



CHAITANYA BHARATHI INSTITUTE OF TECHNOLOGY

An Autonomous Institute | Affiliated to Osmania University
Kokapet Village, Gandipet Mandal, Hyderabad, Telangana-500075, www.cbit.ac.in



COMMITTED TO RESEARCH, INNOVATION AND EDUCATION

45

years

Department of Biotechnology CO-PO/PSO Target Values Batch 2020-24

Course Code	Course Name	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO 10	PO11	PO12	PSO1	PSO2
20MTC21	Mathematics-I	3	2	2									2	1	
20BT C01	Basics of Biology-1	1	2.6	2	1.8	1	2	1.8	1	1	1	1.2	1.8	1.8	1.8
20 EGC01	English	1	1.6	1	1.4	1	1.4	1.2	1.2	2	2.2	1.2	2.2		
20PY C02	Physics	2.8	1.6	1.6	1.4	1.6	1.6	1.8	1.2	1.2	2	1.2	2		
20CS C01	Programming for Problem Solving	3	1	1		1							1		
20PY C04	Physics lab	3	2	2	2.4	2	1.6	1.4	2.4	2.4	1.6	1	2.4		
20EG C02	English lab	1	1	1	1	1	1.3	1.7	1.5	2	2	1.3	2.2		
20CS C02	Programming for Problem Solving lab	2.3	2.8	2.5	2.4	2.8							1	3	3
20MEC01	CAD & Drafting	3	2.6	2.2	1.2	2	2		1	2	2.2	1	2.2		
20MBC02	Community Engagement	1.3	1.6	2	1.8		2.2	2	1	2	1.3	1.3	1.3		
20MTC22	Mathematics –II	2.4	2.4	2.4	2.4								1.6	1	
20BT C02	Basics Of Biology-II	1					2	1	1		1		2	2.4	1
20CY C01	Chemistry	3	2	2.4			2	2					2		
20EE C01	Basic Electrical Engineering	2.6	2.5	2	1					1	2		3		
20BT C03	Process Principles and Reaction Engineering	2	2	1	2	2	2	2			2.2			2.2	2.2
20CY C02	Chemistry lab	3	2	2.2			1.8	2					2	2	2
20EE C02	Basic Electrical Engineering lab	3	2	2.2			1.8	2					2		
20MEC02	Workshop/Manufacturing Practices	1.8	1.6	1.8	1.6	1.8	1.4	1	1	1.8	1	1	1.8		1
20CSC34	OOPS using Python	1.5	2.2	1	1										1
20BTC04	Biochemistry	2.8	2.8	1.8	1.8	1.2	1.8	1.8	1	1	3	3	3	3	3

