method PPT		PO1,2,3,9,10,11	PSO 1,2,3
9.	HSMC 21CIP37/47 Constitution of India and Professional Ethics	-----	Google classroom & Google meet	Chalk and Talk method PPT	-----	PO 1,2,3,4,11,12	PSO 1,2
10.	21BT383 Biodiversity and Conservation Law	Conducted Quiz Seminar	Google classroom & Google meet	Chalk and Talk method PPT, You tube videos	-----	PO1,2,3,10,12	PSO1,2
11.	BSC 21BT41 Biostatistics and Design of experiments	-----	Google classroom & Google meet	Chalk and Talk method PPT, NPTEL videos		PO1,2,3,4,6,9,10,11,12	PSO1,2,3
12.	IPCC 21BT42 Python programming + lab	-----	Google classroom & Google meet	Chalk and Talk method PPT		PO1,2,3,4,6,9,10,11,12	PSO1,2,3
13.	IPCC 21BT43 Cell biology & Cell culture techniques + lab	-----	Google classroom & Google meet	Chalk and Talk method PPT	-----	PO1,2,3,4,6,9,10,11,12	PSO 1,2
14.	PCC 21BT44 Molecular biology & Genetic engineering		Google classroom & Google meet	Chalk and Talk method, PPT, you tube videos	-----	PO1,2,3,4,6,9,10,11,12	PSO1,2
15.	AEC 21BE45 Biology for	Conduction of new experiments which are beyond the syllabus	Google classroom & Google meet	Chalk and Talk method PPT	-----	PO1,2,3,4,6,9,10,11,12	PSO1,2



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	engineers						
16.	PCC 21BTL46 Molecular biology & Genetic	-----	Google classroom & Google meet	Chalk and Talk method PPT		PO1,2,3,6	PSO1,2,3
17.	21BT483 Biopesticides and Biofertilizers		Google classroom & Google meet	PPT			
18.	UHV21UH49 Universal Human Values		Google classroom & Google meet	PPT	<b>Human Value and Professional ethics</b>	PO1,2,3,4,8,9,11	
19.	INT21INT49 Inter/Intra Institutional Internship		Google classroom & Google meet	PPT		PO1,2,3,4,6,9,10,11,12	
20.	18BT51/ Bio-Business and Entrepreneurship	-----	Google classroom & Google meet	Chalk & talk, PPT, webinars,	<b>Professional ethics</b>	PO1,2,3,6,8	PSO1,2,3
21.	18BT52 /Chemical Reaction Engineering	-----	Google classroom & Google meet	Chalk and Talk method PPT		PO1,2,3,4,6,9,10,11,12	PSO1,2
22.	18BT53/ Enzyme Technology & Biotransformation	-----	Google classroom & Google meet	Chalk and Talk method, Project and Internship		PO1,2,3,4,6,9,10,11,12	PSO 1,2
23.	18BT54/ Genomics & Proteomics	-----	Google classroom & Google meet	Chalk and Talk method You tube PPT		PO1,2,3,4,6,9,10,11,12	PSO1,2
24.	18BT55 /Bioanalytical Techniques	-----	Google classroom & Google meet	Chalk and Talk method, NPTEL Videos, PPT	-----	PO1,2,7,12	PSO1,2,3
25.	18BT56 /Genetic Engineering & Applications	-----	Google classroom & Google meet	Chalk and Talk method, NPTEL Videos, PPT		PO1,2,3,6,8	PSO1,2,3
26.	18BTL57/ Biokinetics & Enzyme Technology	-----	Google classroom &	Chalk and Talk method, Project and	-----	PO 1,2,3,4,9,10,12	PSO1,2



