



PRATHYUSHA ENGINEERING COLLEGE
DEPARTMENT OF BIOTECHNOLOGY
LIST OF COURSES
(ACADEMIC YEAR 2016-17)

SEMESTER-1							
SEMESTER	SL. No.	COURSE CODE	COURSE TITLE	L	T	P	C
I	1	HS6151	Technical English - I	3	1	0	4
I	2	MA6151	Mathematics - I	3	1	0	4
I	3	PH6151	Engineering Physics - I	3	0	0	3
I	4	CY6151	Engineering Chemistry - I	3	0	0	3
I	5	GE6151	Computer Programming	3	0	0	3
I	6	GE6152	Engineering Graphics	2	0	3	4
PRACTICALS							
I	7	GE6161	Computer Practices Laboratory	0	0	3	2
I	8	GE6162	Engineering Practices Laboratory	0	0	3	2
I	9	GE6163	Physics and Chemistry Laboratory - I	0	0	2	1
			TOTAL	17	2	11	26
SEMESTER-II							
SEMESTER	SL. No.	COURSE CODE	COURSE TITLE	L	T	P	C
II	1	HS6251	Technical English - II	3	1	0	4
II	2	MA6251	Mathematics - II	3	1	0	4

II	3	PH6252	Physics of Materials	3	0	0	3
II	4	CY6252	Chemistry for Technologists	3	0	0	3
II	5	BT6201	Biochemistry	3	0	0	3
II	6	BT6202	Microbiology	3	0	0	3
PRACTICALS							
II	7	BT6211	Biochemistry Laboratory	0	0	4	2
II	8	BT6212	Microbiology Laboratory	0	0	4	2
TOTAL				18	2	8	24
SEMESTER-III							
SEMESTER	SL. No.	COURSE CODE	COURSE TITLE	L	T	P	C
III	1	MA6351	Transforms and Partial Differential Equations	3	1	0	4
III	2	BT6301	Stoichiometry and Fluid Mechanics	3	0	0	3
III	3	BT6302	Bioorganic Chemistry	3	0	0	3
III	4	BT6303	Cell Biology	3	1	0	4
III	5	BT6304	Basic Industrial Biotechnology	3	0	0	3
III	6	GE6351	Environmental Science and Engineering	3	0	0	3
PRACTICALS							
III	7	BT6311	Cell Biology Laboratory	0	0	4	2
III	8	BT6312	Bioorganic Chemistry Laboratory	0	0	4	2
TOTAL				18	2	8	24
SEMESTER-IV							
SEMESTER	SL. No.	COURSE CODE	COURSE TITLE	L	T	P	C
IV	1	MA6468	Probability and Statistics	3	1	0	4
IV	2	BT6401	Analytical Methods and Instrumentation	3	0	0	3
IV	3	BT6402	Applied Thermodynamics for Biotechnologists	3	0	0	3
IV	4	BT6403	Heat Transfer Operations	3	1	0	4
IV	5	BT6404	Enzyme Technology and Biotransformation	3	0	0	3
IV	6	BT6405	Bioprocess Principles	3	0	0	3
PRACTICALS							
IV	7	BT6411	Chemical Engineering Laboratory	0	0	4	2
IV	8	BT6412	Instrumental Methods of Analysis Laboratory	0	0	4	2
TOTAL				18	2	8	24

SEMESTER V

SEMESTER	SL. No.	COURSE CODE	COURSE TITLE	L	T	P	C
V	1	BT6501	Protein Structure Function and Proteomics	3	1	0	4
V	2	BT6502	Bioprocess Engineering	3	0	0	3
V	3	BT6503	Mass Transfer Operation	3	0	0	3
V	4	BT6504	Molecular Biology	3	0	0	3
V	5	BT6003	Principles of Food Processing	3	0	0	3
V	6	BT6006	Biopharmaceutical Technology	3	0	0	3
PRACTICALS							
V	7	BT6511	Bioprocess Lab – I	0	0	4	2
V	8	BT6512	Molecular Biology Lab	0	0	4	2
			TOTAL	18	1	8	23

SEMESTER VI

VI	1	BT6601	Total Quality Management for Biotechnologists	3	0	0	3
VI	2	BT6602	Immunology	3	0	0	3
VI	3	BT6603	Genetic Engineering and Genomics	3	1	0	4
VI	4	BT6604	Chemical Reaction Engineering	3	0	0	3
VI	5	BT6007	Animal Biotechnology	3	0	0	3
VI	6	BT6010	Plant Biotechnology	3	0	0	3
PRACTICALS							

SEMESTER	SL. No.	COURSE CODE	COURSE TITLE	L	T	P	C
VI	7	BT6611	Genetic Engineering Laboratory	0	0	4	2
VI	8	BT6612	Bioprocess Lab – II	0	0	4	2
		GE6562	Employability Skills	0	0	2	1
			TOTAL	18	1	10	24

SEMESTER VII

SEMESTER	SL. No.	COURSE CODE	COURSE TITLE	L	T	P	C
VII	1	BT6701	Bioinformatics and Computational Biology	3	0	0	3
VII	2	BT6702	Downstream processing	3	0	0	3
VII	3	BT6703	Creativity, Innovation and New Product Development	3	0	0	3
VII	4	BT6014	Bio Industrial Entrepreneurship	3	0	0	3
VII	5	BT6017	Tissue Engineering	3	0	0	3

PRACTICALS							
VII	6	BT6711	Downstream processing Lab	0	0	4	2
VII	7	BT6712	Immunology Lab	0	0	4	2
	8	BT6713	Bioinformatics Lab	0	0	4	2
			TOTAL	15	0	12	21
SEMESTER VIII							
VIII	1	BT6811	Project Work*	0	0	12	6
			TOTAL	0	0	12	6

TOTAL CREDITS : 172

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