20BTC05	Microbiology	1	1	1.6	2	1	1.4	2	1.4	1.6	1	2.6	3	2.8	2.8
20BTC06	Thermodynamics for Biotechnologists	3	3	2.3	2.2	1.7	2	2.2	1	1.8	1.5		2	2.4	2.2
20BTC07	Cell and Molecular Biology	2.2	1.8	1.8	1.8	2	2.2	1.4	2.5	1.8	2	2	3	3	2
20BTC08	Genetics	2.2	2.6	1.8	2	1	2.2	2.4	1.5	1	2	2	2	1.8	2.4
20EGM01	Indian Constitution and Fundamental Principles						1	1		1					
20CSC35	OOPS using Python Lab	1	2.2	1	1.2										1
20BTC09	Biochemistry Lab	2.2	2.8	2.2	2.2	1	3	1.2	1	3	2.2	3	3	3	1.4
20BTC10	Microbiology Lab	1	3	1.2	2	1.2	3	1.2	1.2	3	1	3	3	2.8	2.8
20BTI01	MOOCs/Training/ Internship I	2.2	2.2	2	1.8	1.2	1.8	1.5	1	2.6	2.4	3	3	2.8	2
20MTC23	Engineering Mathematics for Biotechnologists	2	2	2									1	1	
20BTC12	Bioprocess Engineering	2	2	2.8	2	1	1.2	1.8	1.8	1.8	1	1.6	1.8	2.2	2.4
20BTC13	Immunology & Immunotechnology	2	2	2.4	2.3	1.7	2.8	1	2.5	2	1.8	2	2.8	3	1.2
20BTC14	Instrumental Methods in Biotechnology	3	2	1.6	1	1.4	1.6	1	1	1	1	2.6	3	3	2.2
20BTE01	PE – 1 Environmental Biotechnology	2.6	2	2.8	2.5	2	2.2	2.6	1	2.2	2.2	1.75	2.8	2	1.8
20BTE02	PE – 1 Process Dynamics and Control for Biotechnologists	2.4	2.8	2.6	1.6	1.6	1.8	1.8	1.4	1.8	1	1.2	2.4	2.2	2.4
20BTE03	PE – 1 Intellectual Property Rights and Bioethics	1	1	1	1	1	3	2.2	3	2	1	1	3	2.2	2.2
20BTE04	PE – 1 Enzyme technology	2	1.8	2	1.8	1.2	1	2	1	1	1	2	3	3	3
20BTE05	PE – 1 Industrial Biotechnology	3	2	3	1.2	1	1.8	1	1	1	1	2	3	3	3
20EGM03	Universal Human Values-II: Understanding Harmony			1	1		1	1		1	1	1	1		
20CEM01	Environmental Science	1					1	2.2	1				1	1	
20BTC15	Bioprocess Engineering Lab	3	2.8	2.8	2.6	2.2	2.8	3	3	3	3	1.8	2	2.8	3
20BTC16	Immunology Lab	2.4	1.8	2.8	2.2	2.8	1.8	1.3	1.4	2.4	2.4	1.4	3	3	1.2
20BTC17	Instrumentation Lab	2.2	1.2	2.2	2	1.2	1.2	1	1	3	1	3	3	3	3
20BTC18	Fluid Mechanics and Heat Transfer	2	1.4	1	1	2	2	2			1		1.8	3	3
20BTC19	Genetic Engineering and rDNA Technology	1	1	1		1	2	1	3		1		1	1	2
20BTC20	Plant Biotechnology	1	1		1	1	2	1.2	1			1	1	2.6	2.4
20MTC24	Biostatistics	2	2	1		2							1	1	
20BTC21	Introduction to Anatomy and Physiology of Humans	1					2				1		1	1	1
20EGM02	Indian Traditional knowledge	1.2	1.4	1	1.4	1.2	1	1.2	2	1	1.6	1.4	2.2	1.4	1.2
20CHO05	Open elective-I Safety and Hazards Management	3	2.8	2.4	1.2							1	1	2	1
20MEO04	Open elective-I Principle of Entrepreneurship	1.5			1			1.25	2	1.8	2.4	2.4	3	1.3	1.3

