

STUDY & EVALUATION SCHEME
B.TECH: BIOTECHNOLOGY
I YEAR: I SEMESTER

S. NO.	SUBJECT CODE	SUBJECT	L	T	P	C
THEORY						
1	BPH1701/ BCY1701	Physics/Chemistry	3	1	3	5.5
2	BMA1001	Mathematics	3	1	0	4
3	BEE1701/ BCS1701	Basic Electrical Engineering/Programming for solving Problems	3	1	2	5
4	BME1701/BME1702	Engineering Graphics and Design/Working Practice	1	0	4	3
5	XESX601/BHU1701	Environmental Science*/English	2/2	0/0	0/2	0/3
TOTAL			12/12	3/3	9/11	17.5/20.5

* - Mandatory Non-Credit Course

L - Lecture

T - Tutorial

P - Practical

C - Credit

STUDY & EVALUATION SCHEME
B.TECH: BIOTECHNOLOGY
I YEAR: II SEMESTER

S. NO.	SUBJECT CODE	SUBJECT	L	T	P	C
THEORY						
1	BCY2701/BPH2701	Chemistry /Physics	3	1	3	5.5
	BMA2001	Mathematics	3	1	0	4
2	BCS2701/ BEE2701	Programming for solving Problems /Basic Electrical Engineering	3	1	2	5
3	BME2702/BME2701	Working Practice /Engineering Graphics and Design	1	0	4	3
4	BHU2701/XESX601	English /Environmental Science*	2/2	0/0	0/2	0/3
TOTAL			12/12	3/3	11/9	20.5/17.5

- * - Mandatory Non-Credit Course
L - Lecture
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STUDY & EVALUATION SCHEME
B.TECH: BIOTECHNOLOGY
II YEAR: III SEMESTER

S. NO.	SUBJECT CODE	SUBJECT	HOURS PER WEEK			THEORY		PRACTICAL		CREDITS
			L	T	P	CIE	ESE	CIE	ESE	
1	BCS3701	Basic Data Structure and Database Management	3	0	2	40	60	80	20	4
2	BHU3018	Organizational Psychology	2	0	0	40	60	0	0	2
3	BBT3701	Cell Biology	3	0	2	40	60	80	20	4
4	BBT3702	Biochemistry	3	0	2	40	60	80	20	4
5	BBT3703	Microbiology	3	0	2	40	60	80	20	4
6	BBT3019	Genetics	3	0	0	40	60	0	0	3
		MOOCs (Essential for Hons. Degree)								
TOTAL			17	0	08	240	360	320	80	21

L - Lecture

T - Tutorial

P - Practical

CIE - Continuous Internal Evaluation

ESE-End Semester Exam

C - Credit

STUDY & EVALUATION SCHEME
B.TECH: BIOTECHNOLOGY
II YEAR: IV SEMESTER

S. NO.	SUBJECT CODE	SUBJECT	HOURS PER WEEK			THEORY		PRACTICAL		CREDITS
			L	T	P	CIE	ESE	CIE	ESE	
1	BMA4013	Biostatistics	3	1	0	40	60	0	0	4
2	BHU4019/ BHU4018	Organizational Sociology/Organizational Psychology	2	0	0	40	60	0	0	2
3	BBT4701	Bioprocess Engineering	3	0	2	40	60	80	20	4
4	BBT4702	Molecular Biology	3	0	2	40	60	80	20	4
5	BBT4703	Modern Analytical Techniques in Biotechnology	3	0	2	40	60	80	20	4
6	BBT4015	Bioenergetics and Metabolic Pathways	3	0	0	40	60	0	0	3
7	BBT4511	Seminar-I	0	0	2	100	0	80	20	1
8		Soft Skills & Interpersonal Communication	0	0	2	0	0	100	0	1
9		Cyber Security	2	0	0	Satisfactory/Unsatisfactory			0	
		MOOCs (Essential for Hons. Degree)								
TOTAL			19	01	8	340	360	320	80	22

