

Course Components of Academic Programme

B. Sc. (Hon.) Biotechnology

Minimum Duration	: 6 Semesters (3 Years)
Maximum Duration	: As per UGC rules
Total Number of Credits	: 154 Credits

<u>Course Components</u>	<u>Credits</u>
1. <u>Compulsory Course</u>	
I. Foundation Course(FC)	00
II. Core Course(CC)	86
2. <u>Elective Course</u>	
I. Departmental Electives(DE)	40
II. Interdepartmental Electives(IE)	00
3. <u>Discipline- Centric Ability Enhancement Course</u>	
I. Seminar(SM)	06
II. Project(PJ)	06
III. Dissertation(DS)	00
IV. Skill(SK)	10
V. Comprehensive(CM)	00
4. <u>General Course</u>	
I. Human Values, Health Care and Professional Ethics(HP)	00
II. Healthy Living and Fitness(HF)	00
III. Disaster Management (DM)	00
IV. General Proficiency(GP)	06

Requirement of Awards of Degree: - Total Credits---; CGPA \geq 4.5 and any other conditions as per regulation and ordinances.

5. Audit Course

B. Sc. (Hons) Biotechnology

CURRICULAR STRUCTURE AND EVALUATION SCHEME

SEMESTER: I

COURSE MODULE				TEACHING PERIODS			WEIGHTAGE : EVALUATION			
COURSE			Credits	L	T	P	CWA	MSE	ES E	Total
Code	Title	Component								
BSCBT 101	Cell Biology	CC	4	4	-	-	25	25	50	100
BSCBT 102	Inorganic&Physical Chemistry	CC	4	4	-	-	25	25	50	100
PC 101	Professional communication	AEC	2	2	-	-	25	25	50	100
BSCBT 103	Biotechnology and Human Welfare	GE	4	4	-	-	25	25	50	100
BSCBTL 101	Cell Biology Lab	CC	2	-	-	2	25	25	50	100
BSCBTL102	Inorganic&Physical Chemistry Lab	CC	2	-	-	2	25	25	50	100
BSCBTL 103	Biotechnology and Human Welfare Seminar	GE	2	-	-	2	25	25	50	100
GP101	General Proficiency	GP	1	-	-	-	-	-	-	100
SBT101	Seminar	SM	1	-	-	-	-	-	-	100
Total			22	14	-	6	-	-	-	900

SEMESTER: II

COURSE MODULE				TEACHING PERIODS			WEIGHTAGE : EVALUATION			
COURSE			Credits	L	T	P	CWA	MSE	ES E	Total
Code	Title	Component								
BSCBT201	Organic Chemistry	CC	4	4	-	-	25	25	50	100
BSCBT202	Elements of Biochemistry	CC	4	4	-	-	25	25	50	100
XCS 201	Career Skills	AEC	2	2	-	-				100
BSCBT 203	Ecology and Environment Management	GE	4	4	-	-	25	25	50	100
BSCBTL201	Organic Chemistry Lab	CC	2	-	-	2	25	25	50	100
BSCBTL202	Elements of Biochemistry Lab	CC	4	-	-	2	25	25	50	100
GP201	General Proficiency	GP	1	-	-	-	-	-	-	100
SBT201	Seminar	SM	1	-	-	-	-	-	-	100
Total			22	14	-	6	-	-	-	800

SEMESTER: III

COURSE MODULE				TEACHING PERIODS			WEIGHTAGE : EVALUATION			
COURSE			Credits	L	T	P	CWA	MSE	ES E	Total
Code	Title	Component								
BSCBT 301	Principles of Genetics	CC	4	4	-	-	25	25	50	100
BSCBT 302	General Microbiology	CC	4	4	-	-	25	25	50	100
BSCBT 303	Plant Physiology	CC	4	4	-	-	25	25	50	100
BSCBT 304	Molecular Diagnostics	SEC	2	2	-	-	25	25	50	100
BSCBT 305	IPR , Bioethics and Biosafety	GE	4	4	-	-	25	25	50	100
BSCBTL 301	Principles of Genetics Lab	CC	2	-	-	2	25	25	50	100
BSCBTL 302	General Microbiology Lab	CC	2	-	-	2	25	25	50	100
BSCBT L 303	Plant Physiology Lab	CC	2	-	-	2	25	25	50	100
BSCBTL 305	IPR , Bioethics and Biosafety Seminar	GE	2	-	-	2	25	25	50	100
GP301	General Proficiency	GP	1	-	-	-	-	-	-	100
SBT301	Seminar	SM	1	-	-	-	-	-	-	100
Total			28	18	-	8	-	-	-	1100

