

KAZI NAZRUL UNIVERSITY			FACULTY OF SCIENCE, TECHNOLOGY & VOCATIONAL STUDIES		3-Year UG Degree /4-Year UG Degree (Honours) / 4-Year UG Degree (Honours with Research)			WITH EFFECT FROM THE ACADEMIC SESSION: 2023-24											
Abbreviated Degree	Discipline	Degree Programme	Semester	Course Name	Course Type	Course Code	Course Details	L - T - P	Course Credit	Sem Credit	CA Marks		ESE Marks		Total Marks	Sem Marks			
											Practical	Theoretical	Practical	Theoretical					
BSC	Biotechnology	3-year UG Degree	I	Fundamentals of Biotechnology	MAJOR	BSCBTLMJ101	MJC-1	3 - 0 - 4	5	20	30	15	20	35	100	350			
				Choose from the Pool of Minor Courses offered in 1st Semester by other Disciplines within the faculty	MINOR	See Pool	MNC-1	See Pool	5		See Pool				100				
				Choose from the Pool of Multidisciplinary Courses offered in 1st Semester across the faculties	MD	See Pool	MDC-1	2 - 1 - 0	3			15		35	50				
				English/MIL Communication	AE	See Pool	AEC-1	4 - 0 - 0	4			15		35	50				
				Introduction to Biochemistry	SE	BSCBTLSE101	SEC-1	3 - 0 - 0	3			15		35	50				
			II	Cell Biology	MAJOR	BSCBTLMJ201	MJC-2	3 - 0 - 4	5	20	30	15	20	35	100	350			
				Choose from the Pool of Minor Courses offered in 2nd Semester by other Disciplines within the faculty	MINOR	Corresponding Course Code of Minor opted in 1st Semester	MNC-2	See Pool	5		See Pool				100				
				Choose from the Pool of Multidisciplinary Courses offered in 2nd Semester across the faculties	MD	See Pool	MDC-2	2 - 1 - 0	3			15		35	50				
				Environment Studies	VA	VA201	VAC-1	4 - 0 - 0	4			15		35	50				
				Industrial Fermentation	SE	BSCBTLSE201	SEC-2	3 - 0 - 0	3			15		35	50				
			Student exiting the programmes after securing 40 credits will be awarded UG Certificate in the relevant Discipline/Subject provided they secure following 4 credits in work based vocational courses / summer internship during 1st year																
			II	Vocational Course Summer Internship	Any One	VC SI	VC201 SI201	VCC-1 SIC-1	0 - 0 - 8	4	24	30		20		50	400		
			III	Genetics	MAJOR	BSCBTLMJ301	MJC-3	3 - 0 - 4	5	22	30	15	20	35	100	400			
				Mammalian Physiology	MAJOR	BSCBTLMJ302	MJC-4	3 - 0 - 4	5		30	15	20	35	100				
				Choose from the Pool of Minor Courses offered in 3rd Semester by other Disciplines within the faculty	MINOR	See Pool	MNC-3	See Pool	5		See Pool				100				
				Choose from the Pool of Multidisciplinary Courses offered in 3rd Semester across the faculties	MD	See Pool	MD-3	2 - 1 - 0	3			15		35	50				
				English Communication	AE	See Pool	AEC-2	4 - 0 - 0	4			15		35	50				
			IV	General Microbiology	MAJOR	BSCBTLMJ401	MJC-5	3 - 0 - 4	5	22	30	15	20	35	100	400			
				Plant Physiology	MAJOR	BSCBTLMJ402	MJC-6	3 - 0 - 4	5		30	15	20	35	100				
				Choose from the Pool of Minor Courses offered in 4th Semester by other Disciplines within the faculty	MINOR	See Pool	MNC-4	See Pool	5		See Pool				100				
Drug Designing	SE	BSCBTLSE401		SEC-3	3 - 0 - 0	3	30		20			50							
Choose from the Pool of Value Added Course offered in 4th Semester	VA	See Pool		VAC-2	See Pool	4		15			35	50							
Student exiting the programmes after securing 84 credits will be awarded UG Diploma in the relevant Discipline/Subject provided they secure following 4 credits in work based vocational courses / summer internship during 2nd year																			
IV	Vocational Course Summer Internship	Any One	VC SI	VC401 SI401	VCD-1 SID-1	0 - 0 - 8	4	26	30		20		50	450					
V	Molecular Biology	MAJOR	BSCBTLMJ501	MJC-7	3 - 0 - 4	5	20	30	15	20	35	100	400						
	Animal Biotechnology	MAJOR	BSCBTLMJ502	MJC-8	3 - 0 - 4	5		30	15	20	35	100							
	Chemistry-I : Physical and Organic Chemistry	MAJOR	BSCBTLMJ503	MJC-9	3 - 0 - 4	5		30	15	20	35	100							
	Choose from the Pool of Minor Courses offered in 5th Semester by other Disciplines within the faculty	MINOR	See Pool	MNC-5	See Pool	5		See Pool				100							