20BTC22	Fluid Mechanics and Heat Transfer Lab	2	1	1	2	1.5	2	1			2		2.8	2.5	2.2
20BTC23	Genetic Engineering Lab	1	1		1	1	2	1	2	2	1		2	2	2
20BTC24	Plant Biotechnology Lab	1	1		1	1	2	2	1		1		1.25	2	2.4
20BTI02	Industrial / Rural Internship -II	1.3	2.3	2.3	3	3	2.5	2.8	1	2	3	3	1.7	3	3
20BT C25	Bioseparation Engineering	2	2	2	3	1		3		3			2	3	3
20BT C26	Bioinformatics and Computational Biology	1	1		1	1		1.2			1		1	1	1
20MBC01	Engineering Economics and Accountancy	1.4	2	1.6	1.5	1.5	1.5	1.5	1.5	1	1	2	1	1	1.5
20BT C27	Animal Biotechnology	1.2	1	1	2.4	1	2.6	1.2	2.2	1	2	1	3	2.6	2.8
20BT C28	Mass transfer operations	2	2	1	2	2	3	2			2	1	2.8	2.2	2.2
20BT E06	PE – II Virology	1	1.4	1.4	2	2.2	3	2.4	1.8		1.6	1	2	3	3
20BT E07	PE – II Medical Biotechnology	1	1	1.3	1.6	2	2.7	1	2.8		1.8		2.2	3	3
20BT E08	PE – II Pharmaceutical Biotechnology	1.8	2	1.6	2.4	2.2	2	1		1	1	1	2.4	3	2.2
20BT E09	PE – II Cancer Biology	1	1			1	2	1			1.8		1.6	2.8	2
20BTC29	Bioseparation Engineering Lab	1.8	2	1	2	1	3	2		2			2	3	3
20BTC30	Bioinformatics and Computational Biology Lab	1	1		1.4	1.2					1		2	1	1
20BTC31	Animal Biotechnology Lab	1.4	1	1	2.6	2	3	1	2.6		2.6	1	2.8	2.6	3
20EGCO3	Employability Skills		1	1			1		1.4	2.5	2.2	1	2.6		1.3
20BTC32	Mini Project	1.5	2.7	1.7	1.8	2	2	1	1	3	3	1.3	2.5	1.5	2.7
20BT E10	PE - III Tissue Engineering	1.4	1	1	2	1.2	2	1	2		1	1	1.6	2.8	2.8
20BT E11	PE - III Genome Editing	1		1			2		3		1		1.6	1	1
20BT E12	PE - III Photochemical and Herbal Products		1		1	2	2	1	2		1		1	2	2.2
20BT E13	PE - III Developmental Biology	1	1		1.2	1	2.2	1.4	3		2		2.4	1.4	2
20BT E14	PE - IV Food Biotechnology	1.4	1	1	1	1	2	1.75			1		1.7	3	2
20BT E15	PE - IV Nanobiotechnology		1	1	1	1	2	1	2				1	2.4	1.6
20BT E16	PE - IV Good Manufacturing Laboratory Practice	1	1	1	1	1	2.75	1	1.6	1	1	1	1	3	1.5
20BT E17	PE - IV Regulatory Affairs and Clinical Trials	1.5	1.25	2	1	1	2.4	1.8	2	1	1.25	1	1	1.6	2.4
20BT E18	PE - V Rational Drug Discovery	1	1	1	1	1	2	1	1		1.8	1	1.8	2.8	1.6
20BT E19	PE - V Molecular Modeling and drug design	1	1.75	1	1.8	1.6	2	1			1		1	2	2.75
20BT E20	PE - V Structural Biology	2.8	2	1.8	2	1	1.8	1.4	1	2	1.6	1.4	2	2.8	2.4
20BT E21	PE - V Genomics and Proteomics	1				1							2	1	1
20EGMO4	Gender sensitization			1			2.2	2	1.6	1.8	1	1	1	1.5	1
20EG O01	Open Elective – II Technical writing Skills	1.5	1.6	1	1.6		1.25	1.25	1.2	2.6	2.8	1.8	2.2	1.6	1.4

