

Guru Nanak College (Autonomous)
Department of Biotechnology
Course Frame work
Academic Year: 2019 (Onwards)

Sem.	Part	Course Component	Subject Name	Cdt.
I	I	Language	Language-I : Tamil/French/Hindi	3
	II	English	English I	3
	III	Core I	Cell Biology	3
			Practical I – Cell Biology	2
		Allied I	Chemistry	4
			Practical II- Chemistry	2
		Allied II	Introduction to Biotechnology	2
	IV	1.NME/ Basic Tamil/ Basic Hindi/Adv. Tamil	Human Physiology/Basic Tamil-I	2
		2.Skill Based subjects	Soft Skill I: Essentials of Language & Communication	2
II	I	Language	Language-II : Tamil/French/Hindi	3
	II	English	English II	3
	III	Core II	Microbiology	4
			Practical III – Microbiology	2
		Allied II	Biomolecules	4
			Practical IV: Biomolecules	2
	IV	1.NME/ Basic Tamil/ Basic Hindi/Adv. Tamil	Behavioural studies of flora and fauna /Basic Tamil-II	2
		2.Skill Based subjects	Soft Skill II: Essentials of Spoken English & Presentation Skills	2

III	I	Language	Language-III : Tamil/French/Hindi	3
	II	English	English III	3
	III	Core III	Immunology	4
			Practical V – Immunology	2
		Allied III	Biochemistry	4
			Practical VI: Biochemistry	2
		Allied IV	Biostatistics	2
	IV	1. Skill Based subjects	Soft Skill III: Personality Enrichment	1
		2.EVS	Environmental Science	1
IV	I	Language	Language-IV : Tamil/French/Hindi	3
	II	English	English IV	3
	III	Core IV	Molecular Genetics	4
			Practical VII – Molecular Genetics	2
		Allied V	Molecular Developmental Biology	4
			Practical VIII: Molecular Developmental Biology	2
	IV	1. Skill Based subjects	Soft Skill IV: Computing Skills	2
		2. NME	Introduction to Biotechnology Lab	2
	V		Internship	2
V		Core V	Bioprocess Technology	4
		Core VI	Genetic Engineering	4
		Core VII	Bioinformatics	4
		Core VIII	Environmental Biotechnology	3

	III		Practical IX: Bioprocess Technology	2
			Practical X: Genetic Engineering	2
			Practical XI: Bioinformatics	2
		Elective I (IDE)	Intellectual Property Rights	2
		Elective II	Food Biotechnology	2
			Bioethics, Biosafety and IPR	
			Entrepreneurial Development	
	IV	Value Education	Value Education	1
VI	III	Core XI	Plant Biotechnology	4
		Core XII	Animal Biotechnology	4
		Core XIII	Bionanotechnology	3
			Practical XII: Plant Biotechnology	2
			Practical XIII: Animal Biotechnology	2
		Elective - III	Marine Biotechnology	2
			Industrial Biotechnology	
	IV	Extension Activities		2
	V	Group Project		4