VI	Plant Biotechnology	MAJOR	BSCBTLMJ601	MJC-10	3 - 0 - 4	5	22	30	15	20	35	100	450
	Immunology	MAJOR	BSCBTLMJ602	MJC-11	3 - 0 - 4	5		30	15	20	35	100	
	Bioanalytical Tool	MAJOR	BSCBTLMJ603	MJC-12	3 - 0 - 4	5		30	15	20	35	100	
	Chemistry-II : Inorganic and Organic Chemistry	MAJOR	BSCBTLMJ604	MJC-13	3 - 0 - 4	5		30	15	20	35	100	
	Summer Internship	SI	SI601	SIMC-1	0 - 0 - 4	2		30		20		50	
Total Credit and Marks			TOTAL CREDIT				126	TOTAL MARKS					2350

Students who want to undertake 3-year UG programme will be awarded UG Degree in the relevant Discipline / Subject upon securing 126 credits

4 - Year UG Degree (Honours)	VII	Biostatistics	MAJOR	BSCBTLMJ701	MJC-14	3 - 0 - 4	5	25	30	15	20	35	100	500
		Environmental Biotechnology	MAJOR	BSCBTLMJ702	MJC-15	3 - 0 - 4	5		30	15	20	35	100	
		Entrepreneurship Development	MAJOR	BSCBTLMJ703	MJC-16	3 - 0 - 4	5		30	15	20	35	100	
		Bioinformatics and Research Methodology	MAJOR	BSCBTLMJ704	MJC-17	3 - 0 - 4	5		30	15	20	35	100	
		Choose from the Pool of Minor Courses offered in 7th Semester by other Disciplines within the faculty	MINOR	See Pool	MNC-6	See Pool	5		See Pool				100	
	VIII	Evolutionary Biology	MAJOR	BSCBTLMJ801	MJC-18	3 - 0 - 4	5	22	30	15	20	35	100	500
		Intellectual Property Rights	MAJOR	BSCBTLMJ802	MJC-19	2 - 0 - 4	4		30	15	20	35	100	
		Bioanalytical Tools	MAJOR	BSCBTLMJ803	MJC-20	2 - 0 - 4	4		30	15	20	35	100	
		Genomics and Proteomics	MAJOR	BSCBTLMJ804	MJC-21	2 - 0 - 4	4		30	15	20	35	100	
		Choose from the Pool of Minor Courses offered in 8th Semester by other Disciplines within the faculty	MINOR	See Pool	MNC-7	See Pool	5		See Pool				100	
Total Credit and Marks			TOTAL CREDIT				173	TOTAL MARKS					3350	

Students who want to undertake 4-year UG Honours program will be awarded UG Degree (Honours) in the relevant Discipline / Subject provided they secure 173 credits

4 - Year UG Degree (Honours with Research)	VII	Biostatistics	MAJOR	BSCBTLMJ701	MJC-14	3 - 0 - 4	5	25	30	15	20	35	100	500
		Environmental Biotechnology	MAJOR	BSCBTLMJ702	MJC-15	3 - 0 - 4	5		30	15	20	35	100	
		Entrepreneurship Development	MAJOR	BSCBTLMJ703	MJC-16	3 - 0 - 4	5		30	15	20	35	100	
		Bioinformatics and Research Methodology	MAJOR	BSCBTLMJ704	MJC-17	3 - 0 - 4	5		30	15	20	35	100	
		Choose from the Pool of Minor Courses offered in 7th Semester by other Disciplines within the faculty	MINOR	See Pool	MNC-6	See Pool	5		See Pool				100	
	VIII	Genomics and Proteomics	MAJOR	BSCBTLMJ801	MJC-18	3 - 0 - 4	5	22	30	15	20	35	100	500
		Research Methodology	RP	BSCBTLRP801	RPC-1	4 - 0 - 0	4			30		70	100	
		Research Project / Dissertation	RP	BSCBTLRP802	RPC-2	0 - 0 - 16	8		120		80		200	
		choose from the Pool of Minor Courses offered in 8th Semester by other Disciplines within the faculty	MINOR	See Pool	MNC-7	See Pool	5		See Pool				100	
	Total Credit and Marks			TOTAL CREDIT				173	TOTAL MARKS					3350