20CS O05	Open Elective – II Basics of AI	2.2	2.2	1.3										1	1
20BTC33	Project Part-I	3	1		1	1				2	2		1	1.7	1.8
20BTI03	Internship	1.3	2	2.3	2.7	2	2.3	1.3	2	2	3	1.5	1.5	3	3
20BT E22	Immunodiagnosics	1			1		2	1	1		1		1	1	1
20BT E23	Biomaterials	1.4	1.2	1.2	2	2.2	2.6	1.8	1.6		1		3	3	3
20BT E24	Metabolic Engineering	1.4	1	1.4	2.2	2.4	2	2	2	1	1.4	1	3	3	2.8
20BTE25	Biosimilar Technology	1	1	1		1	2.2	1.7	1		2	1	2.2	2.8	1.6
20MEO03	Open Elective –III Research Methodology	2.8	2.8	2	2.2	1.7	1.5	2.2	1	2	1.3	1	1.75	2.4	2.2
20EEO05	Open Elective –III Waste Management	1.2	1.6	1.6	1.5	1	1.6	1.8	1.4				1	1	
20BT C34	Technical Seminar	1.5	1.6	1	1.6		1.25	1.25	1.2	2.6	2.8	1.8	2.2	1.6	1.4
20BTC35	Project Part-II	1	1.7	1	1	2	2	1.5	1.5	1	2	1	1.3	1.7	1.8
	Average CO-PO/PSO	1.78	1.74	1.63	1.67	1.48	1.97	1.56	1.58	1.80	1.63	1.56	1.98	2.18	2.05
	Target Value	1.24	1.22	1.14	1.17	1.03	1.38	1.09	1.10	1.26	1.14	1.09	1.39	1.53	1.43

A Pandey

HEAD

Dept. of Bio-Technology
Chaitanya Bharathi Institute of Technology
Gandipet, Hyderabad-500 075.

HOD. Biotechnology



CHAITANYA BHARATHI INSTITUTE OF TECHNOLOGY

An Autonomous Institute | Affiliated to Osmania University
Kokapet Village, Gandipet Mandal, Hyderabad, Telangana-500075, www.cbit.ac.in

Approved by Recognized Research Centers Programs Accredited by Grade A++ in All India Ranking 151-200 Band ISO Certifications
Quality Audit 9001 : 2015
Green Audit 14001 : 2015
Energy Audit 50001 : 2018

COMMITTED TO RESEARCH, INNOVATION AND EDUCATION

45

years

Department of Biotechnology CO-PO/PSO attainment for Batch 2020-24

Code	Course Name	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO 10	PO11	PO12	PSO 1	PSO2
20MT C21	Mathematics-I	1.92	1.28	1.28	-	-	-	-	-	-	-	-	1.28	0.64	-
20BT C01	Basics of Biology-1	2.50	2.52	2.58	2.63	2.50	2.58	2.53	0.90	0.90	2.50	2.51	2.58	2.53	2.53
20 EG C01	English	0.54	0.54	0.54	-	-	-	-	-	-	-	-	0.36	-	-
20PY C02	Physics	2.56	2.54	2.57	2.55	2.57	2.57	2.56	2.54	2.58	2.55	2.58	2.55	2.55	1.80
20CS C01	Programming for Problem	2.10	1.85	1.98	1.23	1.68	0.88	-	-	-	1.03	0.86	1.71	-	-
20PY C04	Physics lab	1.60	1.87	1.60	1.60	1.20	1.28	-	1.60	-	-	-	-	1.07	0.80
20EG C02	English lab	0.87	0.90	-	0.89	-	1.11	1.19	1.11	1.47	2.36	1.11	1.33	0.87	0.87
20CS C02	Programming for Problem Solving lab	2.39	1.61	1.88	1.41	1.61	0.75	-	0.75	0.96	1.22	1.00	1.61	-	-
20ME C01	CAD & Drafting	2.88	2.49	2.11	1.15	1.92	1.92	~	0.96	1.92	2.11	0.96	2.11	2.49	1.92
20MT C22	Mathematics –II/	2.72	1.82	0.90	-	-	-	-	0.91	0.91	-	0.93	0.91	0.91	-
20BT C02	Basics Of Biology-II	2.27	2.46	2.52	2.41	2.27	2.47	2.33	0.90	0.90	2.27	2.37	2.41	2.42	2.42
20CY C01	Chemistry	1.80	1.20	1.44	-	-	1.20	1.20	-	-	-	-	1.20	1.44	1.08
20EE C01	Basic Electrical Engineering	1.57	1.51	1.20	0.60	-	-	-	-	0.60	1.20	-	1.81	-	-
20BT C03	Process Engineering Principles	2.72	2.69	2.68	2.69	2.69	-	-	-	2.69	2.69	0.00	2.69	2.69	2.69
20CY C02	Chemistry lab	2.92	1.95	2.14	-	-	1.75	1.95	-	-	-	-	1.95	1.95	1.95
20EE C02	Basic Electrical Engineering lab	2.00	1.00	2.00	-	-	1.00	2.00	-	-	-	-	2.00	-	-
20ME C02	Workshop/Manufacturing Practices	1.44	1.44	1.62	1.44	1.62	1.26	0.90	0.90	1.62	0.90	0.90	1.62	-	-
20CSC34	OOPS using Python	0.51	0.46	0.33	-	-	-	-	-	-	-	-	-	0.23	0.23
20BTC04	Biochemistry	1.33	1.33	1.31	1.31	1.37	1.31	1.31	1.36	1.36	1.36	1.36	1.36	1.36	1.36
20BTC05	Microbiology	2.54	2.54	2.31	2.32	2.33	-	-	-	1.58	-	-	1.58	2.54	2.54
20BTC06	Thermodynamics for Biotechnologists	2.27	2.27	2.31	2.32	2.33	2.27	2.24	2.62	2.45	2.43	-	2.27	2.27	2.33
20BTC07	Cell and Molecular Biology	2.54	2.54	2.53	2.54	2.54	-	-	-	2.54	0.90	-	2.54	2.54	2.54

