

J.J. College of Arts and Science (Autonomous)
Proposed Course Structure based on TANSCHÉ and UGC - LOCF
(Choice Based Credit System)
(Applicable for the Candidates admitted from the academic year 2026-2027 Onwards)
B.Sc. Biotechnology

Sl. No.	Course Category	Course Code	Course	Credits	Hours/ Week	Marks		
						CIA	ESE	Total
Semester I								
1	Part-I	U1R4TL1/HL1/FL1	Language Course - I	3	6	30	70	100
2	Part-II	U1R4EL1	English Language Course - I	3	6	30	70	100
3	Part-III	U1R4BTCC1	Cell and Developmental Biology	5	5	30	70	100
4		U1R4BTCC2P	Major Practical-I(Covering CC1)	5	5	40	60	100
5		U1R4BTAC1	Allied - Microbiology	3	3	30	70	100
6		U1R4BTAC2P	Allied Practical I(Covering AC1)	3	3	40	60	100
7	Part -IV	U1R4_GEC1	To be opted from other Dept.	2	2	30	70	100
Total				24	30	-	-	700
Semester II								
1	Part-I	U2R4TL2/HL2/FL2	Language Course – II	3	6	30	70	100
2	Part-II	U2R4EL2	English Language Course - II	3	6	30	70	100
3	Part-III	U2R4BTCC3	Genetics	5	5	30	70	100
4		U2R4BTCC4P	Major Practical II(Covering CC3)	5	5	40	60	100
5		U2R4BTAC3	Allied - Biochemistry	3	3	30	70	100
6		U2R4BTAC4P	Allied Practical-II (Covering AC3)	3	3	40	60	100
7	Part-IV	U2R4_GEC2	To be opted from other Dept.	2	2	30	70	100
Total				24	30	-	-	700
Semester III								
1	Part-I	U3R4TL3/HL3/FL3	Language Course – III	3	5	30	70	100
2	Part-II	U3R4EL3	English Language Course - III	3	5	30	70	100
3	Part-III	U3R4BTCC5	Molecular Biology	5	5	30	70	100
4		U3R4BTCC6P	Major Practical III (Covering CC5)	5	5	40	60	100
5		U3R4BTAC5	Allied - Enzyme Technology	3	4	30	70	100
6	Part-IV	U3R4BTSEC1:1/1:2	Instrumentation in Biotechnology/ Diagnostic Biotechnology	2	2	30	70	100
7		U3R4VE	Value Education	2	2	30	70	100
8	Part-V	U3R4HW	Health and Wellness	1	2	-	-	100
Total				24	30	-	-	800

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Semester IV								
1	Part-I	U4R4TL4/HL4/FL4	Language Course –IV	3	5	30	70	100
2	Part-II	U4R4EL4	English Language Course - IV.	3	5	30	70	100
3	Part-III	U4R4BTCC7	Immunology	5	6	30	70	100
4		U4R4BTCC8P	Major Practical IV(Covering CC7)	5	5	40	60	100
5		U4R4BTAC6	Allied - Bioinformatics and Biostatistics	3	5	30	70	100
6		U4R4BTSEC2:1/2:2	Biofertilizer Technology/ Vermitechnology	2	2	30	70	100
7	Part-IV	U4R4BTSLC1:1/1:2	Online Course (SWAYAM- MOOC's/SWAYAM Plus/ NPTEL/COURSERA/ Mushroom Technology	2	-	-	-	100
8		U4R4ES	Environmental Studies	2	2	30	70	100
Total				25	30	-	-	800

Semester V								
1	Part-III	U5R4BTCC9	Genetic Engineering	5	5	30	70	100
2		U5R4BTCC10	Plant Biotechnology	4	5	30	70	100
3		U5R4BTCC11	Animal Biotechnology	4	5	30	70	100
4		U5R4BTCC12P	Major Practical - V(Covering CC9,CC10 and CC11)	4	5	40	60	100
5		U5R4BTDSE1:1/1:2	Research Methodology/ IPR ,Bioethics and Bio-safety	3	5	30	70	100
6	Part-IV	U5R4BTINT	Internship*	2	-	-	-	100
7		U5R4BTSEC3:1/3:2	Food Biotechnology/ Nutraceuticals	2	3	30	70	100
8		U5R4BTSLC2:1/2:2	Artificial Intelligence in Biotechnology/ Bio products: from Waste to Wealth	2	-	50	50	100
9		U5R4IDM	Introduction to Disaster Management	2	2	30	70	100
Total				28	30	-	-	900

Semester VI								
1	Part-III	U6R4BTCC13	Environmental and Bioprocess Technology	4	5	30	70	100
2		U6R4BTCC14P	Major Practical -VI(CoveringCC13)	4	5	40	60	100
3		U6R4BTCC15PW	Project Work	4	6	-	-	100
4		U6R4BTDSE2:1/2:2	Pharmaceutical Biotechnology/ Cell signaling	3	5	30	70	100
5		U6R4BTDSE3:1/3:2	Nanobiotechnology/ Stem Cell Technology	3	5	30	70	100
6		U6R4BTVAC	Apiculture	2	2	-	-	100

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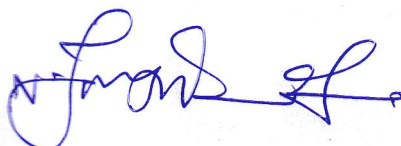
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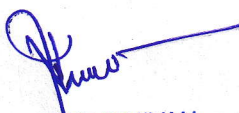
7	Part-IV	U6R4GS	Gender Studies	2	2	30	70	100
	Part-V		Extension Activity	1	-	-	-	-
Total				23	30	-	-	700
Grand Total				148				4600

* Internship during Semester – IV Summer Vacation. The Credits shall be awarded in Semester - V
Statement of Marks.

Generic Elective Courses (Offering to other departments)

Sl.No.	Course Category	Course Code	Course	Credits	Hours/ Week	Marks		
						CIA	ESE	Total
Semester I & II								
1	GEC	U1R4BTGEC1:1	Food Biotechnology	2	2	30	70	100
2	GEC	U1R4BTGEC1:2	Biotechnology for Human Welfare	2	2	30	70	100
3	GEC	U2R4BTGEC2:1	Herbal technology	2	2	30	70	100
4	GEC	U2R4BTGEC2:2	Organic Farming	2	2	30	70	100


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