

Basaveshwar Engineering College, Bagalkote
Department of Biotechnology
Schemes of Teaching and Examination
2025-26

B. E. III SEMESTER

Sl. No	Course Category	Course Code	Course Title	Teaching-Learning Scheme				Examination Duration (Hrs/Sem.)		Total Hours	Examination Scheme and Evaluation			Credits (C) =Total Hours/30
				L Hrs/Week (Hrs/Sem.)	T Hrs/Week (Hrs/Sem.)	P Hrs/Week (Hrs/Sem.)	Term Work (TW) and Self Learning (SL) (TW+SL) Hrs/Sem.	CIE	SEE		CIE	SEE	TOTAL	
1.	PCC	BBTA301C	Cell Biology & Genetics	3(42)	0	0	42	3	3	90	50	50	100	3
2.	IPCC	BBTA302C	Microbiology	3(42)	0	2(26)	44	5	3	120	50	50	100	4
3.	IPCC	BBTA303C	Biochemistry	3(42)	0	2(26)	44	5	3	120	50	50	100	4
4.	IPCC	BBTA304C	Immunotechnology	3(42)	0	2(26)	44	5	3	120	50	50	100	4
5.	PCC	BBTA305C	Bioprocess Operations	3(42)	0	0	42	3	3	90	50	50	100	3
6.	PCC	BBTA306C	Cell Culture Techniques	2(28)	0	0	26	3	3	60	50	50	100	2
7.	PCCL	BBTA307L	Bioprocess Operation Lab	0	0	2(26)	-	2	2	30	50	50	100	1
8.	MC	BHSA360M	Yoga-I	0	0	2(28)	-	2	-	30	100	-	100	PP

		BHSB360M	National Service Scheme (NSS)-I											
		BHSC360M	Physical Education-I											
		BHSD360M	Music-I											
Total				17	0	10					450	350	800	21

B. E. IV SEMESTER

Sl. No	Course Category	Course Code	Course Title	Teaching-Learning Scheme				Examination Duration (Hrs/Sem.)		Total Hours	Examination Scheme and Evaluation			Credits (C) = Total Hours /30
				L Hrs/Week (Hrs/Sem.)	T Hrs/Week (Hrs/Sem.)	P Hrs/Week (Hrs/Sem.)	Term Work (TW) and Self Learning (SL) (TW+SL) Hrs/Sem.	CIE	SEE		CIE	SEE	TOTAL	
1.	IPCC	BBTA401C	Biostatistics & Tools	3(42)	0	2(26)	44	5	3	120	50	50	100	04
2.	PCC	BBTA403C	Bioprocess Principles and Calculations	3(42)	0	0	42	3	3	90	50	50	100	03
3.	IPCC	BBTA404C	Molecular Biology	3(42)	0	2(26)	44	5	3	120	50	50	100	04

4.	IPCC	BBTA405 C	Upstream Processing Technology	3(42)	0	2(26)	44	5	3	120	50	50	100	04
5.	BSC	BBTA402 C	Biology for Engineers	3(42)	0	0	42	3	3	90	50	50	100	03
6.	UHV	BHSA424 C	UHV-II	1(14)	0	0	13	2	1	30	50	50	100	01
7.	MC	BHSA460 M	Yoga-II	0	0	2(28)	-	2	-	30	100	-	100	00
		BHSB460 M	National Service Scheme(NSS)-II											
		BHSC460 M	Physical Education- II											
		BHSD460 M	Music-II											
Total				16	0	08				400	300	700	19	

B. E. V SEMESTER
2025-26

Sl. No	Course Category	Course Code	Course Title	Teaching-Learning Scheme				Examination Duration (Hrs/Sem.)		Total Hours	Examination Marks			Credits (C) =Total Hours/ 30
				L Hrs/W eek (Hrs/S em.)	T Hrs/ Week (Hrs/ Sem.)	P Hrs/We ek (Hrs/Se m.)	Term Work (TW) and Self Learning (SL) (TW+SL) Hrs/Sem	CIE	SEE		CI E	SE E	TOTA L	
1.	PCC	22UBT501C	Bioinformatics	3(42)	0	0	42	3	3	90	50	50	100	3
2.	PCC	22UBT506C	Cell Culture Techniques	2(28)	0	0	26	3	3	60	50	50	100	2
3.	PCC	22UBT507C	Bioethics, Biosafety and Regulatory affairs	3(42)	0	0	42	3	3	90	50	50	100	3
4.	PEC	22UBT5XXE	Elective –I	3(42)	0	0	42	3	3	90	50	50	100	3
5.	OEC	22UXX5XX N	Open Elective-I	3(42)	0	0	42	3	3	90	50	50	100	3
6.	HSMS/M C	22UBT523C	EVS	1(14)	0	0	13	2	1	30	50	50	100	1
7.	PCCL	22UBT508L	Bioinformatics Lab	0	0	2(26)	-	2	2	30	50	50	100	1

8.	PP	22UBT504P	Mini project	Two contact hours/week for interaction between the faculty and			-	1	3	60	50	50	100	2
9.	AEC	22UHS522C	Quantitative Aptitude and Professional Skills	2(28)	0	0	26	3	3	60	50	50	100	2
10.	MC	22UHS001M 22UHS002M 22UHS003M	Yoga NSS PE	0	0	2(28)	-	2	-	30	25	-	-	00
Total				17	0	04					475	450	900	20

