



REGULATIONS 2024
B. TECH. BIOTECHNOLOGY
CHOICE BASED CREDIT SYSTEM
CURRICULUM FOR I TO VIII SEMESTERS

SEMESTER I

S. NO	COURSE CODE	COURSE TITLE	CATE-GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDIT
				L	T	P		
1.		Induction Programme	-	-	-	-	-	0
THEORY								
2.	24EN1R001	Professional English – I	HSMC	2	0	2	4	3
3.	24MA1R001	Matrix and Calculus	BSC	3	1	0	4	4
4.	24TA1R001	Heritage of Tamil	HSMC	1	0	0	1	1
5.	24BE1R001	Basic Electrical & Electronics Engineering	ESC	2	0	2	4	3
6.	24GE1R001	Problem Solving and Programming in Python	ESC	3	0	0	3	3
7.	24PH1R001	Engineering Physics	BSC	3	0	0	3	3
PRACTICALS								
8.	24GE1R002	Programming in Python Laboratory	ESC	0	0	3	3	1.5
9.	24PH1R003	Physics Laboratory	BSC	0	0	3	3	1.5
TOTAL				14	1	10	25	20

SEMESTER II

S. NO	COURSE CODE	COURSE TITLE	CATE-GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDIT
				L	T	P		
THEORY								
1.	24EN2R002	Professional English – II	HSMC	2	0	2	4	3
2.	24MA2R002	Transformation and partial differential equations	BSC	3	1	0	4	4
3.	24TA2R002	Tamil for Technology	HSMC	1	0	0	1	1
4.	24CY1R001	Engineering Chemistry	BSC	3	0	0	3	3
5.	24GE2R004	Engineering Graphics	ESC	2	0	4	6	4
6.	24BT2R001	Cell biology	PCC	3	0	0	3	3
PRACTICALS								
7.	24GE2R006	Basic Civil & Mechanical Engineering Laboratory	ESC	0	0	3	3	1.5
8.	24CY1R002	Chemistry Laboratory	ESC	0	0	3	3	1.5
TOTAL				14	1	12	27	21

SEMESTER III

S. NO	COURSE CODE	COURSE TITLE	CATE-GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDIT
				L	T	P		
THEORY								
1	24BT3R002	Microbiology	PCC	3	0	0	3	3
2	24BT3R003	Biochemistry	PCC	3	0	0	3	3
3	24BT3R004	Basic Industrial Biotechnology	PCC	3	0	0	3	3
4	24BT3R005	Stoichiometry & Process Calculations	PCC	3	0	0	3	3
5	24BT3R006	Industrial Enzymology	PCC	3	0	0	3	3
6	24BT3R007	Basics in Genetics	PCC	3	0	0	3	3
PRACTICALS								
7	24BT3R008	Cell and Microbiology Laboratory	PCC	0	0	3	3	1.5
8	24BT3R009	Biochemistry Laboratory	PCC	0	0	3	3	1.5
TOTAL				18	0	6	24	21

SEMESTER IV

S. NO	COURSE CODE	COURSE TITLE	CATE- GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDIT
				L	T	P		
THEORY								
1	24MA4R007	Probability and Statistics	BSC	3	1	0	4	4
2	24BT4R010	Molecular Biology	PCC	3	0	0	3	3
3	24BT4R011	Applied Thermodynamics for Biotechnologists	PCC	3	1	0	4	4
4	24BT4R012	Basics of Chemical Engineering	PCC	3	0	0	3	3
5	24BT4R013	Analytical Methods & Instrumentation	PCC	3	0	0	3	3
6	24GE4R008	Environmental Science & Sustainability	BSC	3	0	0	2	2
PRACTICALS								
7	24BT4R014	Molecular Biology Laboratory	PCC	0	0	4	4	2
8	24BT4R015	Analytical Methods & Instrumentation Laboratory	PCC	0	0	3	3	1.5
9	24BT5I001	Internship*	EEC	-	-	-	-	0
TOTAL				15	2	7	24	22.5

*Four weeks Industrial training/Internship carries two credits. Industrial Training/Internship during IV semester summer vacation will be evaluated in V semester.

SEMESTER V

S. NO	COURSE CODE	COURSE TITLE	CATE-GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDIT
				L	T	P		
THEORY								
1	24BT5R016	Bioprocess Principles	PCC	3	0	0	3	3
2	24BT5R017	Genetic Engineering	PCC	3	0	0	3	3
3	24BT5R018	Immunology	PCC	3	0	0	3	3
4		PE-I	PEC	3	0	0	3	3
5		PE-II	PEC	3	0	0	3	3
6		OE-1	OEC	3	0	0	3	3
7		Mandatory course-I	MC	3	0	0	3	NCC
PRACTICALS								
8	24BT5R019	Immunology Laboratory	PCC	0	0	4	4	2
9	24BT5R020	Genetic Engineering Laboratory	PCC	0	0	4	4	2
10	24BT5I001	Internship*	EEC	-	-	-	-	2
11	24BT5P001	Mini project	EEC	0	0	2	-	1
TOTAL				21	0	8	29	25

SEMESTER VI

S. NO	COURSE CODE	COURSE TITLE	CATE-GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDIT
				L	T	P		
THEORY								
1	24BT6R021	Bioinformatics	PCC	3	0	0	3	3
2	24BT6R022	Bioprocess Engineering	PCC	3	0	0	3	3
3	24MX6R001	Principles of Management	HSMC	3	0	0	3	3
4		PE-III	PEC	3	0	0	3	3
5		PE-IV	PEC	3	0	0	3	3
6		OE-II	OEC	3	0	0	3	3
7		Mandatory Course-II	MC	3	0	0	3	NCC
PRACTICALS								
8	24BT6R023	Bioprocess Engineering Laboratory	PCC	0	0	4	4	2
9	24BT6R024	Bioinformatics Laboratory	PCC	0	0	4	4	2
10	24BT6IR002	Internship*	EEC	-	-	-	-	-
11	24BT6PR002	Mini Project	EEC	-	-	2	-	1
TOTAL				21	0	10	31	23

*Four weeks Industrial training/ Internship carries two credits. Industrial Training/Internship during VI semester summer vacation will be evaluated in VII semester.

SEMESTER VII

S. NO	COURSE CODE	COURSE TITLE	CATE-GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDIT
				L	T	P		
THEORY								
1	24GE3R007	Human Value and Ethics	HSMC	2	0	0	2	2
2	24BT7R025	Downstream Processing	PCC	3	0	0	3	3
3	24BT7R026	Proteomics and Genomics	PCC	3	0	0	3	3
4		PE-V	PEC	3	0	0	3	3
5		PE-VI	PEC	3	0	0	3	3
6		OE-3	OEC	3	0	0	3	3
7		OE-4	OEC	3	0	0	3	3
8		General Aptitude						
PRACTICALS								
9	24BT7R027	Downstream Processing	PCC	-	-	4	2	2
10	24BT7R028	Internship*	EEC	-	-	-	-	2
11	24BT7P003	Project Phase-I	EEC	-	-	4	-	2
TOTAL				20		8	22	26

*Four weeks Industrial training/ Internship carries two credits. Industrial Training/Internship during VI semester summer vacation will be evaluated in VII semester.

SEMESTER VIII

S. NO	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDIT
				L	T	P		
PRACTICALS								
1.	24BT8P004	Project Work	EEC	0	0	18	18	8
TOTAL						18	18	8

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