20BTC08	Genetics	1.43	1.41	1.37	1.49	1.42	1.43	1.46	1.32	1.08	1.62	1.42	1.42	1.17	1.39
20EGM01	Indian Constitution and Fundamental Principles		0.66	0.62			1.15	0.77	0.62	0.34	-	-	--	0.53	-
20CSC35	OOPS using Python Lab	2.4	2.8	1.0										1	1
20BTC09	Biochemistry Lab	2.95	1.89	2.40	2.10	1.98	1.10	1.10	0.55	0.22	2.70	1.98	2.64	2.64	2.83
20BTC10	Microbiology Lab	2.92	1.94	2.43	2.13	2.02	1.08	1.08	0.64	0.25	2.72	2.02	2.71	2.71	2.86
20MTC23	Engineering Mathematics for Biotechnologists	1.20	1.20	1.20	-	-	-	-	-	-	-	-	0.60	0.60	-
20BTC12	Bioprocess Engineering	1.55	1.55	1.54	1.51	1.55	1.58	1.57	1.57	1.57	1.55	1.54	1.53	1.58	1.56
20BTC13	Immunology & Immunotechnology	1.62	1.58	1.56	1.58	1.58				1.58			1.58	1.58	1.58
20BTC14	Instrumental Methods in Biotechnology	2.64	2.66	2.65	2.66	2.50	2.45	2.27	2.41	2.70	1.81	2.97	2.11	2.65	2.65
20BTE03	Intellectual Property Rights and Bioethics	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	2.70	3.30
20BTE05	Industrial Biotechnology	2.70	2.70	2.70	2.69	2.70	2.72	2.70	1.70	1.70	2.70	1.70	2.70	2.70	2.70
20CEM01	Environmental Science	2.50					2.30	2.55	2.38				2.50	1.60	-
20BTC15	Bioprocess Engineering Lab	1.88	1.88	1.83	1.85	1.76	1.60	1.81	1.88	1.88	1.88	1.91	1.46	1.55	1.81
20BTC16	Immunology Lab	2.70	1.89	2.40	2.10	1.98	1.10	1.10	0.55	0.22	2.70	1.98	2.64	2.64	2.83
20BTC17	Instrumentation Lab	2.95	2.06	1.75	2.03	1.90	1.20	1.10	0.73	0.58	2.67	1.38	2.64	2.64	2.73
20BTC18	Fluid Mechanics and Heat Transfer	2.59	2.67	3.00	2.59	2.82	2.82	2.82			3.00		2.67	2.59	2.59
20BTC19	Genetic Engineering and rDNA Technology	2.74	2.82	2.28		2.74	2.76	2.28	2.28		2.74		2.74	2.74	2.74
20BTC20	Plant Biotechnology	1.94	2.21		2.00	1.94	1.70	2.11				1.29	1.94	1.79	1.70
20BTC21	Introduction to Anatomy and Physiology of Humans	2.86					2.86				2.86		2.86	2.86	2.86
20MTC24	Biostatistics	2.00	1.97	2.01	1.99	1.99	0.00	0.00	0.00	1.99	1.99	0.00	1.97	1.97	1.90
20EGM02	Indian Traditional knowledge	0.20	0.23	0.17	0.23	0.20	0.17	0.20	0.34	0.17	0.27	0.24	0.38	0.24	0.20
20CH O05	Safety and Hazards Management	2.80	2.67	2.17	1.07									1.87	0.93
20ME O04	Principles of Entrepreneurship	1.13			0.77			0.99	1.58	1.39	1.84	1.88	2.37	1.06	1.06
20BTC22	Fluid Mechanics and Heat Transfer Lab	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80		1.80	1.80	1.80
20BTC23	Genetic Engineering Lab	2.40	2.40		2.40	2.40	2.40	2.40	2.40	2.40	2.40		2.40	2.40	2.40
20BTC24	Plant Biotechnology Lab	1.94	2.21		2.00	1.94	1.70	2.11				1.29	1.94	1.79	1.70
20BT C25	Bioseparation Engineering	1.46	1.46	1.45	1.45	1.46	1.51	1.42	1.50	1.52	1.46	1.48	1.43	1.46	1.46
20BT C26	Bioinformatics and computational Biology	2.87	3.00		2.84	2.84		2.89			2.87		2.87	2.87	2.87