L - Lecture

T - Tutorial

P - Practical

CIE - Continuous Internal Evaluation

ESE-End Semester Exam

C - Credit

STUDY & EVALUATION SCHEME
B.TECH: BIOTECHNOLOGY
III YEAR: V SEMESTER

S. NO.	SUBJECT CODE	SUBJECT	HOURS PER WEEK			THEORY		PRACTICAL		CREDITS
			L	T	P	CIE	ESE	CIE	ESE	
1	BMG5007	Principles of Management	3	0	0	40	60	0	0	3
2	BBT5701	Genetic Engineering	3	0	2	40	60	80	20	4
3	BBT5702	Enzyme Technology	3	0	2	40	60	80	20	4
4	BBT5703	Bioinformatics	3	0	2	40	60	80	20	4
6	--	Departmental Elective-I	3	0	0	40	60	0	0	3
7	--	Departmental Elective-II	3	0	0	40	60	0	0	3
8	BBT5519	Mini Project or Internship Assessment*	0	0	2	0	0	100	0	1
9	BAP5501	Aptitude and Reasoning and Online Test	0	0	2	0	0	100	0	0
10	XLAX601/ XHUX602	Constitution of India / Essence of Indian Traditional Knowledge	2	0	0	Satisfactory/Unsatisfactory				0
		MOOCs (Essential for Hons. Degree)								
TOTAL			20	0	10	240	360	440	60	22
The Mini Project or Internship Assessment (4 - 6 weeks) conducted during summer break after IV semester will be assessed during V semester.										

L - Lecture

T - Tutorial

P - Practical

CIE - Continuous Internal Evaluation

ESE-End Semester Exam

C - Credit

STUDY & EVALUATION SCHEME
B.TECH: BIOTECHNOLOGY
III YEAR: VI SEMESTER

S. NO.	SUBJECT CODE	SUBJECT	HOURS PER WEEK			THEORY		PRACTICAL		CREDIT S
			L	T	P	CIE	ESE	CIE	ESE	
1	BBT6701	Immunology	3	0	2	40	60	80	20	4
2	BBT6702	Plant Biotechnology	3	0	2	40	60	80	20	4
3	BBT6703	Down Stream Processing	3	0	2	40	60	80	20	4
4	BBT6019	Heat and Mass Transferfor Biological System	3	0	0	40	60	0	0	3
5	--	Departmental Elective-III	3	0	0	40	60	0	0	3
6	--	Departmental Elective-IV	3	0	0	40	60	0	0	3
7	BBT6518	Seminar-II	0	0	1	0	0	100	0	1
8	BAP6501	Aptitude and Reasoningand Online Test	0	0	2	0	0	100	0	0
9	XHUX602/ XLAX601	Essence of Indian Traditional Knowledge/ Constitution of India	2	0	0	Satisfactory/ Unsatisfactory				0
		MOOCs (Essential for Hons.Degree)								
TOTAL			20	0	9	240	360	320	80	22

L - Lecture

T - Tutorial

P - Practical

CIE - Continuous Internal Evaluation

ESE-End Semester Exam

C - Credit

STUDY & EVALUATION SCHEME
B.TECH: BIOTECHNOLOGY
IV YEAR: VII SEMESTER

S. NO	SUBJECT CODE	SUBJECT	HOURS PER WEEK			THEORY		PRACTICAL		CREDITS
			L	T	P	CIE	ESE	CIE	ESE	
1	--	Departmental Elective-V	3	0	0	40	60	0	0	3
2	--	Departmental Elective-VI	3	0	0	40	60	0	0	3
3	BBT7001	Genomics and Proteomics	3	0	0	40	60	0	0	3
4	BBT7701	Animal Biotechnology	3	0	2	40	60	80	20	4
5	BBT7009	IPR, Bioethics and Biosafety	3	0	0	40	60	0	0	3
7	BBT7510	Mini Project or Internship Assessment*	0	0	2	80	20	80	20	1
	BBT7507	Project Work Phase-I	0	0	2	0	0	80	20	1
		MOOCs (Essential for Hons. Degree)								
TOTAL			15	0	6	280	320	240	60	18
*The Mini Project or internship (4 - 6 weeks) conducted during summer break after VI semester and will be assessed during VII semester.										

L - Lecture

T - Tutorial

P - Practical

CIE - Continuous Internal Evaluation

ESE-End Semester Exam

C - Credit

STUDY & EVALUATION SCHEME
B.TECH: BIOTECHNOLOGY
IV YEAR: VIII SEMESTER

S. NO.	SUBJECT CODE	SUBJECT	HOURS PER WEEK			THEORY		PRACTICAL		CREDITS
			L	T	P	CIE	ESE	CIE	ESE	
1	BBT8502	Project Work PhaseII	0	0	32	0	0	50	50	16
		MOOCs (Essentialfor Hons. Degree)								
TOTAL			0	0	32	0	0	50	50	16

L - Lecture

T - Tutorial

P - Practical

CIE - Continuous Internal Evaluation

ESE-End Semester Exam

C - Credit