Elective-I

22UBT511E: Environmental BT

22UBT512E: Nutraceuticals

22UBT513E: Computational Biology

22UBT514E: Protein Engineering and Drug Design

Open Elective

22UBT532N: Biofuels Technology

B. E. VI SEMESTER
2025-26

Sl. No	Course Category	Course Code	Course Title	Teaching-Learning Scheme				Examination Duration (Hrs/Sem.)		Total Hours	Examination Marks			Credits (C) =Total Hours/30
				L Hrs/Week (Hrs/Sem.)	T Hrs/Week (Hrs/Sem.)	P Hrs/Week (Hrs/Sem.)	Term Work (TW) and Self Learning (SL) (TW+SL) Hrs/Sem.	CIE	SEE		CI E	SE E	TOTAL	
1.	PCC	22UBT601C	Bioprocess and Bioreaction Engineering	3(42)	0	0	42	3	3	90	50	50	100	3
2.	PCC	22UBT602C	Upstream Processing Technology	3(42)	0	0	42	3	3	90	50	50	100	3
3.	PCC	22UBT604C	Genomics & Proteomics	3(42)	0	0	42	3	3	90	50	50	100	3
4.	IPCC	22UBT606C	Biotransformation and Enzyme technology	3(42)	0	2(26)	44	5	3	120	50	50	100	4
5.	PEC	22UBT6XXE	Elective-II	3(42)	0	0	42	3	3	90	50	50	100	3

6.	OEC	22UXX6XX E	Open Elective – II	3(42)	0	0	42	3	3	90	50	50	100	3
7.	AEC	22UHS600C	Indian Knowledge System	1(14)	0	0	13	2	1	30	50	50	100	1
8.	MC	22UHS001 M 22UHS002 M 22UHS003 M	Yoga NSS PE	0	0	2(28)	-	2	-	30	25	-	-	00
Total				19	0	04					375	350	700	20

Elective-II

22UBT621E: Biofuels Technology

22UBT622E: Food Biotechnology

22UBT623E: Biopython

22UBT624E: Bioreactor Design

22UBT625E: Validation, QA & QC

Open Elective

22UBT632N : Environmental Technology

B. E. VII SEMESTER
2025-26

Sl . No	Course Category	Course Code	Course Title	Teaching-Learning Scheme				Examination Duration (Hrs/Sem.)		Total Hours	Examination Marks			Credits (C) =Total Hours/ 30
				L Hrs/Week (Hrs/Sem.)	T Hrs/Week (Hrs/Sem.)	P Hrs/Week (Hrs/Sem.)	Term Work (TW) and Self Learning (SL) (TW+SL)) Hrs/Sem.	CIE	SEE		CI E	SE E	TOTAL	
1.	PCC	22UBT702 C	Downstream Processing Technology	3(42)	0	0	42	3	3	90	50	50	100	3
2.	HSMC	22UBT703 H	Bioenterpreneurs hip Development	3(42)	0	0	42	3	3	90	50	50	100	3
3.	HSS	22UHS711 C	Research Methodology and IPR	3(42)	0	0	42	3	3	90	50	50	100	3
4.	PEC	22UBT7X XE	Elective –III	3(42)	0	0	42	3	3	90	50	50	100	3
5.	PEC	22UBT7X XE	Electives – IV	3(42)	0	0	42	3	3	90	50	50	100	3
6.	PCCL	22UBT704 L	Upstream process &	0	0	2(26)	-	2	2	30	50	50	100	1

			Bioseparation Techniques Lab											
7.	PP	22UBT705 P	Project	Two contact hours/week for interaction between the faculty and students			-	1	3	240	50	50	100	8
Total				15	0	28					350	350	700	24

Elective-III

22UBT731E: Industrial BT

22UBT732E: Food Processing Technology

22UBT733E: Biosimulations

22UBT734E: Bioanalytical techniques

Elective-IV

22UBT741E: Nanobiotechnology & Biomaterials

22UBT742E: Food Product Development

22UBT743E: Clinical Research

22UBT744E: Pharmaceutical BT

B. E. VIII SEMESTER
2025-26

Sl . No	Course Category	Course Code	Course Title	Teaching-Learning Scheme				Examination Duration (Hrs/Sem.)		Total Hours	Examination Marks			Credits (C) =Total Hours/30
				L Hrs/ Week (Hrs/ Sem.)	T Hrs/W eek (Hrs/S em.)	P Hrs/Week (Hrs/Sem.)	Term Work (TW) and Self Learning (SL) (TW+SL) Hrs/Sem.	CIE	SEE		CI E	SE E	TOTA L	
1.	AEC	22UBT0X XO	MOOCs*	3	0	0	90	-	-	90	50	50	100	3
2.	OEC	22UBT0X XO	MOOCs*	3	0	0	90	-	-	90	50	50	100	3
3.	INT	22UBT80 II	Internshi p	Two contact hours/week for interaction between the faculty and students				3	3	300	50	50	100	10
Total				6	0	-					150	150	300	16