

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	Mathematics	3-year UG Degree	I	Classical Algebra, Calculus and Analytical Geometry	MAJOR	BSCMTMMJ101	MJC-1	4 - 1 - 0	5	20		30		70	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				
				Graph Theory	SE	BSCMTMSE101	SEC-1	2 - 1 - 0	3			15		35	50				
			II	Linear Algebra - I, Ordinary Differential Equations and Vector Calculus	MAJOR	BSCMTMMJ201	MJC-2	4 - 1 - 0	5	20		30		70	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				
				Mathematical Tools and Latex	SE	BSCMTMSE201	SEC-2	2 - 1 - 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	Any One	VC	VC201	VCC-1	0 - 0 - 8	4	24	30		20		50	400		
				Summer Internship		SI	SI201	SIC-1											
			III	Real Analysis - I	MAJOR	BSCMTMMJ301	MJC-3	4 - 1 - 0	5	22		30		70	100	400			
				Abstract Algebra - I and Number Theory	MAJOR	BSCMTMMJ302	MJC-4	4 - 1 - 0	5			30		70	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	MDC-3	2 - 1 - 0	3			15		35	50				
				English Communication	AE	See Pool	AEC-2	4 - 0 - 0	4			15		35	50				
			IV	Multivariate Calculus	MAJOR	BSCMTMMJ401	MJC-5	4 - 1 - 0	5	22		30		70	100	400			
				Linear Algebra - II and Tensor Calculus	MAJOR	BSCMTMMJ402	MJC-6	4 - 1 - 0	5			30		70	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								
Programming in C	SE	BSCMTMSE401		SEC-3	2 - 1 - 0	3		15			35	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	Any One	VC	VC401	VCD-1	0 - 0 - 8	4	26	30		20		50	450					
	Summer Internship		SI	SI401	SID-1														
V	Real Analysis - II	MAJOR	BSCMTMMJ501	MJC-7	4 - 1 - 0	5	20		30		70	100	400						
	Probability, Statistics and Linear Programming Problem	MAJOR	BSCMTMMJ502	MJC-8	4 - 1 - 0	5			30		70	100							
	Numerical Methods and Numerical Lab	MAJOR	BSCMTMMJ503	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	Partial Differential Equations and Calculus of Variations	MAJOR	BSCMTMMJ601	MJC-10	4 - 1 - 0	5	22		30		70	100	450
	Metric Space	MAJOR	BSCMTMMJ602	MJC-11	4 - 1 - 0	5			30		70	100	
	Mechanics	MAJOR	BSCMTMMJ603	MJC-12	4 - 1 - 0	5			30		70	100	
	Complex Analysis	MAJOR	BSCMTMMJ604	MJC-13	4 - 1 - 0	5			30		70	100	
	Summer Internship	SI	SI601	SIMC-1	0 - 0 - 4	2			30		20	50	
<b>Total Credit and Marks</b>		<b>TOTAL CREDIT</b>					<b>126</b>	<b>TOTAL MARKS</b>				<b>2350</b>	

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	Integral Transforms and Integral Equations	MAJOR	BSCMTMMJ701	MJC-14	4 - 1 - 0	5	25		30		70	100	500
		General Topology	MAJOR	BSCMTMMJ702	MJC-15	4 - 1 - 0	5			30		70	100	
		Functional Analysis	MAJOR	BSCMTMMJ703	MJC-16	4 - 1 - 0	5			30		70	100	
		Advanced Differential Equations and Special Functions	MAJOR	BSCMTMMJ704	MJC-17	4 - 1 - 0	5			30		70	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	Operations Research	MAJOR	BSCMTMMJ801	MJC-18	4 - 1 - 0	5	22		30		70	100	500
		Differential Geometry	MAJOR	BSCMTMMJ802	MJC-19	3 - 1 - 0	4			30		70	100	
		Classical Mechanics	MAJOR	BSCMTMMJ803	MJC-20	3 - 1 - 0	4			30		70	100	
		Abstract Algebra - II	MAJOR	BSCMTMMJ804	MJC-21	3 - 1 - 0	4			30		70	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	
<b>Total Credit and Marks</b>		<b>TOTAL CREDIT</b>					<b>173</b>	<b>TOTAL MARKS</b>				<b>3350</b>		

