



GSFC
UNIVERSITY
EDUCATION RE-ENVISIONED

COURSE CURRICULUM

B.Sc. Biotechnology

Batch:2022-2023
Academic Year: 2023-24
Updated on: July, 2023

Teaching Scheme Semester – I

Sr. No.	Course Code	Course Name	Teaching Scheme (Hours/week)				Teaching Credit				Evaluation Scheme					
			L	P	T	Total	L	P	T	Total	Theory: MS Marks	Theory: CEC Marks	Theory: ES Marks	Theory Marks	Practical Marks	Total Marks
A. Major Courses																
1.	BSBO111	Cell Biology	3	2	0	5	3	1	0	4	20	40	40	100	50	150
2.	BSBO112	Molecular Biology	3	2	0	5	3	1	0	4	20	40	40	100	50	150
B. Minor Courses																
3.	BSMA105	Mathematics-I	5	0	1	6	5	0	1	6	20	45	75	150	0	150
C. Multidisciplinary Courses (Any one)																
4.	CBCS103	Indian History & Culture	2	0	0	2	2	0	0	2	20	40	40	100	00	100
5.	CBCS104	Air Pollution Control														
6.	CBCS105	Python Programming														
7.	CBCS109	Management Principles & Practices														
8.	CBCS110	MS Office & Applications														
D. Ability Enhancement Courses																
9.	AECC101	Fundamentals of English	2	0	0	2	2	0	0	2	20	40	40	100	00	100
E. Skill Enhancement Courses																
10.	SECC101	Industrial Internship	0	2	0	2	0	2	0	2	00	00	00	50	00	50

F. Value Added Courses																
11.	VACC101	Foundation Course	0	2	0	0	0	2	0	2	00	00	00	50	00	50
	Total									22						700

Note: L = Lecture, P = Practice, T= Tutorial, MS - Mid Semester, CEC - Continuous Evaluation Component, ES - End Semester

Teaching Scheme Semester – II

Sr. No.	Course Code	Course Name	Teaching Scheme (Hours/week)				Teaching Credit				Evaluation Scheme					
			L	P	T	Total	L	P	T	Total	Theory: MS Marks	Theory: CEC Marks	Theory: ES Marks	Theory Marks	Practical Marks	Total Marks
A. Major Courses																
1.	BSBO211	Biomolecules	3	2	0	5	3	1	0	4	20	40	40	100	50	150
2.	BSBO212	Metabolism	3	2	0	5	3	1	0	4	20	40	40	100	50	150
B. Minor Courses																
3.	BSPY215	Physics - I	5	0	1	6	5	0	1	6	20	45	75	150	0	150
C. Multidisciplinary Courses (Any one)																
4.	CBCS202	Introduction to Social Work	2	0	0	2	2	0	0	2	20	40	40	100	00	100
5.	CBCS203	Web Design Fundamentals														
6.	CBCS204	Introduction to Design Engineering														
7.	CBCS205	Introduction to Automotive System														
8.	CBCS211	Accounting for Non – Management Students														
9.	CBCS212	Personal Finance														
D. Ability Enhancement Courses																
10.	AECC201	Communication Skills in English	2	0	0	2	2	0	0	2	20	40	40	100	00	100
E. Skill Enhancement Courses																

10.	SECC201	Industrial Internship	0	2	0	2	0	2	0	2	00	00	00	50	00	50
F. Value Added Courses																
11.	VACC101	NCC/Sports	0	2	0	0	0	2	0	2	00	00	00	50	00	50
Total										22						700

Note: L = Lecture, P = Practice, T= Tutorial, MS - Mid Semester, CEC - Continuous Evaluation Component, ES - End Semester

Teaching Scheme Semester – III

Sr. No.	Course Code	Course Name	Teaching Scheme (Hours/week)				Teaching Credit				Evaluation Scheme					
			L	P	T	Total	L	P	T	Total	Theory: MS Marks	Theory: CEC Marks	Theory: ES Marks	Theory Marks	Practical Marks	Total Marks
A. Ability Enhancement Compulsory Course																
1	AECC301	Entrepreneurship Development	2	0	0	2	2	0	0	2	20	40	40	100	00	100
B. Skill Enhancement Courses																
a) Skill Enhancement compulsory course																
2	SECC301	Internship	0	2	0	2	0	0	2	2	00	00	00	00	50	50
b) Skill Enhancement Electives (Any One)																
3	BSBO305	Biophysics	2	0	0	2	2	0	0	2	20	40	40	50	00	50
4	BSBO306	Analytical Clinical Biochemistry	2	0	0	2	2	0	0	2						
5	BSBO307	Molecular Diagnostics	2	0	0	2	2	0	0	2						
C. Core Course																
6	BSMB301	Genetics	4	4	0	8	4	2	0	6	20	40	40	100	50	150
7	BSBO302	General Microbiology	4	4	0	8	4	2	0	6	20	40	40	100	50	150
8	BSMB303	Basics of Developmental Biology	4	4	0	8	4	2	0	6	20	40	40	100	50	150

