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 Practical	CA Marks Theoretical	ESE Marks Practical	ESE Marks Theoretical	Total Marks	Sem Marks
			I	Introduction to Programming using C	MAJOR	BSCCOSMJ101	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	
				Office Automation Software Lab	SE	BSCCOSSE101	SEC-1	0 - 0 - 6	3		30		20		50	
			II	Data Structures and Algorithms	MAJOR	BSCCOSMJ201	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	
				Basics of Python	SE	BSCCOSSE201	SEC-2	0 - 0 - 6	3		30		20		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
BSC	COMPUTER SCIENCE	3-year UG Degree	III	Discrete Mathematics	MAJOR	BSCCOSMJ301	MJC-3	4 - 1 - 0	5	22		30		70	100	400
				Digital Logic and Computer Organization	MAJOR	BSCCOSMJ302	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	
				MIL/English Communication	AE	See Pool	AEC-2	4 - 0 - 0	4			15		35	50	
				Students who opted English in SEM-I have to opt for any course from MIL (Bengali/Hindi/Urdu/Alternative English) in SEM -III and Students who opted MIL (Bengali/Hindi/Urdu/Alternative English) in SEM -I have to opt English in SEM -III												
			IV	Operating System	MAJOR	BSCCOSMJ401	MJC-5	3 - 0 - 4	5	22	30	15	20	35	100	400
				Object Oriented Design and Programming	MAJOR	BSCCOSMJ402	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	
				Web Programming	SE	BSCCOSSE401	SEC-3	0 - 0 - 6	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	Design and Analysis of Algorithms	MAJOR	BSCCOSMJ501	MJC-7	4 - 1 - 0	5	20		30		70	100	400
				Database Management System	MAJOR	BSCCOSMJ502	MJC-8	3 - 0 - 4	5		30	15	20	35	100	
				Computer Networks	MAJOR	BSCCOSMJ503	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	

	Semester	Course Name	Course Type	Course Code	Course Details	L - T - P	Course Credit	Sem Credit	CA Marks Practical	CA Marks Theoretical	ESE Practical	ESE Theoretical	Total Marks	Sem Marks
	VI	Crytography and Network Security	MAJOR	BSCCOSMJ601	MJC-10	4 - 1 - 0	5	22		30		70	100	450
		Theory of Computation	MAJOR	BSCCOSMJ602	MJC-11	4 - 1 - 0	5			30		70	100	
		Computer Graphics	MAJOR	BSCCOSMJ603	MJC-12	3 - 0 - 4	5		30	15	20	35	100	
		Software Engineering	MAJOR	BSCCOSMJ604	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

	Semester	Course Name	Course Type	Course Code	Course Details	L - T - P	Course Credit	Sem Credit	CA Marks Practical	CA Marks Theoretical	ESE Practical	ESE Theoretical	Total Marks	Sem Marks
4 - Year UG Degree (Honours)	**VII**	Data Mining	MAJOR	BSCCOSMJ701	MJC-14	4 - 1 - 0	5	25		30		70	100	500
		Internet of Things	MAJOR	BSCCOSMJ702	MJC-15	4 - 1 - 0	5			30		70	100	
		Artificial Intelligence and Machine Learning	MAJOR	BSCCOSMJ703	MJC-16	3 - 0 - 4	5		30	15	20	35	100	
		Embedded System	MAJOR	BSCCOSMJ704	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	Data Analytics	MAJOR	BSCCOSMJ801	MJC-18	3 - 0 - 4	5	22	30	15	20	35	100	500
		Cloud Computing	MAJOR	BSCCOSMJ802	MJC-19	3 - 1 - 0	4			30		70	100	
		Mobile Application Development	MAJOR	BSCCOSMJ803	MJC-20	3 - 1 - 0	4			30		70	100	
		Dissertation/ Major Project	MAJOR	BSCCOSMJ804	MJC-21	0 - 0 - 8	4		60		40		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

	Semester	Course Name	Course Type	Course Code	Course Details	L - T - P	Course Credit	Sem Credit	CA Marks Practical	CA Marks Theoretical	ESE Practical	ESE Theoretical	Total Marks	Sem Marks
4 - Year UG Degree (Honours with Research)	**VII**	Data Mining	MAJOR	BSCCOSMJ701	MJC-14	4 - 1 - 0	5	25		30		70	100	500
		Internet of Things	MAJOR	BSCCOSMJ702	MJC-15	4 - 1 - 0	5			30		70	100	
		Artificial Intelligence and Machine Learning	MAJOR	BSCCOSMJ703	MJC-16	3 - 0 - 4	5		30	15	20	35	100	
		Embedded System	MAJOR	BSCCOSMJ704	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	Data Analytics	MAJOR	BSCCOSMJ801	MJC-18	3 - 0 - 4	5	22	30	15	20	35	100	500
		Research Methodology	RP	BSCCOSRP801	RPC-1	4 - 0 - 0	4			30		70	100	
		Dissertation	RP	BSCCOSRP802	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 COMPUTER SCIENCE 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 Practical	CA Marks Theoretical	ESE Marks Practical	ESE Marks Theoretical	Total Marks	Sem Marks
E	I	Introduction to Programming using C		BSCCOSMN101	MNC-1	3 - 0 - 4	5		30	15	20	35	100	