Students who want to undertake 4-year UG Honours with Research program will be awarded UG Degree (Honours with Research) in the relevant Discipline / Subject provided they secure 173 credits

Abbreviations: MJ= Major;MJC= Major Course;MN= Minor;MNC= Minor Course; AE= Ability Enhancement; AEC= Ability Enhancement Course; SE= Skill Enhancement; SEC= Skill Enhancement Course; MD= Multidisciplinary ; MDC= Multidisciplinary Course; SI - Summer Internship; SIC - Summer Internship for Certificate; SID:Summer Internship for Diploma; SIMC - Summer Internship Mandatory Course; RP= Research Project ;RPC= Research Project Course; VA= Value Added;VAC= Value Added Course; VC= Vocational Course; VCC= Vocational Course for Certificate; VCD= Vocational Course for Diploma; CA= Continuous Assessment, ESE= End Semester Examination, L= Lecture Hour; T= Tutorial Hour and P= Practical Hour/ Field Work and NA= Not Applicable

Note: Minor Courses (MNC) : Students of a particular UG Course will choose from the Pool of Minor Courses offered by disciplines other than the major discipline opted by the student within the faculty. The student is required to opt the same Minor Discipline in the 2nd semester which he had opted in 1st semester. Explanation: If a student of Physics Major, opts for a Minor Course offered by Chemistry in 1st semester then that student is required to continue with the Minor Course offered by Chemistry for 2nd semester as Minor Course in the 2nd semester.

Semesterwise Pool of Minor Courses offered by Biotechnology for other Disciplines within the Faculty

Discipline	Semester	Course Name	Course Type	Course Code	Course Details	L - T - P	Course Credit	Sem Credit	CA Marks		ESE Marks		Total Marks	Sem Marks
									Practical	Theoretical	Practical	Theoretical		
	I	Fundamentals of Biotechnology		BSCBTLMN101	MNC-1	3 - 0 - 4	5		30	15	20	35	100	
	II	Cell Biology		BSCBTLMN201	MNC-2	3 - 0 - 4	5		30	15	20	35	100	

Biotechnology	III	Genetics	MINOR	BSCBTLMN301	MNC-3	3 - 0 - 4	5	NA	30	15	20	35	100	NA
	IV	General Microbiology		BSCBTLMN401	MNC-4	3 - 0 - 4	5		30	15	20	35	100	
	V	Animal Biotechnology		BSCBTLMN501	MNC-5	3 - 0 - 4	5		30	15	20	35	100	
	VI	NA		NA					NA					
	VII	Plant Biotechnology		BSCBTLMN701	MNC-6	3 - 0 - 4	5		30	15	20	35	100	
	VIII	Environmental Biotechnology		BSCBTLMN801	MNC-7	3 - 0 - 4	5		30	15	20	35	100	

Semester wise Pool of Multidisciplinary Courses offered by Biotechnology for other Disciplines across the Faculties

Discipline	Semester	Course Name	Course Type	Course Code	Course Details	L - T - P	Course Credit	Sem Credit	CA Marks		ESE Marks		Total Marks	Sem Marks
									Practical	Theoretical	Practical	Theoretical		
Biotechnology	NA	NA	NA											

Pool of Communication Courses offered as Ability Enhancement Courses in Semester-I

Discipline	Semester	Course Name	Course Type	Course Code	Course Details	L - T - P	Course Credit	Sem Credit	CA Marks		ESE Marks		Total Marks	Sem Marks
									Practical	Theoretical	Practical	Theoretical		
English/MIL Communication	I	English Communication	AE	AECE101	AEC-1	4 - 0 - 0	4	NA		15	35	50	NA	
		Bengali Communication		AECB101										
		Hindi Communication		AECH101										
		Urdu Communication		AECU101										