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	Integral Equations and Integral Transforms	MAJOR	BSCMTMMJ701	MJC-14	4 - 1 - 0	5	25		30		70	100	500
		General Topology	MAJOR	BSCMTMMJ702	MJC-15	4 - 1 - 0	5			30		70	100	
		Functional Analysis	MAJOR	BSCMTMMJ703	MJC-16	4 - 1 - 0	5			30		70	100	
		Advanced Differential Equations and Special Functions	MAJOR	BSCMTMMJ704	MJC-17	4 - 1 - 0	5			30		70	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	Operations Research	MAJOR	BSCMTMMJ801	MJC-18	4 - 1 - 0	5	22		30		70	100	500
		Research Methodology and Ethics	RP	BSCMTMRP801	RPC-1	4 - 0 - 0	4			30		70	100	
		Research Project / Dissertation	RP	BSCMTMRP802	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	
	<b>Total Credit and Marks</b>		<b>TOTAL CREDIT</b>					<b>173</b>	<b>TOTAL MARKS</b>				<b>3350</b>	

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 Mathematics 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			
Mathematics	I	Classical Algebra, Calculus and Analytical Geometry	MINOR	BSCMTMMN101	MNC-1	4 - 1 - 0	5	NA		30		70	100	NA	
	II	Linear Algebra - I, Ordinary Differential Equations and Vector Calculus		BSCMTMMN201	MNC-2	4 - 1 - 0	5			30		70	100		
	III	Real Analysis and Complex Analysis		BSCMTMMN301	MNC-3	4 - 1 - 0	5			30		70	100		
	IV	Abstract Algebra and Linear Algebra - II		BSCMTMMN401	MNC-4	4 - 1 - 0	5			30		70	100		
	V	Numerical Analysis and Partial Differential Equations		BSCMTMMN501	MNC-5	4 - 1 - 0	5			30		70	100		
	VI	NA		NA						NA					
	VII	Mechanics		BSCMTMMN701	MNC-6	4 - 1 - 0	5			30		70	100		
	VIII	Probability, Statistics and Linear Programming Problem		BSCMTMMN801	MNC-7	4 - 1 - 0	5			30		70	100		

**Semester wise Pool of Multidisciplinary Courses offered by Mathematics 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		
Mathematics	I	Business Mathematics	MD	MDC113	MDC-1	2 - 1 - 0	3	NA		15		35	50	NA
	II	Mathematical Science	MD	MDC201	MDC-2	2 - 1 - 0	3			15		35	50	
	III	Indian Mathematics	MD	MDC305	MDC-3	2 - 1 - 0	3			15		35	50	

**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
		Any One								Practical	Theoretical	Practical	Theoretical		
English/MIL Communication	I	Any One	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 Communication Courses offered as Ability Enhancement Courses in Semester-III**

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
		Any One								Practical	Theoretical	Practical	Theoretical		
MIL / English Communication	III	Any One	English Communication	AE	AECE301	AEC-2	4 - 0 - 0	4	NA		15	35	50	NA	
			Bengali Communication		AECB301										
			Hindi Communication		AECH301										
			Urdu Communication		AECU301										

**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
		Any One								Practical	Theoretical	Practical	Theoretical		
Physics	I	Any One	Physical Science	MD	MDC101	MDC-1	2 - 1 - 0	3	NA		15	35	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	A	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		Microeconomics	MDC120										
Geology		A B C D of Geology	MDC121										

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	Mathematical Science	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										
English		Cotemporary India: Women and Empowerment		MDC218										
Political Science		Women Empowerment in India: Issues and Dimensions		MDC219										
Physical Education		Yoga-Vyayama		MDC220										
Commerce		Macroeconomics		MDC221										
Geology		The Past Life on Earth		MDC222										
						0- 1- 4			30		30			
						2 - 1 - 0				15		35		

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	Bharatavarsha - A Land of Rare Natural Endowments	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										
Zoology		Indian Health Sciences		MDC304										
Mathematics		Indian Mathematics		MDC305										
Education		Indian Education		MDC306										
Political Sc		Indian Polity and Economy		MDC307										
Philosophy		Methodology of Indian Knowledge System		MDC308										
Geology		Remote Sensing and GIS		MDC309										
Physical Education		Indian Medical System and Yoga		MDC310										
Urdu		Urdu Gajal		MDC311										

Commerce	Indian Economy	MDC312											
Computer Science	Impact of Artificial Intelligence in Education	MDC313											
Physiology	Community Health Care	MDC314											

**Pool of Value Added Courses offered in Semester-IV for all Disciplines across all 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		
Physiology	IV	Yoga and Health	VA	VAC401	VAC-2	4 - 0 - 0	4	NA					50	NA
Philosophy		Social Values and Ethics		VAC402										
Computer Science		Digital and Technological Solutions		VAC403										
History		Understanding India		VAC404										
Economics		Sustainable Development: Issues and Challenges		VAC405										
Commerce		Goods and Services Tax		VAC406										
Political Science		Basics of Indian Constitution		VAC407										
Physical Education		Integrated Self Defence		VAC408										