



ESTD. 2001

PRATHYUSHA ENGINEERING COLLEGE
DEPARTMENT OF BIOTECHNOLOGY
LIST OF COURSES
(ACADEMIC YEAR 2019-20)

SEMESTER-I

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
TOTAL				19	0	12	25

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
PRACTICALS							
II	7	GE8261	Engineering Practices Laboratory	0	0	4	2
II	8	BT8261	Biochemistry Laboratory	0	0	4	2
TOTAL				21	0	8	25
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
PRACTICALS							
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
TOTAL				19	2	10	25
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
PRACTICALS							
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
TOTAL				20	0	10	25

SEMESTER V

SEMESTER	SL. No.	COURSE CODE	COURSE TITLE	L	T	P	C
V	1	BT8501	Mass Transfer Operations	3	0	0	3
V	2	BT8591	Bioprocess Engineering	3	0	0	3
V	3	BT8502	Analytical Methods and Instrumentation	3	0	0	3
V	4	BT8503	Protein Engineering	3	0	0	3
V	5	BT8003	Principles of Food Processing	3	0	0	3
V	6	OA1551	Environment and Agriculture	3	0	0	3
PRACTICALS							
V	7	BT8511	Bioprocess Laboratory I	0	0	4	2
V	8	BT8512	Analytical Methods and Instrumentation Laboratory	0	0	4	2
V	9	HS8581	Professional Communication	0	0	2	1
TOTAL				18	0	10	23

SEMESTER VI

SEMESTER	SL. No.	COURSE CODE	COURSE TITLE	L	T	P	C
VI	1	BT8651	Bioinformatics	3	2	0	4
VI	2	BT8601	Genetic Engineering	4	0	0	4
VI	3	BT8691	Applied Chemical Reaction Engineering	3	0	0	3
VI	4	BT8005	Animal Biotechnology	3	0	0	3
VI	5	BT8010	Bioentrepreneurship	3	0	0	3
VI	6	BT8017	Biofuel	3	0	0	3

PRACTICALS

SEMESTER	SL. No.	COURSE CODE	COURSE TITLE	L	T	P	C
VI	7	BT8611	Bioprocess Laboratory II	0	0	4	2
VI	8	BT8612	Genetic Engineering Laboratory	0	0	4	2
TOTAL				19	2	8	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 : 174

P. Dhasarathan
 Dr.P.DHASARATHAN M.Sc., M.Tech., Ph.D.,
 Head, Department of Biotechnology
Prathyusha Engineering College
 Tiruvallur-602025, Tamilnadu, INDIA

PLN
 Dr. RAMESH P.L.N., B.Tech., M.Tech., Ph.D.
 Principal
 PRATHYUSHA ENGINEERING COLLEGE
 Poonamallee to Thiruvallur High Road,
 Chennai- 602025