

VANITA VISHRAM WOMEN'S UNIVERSITY

SCHOOL OF SCIENCE AND TECHNOLOGY

DEPARTMENT OF BIOTECHNOLOGY



BACHELOR OF SCIENCE (B.Sc.) HONOURS IN BIOTECHNOLOGY SYLLABUS

**(Core Courses (CC), Ability Enhancement Compulsory Courses (AECC),
Generic Elective Courses (GE))**

**Under Learning Outcomes Based Curriculum Framework
(LOCF)**

For Undergraduate (UG) Education

**Syllabus applicable to the students seeking admission in the
following Program**

**B.Sc. Biotechnology under LOCF w.e.f. the Academic Year
2021-2022**

5 Structure of the Programme: Credit Structure

B.Sc. Biotechnology Honours Structure & Distribution of Courses							
Courses	Theory credits	Practical credits	Courses	Theory credits	Practical credits	Total Theory & Practical Credits	Total Yearly Credits
Semester 1			Semester 2				
CC1	4	2	CC3	4	2		
CC2	4	2	CC4	4	2		
GE1	4	2	GE2	4	2		
AECC1	2	-	AECC3	2	-		
AECC2	2		AECC4	2			
	16	6		16	6	32+12	44
SEM3			SEM4				
CC5	4	2	CC8	4	2		
CC6	4	2	CC9	4	2		
CC7	4	2	CC10	4	2		
GE3	4	2	GE4	4	2		
SEC1	4	-	SEC2	4	-		
	20	8		20	8	40+16	56
SEM5			SEM6				
CC11	4	2	CC13	4	2		
CC12	4	2	CC14	4	2		
DSE1	4	2	DSE3	4	2		
DSE2	4	2	DSE4	4	2		
	16	8		16	8	32+16	48
Total (Theory + Practical)						104+44	148

6 Structure of the Course: Paper Titles of Six Semester

VANITA VISHRAM WOMEN'S UNIVERSITY SCHOOL OF SCIENCE & TECHNOLOGY

Subject titles for B.Sc. BIOTECHNOLOGY PROGRAMME AY 2021-22

Semester	Course Code	Course Category	Course Title	Offering Department	Total Credit
1	BT11010	CC	Introduction to Biotechnology (Theory)	Biotechnology	4
	BT11020	CC	Introduction to Biotechnology (Practical)	Biotechnology	2
	BT11030	CC	Basics of Biochemistry (Theory)	Biotechnology	4
	BT11040	CC	Basics of Biochemistry (Practical)	Biotechnology	2
	EN12010	AE	Communication Skills in English - I	English	2
	BT12010	AE	Environmental Studies - I	Biotechnology	2
2	BT11050	CC	Cell Biology (Theory)	Biotechnology	4
	BT11060	CC	Cell Biology (Practical)	Biotechnology	2
	BT11070	CC	Eukaryotic Physiology (Theory)	Biotechnology	4
	BT11080	CC	Eukaryotic Physiology (Practical)	Biotechnology	2
	EN21020	AEC	Communication Skills in English - II	English	2
	BT12020	AEC	Environmental Studies - II	Biotechnology	2
3	BT11090	CC	Fundamentals of Genetics (Theory)	Biotechnology	4
	BT11100	CC	Fundamentals of Genetics (Practical)	Biotechnology	2
	BT11110	CC	Introduction to Microbiology (Theory)	Biotechnology	4
	BT11120	CC	Introduction to Microbiology (Practical)	Biotechnology	2
	BT11130	CC	Bioanalytical Tools & Techniques (Theory)	Biotechnology	4
	BT11140	CC	Bioanalytical Tools & Techniques (Practical)	Biotechnology	2
	BT15010	SEC	Enzymology	Biotechnology	4
4	BT11150	CC	Molecular Biology (Theory)	Biotechnology	4
	BT11160	CC	Molecular Biology (Practical)	Biotechnology	2
	BT11170	CC	Immunology (Theory)	Biotechnology	4
	BT11180	CC	Immunology (Practical)	Biotechnology	2
	BT11190	CC	Fermentation Technology (Theory)	Biotechnology	4
	BT11200	CC	Fermentation Technology (Practical)	Biotechnology	2
	BT15020	SEC	Virology	Biotechnology	4
5	BT11210	CC	rDNA Technology (Theory)	Biotechnology	4
	BT11220	CC	rDNA Technology (Practical)	Biotechnology	2
	BT11230	CC	Bioprocess Technology (Theory)	Biotechnology	4
	BT11240	CC	Bioprocess Technology (Practical)	Biotechnology	2
	BT14010	DSE	Animal Biotechnology (Theory)	Biotechnology	4

	BT14020	DSE	Animal Biotechnology (Practical)	Biotechnology	2
	BT14030	DSE	Developmental Biology (Theory)	Biotechnology	4
	BT14040	DSE	Developmental Biology (Practical)	Biotechnology	2
	BT14050	DSE	Plant Biotechnology (Theory)	Biotechnology	4
	BT14060	DSE	Plant Biotechnology (Practical)	Biotechnology	2
	BT14070	DSE	Dairy Science and Technology (Theory)	Biotechnology	4
	BT14080	DSE	Dairy Science and Technology (Practical)	Biotechnology	2
6	BT11250	CC	Clinical Microbiology (Theory)	Biotechnology	4
	BT11260	CC	Clinical Microbiology (Practical)	Biotechnology	2
	BT11270	CC	Environmental Biotechnology (Theory)	Biotechnology	4
	BT11280	CC	Environmental Biotechnology (Practical)	Biotechnology	2
	BT14090	DSE	Hematology & Blood Banking (Theory)	Biotechnology	4
	BT14100	DSE	Hematology & Blood Banking (Practical)	Biotechnology	2
	BT14110	DSE	Parasitology (Theory)	Biotechnology	4
	BT14120	DSE	Parasitology (Practical)	Biotechnology	2
	BT14130	DSE	Applied Mycology & Phycology (Theory)	Biotechnology	4
	BT14140	DSE	Applied Mycology & Phycology (Practical)	Biotechnology	2
	BT14150	DSE	Bioinformatics (Theory)	Biotechnology	4
	BT14160	DSE	Bioinformatics (Practical)	Biotechnology	2
1	BT31010	GE	Ecology and Environment Management (Theory)	Biotechnology	4
	BT31020	GE	Ecology and Environment Management (Practical)	Biotechnology	2
2	BT31030	GE	Marine Biotechnology (Theory)	Biotechnology	4
	BT31040	GE	Marine Biotechnology (Practical)	Biotechnology	2
3	BT31050	GE	Biotechnology for Human Welfare (Theory)	Biotechnology	4
	BT31060	GE	Biotechnology for Human Welfare (Practical)	Biotechnology	2
4	BT31070	GE	Molecular Diagnostics (Theory)	Biotechnology	4
	BT31080	GE	Molecular Diagnostics (Practical)	Biotechnology	2