

## Department of Biotechnology

### Curriculum Plan & Deployment 2021-22

Sl.No.	Subject Name /Code	Beyond Syllabus	Innovative teaching methods / ICT Tools Used	Deployment Strategy and Tool	Cross-cutting issues integrated	PO	PSO
1.	18BT31 /Biostatistics	-----	Google classroom & Google meet	Chalk and Talk method	-----	PO1, 2,3,4,5,6,7	PSO1,2,3
2.	18BT32/ Microbiology	Seminar	Google classroom & Google meet	Chalk and Talk method PPT,Project work,Internship	<b>Environmental Sustainability</b>	PO1,2,3,4,6,7,9,10,11,12	PSO1,2,3
3.	18BT33 /Unit Operations	-----	Google classroom & Google meet	Chalk and Talk method PPT	<b>Environmental Sustainability</b>	PO1,2,3,7,9,10,11	PSO 1,2,3
4.	18BT34/ Introduction to Biomolecules	-----	Google classroom & Google meet	Chalk and Talk method,PPT		PO1,2,5,12	PSO1
5.	18BT35/ Cell Biology and Genetics	-----	Google classroom & Google meet	Chalk and Talk method,PPT	<b>Human values</b>	PO1,2,3,4,8,9,11	PSO1,2,3
6.	18BT36/ Python Programming	-----	Google classroom & Google meet	Chalk and Talk method,PPT	-----	PO1, 2,3,4,5,6,7	PSO1,2
7.	18BTL37/Microbiology Laboratory	Conduction of new experiments which are beyond the syllabus	Google classroom & Google meet	Chalk and Talk method PPT,Project and internship	<b>Environmental Sustainability</b>	PO1,2,3,4,6,7,9,10,11,12	PSO1,2,3



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8.	18BTL38 /Unit Operations Laboratory	-----	Google classroom & Google meet	Chalk and Talk method PPT	Environmental Sustainability	PO1,2,3,7,9,10,11	PSO 1,2,3
9.	18BT41/ Stoichiometry	-----	Google classroom & Google meet	Chalk and Talk method PPT	-----	PO 1,2,3,4,11,12	PSO 1,2
10.	18BT42/ Molecular Biology	Conducted Quiz	Google classroom & Google meet	Chalk and Talk method PPT, You tube videos	-----	PO1,2,3,10,12	PSO1,2
11.	18BT43 /Immunotechnology	-----	Google classroom & Google meet	Chalk and Talk method PPT, NPTEL videos	Human values	PO1,2,3,6,8	PSO1,2,3
12.	18BT44/ Cell Culture Techniques	-----	Google classroom & Google meet	Chalk and Talk method PPT	Environmental Sustainability	PO 1,2,7,10,12	PSO1,2,3
13.	18BT45 /Biochemical Thermodynamics	-----	Google classroom & Google meet	Chalk and Talk method PPT	-----	PO1,2,3,4,11,12	PSO 1,2
14.	18BT46/ Clinical Biochemistry	Conducted Quiz	Google classroom & Google meet	Chalk and Talk method,PPT, you tube videos	-----	PO1,2,5,6,12	PSO1,2
15.	18BTL47/ Biochemistry Laboratory	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
16.	18BTL48/ Immunotechnology Laboratory	-----	Google classroom & Google meet	Chalk and Talk method PPT	Human values	PO1,2,3,6,8	PSO1,2,3
17.	18BT51/ Bio-Business and Entrepreneurship	-----	Google classroom & Google meet	Chalk & talk, PPT, webinars,	Professional ethics	PO1,2,3,6,8	PSO1,2,3