20MB C01	Engineering Economics and Accountancy	2.49	2.52	2.70	2.20	2.20	2.20	2.20	2.20	3.00	2.52	3.00	3.00	3.00	3.00
20BT C27	Animal Biotechnology	2.59	2.43	2.56	2.64	2.63	2.66	2.59	2.67	2.35	2.63	2.63	2.63	2.64	2.61
20BT C28	Mass transfer operations	1.68	1.68	1.63	1.64	1.62	1.70	1.72	1.50	1.55	1.50	0.00	1.70	1.68	1.64
20BT E07	Medical Biotechnology	2.66	2.66	2.65	2.65	2.73	2.65	2.65	2.67	2.67	2.58	2.67	2.67	2.67	2.67
20BT E08	Pharmaceutical Biotechnology	2.68	2.87	1.80	2.71	2.70	2.69	2.69		1.80	1.80	1.80	2.71	2.69	2.66
20BTC29	Bioseparation Engineering Lab	2.93	2.94	2.94	2.94	2.94	3.00	2.94		2.94			2.94	2.94	2.94
20BTC30	Bioinformatics and Computational Biology Lab	1.85	1.85		1.88	1.91					1.85		1.85	1.85	1.85
20BTC31	Animal Biotechnology Lab	2.99	2.99	3.00	2.99	2.99	2.99	2.99	2.99	0.00	1.79	2.99	2.99	2.99	2.99
20BT E10	Tissue Engineering	2.61	2.66	2.54	2.42	2.54	2.68	2.54	2.76	0.00	2.54	2.66	2.54	2.50	2.50
20BT E12	Phytochemical and Herbal Products	2.89	2.92	2.92	2.92	2.88	2.87	2.86	2.93	2.88	2.91	2.90	2.88	2.88	2.90
20BT E14	Food Biotechnology	1.71	1.75	1.63	1.69	1.76	1.68	1.76			1.74		1.75	1.71	1.71
20BT E17	Regulatory Affairs and Clinical Trials	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	2.82	3.00	3.00	3.00	3.00
20BT E20	Structural Biology	2.52	2.54	2.51	2.54	2.54	2.51	2.49			2.54		2.54	2.52	2.52
20BT E21	Genomics and Proteomics	3.00				3.00							3.00	2.76	3.00
20EG O01	Technical Writing Skills		1.57		1.57				1.18	2.55	2.74	1.76	2.15	1.57	1.37
20CS O05	Basics of Artificial Intelligence	0.49	0.48	0.31										0.22	0.22
20BTC33	Project Part 1	3.00	2.00	2.27	2.60	2.33	1.90	2.00	1.43	1.40	2.10	2.17	1.23	2.56	2.10
20BT E23	Biomaterials	1.26	1.35	1.29	1.32	1.32	1.36	1.31	1.34	0.00	1.32	0.00	1.32	1.32	1.32
20BTE25	Biosimilar Technology	2.85	2.85	3.00		3.00	2.89	3.00	0.00	0.00	2.88	0.00	2.95	2.87	2.85
20MEO 03	Research Methodology	2.26	2.26	2.29	2.32	2.33	2.27	2.24	2.58	2.45	2.36	0.00	2.23	2.27	2.33
20EEO 05	Waste Management	1.12	1.49	1.49	1.13	0.75	1.49	1.67	1.31	0.00	0.00	0.00	0.93	0.93	0.00
20BT C34	Technical Seminar	1.30	1.37	1.64	1.37	1.35	1.91	1.20	2.15	1.30	1.56	2.32	1.60	1.60	1.60
20BTC35	Project Part II	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	2.67	3.00
	Average	2.17	2.00	1.99	2.02	2.16	1.94	1.98	1.65	1.56	2.11	1.63	2.10	2.02	2.07