COMPUTER SCIENCE — MINOR

Semester	Course Name		Course Code	Course Details	L - T - P	Course Credit	Sem Credit	CA Practical	CA Theoretical	ESE Practical	ESE Theoretical	Total Marks	Sem Marks
II	Data Structures and Algorithms		BSCCOSMN201	MNC-2	3 - 0 - 4	5		30	15	20	35	100	
III	Digital Logic and Computer Organization		BSCCOSMN301	MNC-3	3 - 0 - 4	5		30	15	20	35	100	
IV	Database Management System	MINOR	BSCCOSMN401	MNC-4	3 - 0 - 4	5	NA	30	15	20	35	100	NA
V	Operating System and Shell Scripts		BSCCOSMN501	MNC-5	3 - 0 - 4	5		30	15	20	35	100	
VI	NA		NA					NA					
VII	Computer Networks		BSCCOSMN701	MNC-6	3 - 0 - 4	5		30	15	20	35	100	
VIII	Artifical Intelligence and Machine Learning		BSCCOSMN801	MNC-7	3 - 0 - 4	5		30	15	20	35	100	

Semester wise Pool of Multidisciplinary Courses offered by COMPUTER SCIENCE 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 Practical	CA Marks Theoretical	ESE Marks Practical	ESE Marks Theoretical	Total Marks	Sem Marks
COMPUTER SCIENCE	I	Information and Communication Technology	MD	MDC117	MDC-1	2 - 1 - 0	3	NA		15		35	50	
	II	Social Media and Cyber Awareness	MD	MDC209	MDC-2	2 - 1 - 0	3	NA		15		35	50	
	III	Impact of Artificial Intelligence in Education	MD	MDC313	MDC-3	2 - 1 - 0	3	NA		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 Practical	CA Marks Theoretical	ESE Marks Practical	ESE Marks Theoretical	Total Marks	Sem Marks
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										
		Alternative English		AECAE101										

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 Practical	CA Marks Theoretical	ESE Marks Practical	ESE Marks Theoretical	Total Marks	Sem Marks
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										
		Alternative English		AECAE301										

Students who opted English Communication in SEM-I (AECE101) have to opt for any course from MIL (Bengali/Hindi/Urdu/Alternative English) in SEM -III and Students who opted MIL (Bengali/Hindi/Urdu/Alternative English) in SEM -I have to opt English communication (AECE301)in SEM -III

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 Practical	CA Marks Theoretical	ESE Marks Practical	ESE Marks Theoretical	Total Marks	Sem Marks
Physics		Physical Science		MDC101										
BBA		E-Commerce		MDC102										
Political Science		Human Rights		MDC103										
Geography		Disaster Management		MDC104										
Physical Education		Fitness and Wellness		MDC105										
Zoology		Application of Bio-Science		MDC106										
English		Film Appreciation		MDC107										
Commerce		Accounting for All		MDC108										
History	I	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										

(**Any One** applies to the MDC-1 group)

Offered By Discipline	Course Name	Course Code
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	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			Mathematical Science		MDC201										
BBA			Business Environment		MDC202										
Statistics			Basic Statistics		MDC203										
History			Understanding Medieval Bengal Select Themes: 1206 CE-1727 CE		MDC204										
Commerce			Personal Finance		MDC205		2 -1 - 0					15		35		
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	II	Any One	Nazrul Sangeet	MD	MDC211	MDC-2	0- 1- 4	3	NA	30		20		50	NA
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			Contemporary India: Women and Empowerment		MDC218		2 -1 - 0					15		35		
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										

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			Bharatavarsha - A Land of Rare Natural Endowments		MDC301										
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	III	Any One	Methodology of Indian Knowledge System	MD	MDC308	MDC-3	2 - 1 - 0	3	NA		15		35	50	NA
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 Practical	CA Marks Theoretical	ESE Marks Practical	ESE Marks Theoretical	Total Marks	Sem Marks
Physiology			Yoga and Health		VAC401										
Philosophy			Social Values and Ethics		VAC402										
Computer Science			Digital and Technological Solutions		VAC403										
History	IV	Any One	Understanding India	VA	VAC404	VAC-2	4 - 0 - 0	4	NA		15		35	50	NA
Economics			Sustainable Development: Issues and Challenges		VAC405										