SEMESTER: IV

COURSE MODULE				TEACHING PERIODS			WEIGHTAGE : EVALUATION			
COURSE			Credits	L	T	P	CWA	MSE	ES E	Total
Code	Title	Component								
BSCBT 401	Molecular Biology	CC	4	4	-	-	25	25	50	100
BSC BT 402	Immunology	CC	4	4	-	-	25	25	50	100
BSC BT 403	Mammalian Physiology	CC	4	4	-	-	25	25	50	100
BSCBT 404	Enzymology	SEC	2	2	-	-	25	25	50	100
BSCBT 405	Elements of Management & Entrepreneurship Development	GE	4	4	-	-	25	25	50	100
BSCBTL 401	Molecular Biology Lab	CC	2	-	-	2	25	25	50	100
BSC BTL 402	Immunology Lab	CC	2	-	-	2	25	25	50	100
BSC BTL 403	Mammalian Physiology Lab	CC	2	-	-	2	25	25	50	100
BSCBTL 405	Elements of Management & Entrepreneurship Development	GE	2	-	-	2	25	25	50	100

	Seminar									
GP401	General Proficiency	GP	1	-	-	-	-	-	-	100
SBT401	Seminar	SM	1	-	-	-	-	-	-	100
Total			28	18	-	8	-	-	-	1100

SEMESTER: V

COURSE MODULE				TEACHING PERIODS			WEIGHTAGE : EVALUATION			
COURSE			Credits	L	T	P	CWA	MSE	ES E	Total
Code	Title	Component								
BSCBT 501	Bioprocess Technology	CC	4	4	-	-	25	25	50	100
BSCBT 502	Recombinant DNA Technology	CC	4	4	-	-	25	25	50	100
BSCBT 503	Plant Biotechnology	DEC	4	4			25	25	50	100
BSCBT 504	Animal Biotechnology	DEC	4	4			25	25	50	100
BSCBTL 501	Bioprocess Technology Lab	CC	2	-	-	2	25	25	50	100
BSCBTL 502	Recombinant DNA Technology Lab	SEC	2	-	-	2	25	25	50	100
BSCBTI 503	Plant Biotechnology Lab	DSE	2	-	-	2	25	25	50	100
BSCBTL 504	Animal Biotechnology Lab	DSE	2	-	-	2	25	25	50	100
XCS 501	Career Skills	AEC	2	2	-	-	-	-	-	100
GP501	General Proficiency	GP	1	-	-	-	-	-	-	100
SBT501	Seminar	SM	1	-	-	-	-	-	-	100
Total			28	20	-	8	-	-	-	1100

SEMESTER: VI

COURSE MODULE				TEACHING PERIODS			WEIGHTAGE : EVALUATION			
COURSE			Credits	L	T	P	CWA	MSE	ES E	Total
Code	Title	Component								
BSCBT 601	Bio Analytical Tools	CC	4	4	-	-	25	25	50	100
BSCBT 602	Genomics and Proteomics	CC	4	4	-	-	25	25	50	100
BSCBT 603	Bioinformatics	DSE	4	4	-	-	25	25	50	100
BSCBTL 601	Bio Analytical Tools Lab	CC	2	-	-	2	25	25	50	100
BSCBTL 602	Genomics and Proteomics Lab	CC	2	-	-	2	25	25	50	100
BSCBTL 603	Bioinformatics lab	DSE	2	-	-	2	25	25	50	100
BSCBT 604	Project Dissertation	PJ	6	6	-	-	-	-	-	100
GP601	General Proficiency	GP	1	-	-	-	-	-	-	100

SBT601	Seminar	SM	1	-	-	-	-	-	-	100
Total			26	18	-	8	-	-	-	900

BSCBT: Core Courses; **GE:** Elective Course; **SEC:** Skill Enhancement Courses;
DSE: Discipline Specific Elective Course

ELECTIVE SUBJECTS (any one per semester in semesters 1-4)	SKILL ENHANCEMENT SUBJECTS (any one /semester in semesters 3-4)	DISCIPLINE SPECIFIC ELECTIVE SUBJECTS (any two per semester in semesters 5-6)
Elements of Management & Entrepreneurship Development	Molecular Diagnostics	Plant Biotechnology
Biotechnology and Human Welfare	Enzymology	Animal Biotechnology
IPR, Bioethics and Biosafety	Industrial Fermentations	Bioinformatics
Ecology and EnvironmEnt Management	Basics of Forensic Science	Environmental Biotechnology
		Medical Microbiology

SEMESTER	CREDITS	MARKS
I	22	900
II	22	800
III	28	1100
IV	28	1100
V	28	1100
VI	26	900
TOTAL	154	5900