

CHAITANYA BHARATHI INSTITUTE OF TECHNOLOGY (A) :HYDERABAD -75

Departemnt of Biotechnolgy Program Outcomes / Program Specific (PSOs) Attainment of Batch 2017-2021

S.No	Code	Course Name	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
1	16BT C01	Basics of Biology - I	1.28	1.28	1.4	1.4	0.7	1.05	1.4	0.7	0.7	0	0.7	1.98	2.1	1.4
2	16BT C02	Elements of Biotechnology	0.7	1.8	1.4	1.4	1.26	1.5	0.84	0.7	1.8	1.12	1.7	0.7	1.26	1.26
3	16BT C03	Basics of Biology - II	1.28	1.28	1.4	1.4	0.7	1.05	1.4	0.7	0.7	0	0.7	1.98	2.1	1.4
4	16BT C04	Introduction to Anatomy and Physiology	1.1	1.1	1.1	1.1	0	1.2	1.2	0.7	0	1.2	0	1.5	1.7	1.8
5	16BT C07	Cell Biology	1.54	1.26	0.98	1.26	1.12	1.54	0.98	1.4	1.26	1.4	1.4	2.1	2.1	0.84
6	16BT C09	Genetics	1.54	1.82	1.26	1.4	0.7	1.54	1.68	1.05	0.7	1.4	1.4	1.4	1.4	1.54
7	16BT C10	Biochemistry Lab	2.1	1.5	1.663	1.67	1.8	1.9	1.7	0.7	1.8	1.12	1.4	1.4	0.7	1.05
8	16BT C12	Chemical and Biochemical Thermodynamics	2.1	2.1	1.575	1.5	1.1667	1.4	1.54	0.7	1.4	1.1	0	1.4	1.68	1.5
9	16BT C13	Molecular Biology	1.6	1.5	1.4	1.1	1.4	1.12	1.2	0.8	1.05	1.4	1.4	1.2	1.2	1.26
10	16BT C14	Immunology	1.96	1.96	1.26	1.26	0.84	1.26	1.26	0.7	0.7	2.1	0.7	2.1	2.1	2.1
11	16BT C17	Immunology Lab	1.8	2.1	2.2	2.3	1.8	1.667	1.457	1.345	1.32	1.75	1.78	1.79	1.98	
12	16BT C19	Fluid Mechanics and Heat Transfer	2.1	2.1	1.58	1.54	0	1.4	1.54	0.7	1.4	1.05	0	1.4	1.68	1.54
13	16BT E22	Environmental Biotechnology	1.28	1.52	1.63	1.63	1.28	1.63	1.98	0.93	1.28	0	0.82	1.87	1.75	1.63
14	16BT E23	Food Biotechnology	1.20	1.17	1.28	1.12	1.25	1.22	1.05	0.99	0.93	0.91	0.98	1.13	1.05	1.07
15	16BT E24	Virology	0.7	1.96	1.4	1.4	1.26	1.4	0.84	0.7	0.84	1.12	0.84	0.7	1.26	1.26
16	16BT C26	Fluid Mechanics and Heat Transfer Lab	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.81	1.93	0	1.93	1.93	1.93

