



ESTD. 2001

## PRATHYUSHA ENGINEERING COLLEGE

DEPARTMENT OF BIOTECHNOLOGY

LIST OF COURSES

(ACADEMIC YEAR 2018-19)

SEMESTER-1							
SEMESTER	SL. No.	COURSE CODE	COURSE TITLE	L	T	P	C
I	1	HS8151	Communicative English	4	0	0	4
I	2	MA8151	Engineering Mathematics – I	4	0	0	4
I	3	PH8151	Engineering Physics	3	0	0	3
I	4	CY8151	Engineering Chemistry	3	0	0	3
I	5	GE8151	Problem Solving and Python Programming	3	0	0	3
I	6	GE8152	Engineering Graphics	2	0	4	4
PRACTICALS							
I	7	GE8161	Problem Solving and Python Programming Laboratory	0	0	4	2
I	8	BS8161	Physics and Chemistry Laboratory	0	0	4	2
<b>TOTAL</b>				<b>19</b>	<b>0</b>	<b>12</b>	<b>25</b>
SEMESTER-II							
SEMESTER	SL. No.	COURSE CODE	COURSE TITLE	L	T	P	C
II	1	HS8251	Technical English	4	0	0	4
II	2	MA8251	Engineering Mathematics – II	4	0	0	4
II	3	PH8254	Physics of Materials	3	0	0	3
II	4	BE8252	Basic Civil and Mechanical Engineering	4	0	0	4
II	5	BT8291	Microbiology	3	0	0	3

II	6	BT8251	Biochemistry	3	0	0	3
<b>PRACTICALS</b>							
II	7	GE8261	Engineering Practices Laboratory	0	0	4	2
II	8	BT8261	Biochemistry Laboratory	0	0	4	2
<b>TOTAL</b>				<b>21</b>	<b>0</b>	<b>8</b>	<b>25</b>

**SEMESTER-III**

SEMESTER	SL. No.	COURSE CODE	COURSE TITLE	L	T	P	C
III	1	MA8353	Transforms and Partial Differential Equations	4	0	0	4
III	2	BT8301	Stoichiometry	3	2	0	4
III	3	BT8302	Applied Thermodynamics for Biotechnologists	3	0	0	3
III	4	BT8303	Basic Industrial Biotechnology	3	0	0	3
III	5	BT8304	Bioorganic Chemistry	3	0	0	3
III	6	BT8305	Cell Biology	3	0	0	3
<b>PRACTICALS</b>							
III	7	BT8361	Microbiology Laboratory	0	0	4	2
III	8	BT8311	Cell Biology Laboratory	0	0	4	2
III	9	HS8381	Interpersonal Skills/Listening and Speaking	0	0	2	1
<b>TOTAL</b>				<b>19</b>	<b>2</b>	<b>10</b>	<b>25</b>

**SEMESTER-IV**

SEMESTER	SL. No.	COURSE CODE	COURSE TITLE	L	T	P	C
IV	1	MA8391	Probability and Statistics	4	0	0	4
IV	2	BT8401	Fluid Mechanics and Heat Transfer Operations	4	0	0	4
IV	3	BT8402	Molecular Biology	3	0	0	3
IV	4	BT8403	Enzyme Technology and Bio-transformations	3	0	0	3
IV	5	BT8404	Bioprocess Principles	3	0	0	3
IV	6	GE8291	Environmental Science and Engineering	3	0	0	3
<b>PRACTICALS</b>							
IV	7	BT8411	Chemical Engineering Laboratory for Biotechnologists	0	0	4	2
IV	8	BT8412	Molecular Biology Laboratory	0	0	4	2
IV	9	HS8461	Advanced Reading and Writing	0	0	2	1

			<b>TOTAL</b>	<b>20</b>	<b>0</b>	<b>10</b>	<b>25</b>
<b>SEMESTER V</b>							
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
<b>PRACTICALS</b>							
V	7	BT6511	Bioprocess Lab – I	0	0	4	2
V	8	BT6512	Molecular Biology Lab	0	0	4	2
			<b>TOTAL</b>	<b>18</b>	<b>1</b>	<b>8</b>	<b>23</b>
<b>SEMESTER VI</b>							
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
<b>PRACTICALS</b>							
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
			<b>TOTAL</b>	<b>18</b>	<b>1</b>	<b>10</b>	<b>24</b>
<b>SEMESTER VII</b>							
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
<b>PRACTICALS</b>							
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
			<b>TOTAL</b>	<b>15</b>	<b>0</b>	<b>12</b>	<b>21</b>
<b>SEMESTER VIII</b>							
VIII	1	BT6811	Project Work*	0	0	12	6
			<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>12</b>	<b>6</b>

**TOTAL CREDITS : 174**

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