A Panday

HEAD

Dept. of Bio-Technology
Chaitanya Bharathi Institute of Technology
Gandipet, Hyderabad-500 075.

HOD. Biotechnology



CHAITANYA BHARATHI INSTITUTE OF TECHNOLOGY

An Autonomous Institute | Affiliated to Osmania University
Kokapet Village, Gandipet Mandal, Hyderabad, Telangana-500075, www.cbit.ac.in



Name of the Department: Biotechnology

Academic year: 2023-24 (Batch 2020-24 Passed out)

UG Program: B.Tech Biotechnology

Program Outcomes	Target Fixed	Target Achieved	Observation (Attained/Not Attained)	Actions taken		
				A1	A2	A3
PO1	1.19	2.21	Yes	Increased use of ICT tools for teaching-learning and assessment.	It is proposed to give assignments which address higher Bloom's Taxonomy levels.	Students undergo remedial and tutorial classes to make them understand the courses such as Physics, Programming for problem solving lab, Basics of Biology II.
PO2	1.12	2.11	Yes	To amend the syllabus in the subsequent curriculum revision, so that program specific applications / Contents will be included in the Mathematics and Basic Sciences	In the subsequent curriculum revision, a freshman course (engineering exploration) is introduced so that in the first year itself students can identify an engineering problem and acquire knowledge that can be applied to the identified problem.	Provision for industry internship as a part of the curriculum for enhanced learning and better exposure to latest technological trends
PO3	1.05	1.97	Yes	To increase the use of ICT tools for teaching-learning so that visualization of concepts related to complex engineering problem can be enhanced and students are motivated to take up mini and major projects to provide the solution to complex engineering problems.	To encourage students to take part in project exhibitions, MSME projects and similar activities.	To introduce course end project along with assignments as a part of Continuous internal evaluation (CIE) in core courses, which increases the student ability to solve complex engineering problem.

