

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	Biochemistry	3-year UG Degree	I	Molecules of Life	MAJOR	BSCBCMMJ101	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				
				Tools and Techniques in Biochemistry	SE	BSCBCMSE101	SEC-1	0 - 0 - 6	3		30		20		50				
			II	Cell Biology	MAJOR	BSCBCMMJ201	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				
				Protein Purification Techniques	SE	BSCBCMSE201	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	Biochemistry of Proteins	MAJOR	BSCBCMMJ301	MJC-3	3 - 0 - 4	5	22	30	15	20	35	100	400			
				Enzymes	MAJOR	BSCBCMMJ302	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	Metabolism of Carbohydrates and Lipids	MAJOR	BSCBCMMJ401	MJC-5	3 - 0 - 4	5	22	30	15	20	35	100	400			
				Membrane Biology and Bioenergetics	MAJOR	BSCBCMMJ402	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				
Clinical Biochemistry	SE	BSCBCMSE401		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	Metabolism of Amino Acids and Nucleotides	MAJOR	BSCBCMMJ501	MJC-7	3 - 0 - 4	5	20	30	15	20	35	100	400						
	Human Physiology	MAJOR	BSCBCMMJ502	MJC-8	3 - 0 - 4	5		30	15	20	35	100							
	Gene Organization, Replication and Repair	MAJOR	BSCBCMMJ503	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	Hormone: Biochemistry and Function	MAJOR	BSCBCMMJ601	MJC-10	3 - 0 - 4	5	22	30	15	20	35	100	450
	Concepts in Genetics	MAJOR	BSCBCMMJ602	MJC-11	3 - 0 - 4	5		30	15	20	35	100	
	Gene Expression and Regulation	MAJOR	BSCBCMMJ603	MJC-12	3 - 0 - 4	5		30	15	20	35	100	
	Molecular Basis of Infectious Diseases	MAJOR	BSCBCMMJ604	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	Immunology	MAJOR	BSCBCMMJ701	MJC-14	3 - 0 - 4	5	25	30	15	20	35	100	500
		Basic concepts on Developmental biology	MAJOR	BSCBCMMJ702	MJC-15	3 - 0 - 4	5		30	15	20	35	100	
		Basic Microbiology	MAJOR	BSCBCMMJ703	MJC-16	3 - 0 - 4	5		30	15	20	35	100	
		Molecular Basis of Non-infectious Human Diseases	MAJOR	BSCBCMMJ704	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	Genetic Engineering and Biotechnology	MAJOR	BSCBCMMJ801	MJC-18	3 - 0 - 4	5	22	30	15	20	35	100	500
		Pharmacology & Toxicology	MAJOR	BSCBCMMJ802	MJC-19	2 - 0 - 4	4		30	15	20	35	100	
		Plant Biochemistry	MAJOR	BSCBCMMJ803	MJC-20	2 - 0 - 4	4		30	15	20	35	100	
		Computational Biology & Bioinformatics	MAJOR	BSCBCMMJ804	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	Advance Cell Biology	MAJOR	BSCBCMMJ701	MJC-14	3 - 0 - 4	5	25	30	15	20	35	100	500
		Industrial Biochemistry	MAJOR	BSCBCMMJ702	MJC-15	3 - 0 - 4	5		30	15	20	35	100	
		Basics of Biophysics	MAJOR	BSCBCMMJ703	MJC-16	3 - 0 - 4	5		30	15	20	35	100	
		Environmental Biochemistry	MAJOR	BSCBCMMJ704	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	Toxicology and Environmental Management	MAJOR	BSCBCMMJ801	MJC-18	3 - 0 - 4	5	22	30	15	20	35	100	500
		Research Methodology	RP	BSCBCMRP801	RPC-1	4 - 0 - 0	4			30		70	100	
		Research Project / Dissertation	RP	BSCBCMRP802	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 Biochemistry 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	Molecules of Life		BSCBCMMN101	MNC-1	3 - 0 - 4	5		30	15	20	35	100	
	II	Cell Biology		BSCBCMMN201	MNC-2	3 - 0 - 4	5		30	15	20	35	100	

Biochemistry	III	Biochemistry of Cell	MINOR	BSCBCMMN301	MNC-3	3 - 0 - 4	5	NA	30	15	20	35	100	NA
	IV	Proteins and Enzymes		BSCBCMMN401	MNC-4	3 - 0 - 4	5		30	15	20	35	100	
	V	Intermediary Metabolism		BSCBCMMN501	MNC-5	3 - 0 - 4	5		30	15	20	35	100	
	VI	NA		NA					NA					
	VII	Gene Organization, Expression and Regulation		BSCBCMMN701	MNC-6	3 - 0 - 4	5		30	15	20	35	100	
	VIII	Fundamentals of Cell Biology and Immunology		BSCBCMMN801	MNC-7	3 - 0 - 4	5		30	15	20	35	100	

Semester wise Pool of Multidisciplinary Courses offered by Biochemistry 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		
Biochemistry	I	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		Physical Science		MDC101										
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	I	Any One	Exploring Early Medieval Bengal: C.7th Century CE to 1206 CE	MD	MDC109	MDC-1	2 - 1 - 0	3	NA	15	35	50	NA
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	MD	MDC201	MDC-2	2 - 1 - 0	3	NA	15	35	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	MD	MDC301	MDC-3	2 - 1 - 0	3	NA	15	35	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	