D. Elective Course															
a) Discipline Specific Generic Electives (Any One)															
BSPY307	Physics - III	4	4	0	8	4	2	0	6	20	40	40	100	50	150
BSMA307	Mathematics - III	5	0	1	6	5	1	0	6						
BSCM307	Chemistry – I	4	4	0	8	4	2	0	6						
Total									30						800

Teaching Scheme

Semester – IV

Sr. No.	Course Code	Course Name	Teaching Scheme (Hours/week)				Teaching Credit				Evaluation Scheme					
			L	P	T	Total	L	P	T	Total	Theory: MS Marks	Theory: CEC Marks	Theory: ES Marks	Theory Marks	Practical Marks	Total Marks
A. Ability Enhancement Compulsory Course																
1	AECC401	Environmental Science	2	0	0	2	2	0	0	2	20	40	40	100	0	100
B. Skill Enhancement Courses																
a) Skill Enhancement compulsory course																
2	SECC304	Internship	0	2	0	2	0	2	0	2	0	0	0	0	50	50
b) Skill Enhancement Electives (Any One)																
3	BSBO405	Biostatistics	2	0	0	2	2	0	0	2	20	40	40	50	0	50
4	BSBO406	Industrial Fermentations														
5	BSBO407	Nanomaterials														
C. Core Course																
6	BSBO401	Mammalian & Plant Physiology	4	4	0	6	4	2	0	6	20	40	40	100	50	150
7	BSBO402	Recombinant DNA Technology	4	4	0	6	4	2	0	6	20	40	40	100	50	150
8	BSBO403	Enzymology	4	4	0	6	4	2	0	6	20	40	40	100	50	150

D. Elective Course																
a) Discipline Specific Generic Electives (Any One)																
9	BSBO407	Physics - IV	4	4	0	6	4	2	0	6	20	40	40	100	50	150
10	BSMA407	Mathematics - IV	5	0	1	6	5	0	1	6						
11	BSCM407	Chemistry –II	4	4	0	6	4	2	0	6						
Total							20	10	1	30			200	550	250	800

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Teaching Scheme Semester – V

Sr. No	Course Code	Course Name	Teaching Scheme (Hours/week)				Teaching Credit				Evaluation Scheme					
			L	P	T	Total	L	P	T	Total	Theory: MS Marks	Theory: CEC Marks	Theory: ES Marks	Theory Marks	Practical Marks	Total Marks
A. Ability Enhancement Compulsory Course																
1	BSEN501	Disaster Risk Management	2	0	0	2	2	0	0	2	20	40	40	100	00	100
B. Skill Enhancement Courses																
a) Skill Enhancement compulsory courses																
2	SECC504	Internship	0	2	0	2	0	0	0	0	0	0	0	0	50	50
C. Core Course																
3	BSBO501	Bioanalytical Tools	4	4	0	8	4	2	0	6	20	40	40	100	50	150
4	BSBO502	Bioprocess technology	4	4	0	8	4	2	0	6	20	40	40	100	50	150
D. Discipline Specific Generic Electives (Any Two)																
5	BSBO503	Animal & Plant Biotechnology	4	4	0	8	4	2	0	6	20	40	40	100	50	150
6	BSBO504	Virology	4	4	0	8	4	2	0	6	20	40	40	100	50	150
7	BSBO505	Ecology & Evolution	4	4	0	8	4	2	0	6	20	40	40	100	50	150
8	BSBO506	Research Methodology	4	4	0	8	4	2	0	6	20	40	40	100	50	150
		Total								28						750

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Teaching Scheme Semester– VI

Sr. No	Course Code	Course Name	Teaching Scheme (Hours/week)				Teaching Credit				Evaluation Scheme					
			L	P	T	Total	L	P	T	Total	Theory: MS Marks	Theory: CEC Marks	Theory: ES Marks	Theory Marks	Practical Marks	Total Marks
A. Ability Enhancement Compulsory Course																
1	AECC601	Indian Constitution	2	0	0	2	2	0	0	2	20	40	40	100	00	100
B. Core Course																
2	BSBO601	Immunology	4	4	0	8	4	2	0	6	20	40	40	100	50	150
3	BSBO602	Bioinformatics & Drug Discovery, Design and Development	4	4	0	8	4	2	0	6	20	40	40	100	50	150
C. Discipline Specific Generic Electives (Any Two)																
4	BSBO603	Environmental Biotechnology	4	4	0	8	4	2	0	6	20	40	40	100	50	150
5	BSBO604	Genomics & Proteomics	4	4	0	8	4	2	0	6	20	40	40	100	50	150
6	BSBO605	Biosafety, Bioethics & IPR	4	4	0	8	4	2	0	6	20	40	40	100	50	150
7	BSBO606	Medical Biotechnology	4	4	0	8	4	2	0	6	20	40	40	100	50	150
		Total								26						750

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