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18.	18BT52 /Chemical Reaction Engineering	-----	Google classroom & Google meet	Chalk and Talk method PPT	Environmental Sustainability	PO 1,2,3,5,6,7	PSO1,2
19.	18BT53/ Enzyme Technology & Biotransformation	-----	Google classroom & Google meet	Chalk and Talk method, Project and Internship		PO1,2,3,12	PSO 1,2
20.	18BT54/ Genomics & Proteomics	-----	Google classroom & Google meet	Chalk and Talk method You tube PPT	Human Value and Professional ethics	PO1,2,3,4,8,9,11	PSO1,2
21.	18BT55 /Bioanalytical Techniques	-----	Google classroom & Google meet	Chalk and Talk method, NPTEL Videos, PPT	-----	PO1,2,7,12	PSO1,2,3
22.	18BT56 /Genetic Engineering & Applications	-----	Google classroom & Google meet	Chalk and Talk method, NPTEL Videos, PPT	Ethical issue-Human values	PO1,2,3,6,8	PSO1,2,3
23.	18BTL57/ Biokinetics & Enzyme Technology Laboratory	-----	Google classroom & Google meet	Chalk and Talk method, Project and Internship	-----	PO 1,2,3,4,9,10,12	PSO1,2
24.	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	Ethical issue-Human values	PO3,6,8	PSO1,2,3
25.	18BT61 /Process Control & Automation Chemical	-----	Google classroom & Google meet	Chalk and Talk method PPT	Environmental Sustainability	PO1,2,3,4,5,6,7,9,10,11,12	PSO1,2,3
26.	18BT62 /Bioprocess Equipment Design & CAED	-----	Google classroom & Google meet	Chalk and Talk method PPT	Environmental Sustainability	PO1,2,3,4,5,7,9,10,12	PSO1,2,3
27.	18BT63 /Bioinformatics	-----	Google classroom & Google meet	Chalk and Talk method PPT, Project	-----	PO 1,2,3,10,11,12	PSO 1,2



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28.	18BT643/ Human Physiology	-----	Google classroom & Google meet	Chalk and Talk method PPT	-----	PO 1,2,3,10,11,12	PSO 1,2
29.	18BT653/ Nanobiotechnology	-----	Google classroom & Google meet	Chalk and Talk method PPT	-----	PO1,2,3,6,12	PSO1,2,3
30.	18BTL66 /Process Control & Automation Laboratory	-----	Google classroom & Google meet	Chalk and Talk method PPT	<b>Environmental Sustainability</b>	PO1,2,3,4,5,7,11	PSO1,2
31.	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
32.	18BTMP68 /Mini-project	-----	Google classroom & Google meet	PPT	<b>Environmental Sustainability</b>  <b>Human Value and Professional ethics</b>	PO1,2,3,4,5,6,7,8,9,10	PSO1,2,3
33.	18BT71 Bioprocess Engineering	-----	Google classroom	Chalk and Talk method, NPTEL Videos, PPT	-----	PO1,3,4,6, 9,10	PSO1,2,3
34.	18BT72 Clinical & Pharmaceutical Biotechnology	-----	Google classroom	Chalk and Talk method, NPTEL Videos, PPT	-----	PO1,3,6	PSO1,2,
35.	18T732 Bioreactor Design Concepts	-----	Google classroom	Chalk and Talk method You tube PPT,Project and Intership	-----	PO1	PSO1
36.	18BT742 Agricultural Biotechnology	-----	Google classroom	Chalk and Talk method  PPT	-----	PO 1,2,3,4,9,10,12	PSO1,2



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37.	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
38.	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
39.	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
40.	18BT71 Internship	-----	-----	PPT	"Environmental Sustainability Human Value and Professional ethics"	PO1,2,3,4,5,6,7,8,9,10	PSO1,2,3
41.	18BT81 Regulatory affairs in Biotechnology	-----	Google classroom	Chalk and Talk method PPT	-----	PO 1,2,3,10,12	PSO1,2
42.	18BT821 Environmental biotechnology	-----	Google classroom	Chalk and Talk method PPT	Environmental Sustainability	PO1,2,3,4,7,9,11	PSO1,2
43.	18BT822 Industrial Microbiology	-----	Google classroom	Chalk and Talk method PPT	Environmental Sustainability	PO1,2,3,4,7,9,11	PSO1,2
44.	18BTP83 Project Phase 2	-----	-----	PPT	"Environmental Sustainability Human Value and	PO1,2,3,4,5,6,7,8,9,10	PSO1,2,3





# Sapthagiri College of Engineering

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					Professional ethics"		
45.	18BTS84 Technical Seminar	-----	-----	PPT	"Environmental Sustainability Human Value and Professional ethics"	PO1,2,3,4,5,6,7,8,9,10	PSO1,2,3
46.	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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