PO4	1.19	2.04	Yes	To introduce high-end experiments in the lab courses such that student can develop an ability to solve open – ended problems	Proposed to introduce course end project along with assignments as a part of Continuous internal evaluation (CIE) in core engineering lab courses	To enter into more MoUs with industries to establish industry-based labs and activities which facilitate experiential learning to students
PO5	1.12	2.13	Yes	To increase the use of replication tool in lab courses (where ever possible) to demonstrate the concept before going to the work bench.	To encourage the usage of programme specific model tools in the mini and major project	To replace conventional method of teaching Bioinformatics with Computer aided database finding tools.
PO6	1.4	1.82	Yes	To introduce more number of professional electives to address the regulations, codes and standards relevant to the Biotechnology discipline.	To encourage the students to actively participate in activities organized by various clubs of the institute like • BEEC, Environmental club PARIVRITA Health camps- NSS • Rural development - Engineers without borders.	To introduce courses related to Community Engagement.
PO7	1.12	1.86	Yes	To introduce the mandatory courses that address the management techniques for sustainable development Action	To encourage the students to participate in social activities related to the environment like • “Tree plantation in the campus and nearby villages” as part of the activities of NSS under the initiatives by the State government. • Awareness camp to nearby villages to promote Environmental conservation	To encourage the students to actively participate in product exhibitions related to environment and sustainable development • 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.
PO8	1.26	1.51	Yes	Introduced a new course on ethics titled “UHV-2, Understanding of Harmony” suggested by UGC.	It is proposed to give due weightage in the rubrics prepared to evaluate to ethical behaviour and practices in the lab and project courses.	To train more number of faculty (20:1 student faculty ratio) on UHV through AICTE FDP so that faculty can handle the universal human values -1 during the student induction programme.

PO9	1.26	1.56	Yes	To introduce activity-based courses like community engagement, engineering exploration in the first year level itself, so that the spirit of individual and teamwork can be inculcated better.	To encourage students to work as teams for activities conducted by various clubs of CBIT during Sudhee & Shruthi, which is a “Techno-Sport-Cultural” fest.	To encourage students to take part in project exhibition hackathon, MSME projects and similar activities.
PO10	1.12	2.02	Yes	To introduce more topics related to communication skills in the soft skills course offered	To revise the rubrics used to evaluate the CIE of mini projects, seminars and major projects so that more focus is given to performance indicator related to ability of comprehending (literature review), written communication (report writing), oral communication (presentation skills) and summarization (conclusion).	
PO11	0.98	1.48	Yes	To introduce more subjects to address management principles	To introduce freshmen course so that student will be able to describe various economic and financial costs/benefits of an engineering activity and analyse and select the most appropriate proposal based on economic and financial considerations.	To encourage the students to present their IDEAS at MSME Incubation centre of CBIT
PO12	1.4	2.13	Yes	To introduce the credit transfer to the courses pursued via MOOCs (e.g. Swayam NPTEL, Coursera, MSME etc.)	To introduce internships during every academic year break to enable students to pursue independent projects in an industrial setting with mentorship and prepare them for lifelong learning.	To facilitate the honors and additional minor engineering degrees for the students who can acquire more 20 credits through MOOCs courses
PSO1	1.47	2.11	Yes	Students are encouraged to undertake research in the areas	More Numericals are given to students in courses such as	Students are motivated to present some research oriented work

				of Biochemistry, Microbiology, Cell and Molecular Biology, Genetics.	Process principles and reaction engineering to improve their understanding about material and energy balances and are ready to solve real time problems at industry in terms of cost analysis.	during the class as a part of the assignment.
PSO2	1.47	2.14	Yes	Students are instructed and imparted with knowledge of Good Laboratory Practises and Good Manufacturing Practises.	Students are encouraged to attend workshops, seminars, conferences and other training programmes which offer hands-on experience, making them industry-ready with improved equipment handling abilities.	

A Panday

HEAD

Dept. of Bio-Technology
Chaitanya Bharathi Institute of Technology
Gandipet, Hyderabad-500 075.

HOD, Biotechnology