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17	16BT C29	Fermentation Technology	1.28	1.28	1.4	1.4	0.7	1.05	1.4	0.7	0.7	0	0.7	1.98	2.1	1.4
18	16BT C30	Mass Transfer Operations	1.92	1.92	1.91	1.92	1.92	1.92	1.92	1.94	1.92	1.91	0	1.92	1.92	1.92
19	16BT C31	Bioinformatics	0.7	1.4	1.54	1.54	1.68	1.4	1.4	0.7	1.26	0.7	0.7	0.7	1.4	1.4
20	16BT E32	Medical Biotechnology	0.7	1.54	1.12	1.12	0.98	1.4	0.56	0.98	1.12	0.7	0.98	2.1	0.84	1.26
21	16BT E33	Phyto Chemicals and Herbal Products	1.28	1.4	1.63	1.4	1.52	1.4	1.05	1.05	0.93	0	0.82	1.4	1.4	1.52
22	16BT E34	Developmental Biology	1.05	1.4	1.6333	1.12	0.7	1.5167	0.7	1.1667	0.7	0.7	0.9333	1.4	0.93333	1.4
23	16BT C38	Mass Transfer Operations Lab	2.1	2.1	1.58	1.54	0	1.4	1.54	0.7	1.4	1.05	0	1.4	1.68	1.54
24	16BT C40	Mini Project	1.4	1.54	1.54	1.4	1.26	1.4	1.12	0.98	1.4	1.4	0.84	1.68	1.26	1.4
25	16BT C41	Downstream Processing	1.4	1.4	1.54	1.54	0.7	0.84	1.12	0.98	0.933333	0.7	1.26	1.82	1.82	1.4
26	16BT C42	Plant Biotechnology	1.54	1.54	1.54	2.1	1.82	1.4	1.54	1.68	0.7	0.7	1.26	1.54	1.54	1.4
27	16BT C43	Animal Biotechnology	1.4	1.26	1.26	1.4	0	0.7	1.23	1.26	1.12	0.7	0	1.54	1.54	1.54
28	16BT C44	Bioprocess Dynamics & Control	1.68	1.26	1.26	1.96	0.7	0.7	0.84	1.4	0.84	0	0	1.96	2.1	0.7
29	16BT C45	Computer Applications in Bioprocess Industries	2.47	2.47	2.5	2.39	2.55	2.2	2.48	1.17	2.04	2.33	0	2.2	2.54	2.39
30	16BT E47	Cancer Biology	0.7	1.82	1.82	1.26	0.84	1.82	0.7	0.7	0.7	0.7	0.98	1.4	0.7	1.68
31	16BT E48	Intellectual Property Rights Regulatory Affairs & Clinical	0.84	1.54	1.4	1.26	1.68	2.1	0.42	2.1	1.82	2.1	1.82	2.1	2.1	2.1
32	16BT C50	Tissue Culture Lab	1.54	1.82	1.26	1.4	0.7	1.54	1.68	0.42	0.14	0.28	1.4	1.4	1.26	1.68
33	16BT C51	Project Seminar	1.17	1.63	1.4	1.4	1.4	1.05	1.28	0.7	1.28	0	0.82	1.4	1.17	1.28
34	16BT E52	Tissue Engineering	1.96	1.82	1.82	1.92	1.68	1.4	1.4	1.68	1.05	0.7	1.4	1.82	1.96	1.96

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35	16BT E53	Immunodiagnosics	0.7	1.96	1.4	1.4	1.4	1.4	0.84	0.7	0.84	0.98	0.84	0.7	1.26	1.26
36	16BT C21	Genetic Engineering and rDNA Technology	1.96	1.4	1.54	1.54	1.4	1.26	0.98	0.7	0.7	0.7	0	0.7	1.4	0.98
37	16BT C28	Genetic Engineering Lab	1.4	0.7	1.4	1.4	0.875	1.4	0	1.4	0.7	0.7	0.7	1.4	0.7	1.4
38	16BT C39	Bioinformatics Lab	0.84	1.26	1.26	1.26	1.12	1.225	1.26	0	1.12	0.84	1.26	1.4	1.12	1.4
Target values of PO/PSO Attainment			1.43	1.60	1.51	1.50	1.13	1.40	1.25	1.00	1.08	0.93	0.80	1.54	1.55	1.48

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COMMITTED TO
RESEARCH,
INNOVATION AND
EDUCATION

43
years

Name of the Department: Biotechnology

Academic Year: 2020-21(Batch 2017-21 Passed Out)