Pool of Value Added Courses offered in Semester-IV for all Disciplines across all Faculties

Discipline	Semester	Course Name	Course Type	Course Code	Course Details	L - T - P	Course Credit	Sem Credit	CA Marks		ESE Marks		Total Marks	Sem Marks
									Practical	Theoretical	Practical	Theoretical		
NA	IV	Yoga And Health	VA	VAC401	VAC-2	4 - 0 - 0	4	NA		15	35	50	NA	
		Social Values and Ethics		VAC402										
		Digital and Technological Solutions		VAC403										
		Understanding India		VAC404										
		Sustainable Development: Issues and Challenges		VAC405										
		Goods and Services Tax		VAC406										
		Basics of Indian Constitution		VAC407										

Semester wise Pool of Multidisciplinary Courses offered for all Disciplines across the Faculties															
Offered By Discipline	Semester	Course Name	Course Type	Course Code	Course Details	L - T - P	Course Credit	Sem Credit	CA Marks		ESE Marks		Total Marks	Sem Marks	
									Practical	Theoretical	Practical	Theoretical			
Physics	I	Any One	Physical Science	MD	MDC101	2 - 1 - 0	3	NA					50	NA	
BBA			E-Commerce												MDC102
Political Science			Human Rights												MDC103
Geography			Disaster Management												MDC104
Physical Education			Fitness and Wellness												MDC105
English			Film Appreciation												MDC107
Commerce			Accounting for All												MDC108
History			Exploring Early Medieval Bengal: C.7th Century CE to 1206 CE												MDC109
Bengali			Bangla Sahitya O Sanskriti												MDC110
Economics			Money and Banking												MDC111
Hindi			Patrakarita												MDC112
Mathematics			Business Mathematics												MDC113
Sociology			Indian Society												MDC114
Philosophy			Yoga for Daily Life												MDC115
Electronics			Electronic Measurements												MDC116
Computer Science			Information and Communication Technology												MDC117
Botany			Introduction to Local Flora												MDC118
Computer Applications			Information and Media Literacy												MDC119
Commerce			Personal Finance												MDC120

Offered By Discipline	Semester	Course Name	Course Type	Course Code	Course Details	L - T - P	Course Credit	Sem Credit	CA Marks		ESE Marks		Total Marks	Sem Marks	
									Practical	Theoretical	Practical	Theoretical			
Mathematics	II	Any One	Mathematical Science	MD	MDC201	2 - 1 - 0	3	NA					50	NA	
BBA			Business Environment												MDC202
Statistics			Basic Statistics												MDC203
History			Understanding Medieval Bengal Select Themes: 1206 CE-1727 CE												MDC204
Commerce			Personal Finance												MDC205
Nutrition			Nutrition and Public Health												MDC206
Education			Educational Philosophy												MDC207
Psychology			Stress Management												MDC208
Computer			Social Media and Cyber Awareness												MDC209
Bengali			Adhunik Bangla Sahitya												MDC210
Nazrul Sangeet			Nazrul Sangeet												MDC211
Electronics			E-Waste Management												MDC212
Chemistry			Chemical Science												MDC213
Sanskrit			Critical Survey of Sanskrit Language												MDC214
Urdu			Asnaf- E -Adab												MDC215
Hindi			Anuvad Vigyan												MDC216
Botany			Herbal Home Remedies												MDC217

Offered By Discipline	Semester	Course Name	Course Type	Course Code	Course Details	L - T - P	Course Credit	Sem Credit	CA Marks		ESE Marks		Total Marks	Sem Marks	
									Practical	Theoretical	Practical	Theoretical			
Geography	III	Any One	Bharatarvarsha—A Land of Rare Natural Endowments	MD	MDC301	2 - 1 - 0	3	NA					50	NA	
Sanskrit			The Vedangas and other Streams of Indian Knowledge System												MDC302
Physics			Indian Astronomy												MDC303
Mathematics			Indian Mathematics												MDC305
Education			Indian Education												MDC306
Political Sc			Indian Polity and Economy												MDC307
Philosophy			Methodology of Indian Knowledge System												MDC308