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	Laboratory		Google meet	Internship			
27.	18BTL58/ Genetic Engineering and Cell Culture Laboratory	Conduction of new experiments which are beyond the syllabus	Google classroom & Google meet	Chalk and Talk method, NPTEL Videos, PPT		PO1,2,3,4,6,9,10,11,12	PSO1,2,3
28.	18BT61 /Process Control & Automation Chemical	-----	Google classroom & Google meet	Chalk and Talk method PPT		PO1,2,3,4,5,6,9,10,11,12	PSO1,2,3
29.	18BT62 /Bioprocess Equipment Design & CAED	-----	Google classroom & Google meet	Chalk and Talk method PPT		PO1,2,3,4,5, 9,10,12	PSO1,2,3
30.	18BT63 /Bioinformatics	-----	Google classroom & Google meet	Chalk and Talk method PPT,Project	-----	PO 1,2,3,10,11,12	PSO 1,2
31.	18BT643/ Human Physiology	-----	Google classroom & Google meet	Chalk and Talk method PPT	-----	PO 1,2,3,10,11,12	PSO 1,2
32.	18BT653/ Nanobiotechnology	-----	Google classroom & Google meet	Chalk and Talk method PPT	-----	PO1,2,3,6,12	PSO1,2,3
33.	18BTL66 /Process Control & Automation Laboratory	-----	Google classroom & Google meet	Chalk and Talk method PPT		PO1,2,3,4,5,7,11	PSO1,2
34.	18BTL67/ Bioinformatics Laboratory	Conduction of new experiments which are beyond the syllabus	Google classroom & Google meet	Chalk and Talk method PPT,Project	-----	PO 1,2,3,10,11,12	PSO 1,2
35.	18BTMP68 /Mini-	-----	Google classroom & Google meet	PPT	<b>Environmental Sustainability</b> <b>Human Value and</b>	PO1,2,3,4,5,6,7,8,9,10	PSO1,2,3



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	project				Professional ethics		
36.	18BT71 Bioprocess Engineering	-----	Google classroom	Chalk and Talk method, NPTEL Videos, PPT	-----	PO1,3,4,6, 9,10	PSO1,2,3
37.	18BT72 Clinical & Pharmaceutical Biotechnology	-----	Google classroom	Chalk and Talk method, NPTEL Videos, PPT		PO1,3,6	PSO1,2,
38.	18T732 Bioreactor Design Concepts	-----	Google classroom	Chalk and Talk method You tube PPT,Project and Internship		PO1	PSO1
39.	18BT742 Agricultural Biotechnology	-----	Google classroom	Chalk and Talk method PPT	-----	PO 1,2,3,4,9,10,12	PSO1,2
40.	18BT752 Forensic science	Group Discussion and case studies	Google classroom	Chalk and Talk method PPT	Human Value and Professional ethics	PO1,2,4,6,8,10	PSO1,2
41.	18BTL76 Bioprocess Engineering Laboratory	Conduction of new experiments which are beyond the syllabus	Google classroom	Chalk and Talk method ,Project and Internship	-----	PO1,2,3,4,9,10,11,12	PSO1,2
42.	18BTP77 Project phase 1	-----		PPT	"Environmental Sustainability Human Value and Professional ethics"	PO1,2,3,4,5,6,7,8,9,10	PSO1,2,3
43.	18BT71 Internship	-----		PPT	"Environmental Sustainability Human Value and Professional ethics"	PO1,2,3,4,5,6,7,8,9,10	PSO1,2,3





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44.	18BT81 Regulatory affairs in Biotechnology	-----	Google classroom	Chalk and Talk method PPT	-----	PO 1,2,3,10,12	PSO1,2
45.	18BT821 Environmental biotechnology	-----	Google classroom	Chalk and Talk method PPT	Environmental Sustainability	PO1,2,3,4,7,9,11	PSO1,2
46.	18BT822 Industrial Microbiology	-----	Google classroom	Chalk and Talk method PPT	Environmental Sustainability	PO1,2,3,4,7,9,11	PSO1,2
47.	18BTP83 Project Phase 2	-----	-----	PPT	"Environmental Sustainability Human Value and Professional ethics"	PO1,2,3,4,5,6,7,8,9,10	PSO1,2,3
48.	18BTS84 Technical Seminar	-----	-----	PPT	"Environmental Sustainability Human Value and Professional ethics"	PO1,2,3,4,5,6,7,8,9,10	PSO1,2,3
49.	18BTI85 Internship	-----	-----	PPT	"Environmental Sustainability Human Value and Professional ethics"	PO1,2,3,4,5,6,7,8,9,10	PSO1,2,3

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