UG Program: Biotechnology

Program Outcomes	Target Fixed	Target Achieved	Observation (Attained/Not Attained)	Actions Taken		
				A1	A2	A3
PO1	1.42	1.98	Yes	Introduce basic concepts of interdisciplinary subjects in the curriculum or revise the current syllabus accordingly	Give assignments of higher blooms level to make students think creatively by integrating basic concepts of interdisciplinary subjects	Encourage students take up multidisciplinary mini projects to create interest in them
PO2	1.60	2.01	Yes	Amend the course outcomes and topics of the current syllabus to meet the specific applications of	Engineering exploration course introduced in the first-year curriculum can be	Introduce open ended experiments in the laboratory courses to solve complex problems

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				mathematics and engineering sciences	designed in a way to apply biostatistics for the identified problems	
PO3	1.50	1.97	Yes	To motivate students to do mini projects, which are related to the need of healthcare sectors and to showcase the results in Bio-Ideathon and similar activities	To create a platform to present their ideas for solving complex engineering problems in the Department excluding conferences	To encourage students to conduct some experiments in the lab when they have solutions to solve complex engineering problems
PO4	1.50	2.05	Yes	To introduce more optimization methods for synthesizing biomolecules in the lab course	To encourage students to visit more research centers, which can facilitate their research-based knowledge	To motivate students to create videos on fundamental engineering principles so that they can develop the ability to solve complex engineering problems.
PO5	1.12	1.87	Yes	To increase the use of bioinformatics tools for simulations and prediction studies in the lab experiment	To conduct the hands-on training program for the students for computational biology and related fields	To add more open-ended experiment having both dry lab and wet lab prospects
PO6	1.40	1.94	Yes	To add a greater number of professional electives in the curriculum	Encourage students to be member of various professional society and also participate in various	Introduce and encourage about rural internship and community

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					club activities like NSS, Swachh Bharat, Plantations activities etc.	engagement subject in the curriculum
PO7	1.24	1.98	Yes	To encourage the students to participate in the college environmental clubs Parvita .	To encourage the students to take up mini and major projects through which relationship between technical,socio economic and environmental dimensions of sustainability can be better understood.	To create awareness about environmental pollution and how to remediate them by the introduction of Environmental Biotechnology.
PO8	0.99	1.67	Yes	We introduced the new course titled as UHV-1 understanding the harmony.	It is proposed to give due weightage in the project and lab courses by evaluating the students based on the rubrics.	To inculcate ethical values we Introduced plagiarism check while submitting the project thesis and assignments.
PO9	1.08	1.65	Yes	To introduce subjects which make students work together as a team like Community engagement and EE or mini projects in 1st year, so the students can develop unity in them	To motivate students to always participate in groups in Co- and Extra curricular activities and clubs like EWD, (engineers without borders),	

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					Internships Communicando, MUN, Parivrita, and all clubs of CBIT to promote unity and teamwork among students	
PO10	0.93	1.69	Yes	To introduce and impart training in communication skills to students for better performance in their career.	To improvise the rubrics in Project and Seminar so as to emphasize more on communication skills during presentation	
PO11	0.80	1.33	Yes	To introduce subjects/topics addressing management principles	To encourage students to submit projects with budget proposals to college/funding agencies for funding	
PO12	1.54	1.93	Yes	To extend the Biotechnology knowledge we facilitated the students to study the honors and minors engineering courses.	To make familiar with industry and upgrade the technical skills we facilitated the students to do the internship.	We arranged industrial visits and workshops to develop the leadership skills and make them understand the concepts life long.
PSO1	1.54	2.05	Yes	To apply the knowledge in multidisciplinary disciplines we introduced the courses in	We encouraged the students to apply Bioinformatics simulations in solving complex	

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				medical, agricultural, environmental and other allied areas.	problems.	
PSO2	1.47	2.03	Yes	To adopting standard operating protocols we introduced course Good Manufacturing practices.		

Evidences:

1. Complete PO attainment table for 2017 batch (AY: 2020-21) hard copy endorsed by head of the department.


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